

CITY OF TUSCALOOSA, ALABAMA
PUBLIC WORKS CONTRACT DOCUMENTS

WALTER MADDOX, MAYOR

CITY COUNCIL OF TUSCALOOSA

Council Members:

**Phyllis Odom
Harrison Taylor
Cynthia Almond
Matthew Calderone
Kip Tyner
Edwin Pugh
Sonya McKinstry**

Glenda Webb, City Attorney

PROJECT: Juanita Drive Improvements Project

PROJECT NUMBER: A15-1090

**FOR: Office of Resilience & Innovation
(CITY DEPARTMENT)**

(2015)

ADOPTED
APPROVED AS TO FORM


Office of the City Attorney

Prepared By: KL
Requested: Projects Cmte.
Presentation on: 11/24/2015
Suspension of Rules: NO

RESOLUTION

RESOLUTION TENTATIVELY AWARDING PUBLIC WORKS CONTRACT FOR
JUANITA DRIVE IMPROVEMENTS PROJECT
(A15-1090)

WHEREAS, heretofore, bids were opened and read on or about the 27th day of October, 2015, in regard to Juanita Drive Improvements Project and,

WHEREAS, representatives of the City have notified the Projects Committee and City Council that the apparent lowest responsive, responsible bidder meeting the specifications was that of Dominion Construction Co., Inc. in the amount of \$1,021,508.57 and,

WHEREAS, the representatives of the City have advised the City Council of that fact and recommended that they be authorized to issue notification of intention to award to the said bidder and upon all contractual matters being finalized including bonds and insurance, that the Mayor be authorized to execute all appropriate contracts and documents with said bidder.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF TUSCALOOSA as follows:

1. That in accordance with ALA. CODE §39-5-1(b) (1975), the City of Tuscaloosa, as the awarding authority, does hereby certify that to the best of its knowledge, information and belief, this contract was let in compliance with applicable provisions of this title and all other applicable provisions of law.

2. That the conditional award based upon competitive bid is hereby made to Dominion Construction Co., Inc. for the base bid in the amount of \$994,348.73 and Alternate No. 1 in the amount of \$27,159.84 for a total contract amount of \$1,021,508.57 for Juanita Drive Improvements Project pursuant to the plans, specifications, drawings and related documents for the project, as the apparent lowest responsible, responsive bidder taking into consideration where appropriate, the qualities of the commodities, the labor, service, etc., conformity with specifications, the purpose for which required, the terms of delivery, transportation charges and dates of delivery where applicable.

3. That the representatives of the City, on behalf of the City of Tuscaloosa be, and they are hereby, authorized to issue notification of intention of award to the said bidder in said amount and proceed with completion of review and submittal for all contractual matters as required by the City's plans and specifications.

4. That this award is conditioned upon said bidder completing and submitting to the City through its representatives, all documents and other related matters required by the request for proposal of the bidder and upon notification from the City representatives that the bidder has complied with said requirements, the Mayor be, and he is hereby, authorized to execute a contract between the City of Tuscaloosa and said bidder for the project in the amount awarded above, by and as an act for and on behalf of the City of Tuscaloosa, and the City Clerk be, and she is hereby, authorized to attest the same, at which time the contract will be considered to have been awarded.

5. That upon notification from the City representatives that all preliminary matters have been complied with by the said low bidder and subsequent execution of said contract by the Mayor on behalf of the City, the City Representative be, and it is hereby, authorized to issue appropriate notices to proceed to the contractor.

FUNDING REQUIRED: Yes No

DR 2 OV 666,164
WCS RFP OV 462,495
7/28/09

By: [Signature]
 Finance Director

COUNCIL ACTION

Resolution _____
 Ordinance _____
 Introduced _____
 Passed _____
 2nd Reading _____
 Unanimous _____
 Failed _____
 Tabled _____
 Amended _____
 Comments: _____

(Ty/C-08)
 Adopted 11.24.15
 Debby K. Clement
 Asst. City Clerk

**JUANITA DRIVE IMPROVEMENT PROJECT
PROJECT # A15-1090**

NOTICE TO ALL BIDDERS

ADDENDUM #1

DATE: October 12, 2015

REVISED BID SCHEDULE

- 1. REMOVE THE BID SCHEDULE FROM THE CONTRACT DOCUMENTS.**
- 2. REPLACE THE BID SCHEDULE IN THE CONTRACT DOCUMENTS WITH THE ATTACHED "REVISED BID SCHEDULE", BY ATTACHING TO THE INSIDE COVER OF CONTRACT DOCUMENTS.**

RECEIPT OF THIS ADDENDUM #1 SHALL BE MADE IN THE CONTRACT DOCUMENTS IN THE PLACE CALLED FOR.

Cf15JuanitaDriveAddenda#1



JUANITA DRIVE PHASE I
 for the
CITY OF TUSCALOOSA
 Tuscaloosa, Alabama
 Project No. A12-1409

CONSTRUCTION QUANTITIES

Revised Bid Schedule
 October 12, 2015

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
BASE BID ITEMS					
A. GENERAL; DEMOLITION; CLEARING/GRUBBING/EARTHWORK					
1	1	L.S.	Demolition - as per plans		
2	6,750	C.Y.	Unclassified Excavation/Haul Off Excess		
3	12	Each	Remove Existing Manholes/Inlets - Remove or if not in conflict, fill with concrete.		
4	20	C.Y.	Concrete Slurry Fill Abandoned Pipe. Includes any pipe not removed during new sewer installation.		
5	386	S.Y.	Concrete Drive/Walk Removal to Gradeline Provided by Engineer. (To Be Field Measured).		
5A	448	S.Y.	Concrete (4") Drive/Walk Replacement (To Be Field Measured).		
6	108	S.Y.	Asphalt Drive Removal Sawcut and Remove Back to Gradeline Provided by Engineer. (To Be Field Measured).		
6A	150	S.Y.	Asphalt Drive Replacement (To Be Field Measured).		
7	1	Each	Remove Existing Fire Hydrant.		
8	1	L.S.	Sidewalk, Curb & Gutter Removal ALDOT R.O.W.		
9	1	L.S.	Storm Sewer Removal - ALDOT R.O.W.		
10	20	Each	Remove/Reset Mailboxes		
11	1	Each	Remove/Replace Mailbox Structure - Gang Box		
B. BASE; PAVING; CONCRETE VALLEY CURBS; CONCRETE VALLEY GUTTER; SIDEWALKS					
1	6,222	S.Y.	Roadbed Processing		
2	5,250	S.Y.	6" 825-B Stone Base		
3	5,250	S.Y.	Asphalt Paving - Binder Layer (424-B)(1.5")		
4	5,250	S.Y.	Asphalt Paving - Wearing Surface(424-A)(1.0")		
5	21	Each	Concrete Drive Replacements (4" thick)		
6	2	Each	Asphalt Drive Replacements		
7	165	L.F.	ALDOT Curb & Gutter (30")		
8	110	L.F.	24" Curb & Gutter - See notes on plans.		
9	1,170	L.F.	5' Sidewalks - To Be Field measured. Does not include 21ea of concrete drive replacement.		
10	75	L.F.	6" Standup Curb		
11	2,650	L.F.	30" Valley Curb - To be field measured. Does not include 21ea of concrete drive replacements.		
12	185	L.F.	48"x6" Valley Gutter. To be field measured.		
13	3	Each	H/C Ramps		

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
C. STORM DRAIN IMPROVEMENTS					
1	72	L.F.	18" RCP, CLIII		
2	80	L.F.	18" RCP, CLIII, on ALDOT R.O.W.		
3	485	L.F.	24" RCP CLIII		
4	48	L.F.	36"x23" RCAP, CLIII		
5	187	L.F.	44"x27" RCAP, CLIII		
6	1	Each	J. Box		
7	5	Each	Single Wing "S" Inlets		
8	1	Each	Single Wing "S" Inlet on ALDOT R.O.W.		
9	3	Each	Double Wing "S" Inlets		
10	1	Each	24" Precast Flared End Section		
11	1	Each	36"x23" Precast Flared End Section		
12	1	Each	44"x2" Precast Flared End Section		
13	143	L.F.	Concrete Trapezoidal Ditch		
14	1	Each	Tie to Existing Inlet - University Boulevard		
15	23	S.Y.	CLII Rip-Rap		
D. SANITARY SEWER IMPROVEMENTS					
1	1851	L.F.	8" SDR 26 PVC Sanitary Sewer Main - Various Depths		
2	81.4	V.F.	48" Dia. Precast Manholes		
3	19.8	V.F.	48" Dia. Precast Manholes - Dog House		
4	2.7	V.F.	8" SDR 26 Drop		
5	14	Each	Rings/Covers		
6	1,040	L.F.	4" SDR 26 Sanitary Sewer Laterals - Various Depths		
7	40	Each	8"x4" and 1/8th Bends - SDR 26 PVC		
8	42	Each	A/T Plugs - 4"		
9	3	Each	A/T Plugs - 8"		
10	45	Each	Magnetic Locators		
11	45	Each	Markers (66"x3 3/4") "Caution Sewer"; Green Fiberglass		
12	1	L.S.	By-Pass Pumping - as required.		
13	783	L.F.	CIPP, 8" Sewer Across School Site		
14	1	Each	Tie to Existing Manhole C-1.		
E. WATER DISTRIBUTION & FIRE PROTECTION SYSTEM					
1	1	L.S.	Bore Pit & Bore Receiving Pit		
2	90	L.F.	Bore & Jack 16" Steel Casing		
3	1	Each	12"x8" Hot Tap with Tapping Saddle & Valve		
4	1,026	L.F.	2" Sch. 40 PVC Water Main		
5	287	L.F.	6" DI, CL350 Water Main		
6	1,640	L.F.	8" DI, CL350 Water Main		
7	1	L.S.	2" Sch. 40 PVC Fittings		
8	1	L.S.	6" DI, CL350 Fittings		
9	1	L.S.	8" DI, CL350 Fittings		
10	1	Each	Tie to Existing 8" DI, School Site		
11	2	Each	Ties to Existing 6" DI, Sta. 21+60 +/- & Sta. 36+80 +/-, Juanita Drive		
12	4	Each	2" Gate Valves & Boxes		
13	4	Each	6" Gate Valves & Boxes		
14	2	Each	6" Gate Valves & Boxes on Existing 6" DI		
15	5	Each	8" Gate Valves & Boxes		
16	4	Each	2" Taps		
17	3	Each	2" Blow Off Assemblies (as per details)		
18	2	Each	Fire Hydrant Assemblies (as per details)		
19	44	Each	Remove/Reset Existing Meters - Includes taps to new mains with copper service piping & fittings (as per details). Reset existing meters.		
F. EROSION CONTROL, SITE MAINTENANCE & GRASSING/SOD					
1	1	L.S.	Erosion Control Measures - As Per Plans and Best Management Practices. Contractor To Be Responsible For Any and All Erosion Control Measures.		
2	392	C.Y.	Topsoil - 4" Thick		
3	525	S.Y.	Sod		
G. TRAFFIC CONTROL MEASURES					
1	1	L.S.	Traffic Control Measures - Includes control on ALDOT R.O.W. on University Boulevard, and within project area.		
H. SIGNAGE & STRIPING					
1	1	L.S.	Signage & Striping - Includes both on ALDOT R.O.W., and within project area.		

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
I. MISCELLANEOUS ITEMS					
1	100	L.F.	6" Under Drain (if required)		
2	100	C.Y.	Undercut/Backfill using Off-Site Material (if required).		
3	100	C.Y.	#57 Stone in Trench (if required).		
4	1	Each	Project Sign as Per Detail		
				TOTAL BASE BID	
J. ALTERNATE #1					
1	1,266	L.F.	5' Sidewalk - To be field measured. Does not include 21ea of concrete drive replacements.		
2	4	Each	H/C Ramps		
				TOTAL BID ALTERNATE #1	

**JUANITA DRIVE IMPROVEMENT PROJECT
PROJECT #A15-1090**

NOTICE TO ALL BIDDERS

ADDENDUM #2

DATE: OCTOBER 20, 2015

QUESTIONS/ANSWERS FROM PROSPECTIVE BIDDERS

1. Question: Under bid item #4, there is a quantity of 20 c.y. of concrete slurry fill for any Abandoned Pipe. Where is item to be used?

Answer: This quantity is to be used, if needed, for any storm sewers/structures, that need to be left in place during the demolition process, unknown at the time of design that can be left in place, but filled in. All storm sewers, that affect the construction process, shall be removed during the demolition process.

2. Question: Sheet C-5.1 of the plans indicates that the existing, to be abandoned sanitary sewer mains, indicates 8" clay material, and I assume the laterals are also clay? During the construction process, while these laterals must be maintained until the new PVC laterals are installed, who is responsible for any repair to keep these laterals in operation?

Answer: All existing sewer mains and laterals are clay, and must be maintained by the contractor making any repairs needed to keep in operation until the new PVC is installed.

3. Question: There is no line item for CCTV inspection for the new sanitary sewer system. Is this an incidental item?

Answer: This is an incidental pay item that will covered items under D. Sanitary Sewer Improvements.

4. Question: There is no line item for construction staking in the bid items. Who is to perform this process?

Answer: The construction staking will be done by the engineer. This staking will consist of any necessary staking for the construction process one time, as needed. Any stakes or control points destroyed/removed during the construction process that need to be replaced, shall be the responsibility of the contractor.

5. Question: Is the contractor required to prepare the storm water permitting application?

Answer: Yes. See Section 2000 – Special Conditions, 1.3 A, in the contract documents.

6. Question: Is a City of Tuscaloosa Water Main Extension Deposit required?

Answer: None required.

7. Question: No line item in the bid schedule for irrigation. How are we to warranty the sod for the one year period as required?

Answer: The contractor shall keep any sod, or other grassing required, irrigated during the construction process, until the project is accepted by the City. At such time it shall be the property owner's responsibility.

8. Question: Are we to maintain access to residents at all times during construction?

Answer: Yes, while some access will be temporarily limited during construction, any resident that is have access denied for a period on time, shall be notified by the contractor of the times of the limited access. This shall be done by personal notification with the resident or by posting a note at the residence.

Any and all ingress/egress for residents and other necessary services shall be on a limited basis and the contractor shall cooperate with the City on providing notification of limited access.

9. Question: The Erosion Control Plan does not show silt fence or construction exit pad. Are these required?

Answer: Whatever is needed to comply with BMP's, and as noted under Erosion Control Notes – Sheet C-0.1, as well as noted on Sheets C-8.1 and C-8.2.

10. Question: There are only 100 c.y. of undercut/replacement set up in the bid items, is this enough, considering the possible time of year for the construction of the project?

Answer: This item and others in Section I. Misc. Items, is noted "if required", and are set up to provide a unit price for any item deemed necessary. Any under/over quantity shall be paid as per the unit price provided.

11. Question: In whose name should the Storm Water Permit (NPDES) be issued?

Answer: The permit shall be issued in the name of the contractor, as well as the contractor providing any and all necessary monitoring. See Section 2000 – Special Conditions, 1.3 A, in the contract documents.

12. Question: Is it required to backfill sanitary/storm sewer ditches all the way up stone as there will be dirt work going on?

Answer: Both sanitary/storm sewer ditches shall be backfilled as per details on Sheet C-9.5, shown under Asphalt Paving for Sanitary Sewers and under Paved Areas for Storm Sewers. Any ditches outside the proposed paved roadway section shall be backfilled with either stone or onsite material. Any excess material for any ditches shall be removed from the site.

A list of Tuscaloosa Builds participants that have expressed interest participating in this project is attached.

RECEIPT FOR THIS ADDENDUM #2 SHALL BE ACKNOWLEDGED AT THE PROPER PLACE IN THE CONTRACT DOCUMENTS, AS CALLED FOR.

Juanita Drive Improvements Project

The following Tuscaloosa Builds participants have expressed interest in participating with this project.

Ton Rutley – 205-792-8687 (landscaping)

Clifton Williams (construction) 765-6247

Paul Leatherwood – Leatherwood Concrete & Construction 205-799-4328

Kenneth Ratliff – MAK Construction 404-514-1123 (sanitary sewer)

Nathaniel Williams – Munford Enterprises 205-966-1747

**JUANITA DRIVE IMPROVEMENT PROJECT
PROJECT # A15-1090**

NOTICE TO ALL BIDDERS

ADDENDUM #3

DATE: October 23, 2015

USING THE "REVISED BID SCHEDULE", FORWARDED IN ADDENDUM #1, DATED OCTOBER 12, 2015, THE FOLLOWING INSTRUCTIONS ARE PROVIDED:

1. UNDER BID SECTION A –GENERAL. ITEM 5 SHALL INCLUDE THE S.Y. OF CONCRETE DRIVEWAY REMOVAL (DEMOLITION). TO BE PAID FOR FROM FIELD MEASUREMENT. ITEM 5A SHALL INCLUDE THE REPLACEMENT OF CONCRETE DRIVEWAY. TO BE PAID FOR FROM FIELD MEASUREMENT.
2. UNDER BID SECTION A – GENERAL. ITEMS 6 AND 6A, ASPHALT DRIVE REMOVAL AND REPLACEMENT TO BE ADDRESSED THE SAME AS #1 ABOVE.
3. UNDER BID SECTION B – CONCRETE ETC. UNDER BID ITEMS 5 AND 6, BIDDERS SHALL INSERT A UNIT COST OF \$0.00 AND A TOTAL COST OF \$0.00, AS THESE ITEMS ARE COVERED UNDER BID ITEMS 5A AND 6A AS NOTED ABOVE UNDER #1 AND #2.
4. ON SHEET C-2.4 OF THE PLANS, ELIMINATE ANY STOP BARS AND CROSSWALK HATCHINGS AS INDICATED. ON SHEET C-7.1, TWO STOP BARS TO BE INSERTED AT THE STOP SIGN LOCATIONS, ONLY. THE STRIPING DETAIL IN THE LOWER LEFT HAND CORNER OF SHEET C-7.1, AT THE ENTRANCE ONTO UNIVERSITY BLVD., SHALL REMAIN THE SAME.

RECEIPT OF THIS ADDENDUM #3 SHALL BE MADE IN THE CONTRACT DOCUMENTS IN THE PLACE CALLED FOR.

Cf15JuanitaDriveAddenda#3

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STATE OF ALABAMA)
TUSCALOOSA COUNTY)
CITY OF TUSCALOOSA)

CITY OF TUSCALOOSA PUBLIC WORKS CONTRACT DOCUMENTS

SECTION ONE
ADVERTISEMENT AND NOTICE FOR BIDS
(2015)

Sealed bids will be received by the City of Tuscaloosa, Alabama, a Municipal Corporation, in the Narashino Room located inside Tuscaloosa City Hall, 2201 University Boulevard, on the 27th day of October, 2015, until 9:00, a.m., o'clock, local time, and then publicly opened and read for the furnishing of all labor and material (where required) and equipment for performing a public works project according to the plans, details, specifications and Contract Documents.

Award of the contract will be made within forty-five (45) calendar days from the date of the bid opening.

1. The Project:

A. The Project shall be known as Juanita Drive Improvements Project (A15-1090) and the general character of said public works project shall consist of the following:

Sanitary sewer, storm sewer and water main replacement; valley curb, base, paving, sidewalks, bore/jack water main tie and various other appurtenances.

B. The approximate quantities of said Project are as follows: 1857 L.F. 8" PVC Sanitary Sewer; 13 ea. Precast Concrete Manholes; 1010 L.F. 4" PVC Sewer Laterals; 792 L.F. Storm Sewers; 11 ea. Storm Sewer Inlets; 1560 L.F. 8" D.I. Water Main; 1020 L.F. 2" PVC Water Main; 600 S.Y. Concrete Sidewalk; 2,460 L.F. 30" Valley Curb; 5,250 S.Y. Asphalt Paving; 5,250 S.Y. 6" 825-B Stone Base; 1,500 L.F. CIPP 8" Sewer.

C. Special instructions are as follows: Attendance at a MANDATORY Pre-Bid Conference is required to Bid on the project, please see Item 7 in this document for details. This is a federally-funded project and special requirements are required for this project, see "Special Conditions for Federally-Funded Projects" in the Bid Package.

D. The City will furnish the following: N/A

E. Time of Construction: From the date stated in the Notice to Proceed, the Project time of construction is 150 consecutive calendar days.

2. Plans and Specifications:

Plans and specifications and all related Contract Documents are open for public inspection at the office of Recovery Operations, located at Tuscaloosa, Alabama, and plans, specifications and other elements of the contract documents may be obtained from the office of the Engineer Neel-Schaffer & Almon Associates, designated as the office of the awarding authority for this purpose, located at 2008 12th Street, Tuscaloosa, Alabama. The contact person for the project is Jack McGuire/John Cameron. They can be reached at 205-349-2100, ext. 3254 & ext. 3252.

- A. Plans, specifications and Contract Documents may be obtained at the above location upon the deposit of \$150.00, which amount does not exceed twice the cost of printing, reproduction, handling and distribution of each set of such documents. Deposits by prime Contractor bidders are refundable in full upon return of all documents in reusable condition within ten (10) days of bid opening. Additional sets of bid documents for prime Contractor bidders, subcontractors, vendors or dealers may be obtained upon payment of the same deposit. Such deposits will be refunded, less the cost of printing, reproduction, handling and distribution, if all the documents are returned in reusable condition within ten (10) days of bid opening.
- B. All eligible refunds of deposits for plans and specifications will be made by the City within twenty (20) days of bid opening.

3. Qualification of Bidders:

- A. All bidders must be responsible, meeting the criteria and requirements set forth in the Instructions to Bidders and bid proposal.
- B. Prequalification of Bidders IS _____ ; IS NOT X required.

If prequalification of bidders is indicated to be required by the preceding sentence, then written prequalification information is available for review at the same office where plans, specifications and Contract Documents are available.

- C. The attention of all bidders is called to the provisions of State law governing "general Contractors," as set forth in Ala. Code §34-8-1, et seq. (1975), and rules and regulations promulgated pursuant thereto.
- D. If a construction manager is being utilized and this contract is one of a multiple of trade contracts, then the bidder shall be fully licensed for the trade, as determined by applicable law.
- E. The City may not enter into a contract with a non-resident corporation or entity which is not qualified under State law to do business in the State of Alabama.
- F. All bidders shall possess all other licenses and/or permits required by applicable law, rule or regulation for the performance of the work.
- G. All bidders must submit with their proposal, Contractor's license number and a copy of the license. State law, Ala. Code §34-8-8(b), requires all bids to be rejected which do not contain the General Contractor's current license number.
- H. The City reserves the right to reject all bids and/or reject and rebid the Project should it determine the same is in the best interest of the City.

4. Construction Manager:

NO CM If the preceding blank is marked with an affirmative indication, it means that this contract involves the use of a construction manager and this contract is one of several multiple trade and/or multiple prime contracts for work on the Project. Bidders attention is called to the supplemental conditions attached to the General Conditions of the Contract Documents regarding this topic.

5. Bid Bonds: Each bidder must submit with its bid a cashier's check drawn on an Alabama bank or a fully executed bid bond on the form that is contained in the Contract Documents executed by a surety company duly authorized and qualified to make bond in the State of Alabama. All bonds, sureties and/or cashier checks will be made payable to the City for an amount not less than 5 percent of the City's or its engineers or architects estimated cost of the Project or of the total bid in the proposal, but in no event more than \$10,000.00.

6. Sales and Use Tax Savings: Alabama Department of Revenue Rule 810-6-3.69.02(2010) exempts certain payment of state, county, and municipal sales and use taxes by the contractor or subcontractor on tangible personal property to be incorporated into the realty pursuant to a contract with a municipal corporation such as the City of Tuscaloosa. All tax exempt purchases shall be in accordance with the laws of this state and the Alabama Department

of Revenue. It is the sole responsibility of the successful contractor to make the necessary inquiries and determinations as to what materials or items of tangible personal property to be incorporated into the project qualify as tax exempt in the opinion of the Alabama Department of Revenue. Unless otherwise noted, the project will be bid and administered in compliance with the State of Alabama Act 2013-205, Certificate of Exemption from Sales and Use Tax for Governmental Entities, regarding sales and use taxes. Sales and use taxes shall not be included in the bid. The Contractor shall be responsible for obtaining a certificate of exemption from the Alabama Department of Revenue for purchases of materials and other tangible property made part of the project. Any subcontractors purchasing materials or other tangible personal property as part of the project shall also be responsible for obtaining a certificate of exemption. The estimate sales and use tax saving must be accounted for on the bid proposal. Failure to provide the estimated sales and use tax savings may render the bid as non-responsive. Other than determining responsiveness of the bid, sales and use tax accounting shall not affect the bid pricing nor shall be considered in the determination of the lowest responsible and responsive bidder.

7. Pre-Bid Conference: A MANDATORY Pre-Bid Conference IS required for this Project. Pre-Bid Conference will be held in the Narashino Room located inside City Hall, 2201 University Boulevard on October 20th, 2015 at 9:00 am. Attendance is mandatory for all general contractor bidders in order to submit a bid for this project.

NOTE: All bidders are advised to carefully read the Instructions to Bidders contained in the Contract Documents, which provisions and requirements are adopted herein by reference.

CITY OF TUSCALOOSA, ALABAMA,
A MUNICIPAL CORPORATION
Walter Maddox, Mayor

[END ADVERTISEMENT FOR BID—OFFICE OF THE CITY ATTORNEY]

CITY OF TUSCALOOSA PUBLIC WORKS CONTRACT DOCUMENTS
SECTION TWO
INSTRUCTION TO BIDDERS
(2015)

NOTE: THIS DOCUMENT CONTAINS IMPORTANT BIDDING AND CONTRACTING INFORMATION. ALL POTENTIAL BIDDERS SHOULD READ IT THOROUGHLY

1. **Intention:** The Advertisement for Bids, Instruction to Bidders, Contract Agreement, any modifications or supplemental conditions to the Contract Agreement, Bid Proposal, and the Plans and Specifications are interrelated and apply to the complete work to which they relate.
2. **Definitions:** Where the following words, or the pronouns used in their stead, occur herein, they shall have the following meaning:

"Awarding Authority" shall mean the City of Tuscaloosa, Alabama.

"Bidder" shall mean any person, firm or corporation, that is responsible, submitting a responsive bid for the Project contemplated by the contract documents, who meets the requirements set forth in the contract documents, maintains a permanent place of business, has adequate forces and equipment to perform the work on the Project properly and within the time limit that is established, has sufficient experience in the type work provided for in the contract documents and has adequate financial status and resources to meet its obligations contingent to the work.

"City" or "Owner" shall mean the City of Tuscaloosa, Alabama, as the awarding authority or its authorized and legal representatives.

"Construction Manager" shall mean that person or entity employed by the City to provide Construction Manager services on the work or Project, who shall be the City's representative on the Project.

"Contractor" shall mean initially the successful or probable low bidder and then the party of the first part to the construction agreement or the legally authorized representatives of such party, including a trade contractor.

"Engineer/Architect" shall mean an Engineer or Architect responsible for design and related services on the Project, and if no Construction Manager is employed, then the Engineer is the representative of the City of Tuscaloosa, Alabama, on the Project. References to the "Engineer" shall mean the Construction Manager, if the City has employed such services, to the extent such services are applicable to construction management activity as set forth in the agreement between the City and the Construction Manager, and the context herein indicates that it would relate to services traditionally and customarily performed by a Construction Manager; otherwise, "Engineer" shall refer to the Engineer or Architect.

"Force Account Work" work paid for by reimbursing for the actual cost for labor, materials and equipment usage incurred in the performance of the work, as directed, including a percentage for overhead and profit where appropriate.

"Gender": a word importing one gender shall if appropriate extend to and be applied to the other gender. The masculine shall include the feminine and vice versa, unless the context clearly indicates otherwise.

"Inspector" shall mean a representative of the Engineer/Architect, Construction Manager or the City, as the case may be.

"Non-Resident Contractor" shall mean a contractor which is neither (a) organized and existing under the laws of the State of Alabama nor (b) maintains its principal place of business in the State of Alabama. A

non-resident contractor which has maintained a permanent branch office within the State of Alabama for at least five (5) continuous years shall not thereafter be deemed to be a non-resident contractor so long as the contractor continues to maintain a branch office within Alabama.

"Project" shall mean the Public Work to which these Contract Documents relate, including the labor, materials and all work to be done by Contractor that is the subject of the bid, plans, specifications and contract documents.

"Public Property" Real property which the awarding authority owns or has contractual right to own or purchase, including easements, rights-of-way, or otherwise.

"Public Work(s)" shall mean a Project consisting of the construction, repair, renovation, or maintenance of public buildings, structures, sewers, water works, roads, bridges, docks, underpasses and viaducts, as well as any other improvement to be constructed, repaired or renovated or maintained on public property to be paid, in whole or in part, with public funds or with financing to be retired with public funds in the form of lease payments or otherwise.

"Responsible Bidder" shall mean a bidder who, among other qualities determined necessary for performance, is competent, experienced and financially able to perform the contract.

"Responsive Bidder" shall mean a bidder who submits a bid that complies with the terms and conditions of the invitation for bids, including plans, drawings, specifications and other provisions of the contract documents.

"Retainage" shall mean that money belonging to the Contractor which has been retained by the awarding authority conditioned upon final completion and acceptance of all work in connection with the Project.

"Singular/Plural" the singular shall include the plural and vice versa, unless the context clearly indicates otherwise.

"Trade Contracts" "Trade contracts" or "multiple prime contracts" are multiple but separate contracts with the City on the same Project that represent significant construction activities performed concurrently with and closely coordinated with construction activities performed on the Project under other trade contracts.

"Unbalanced Bid" Unbalanced bids may be considered non-responsive and may be subject to rejection. An unbalanced bid includes but is not limited to one which results in a substantial advance payment to the contractor.

3. **Work to be Performed:** The City contemplates the construction of a public works project as generally described in the Advertisement for Bid and as more particularly described, shown and depicted on the plans, specifications, drawings and in the contract documents.

4. **Bidding, Generally:**

- A. All bids must be made upon the bid proposal forms contained in the contract documents, shall state the amount bid for each item as shown therein and all blanks shall be properly filled in and bid proposal executed as required.
- B. Any bidder may withdraw his or its bid, either personally or by telegraphic or written request (not by facsimile), at any time prior to the scheduled opening time for receipt of bids. Except as provided in Ala. Code §39-2-11(b)(c)(d), no bid may be withdrawn after opening of bids prior to the time of returning bid bonds as provided for herein.
- C. Any unauthorized conditions, limitations or provisos attached to the bid proposal, except as otherwise provided herein, will render a bid proposal informal and may cause its rejection. Unbalanced bids may

be subject to rejection. Bids without the General Contractor's license number and a copy of the license will be rejected.

- D. All bids will be opened in public at the time and date specified in the Notice of Advertisement for bids, unless otherwise altered by addendum. All bidders are invited to be present at the opening of bids. No bids will be received after the time established for the opening of bids.
- E. All bids are to be enclosed in a sealed envelope addressed to the City of Tuscaloosa, P. O. Box 2089, Tuscaloosa, Alabama and/or hand delivered to the City Clerk, 2201 University Boulevard, City Hall, Tuscaloosa, Alabama. All bids are to be marked to indicate clearly the Project to which it applies and include the following language: "Bid Enclosed" and "Attention City Clerk."

NOTE: Bidders current General Contractor's license number must be displayed on the bid and the sealed envelope.

5. Responsible, responsive bidders: The City reserves the right to reject any bid that is submitted by a bidder that is determined by the City to not be a responsible bidder or whose bid proposal is not responsive.

In determining whether a bidder or bid is responsible and/or responsive, the City reserves the right to also request and consider the following factors:

- A. Types or kinds of materials or items best suited to the City's needs for the Project.
- B. A current financial statement of the bidder and/ or bonding capability or limits.
- C. An accurate inventory of equipment to be used on the Project for a list of key personnel to be used on the Project and detailed histories of their experience.
- D. A list of similar work performed by any person, firm, or corporation with the same name as the name or any of the names in the bidder's proposal within the last five (5) years.
- E. A list of five (5) references familiar with the bidder's competence, experience, capabilities, skill and integrity.
- F. A statement of bidder pertaining to bankruptcies, judgments, liens or litigation within the last five (5) years. Such statement shall also apply to each company, officer and the key personnel on the Project.
- G. The General Contractor's State license number and class.
- H. Bidder's performance and prosecution of past projects for the City.
- I. An unbalanced bid.
- J. Other information supplied in the bid proposal.

The City may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any Proposal if the evidence submitted by, or investigation of, such Bidder fails to satisfy the City that such Bidder is properly qualified to carry out the obligations of the Contract and complete the work contemplated therein.

6. Bid Bonds: Each bidder must submit with its bid, a cashiers check drawn on an Alabama bank, made payable to the City of Tuscaloosa or a fully executed bid bond on the form that is contained in the contract documents, executed by a surety company duly authorized and qualified to make bond in the State of Alabama. All bonds and/or cashiers check will be made payable to the City of Tuscaloosa for an amount not less than five (5) percent of the City's or its engineers or architects estimated cost of the Project or of the total bid in the proposal, but in no event more than \$10,000.00. The purpose of said bid bond is to insure that the successful bidder will enter into a written contract with the City for the Project on the form included in the contract documents and furnish a performance bond and payment bond executed by a surety company duly authorized and qualified to make such bond in the State of Alabama, in the amount required and provide evidence of insurance as required by the bid documents within time specified or if no time is specified, within thirty (30) days after the forms have been presented

to the successful bidder for signature. Provided; however, if extenuating circumstances prevail, the City may grant an extension of time not exceeding five (5) days for the return of the contract bonds and evidence of insurance.

The price or cost of all items bid shall remain in effect for a period of fifty (50) days after Notice of Award.

7. **Return of Bid Bonds:** All bid bonds, except those of the three lowest bona fide bidders, will be returned immediately after bids have been checked, tabulated and the relation of the bids established. The bid bonds of the three lowest bidders may be retained and if so will be returned as soon as the contract bonds and the contract documents of the successful bidder have been approved and properly executed.

In the event it is necessary to defer a contract award for longer than fifteen (15) days, after opening of bids, then all bid bonds, except that of the potential successful bidders will be returned.

Award of the contract will be made within the time specified after the opening of bids. In the event no award is made within such time, all bids may be rejected and all bonds returned.

Provided; however, the potentially successful bidder may enter into a written agreement with the City for an extension of time for consideration of its bid, in which case, the bidder's bond shall remain in full force and effect or the City may permit said bidder to substitute a satisfactory surety for the cashier's check if submitted as a guaranty to the bid bond.

8. **Forfeiture of Bid Bonds:** Should the successful bidder or bidders to whom a contract is awarded fail to execute a contract(s) and furnish acceptable contract securities and evidence of insurance, as required, within thirty (30) days after the prescribed forms have been presented to him/her, the City may retain from the proposal guaranty, if it is a cashier's check or recovered from the principal or the sureties, if the guaranty is a bid bond, the difference between the amount of the contract as awarded, and the amount of the proposals of the new lowest bidder. If no other bids are received, the full amount of the proposal guaranty may be so retained and recovered as liquidated damages for such default. Any sum so retained or recovered shall be the property of the awarding authority.

9. **Consideration of Bid Proposals:**

- A. Generally: The contract will be awarded to the lowest responsible and responsive bidder, unless the City determines that all the bids are unreasonable or that it is not in the best interest of the City to accept any of the bids. Award of the contract will be made on the basis of the lowest actual bid amount for the contract, which is defined as the total of the bid and/or extended total amounts for unit price items, plus requested and accepted additive or deductive alternates, pursuant to the provisions hereof. The City reserves the right to reject all bids and/or reject and rebid the Project should it determine the same is in the best interest of the City.
- B. Minor irregularities as determined by the City or its representatives, will not cause a bid to be non-responsive and may be waived by the City.
- C. Bidder must possess all licenses and permits required by applicable law, rule or regulation for the performance of the work prior to bidding.
- D. Where the City elects to prequalify contractors prior to bidding, it shall be understood that such prequalification may be general in nature and shall not limit the City's right to revoke such prequalification pursuant to Ala. Code §39-2-4(d) (1975).
- E. Joint ventures shall not generally be considered acceptable bids without special waiver from the City, which must be requested in writing at least thirty (30) days prior to bid opening.
- F. Additive and/or Deductive Alternates: If the City has elected to request bids for additive and/or deductive alternates, then the following procedure shall be the basis for calculating such bids:
 - 1) Deductive Alternates: Any deductive alternate from the base bid shall constitute cumulative deductions from the base bid; and in determining the lowest bidder, if the City elects to

consider any deductive alternates, the City will proceed to consider the bids upon the basis of the base bids of all qualified bidders minus the respective deduction stated for the first alternate. If the City determines that it wishes to proceed to consider additional deductive alternates, it may do so sequentially and in like manner throughout the deductive alternates the City elects, so that the base bids of all qualified bidders shall be calculated minus the respective number of deductive alternates in sequence the City has elected to consider. The lowest responsible responsive bid will be the lowest actual base bid of a qualified bidder less the selected sequential deductive alternates.

- 2) **Additive Alternates:** To determine additive alternates, any additive alternate shall constitute cumulative additions to the base bid; and in determining the lowest bidder if the City elects to consider any additive alternates, the City will proceed to consider the bids upon the basis of the base bid of all bidders plus the respective addition stated for the first alternate. If the City determines that it wishes to proceed to consider additional additive alternates it may do so sequentially, and in like manner, throughout the additive alternates, the City elects, so that the base bids of all qualified bidders shall be calculated plus the respective number of additive alternates in sequence the City has elected to consider. The lowest responsible responsive bid will be the lowest actual base bid of a qualified bidder plus the selected sequential additive alternates. Once the City has determined the lowest responsible responsive bidder as set forth herein, then it may award the contract on the basis of accepting and/or rejecting any additive and/or deductive alternates of that bid as it determines is in the best interest of the City.

G. **No Bids or Only One Bid:** In the event no bid proposals or only one bid proposal is received in response to the City's Advertisement for Bids at the time stated for the opening of bids, the City may elect at its discretion, any of the following options:

- 1) Advertise for and seek other competitive bids.
- 2) Direct that the work shall be done by force account under its direction and control.
- 3) Negotiate for the work through the receipt of informal bids. Provided; however, where only one responsible and responsive bid has been received, any negotiation for the work shall be for a price lower than that bid.

H. An unbalanced bid.

10. Materials and Work: All materials, which the engineering plans specify or are required, will be installed as they are shown on the drawings, plans and/or specs.

- A. Brand names, catalog numbers, weights, etc., are used to indicate levels of quality only and are not intended to restrict the bidding. If bidding on an item of another brand or manufacturer than that specified, bidder's proposal should be accompanied by brochures or other pertinent literature giving detailed specifications of the item(s) on which the proposal is being made. Bids or proposals received without sufficient literature to determine equal quality may not be considered. Final determination as to equal quality will be made by the City.
- B. **Quantities:** The quantities shown in the proposal shall be considered by the contractor as the quantities required to complete the work for the purpose of bidding. Should the actual quantities required in the construction of the work be greater or less than the quantities shown, an amount equal to the difference of quantities at the unit prices bid for the items will be added to or deducted from the contract total.
- C. **Adjustment Items:** During the course of work, the prices bid for adjustment items may be used by the City to increase or decrease the total cost for the work if the quantity of work exceeds or is less than the amount shown on plans.
- D. The attention of all bidders is called to the fact that all or a portion of this Project may be federally funded and if so, the special conditions of a federally funded contract including federal labor standard provisions, the minimum wage rates included in the contract documents, plans and specifications must be followed.

- E. **Construction Crews:** The Contractor will be required to furnish at least one separate construction crew during the work as set forth in the contract. Unless waived by the City, the Contractor shall perform on the sites and with his own organization and equipment, at least fifty percent of the total amount of the work to be performed under this Contract. The Contractor may only subcontract a maximum of fifty (50%) percent of the work without City consent. If, during the progress of the work hereunder, the Contractor requests a reduction of such percentage, and the City representative determines that it would be to the City's advantage, the percentage of the labor required to be performed by the Contractor's own organization may be reduced; PROVIDED prior written approval of such reduction is obtained by the Contractor from the City.

NOTE: Bidders are advised to carefully review all other elements of the contract documents for more details concerning requirements for performing work on the Project.

- F. In the event the City elects to utilize a Purchasing Agent Appointment agreement in conjunction with this contract, the Contractor will be required to execute such an agreement and perform in accordance therewith.

11. **Execution of Contract, Notice to Proceed:** Award of the contract will be made within the time specified after the opening of bids.

The bidder to whom award is made shall enter into a written contract for the Project with the City on the forms provided in the contract documents, furnish the required performance and labor and material bonds with proper surety and furnish the evidence of insurance as required, all within thirty (30) days of presentation of the prescribed forms to the bidder. If extenuating circumstances prevail, the City may grant an extension of time not exceeding five (5) days for the return of the contract, required bonds and evidence of insurance.

Within twenty (20) days after presentation by the bidder to the City, the City shall review the bonds, surety and evidence of insurance to ascertain whether they meet the requirements of the contract documents, and if such requirements have been met the City shall complete the execution of the contract.

A notice to proceed order will be issued by the City or its representatives within fifteen (15) days after final execution of the contract by the City. The Contractor shall begin work on the date specified in the Notice to Proceed.

12. **Labor, Material and Performance Bonds:** Within thirty (30) days after the prescribed forms have been presented, the successful bidder shall execute a performance bond with good and sufficient surety from a company duly authorized and qualified to make such bond in the State of Alabama, a performance bond made payable to the City of Tuscaloosa, with a penalty equal to 100 percent of the amount of the contract price and in addition thereto, another bond with good and sufficient surety by a surety company duly authorized and qualified to make such bond in the State of Alabama, payable to the City of Tuscaloosa, in an amount equal to 100 percent of the contract price with an obligation that such contractor shall promptly make payments to all persons supplying it or them with labor, materials or supplies for or in prosecution of the Project provided for in such contract and for the payment of reasonable attorneys fees incurred by any successful claimants or plaintiffs in civil actions on said bond, pursuant to the provisions of Ala. Code §39-1-1 (1975).

13. **Surety and Insurer Qualifications:** All certificates of insurance and bonds (furnished in connection with the work to be performed under this contract) shall be countersigned by a licensed agent residing and engaged in doing business in the State of Alabama. The surety and insurer shall be licensed and authorized to do business in the State of Alabama. The surety companies on bonds shall be rated A- or better by A. M. BEST and listed on the United States Treasury Department 570 list.

14. **Power-of-Attorney:** The attorney-in-fact (resident agent) who executes the performance bond and/or payment bond on behalf of the surety must attach a notarized copy of his or her power-of-attorney as evidence of his

authority to bind the surety of the date of execution of the bonds. Certification by a resident agent authorized to do business in Alabama is required.

15. Insurance: The successful contractor shall file with the City, at the time of delivery of the signed contract, satisfactory evidence of insurance, the requirements as set forth in the contract agreement. Satisfactory evidence of insurance shall include at a minimum, the insurers standard "Certificate of Insurance" (modified pursuant to insurance requirements of the contract agreement) and the agents verification of insurance as required by Section 26. If the City deems that additional evidence or clarification, etc., of insurance is appropriate, the bidder shall promptly furnish the same to the City upon request.

16. Examination of Contract Documents and of the Site of the Project: Before submitting a bid proposal for the Project, each bidder shall carefully examine the Contract Documents, including but not limited to plans, drawings, specifications, contract, etc., visit the site, and satisfy itself as to the nature and location of the Project, and the general and local conditions, including weather, the general character of the site or building, the character and extent of existing work within or adjacent to the site, any other work being performed or proposed thereon at the time of submission of their bids. It shall obtain full knowledge as to transportation, disposal, handling, and storage of materials, availability of water, electric power, and all other facilities in the area which will have a bearing on the performance of the Project for which they submit their proposals. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and visit and has judged for and satisfied himself as to conditions to be encountered regarding the character, difficulties, quality, and quantities of work to be performed and the material and equipment to be furnished, and as to the contract requirements and contingencies involved. It shall be the Bidder's obligation to verify for himself and to his complete satisfaction, all information concerning site and surface conditions.

17. Subsurface Reports: Prior to Bid opening, the City will make available to prospective Bidders, upon request, any information that it may have as to subsurface conditions and surface topography at the work site. Investigations of subsurface conditions were made for the purpose of study and design, and neither the City nor its consultants that performed such testing assume any responsibility whatsoever in respect to the sufficiency or accuracy of borings, or of the logs of test borings, or of other investigations that have been made, or of the interpretations made thereof, and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations are representative of those existing throughout such area, or any part thereof, or that unforeseen developments may not occur.

Logs of test borings, geotechnical reports, or topographic maps showing a record of the data obtained by the investigations of surface and subsurface conditions that are made available shall not be considered a part of the Contract Documents, and are available only for the convenience of the Bidders. Such logs and reports represent only the opinion of the Engineer/Architect or Consultant as to the character of the materials encountered by him in his investigations of the test borings.

Information derived from inspection of logs of test borings, or pits, geotechnical reports, topographic maps, or from Drawings showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the site and making such additional investigations as he may elect, or from properly fulfilling all the terms of the Contract Documents.

The City shall not be responsible for any interpretations or conclusions drawn from any subsurface exploration reports or borings. Each bidder is to base his bid upon his determination of the subsurface conditions and of the types and quantities or material to be encountered or needed. Additional tests or other exploratory operations may be made at no cost to the City.

18. Interpretation of Plans and Specifications: If any bidder contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of plans, specifications, or other proposed contract documents,

he may submit to the Engineer/Architect or Construction Manager, as the case may be, a written request for an interpretation thereof at least ten (10) days prior to bid opening. The bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by written addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The City, Construction Manager or Engineer/Architect will not be responsible for any other explanations or interpretations of the proposed documents.

19. General Contractor's Permit or License: The attention of all bidders is called to the provisions of the State law governing general contractors as set forth in Ala. Code §34-8-1 et seq. (1975), particularly in regard to the need for and evidence of a State general contractor's license. The provisions of said statute are adopted herein by reference and form a part of the Contract with the selected bidder should this Project be awarded.

Bidders are reminded that they will be governed by said statutes insofar as they are applicable. To summarize the above quoted statutes, Ala. Code §34-8-1, et seq. (1975) provides that no one is entitled to bid and no contract may be awarded to anyone who does not possess a valid general contractor's permit or license, including specialty classifications for the work, as provided by the foregoing sections of the State Code, and rules and regulations promulgated pursuant thereto and that said bid may not be considered without evidence being produced that he is so qualified. Trade contractors must be duly licensed in accordance with applicable law. The City may not enter into a contract with a nonresident corporation that is not qualified under the State law to do business in Alabama.

Bidder MUST include with proposal contractor's current license number and a copy of the license. State law, Ala. Code §34-8-8(b) (1975) requires all bids to be rejected which do not contain general contractor's license number.

20. U. S. Products Preference: The successful bidder (contractor) shall comply with Ala. Code §39-3-1 (1975), shall agree to utilize in the execution of the Project, materials, supplies and products manufactured, mined, processed or otherwise produced in the United States or its territories, if the same are available at reasonable and competitive prices and not contrary to any sole source specifications. It is further stipulated that a breach of the foregoing provision of this agreement by the contractor in failing to utilize domestic products shall result in a downward adjustment in the contract price equal to any realized savings or benefit to the Contractor.

21. Use of Domestic Steel: The attention of all bidders and that of the successful bidder (contractor) is drawn to Ala. Code §39-3-4 (1975), requiring the use of steel produced within the United States for municipal construction projects when specifications in the construction contract require the use of steel and do not limit its supply to a sole source. This provision is subject to waiver if the procurement of domestic steel products becomes impractical as a result of national emergency, national strike or other causes. Violations of the use of domestic steel requirements shall result in a downward adjustment in the contract price to equal any savings or benefit to the Contractor.

22. In State Bidder Preference: Pursuant to Ala. Code §39-3-5 (1975), in the letting of public contracts in which municipal funds are utilized, except those contracts funded in whole or in part with funds received from a federal agency, preference shall be given to resident contractors, and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded Alabama public contracts only on the same basis as the nonresident bidders' state awards contracts to Alabama contractors bidding under similar circumstances; and resident contractors in Alabama, as defined in Ala. Code §39-2-12 (1975), be they corporate, individuals or partnerships, are to be granted preference over non residents in awarding of contracts in the same manner and to the same extent as provided by the laws of the state of the domicile of the nonresident.

Nonresident bidders must accompany any written bid documents with a written opinion of an attorney-at-law licensed to practice law in such nonresident bidder's state of domicile, as to the preferences, if any or none, granted

by the law of that state to its own business entities whose principal places of business are in that state in the letting of a public contract.

23. Applicable Laws: Each Bidder shall inform himself of, and the Bidder awarded a contract shall comply with, federal, state, and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, the use of domestic products, U.S. steel and resident labor, non-discrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and non-burning requirements, permits, fees and similar subjects. Certain statutory requirements are summarized immediately hereinafter. The attention of all bidders is called to the fact that the work will be subject to compliance with all applicable City building and technical codes and will be subject, in addition to all other inspections, to inspection by a representative of the City of Tuscaloosa Building Inspections Department.

24. SRF/DWSRF Special Requirements. If all or any portion of the Project to which this contract applies is funded in whole or in part by the proceeds of a loan or loans from the Alabama Department of Environmental Management (ADEM) through either a State Revolving Fund for Wastewater or Water (SRF or DWSRF, respectively), additional requirements for the Contractor exist (Requirements). These Requirements relate to Project objectives for utilization of Minority Business Enterprises/Women Business Enterprises (MBE/WBE). The Contractor must document efforts made to utilize MBE/WBE firms and submit to ADEM, with a copy to the City within ten (10) days after contract execution, evidence of the positive steps in accordance with the requirements to utilize small minority and women businesses in the procurement of subcontracts.

Other Requirements relate to Federal Labor Standards, Title VI of the Civil Rights Act of 1964, Equal Employment Opportunity, Affirmative Action Equal Opportunity Clause, Goals and Timetables, compliance with Occupational Safety and Health Act of 1970 and Section 107 of Contract Work Hours and Safety Standards Act (PL91-54) which are adopted herein by reference to the extent applicable.

For DWSRF and SRF funded projects, special requirements are also set forth in Supplemental General Conditions. If not attached to the contract documents, Contractors should contact the City representative and/or the City's consulting engineer for a copy of all special requirements and conditions.

25. Special Conditions for Federally Funded Contracts. If all or any portion of the Project to which this contract applies is funded in whole or in part by the proceeds of a grant from an agency of the United States Government, additional requirements for the Contractor exist. A summary of these requirements entitled, "Special Conditions for Federally funded Contracts," is attached hereto and made a part hereof. Bidder should contact the Engineer or City Representative to confirm the applicability of these requirements to the Project.

26. Agent's Verification of Insurance. This form or a letter equivalent from the Insurance Agent should be submitted with each Contractor's Bid, or in the alternative, Contractor may provide a copy of the insurance policy or policies reflecting the coverages required herein.

27. Compliance with Immigration Law. By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom, to the extent allowed by Federal law.

28. Compliance with Affordable Health Care Act. By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal compliance laws pertaining to the Affordable Health Care Act. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom, to the extent allowed by Federal law.

29. **Compliance with the City of Tuscaloosa Minority Enterprise / Disadvantage Business Enterprise (MBE/DBE/WBE) Policy for Public Works Projects Over \$50,000.** The City of Tuscaloosa has voluntarily adopted a Minority / Disadvantaged Business Enterprise ("MBE/DBE/WBE") Program designed to encourage the participation and development of minority and disadvantaged business enterprises and to promote equal business opportunities to the fullest extent allowed by state and federal law.

It is the intent of the City to foster competition among contractors, suppliers, and vendors that will result in better quality and more economical services rendered to the City. Under this policy, the City of Tuscaloosa has established a goal of ten to twenty percent (10-20%) inclusion of minority and disadvantaged business enterprises for all services required to deliver City projects. In no case shall the stated percentage be the determining factor in contract awards. Rather, contractors must demonstrate a good faith effort to attain the desired percentage goal.

The Policy as adopted is entitled THE CITY OF TUSCALOOSA MINORITY ENTERPRISE / DISADVANTAGED BUSINESS ENTERPRISE (MBE/DBE/WBE) POLICY FOR PUBLIC WORKS PROJECTS OVER \$50,000, and is attached hereto as "Exhibit A" (the "Policy"). Contractors are encouraged read the Policy in its entirety, and must follow the instructions contained therein. **The Policy requires submission of various forms at specified times, and failure to do so may result in rejection of bid due to non-responsiveness.** Contractors shall work in coordination with the City of Tuscaloosa's Recovery Department.

Office of Resilience and Innovation contact information is as follows:
Robin Edgeworth, Chief Resilience Officer
Telephone: (205) 248-5725
redgeworth@tuscaloosa.com.

Questions about Policy requirements should be directed to the City of Tuscaloosa Office of the City Attorney at 205-248-5140.

[END INSTRUCTION TO BIDDERS—OFFICE OF THE CITY ATTORNEY]

CITY OF TUSCALOOSA PUBLIC WORKS
SECTION THREE
PROPOSAL (BID)
(2015)

NOTE TO BIDDER: Use BLACK ink for completing this Proposal form.

To: City of Tuscaloosa
Address: Council Chambers in City Hall
2201 University Blvd. Tusc, AL 35401
Project Title: Juanita Drive Improvements Project
Project No.: A15-1090
Trade: The trade portion of the work for which this Proposal is submitted is:
NIA (if applicable)
Trade Package No.: NIA

BIDDER: The name of the Bidder submitting this Proposal is Dominion Construction Co. Inc. doing business
at PO Box 70, Duncanville, AL, 35456
Street City State Zip

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

Licensed, Class 4, Alabama General Contractor No.: 44290 (Attach Copy)
Alabama General Contractor Specialty MU: Municipal and Utility
Alabama General Contractor License Major Categories:
(1) _____ (2) _____

Bidder's contact person for additional information on this Proposal:
Name: Brian Wheat Telephone: 205-342-2030

ADDENDA: The Bidder hereby acknowledges that he has received Addenda No's. 1, 2, 3, _____ (Bidder shall Insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Proposal(s) includes all impacts resulting from said addenda.

LUMP SUM: The Bidder agrees to accept as full payment of the work proposed under this Project, as services are rendered, as herein specified and as shown on the Contract Documents, upon the undersigned's own estimate of quantities and costs, the following lump sum of: NINE HUNDRED NINETYFOUR, THREE HUNDRED FORTY EIGHT Dollars and SEVENTY THREE cents (\$ 994,348.73). (Amount written in words has precedence)

ALTERNATES: Attach additional sheets for additive or deductive alternates, if in contract documents.

STATE OF ALABAMA

BID LIMIT: U

LICENSE NO.: 44290

AMOUNT: UNLIMITED

TYPE: RENEWAL



State Licensing Board for General Contractors

THIS IS TO CERTIFY THAT

DOMINION CONSTRUCTION CO INC

DUNCANVILLE, AL 35456

is hereby licensed a General Contractor in the State of Alabama and is authorized to perform the following type(s) of work:

ADM: NEW ADMINISTRATIVE, MU: MUNICIPAL AND UTILITY

until September 30, 2016 when this Certificate expires.

Witness our hands and seal of the Board, dated Montgomery, Ala.,

Charles A. White, Jr.

1st day of September, 2015
SECRETARY-TREASURER

C. A. C.

CHAIRMAN

115479

UNIT PRICES: Where the Project is bid in unit prices then Bidder agrees to perform the work in the stated quantities of the materials at the unit prices so bid, the cumulative total of which constitutes the base bid set forth below, and to accept as final payment for the work performed under this Project as herein specified the extension of each such unit price for the quantities actually installed in accordance with the following or attached unit price schedule.

An unbalanced bid, as herein defined, may be considered non-responsive. A bid resulting in a substantial advance payment on an item that is for a single lump sum payment may be considered non responsive.

Prices for mobilization and demobilization combined shall not exceed 5% of the total base bid unless a reasonable explanation is provided in writing with the bid and accepted by the Owner. Lump sum payments and unit price bids for a single or lump sum payment may be spread over the course of the period of work until the line item is complete at owner's option.

The Bidder's unit price for materials listed is as including the payment of taxes (See Page 3) where applicable: (Attach additional sheets if required)

<u>Material</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>TOTAL</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
TOTAL BASE BID			\$ <u>994,348.73</u>

SALES AND USE TAX SAVINGS ACCOUNTING:

Pursuant to State of Alabama Act 2013-205, Section 1(g) the Contractor accounts for the sales tax NOT included in the bid proposal form as follows:

	<u>ESTIMATED SALES AND USE TAX</u>
BASE BID: \$	<u>\$ 10,000.00</u>
Additive Alternate (if applicable): \$	_____

Failure to provide an accounting of sales tax may render the bid non-responsive. Other than determining responsiveness, sales tax accounting shall not affect the bid pricing nor be considered in the determination of the lowest responsible and responsive bidder.

AS BUILT DRAWINGS: The Bidder's Proposal contains \$ N/A for "as built drawings."

BIDDER'S DECLARATION AND UNDERSTANDING: The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Proposal are those named herein, that this Proposal is, in all respects, fair and without fraud, that it is made without collusion with any official of the City, and that the Proposal is made without any connection or collusion with any person submitting another Proposal on this Contract.

The Bidder further agrees that he has checked and verified the completeness of the Contract Documents and that he has exercised his own judgment regarding the interpretation of subsurface information utilizing all pertinent data in arriving at his conclusions. The Bidder shall be fully responsible for any damages or liability arising out of his or his subcontractors prebid investigations.

The Bidder understands and agrees that if a Contract is awarded, the City may elect to award all schedules under one Contract, lump sum, separately, or in any combination that best serves the interests of the City.

The Bidder further declares that he has carefully examined the Contract documents for the construction of the Project and has checked and verified the completeness of the Contract Documents, that he has personally inspected the site, that he has satisfied himself as to the quantities involved, including materials and equipment, and conditions of work involved. Bidder further declares that he is fully aware of the fact that the description of the work, quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the Contract Documents. Bidder also declares that this Proposal is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Proposal.

The Bidder declares that he understands and agrees that the quantities shown in the Advertisement for Bids and in the Proposal are approximate only and are subject to either increase or decrease; and that should quantities be decreased, he also understands and agrees that payment will be made on actual quantities installed at the unit bid prices, and will make no claim for anticipated profits for any decreases in the quantities. Actual quantities will be determined upon completion of the work.

START OF CONSTRUCTION AND CONTRACT COMPLETION TIME: The Bidder further agrees to begin work on the date stated in the Notice to Proceed and to fully complete the work, in all respects, within the time specified in the contract documents for completion.

EXPERIENCE OF BIDDER: Unless advised by the awarding authority in the Advertisement for Bids that the same is not required, the Bidder submits the following list of at least three clients for whom projects involving construction of similar projects have been performed within the past 5 years.

1. City of Tuscaloosa 205-248-5311
Name of Client Telephone Number

2201 University Blvd. Tuscaloosa, AL 35401
Street City

37 St. East - Hargrove Rd. Improvements - 30" Storm Aug. 2015
Facility Size Date

M^s Giffert and Associates Jimmy Duncan - 759-1591
Name of Engineer/Architect /Engineering Firm Telephone Number

2. Wagh Properties, LLC 36117
Name of Client Telephone Number

2201 Bell Rd. Montgomery, AL 36117
Street City

Riverchase Voll. Sec. 4 30" Storm June, 2015
Facility Size Date

M^s Giffert and Associates Jimmy Duncan - 205-759-1591
Name of Engineer/Architect /Engineering Firm Telephone Number

3. Todd Palmer 205-767-5226
Name of Client Telephone Number

Tuscaloosa, AL 35401
Street City

Pinnacle Park at Northriver 8" Sewer October 2015
Facility Size Date

Walker and Associates 205-561-3778
Name of Engineer/Architect/Engineering Firm Telephone Number

PERFORMANCE OF WORK BY CONTRACTOR: The Bidder shall perform at least 50 percent of the work with his own forces (refer to the INSTRUCTIONS TO BIDDERS).

SUBCONTRACTORS: Unless the same information has been provided in the prequalification statement, the Bidder further certifies that if his bid is accepted, the following subcontracting firms or businesses will be awarded subcontracts for the following portions of the work:

Description of Work asphalt and paving

ST Bunn Construction
Name

1904 University Blvd. Tuscaloosa AL 35401
Street City State Zip

Description of Work concrete side walk

Cheyenne Contracting
Name

11567 River Point Way Tuscaloosa AL 35405
Street City State Zip

Description of Work curb + gutter

Phillips Slipform
Name

PO Box 418 Sumiton AL 35148
Street City State Zip

Description of Work _____

Name _____

Street _____

City _____

State _____

Zip _____

SURETY: If the Bidder is awarded a construction contract on this Proposal, the Surety who provides the Performance Bond and Payment Bond will be:

Hudson Insurance whose address is

100 William St. New York New York 10038
Street City State Zip

Single Job Bond Limit 2,000,000.00 Aggregate Job Bond Limit 5,000,000.00

If Sole Proprietor or Partnership:

IN WITNESS hereto the undersigned has set his (its) hand this _____ day of _____, 20____.

Signature of Bidder

Title

If Corporation:

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers, this 22 day of October, 2015.

Dominion Construction Co., Inc.
Name of Corporation

By [Signature]

Vice President
Title

Attest [Signature]
Secretary

(seal)

The Bidder declares that he understands and agrees that the quantities shown in the Advertisement for Bids and in the Proposal are approximate only and are subject to either increase or decrease; and that should quantities be decreased, he also understands and agrees that payment will be made on actual quantities installed at the unit bid prices, and will make no claim for anticipated profits for any decreases in the quantities. Actual quantities will be determined upon completion of the work.

Attached hereto is a (Bid Bond) or (Check) for the sum of 5% of base
b.c. Not to exceed \$10,000.00 according
to the conditions under "Instructions to Bidders" and provisions therein.

Dated this 22 day of October, 2015.

BY: [Signature]
Vice President
Title

(NOTE) If the Bidder is a corporation, the Proposal shall be signed by an officer of the corporation; if a partnership it shall be signed by a partner. If signed by others, authority for signature shall be attached.

[END OF BID PROPOSAL—OFFICE OF THE CITY ATTORNEY]



JUANITA DRIVE PHASE I
for the
CITY OF TUSCALOOSA
 Tuscaloosa, Alabama
 Project No. A12-1409

CONSTRUCTION QUANTITIES

Revised Bid Schedule

October 12, 2015

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
BASE BID ITEMS					
A. GENERAL; DEMOLITION; CLEARING/GRUBBING/EARTHWORK					
1	1	L.S.	Demolition - as per plans	\$ 27,100.00	\$27,100.00
2	6,750	C.Y.	Unclassified Excavation/Haul Off Excess	\$ 8.00	\$54,000.00
3	12	Each	Remove Existing Manholes/Inlets - Remove or if not in conflict, fill with concrete.	\$ 500.00	\$6,000.00
4	20	C.Y.	Concrete Slurry Fill Abandoned Pipe. Includes any pipe not removed during new sewer installation.	\$ 250.00	\$5,000.00
5	386	S.Y.	Concrete Drive/Walk Removal to Gradeline Provided by Engineer. (To Be Field Measured).	\$ 5.37	\$2,072.82
5A	448	S.Y.	Concrete (4") Drive/Walk Replacement (To Be Field Measured).	\$ 29.00	\$12,992.00
6	108	S.Y.	Asphalt Drive Removal Sawcut and Remove Back to Gradeline Provided by Engineer. (To Be Field Measured).	\$ 5.37	\$579.96
6A	150	S.Y.	Asphalt Drive Replacement (To Be Field Measured).	\$ 26.66	\$3,999.00
7	1	Each	Remove Existing Fire Hydrant.	\$ 1,200.00	\$1,200.00
8	1	L.S.	Sidewalk, Curb & Gutter Removal ALDOT R.O.W.	\$ 10,850.00	\$10,850.00
9	1	L.S.	Storm Sewer Removal - ALDOT R.O.W.	\$ 11,250.00	\$11,250.00
10	20	Each	Remove/Reset Mailboxes	\$ 25.00	\$500.00
11	1	Each	Remove/Replace Mailbox Structure - Gang Box	\$ 1,500.00	\$1,500.00
B. BASE; PAVING; CONCRETE VALLEY CURBS; CONCRETE VALLEY GUTTER; SIDEWALKS					
1	6,222	S.Y.	Roadbed Processing	\$ 0.70	\$4,355.40
2	5,250	S.Y.	6" 825-B Stone Base	\$ 7.40	\$38,850.00
3	5,250	S.Y.	Asphalt Paving - Binder Layer (424-B)(1.5")	\$ 6.93	\$36,382.50
4	5,250	S.Y.	Asphalt Paving - Wearing Surface(424-A)(1.0")	\$ 5.16	\$27,090.00
5	21	Each	Concrete Drive Replacements (4" thick)	\$ 0.00	\$0.00
6	2	Each	Asphalt Drive Replacements	\$ 0.00	\$0.00
7	165	L.F.	ALDOT Curb & Gutter (30")	\$ 17.50	\$2,887.50
8	110	L.F.	24" Curb & Gutter - See notes on plans.	\$ 15.50	\$1,705.00
9	1,170	L.F.	5' Sidewalks - To Be Field measured. Does not include 21ea of concrete drive replacement.	\$ 16.24	\$19,000.80
10	75	L.F.	6" Standup Curb	\$ 16.50	\$1,237.50
11	2,650	L.F.	30" Valley Curb - To be field measured. Does not include 21ea of concrete drive replacements.	\$ 14.00	\$37,100.00
12	185	L.F.	48"x6" Valley Gutter. To be field measured.	\$ 42.75	\$7,908.75
13	3	Each	H/C Ramps	\$ 1,650.00	\$4,950.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
C. STORM DRAIN IMPROVEMENTS					
1	72	L.F.	18" RCP, CLIII	\$ 97.88	\$7,047.36
2	80	L.F.	18" RCP, CLIII, on ALDOT R.O.W.	\$ 80.74	\$6,459.20
3	485	L.F.	24" RCP CLIII	\$ 81.26	\$39,411.10
4	48	L.F.	36"x23" RCAP, CLIII	\$ 119.42	\$5,732.16
5	187	L.F.	44"x27" RCAP, CLIII	\$ 106.26	\$19,870.62
6	1	Each	J. Box	\$ 11,621.00	\$11,621.00
7	5	Each	Single Wing "S" Inlets	\$ 2,879.00	\$14,395.00
8	1	Each	Single Wing "S" Inlet on ALDOT R.O.W.	\$ 2,879.00	\$2,879.00
9	3	Each	Double Wing "S" Inlets	\$ 3,029.00	\$9,087.00
10	1	Each	24" Precast Flared End Section	\$ 798.00	\$798.00
11	1	Each	36"x23" Precast Flared End Section	\$ 967.00	\$967.00
12	1	Each	44"x2" Precast Flared End Section	\$ 1,223.00	\$1,223.00
13	143	L.F.	Concrete Trapezoidal Ditch	\$ 59.45	\$8,501.35
14	1	Each	Tie to Existing Inlet - University Boulevard	\$ 1,200.00	\$1,200.00
15	23	S.Y.	CLII Rip-Rap	\$ 54.00	\$1,242.00
D. SANITARY SEWER IMPROVEMENTS					
1	1851	L.F.	8" SDR 26 PVC Sanitary Sewer Main - Various Depths	\$ 87.46	\$161,888.46
2	81.4	V.F.	48" Dia. Precast Manholes	\$ 185.69	\$15,115.17
3	19.8	V.F.	48" Dia. Precast Manholes - Dog House	\$ 707.08	\$14,000.18
4	2.7	V.F.	8" SDR 26 Drop	\$ 371.00	\$1,001.70
5	14	Each	Rings/Covers	\$ 256.00	\$3,584.00
6	1,040	L.F.	4" SDR 26 Sanitary Sewer Laterals - Various Depths	\$ 38.00	\$39,520.00
7	40	Each	8"x4" and 1/8th Bends - SDR 26 PVC	\$ 75.00	\$3,000.00
8	42	Each	A/T Plugs - 4"	\$ 60.91	\$2,558.22
9	3	Each	A/T Plugs - 8"	\$ 109.00	\$327.00
10	45	Each	Magnetic Locators	\$ 21.00	\$945.00
11	45	Each	Markers (66"x3 3/4") "Caution Sewer"; Green Fiberglass	\$ 26.00	\$1,170.00
12	1	L.S.	By-Pass Pumping - as required.	\$ 3,900.00	\$3,900.00
13	783	L.F.	CIPP, 8" Sewer Across School Site	\$ 52.22	\$40,888.26
14	1	Each	Tie to Existing Manhole C-1.	\$ 1,500.00	\$1,500.00
E. WATER DISTRIBUTION & FIRE PROTECTION SYSTEM					
1	1	L.S.	Bore Pit & Bore Receiving Pit	\$ 1,250.00	\$1,250.00
2	90	L.F.	Bore & Jack 16" Steel Casing	\$ 216.91	\$19,521.90
3	1	Each	12"x8" Hot Tap with Tapping Saddle & Valve	\$ 3,443.00	\$3,443.00
4	1,026	L.F.	2" Sch. 40 PVC Water Main	\$ 14.80	\$15,184.80
5	287	L.F.	6" DI, CL350 Water Main	\$ 35.54	\$10,199.98
6	1,640	L.F.	8" DI, CL350 Water Main	\$ 39.14	\$64,189.60
7	1	L.S.	2" Sch. 40 PVC Fittings	\$ 10,350.00	\$10,350.00
8	1	L.S.	6" DI, CL350 Fittings	\$ 1,292.00	\$1,292.00
9	1	L.S.	8" DI, CL350 Fittings	\$ 3,389.00	\$3,389.00
10	1	Each	Tie to Existing 8" DI, School Site	\$ 1,500.00	\$1,500.00
11	2	Each	Ties to Existing 6" DI, Sta. 21+60 +/- & Sta. 36+80 +/-, Juanita Drive	\$ 1,500.00	\$3,000.00
12	4	Each	2" Gate Valves & Boxes	\$ 382.43	\$1,529.72
13	4	Each	6" Gate Valves & Boxes	\$ 635.67	\$2,542.68
14	2	Each	6" Gate Valves & Boxes on Existing 6" DI	\$ 650.00	\$1,300.00
15	5	Each	8" Gate Valves & Boxes	\$ 905.12	\$4,525.60
16	4	Each	2" Taps	\$ 457.22	\$1,828.88
17	3	Each	2" Blow Off Assemblies (as per details)	\$ 988.58	\$2,965.74
18	2	Each	Fire Hydrant Assemblies (as per details)	\$ 2,988.91	\$5,977.82
19	44	Each	Remove/Reset Existing Meters - Includes taps to new mains with copper service piping & fittings (as per details). Reset existing meters.	\$ 650.00	\$28,600.00
F. EROSION CONTROL, SITE MAINTENANCE & GRASSING/SOD					
1	1	L.S.	Erosion Control Measures - As Per Plans and Best Management Practices. Contractor To Be Responsible For Any and All Erosion Control Measures.	\$ 22,000.00	\$22,000.00
2	392	C.Y.	Topsoil - 4" Thick	\$ 20.00	\$7,840.00
3	525	S.Y.	Sod	\$ 5.00	\$2,625.00
G. TRAFFIC CONTROL MEASURES					
1	1	L.S.	Traffic Control Measures - Includes control on ALDOT R.O.W. on University Boulevard, and within project area.	\$ 12,250.00	\$12,250.00

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
H. SIGNAGE & STRIPING					
1	1	L.S.	Signage & Striping - Includes both on ALDOT R.O.W., and within project area.	\$ 13,000.00	\$13,000.00
I. MISCELLANEOUS ITEMS					
1	100	L.F.	6" Under Drain (if required)	\$ 14.00	\$1,400.00
2	100	C.Y.	Undercut/Backfill using Off-Site Material (if required).	\$ 100.00	\$10,000.00
3	100	C.Y.	#57 Stone in Trench (if required).	\$ 37.00	\$3,700.00
4	1	Each	Project Sign as Per Detail	\$ 600.00	\$600.00
TOTAL BASE BID					\$994,348.73
J. ALTERNATE #1					
1	1,266	L.F.	5' Sidewalk - To be field measured. Does not include 21ea of concrete drive replacements.	\$ 16.24	\$20,559.84
2	4	Each	H/C Ramps	\$ 1,650.00	\$6,600.00
TOTAL BID ALTERNATE #1					\$27,159.84

Munford Enterprises

1201 Bush Circle
Birmingham, AL 35208
Phone: (205) 423-5676
Email: munfordinc@aol.com

State General Contractors License: #17950

General/Plumbing Contractor

COMMERCIAL, INDUSTRIAL & RESIDENTIAL

PROPOSAL

Proposal Submitted To:

Name _____
Company: _____
Address: _____
City, State, Zip: _____
Phone: _____
eMail: _____

Work To Be Performed At:

Project: Juanita Drive Improvements Project #A15-1090
Owner: City of Tuscaloosa, Alabama
Address: 2201 University Boulevard, Narashino Room
City, State, Zip: Tuscaloosa, AL 35401
Bid Date: Tuesday, October 27, 2015 @ 9:00 a.m.
Architect: _____

We hereby propose to provide all the labor and equipment necessary for the completion of:

All work (Sanitary Sewer Improvements and Water Distribution & Fire Protection System) as outline on attached document – We are available to discuss and provide pricing for additional work not listed on the attachment.

The above work to be performed in accordance with the drawings and specifications submitted for above work and completed in a professional manner for the sum of: See attached document for itemized pricing Dollars.

Any alteration or deviation from above specifications involving extra costs, will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon accidents or delays beyond our control. Owner to carry fire, tornado, theft and other necessary insurance upon above work.

Date: October 27, 2015

Respectfully Submitted: _____
Nathanial Williams, Chief Operating Officer

ACCEPTANCE OF PROPOSAL

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

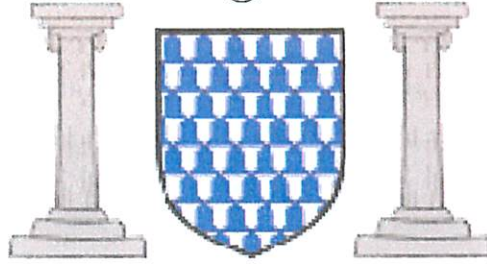
Date of Acceptance: _____

Signature: _____

Signature: _____

Item No.	Quantity	Unit	Description	Unit Cost	Total Cost
C. STORM DRAIN IMPROVEMENTS					
1	72	L.F.	18" RCP, CLIII		
2	80	L.F.	18" RCP, CLIII on ALDOT R.O.W.		
3	485	L.F.	24" RCP CLIII		
4	48	L.F.	36"x23" RCAP, CLIII		
5	187	L.F.	44"x27" RCAP, CLIII		
6	1	Each	J. Box		
7	5	Each	Single Wing "S" Inlets		
8	1	Each	Single Wing "S" Inlet on ALDOT R.O.W.		
9	3	Each	Double Wing "S" Inlets		
10	1	Each	24" Precast Flared End Section		
11	1	Each	36"x23" Precast Flared End Section		
12	1	Each	44"x27" Precast Flared End Section		
13	143	L.F.	Concrete Trapezoidal Ditch		
14	1	Each	Tie to Existing Inlet - University Boulevard		
15	23	S.Y.	CLII Rip-Rap		
D. SANITARY SEWER IMPROVEMENTS					
1	1851	L.F.	8" SDR 26 PVC Sanitary Sewer Main - Various Depths	40.00	74040
2	59	V.F.	48" Dia Precast Manholes	400	23600
3	107	V.F.	48" Dia Precast Manholes - Dog House	9000	9000
4	27	V.F.	8" SDR 26 Drop	200	600
5	11	Each	Rings/Covers	400	4400
6	1,040	L.F.	4" SDR 26 Sanitary Sewer Laterals - Various Depths	27	28080
7	40	Each	8"x4" and 1/8th Bands - SDR 26 PVC	150	7200
8	42	Each	A/T Plugs - 4"	10	420
9	3	Each	A/T Plugs - 8"	20	60
10	45	Each	Magnetic Locators	35	1575
11	45	Each	Markers (66"x3 3/4") "Caution Sewer": Green Fiberglass	100	4500
12	1	L.S.	By-Pass Pumping - as required	7,000	7,000
13	783	L.F.	CIPP, 8" Sewer Across School Site		
14	1	Each	Tie to Existing Manhole C-1	3,000	3,000
E. WATER DISTRIBUTION & FIRE PROTECTION SYSTEM					
1	1	L.S.	Bore Pit & Bore Receiving Pit		
2	80	L.F.	Bore & Jack 18" Steel Casing		
3	1	Each	12"x8" Hot Tap with Tapping Saddle & Valve	2500	2500
4	1,026	L.F.	2" Sch. 40 PVC Water Main	650	6672
5	287	L.F.	6" DI, CL350 Water Main	50	14350
6	1,640	L.F.	8" DI, CL350 Water Main	55	90200
7	1	L.S.	2" Sch. 40 PVC Fittings		200
8	1	L.S.	6" DI, CL350 Fittings		1,000
9	1	L.S.	8" DI, CL350 Fittings		2,000
10	1	Each	Tie to Existing 8" DI, School Site		3,000
11	2	Each	Ties to Existing 6" DI, Sta. 21+60 +/- & Sta. 36+80 +/-, Juanita Drive	2,000	4000
12	4	Each	2" Gate Valves & Boxes	400	1600
13	4	Each	6" Gate Valves & Boxes	700	2800
14	2	Each	6" Gate Valves & Boxes on Existing 6" DI	1500	3000
15	5	Each	8" Gate Valves & Boxes	1500	7500
16	4	Each	2" Tees	1,000	4,000
17	3	Each	2" Blow Off Assemblies (as per details)	1,200	3,600
18	2	Each	Fire Hydrant Assemblies (as per details)	5,000	10,000
19	44	Each	Remove/Reset Existing Meters - Includes taps to new mains with copper service piping & fittings (as per details) Reset existing meters	1000	44000
F. EROSION CONTROL, SITE MAINTENANCE & GRASSING/SOD					
1	1	L.S.	Erosion Control Measures - As Per Plans and Best Management Practices. Contractor To Be Responsible For Any and All Erosion Control Measures.		
2	392	C.Y.	Topsoil - 4" Thick		
3	525	S.Y.	Sod		
G. TRAFFIC CONTROL MEASURES					
1	1	L.S.	Traffic Control Measures - Includes control on ALDOT R.O.W. on University Boulevard, and within project area.		
H. SIGNAGE & STRIPING					
1	1	L.S.	Signage & Striping - Includes both on ALDOT R.O.W., and within project area		

T & T Fine Homes LLC
ctravis620@charter.net



(205)349-9183

Homes Built To A Higher Standard



October 26, 2015

Juanita
Drive
Phase
1

em Q.	Quantity	Unit	Description	Unit Cost	Total Cos
9	1170	L.F.	5 ft Sidewalks. Does not include 21 ea of concrete drive replacement.	\$48.00	\$56,160
11	2650	L.F.	30 in. Valley Curb. Does not include 21 ea of concrete drive replacement.	\$44.50	\$117,925
12	185	L.F.	48 in X 6 in Valley Gutter	\$46.00	\$8,510

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by any extension of the time within which the City may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above-bonded parties have executed this instrument under their several seals, this the 27th day of October, 2015 the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS:

[Handwritten Signature]

PRINCIPAL:

Dominion Construction Company, Inc. (SEAL)

By: [Handwritten Signature]

Title: VP

Address: P.O. Box 70

Duncanville, AL 35456

SURETY:

Hudson Insurance Company (SEAL)

300 First Stamford Place

(Business Address)

Stamford, CT 06902

By: [Handwritten Signature]

Title: Timothy L. Donahue
Attorney in Fact

ATTEST:

[Handwritten Signature]

NOTE: Surety must be qualified and duly authorized to make bonds in the state. All Bonds and Sureties are subject to review and approval by the City Attorney. Valid current Power of Attorney for Corporate Surety must be attached.

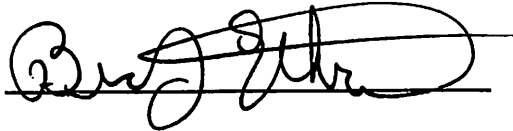
NOTE: Bidder may submit a cashier's check drawn on an Alabama bank to the order of the City of Tuscaloosa equal to 5% of the amount bid, in lieu of a Corporate Surety, under the same terms.

[END DOCUMENT—OFFICE OF THE CITY ATTORNEY]

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by any extension of the time within which the City may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above-bonded parties have executed this instrument under their several seals, this the 27th day of October, 2015 the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESS:



PRINCIPAL:

Dominion Construction Company, Inc. (SEAL)

By: 

Title: VP

Address: P.O. Box 70

Duncanville, AL 35456

SURETY:

Hudson Insurance Company (SEAL)

300 First Stamford Place

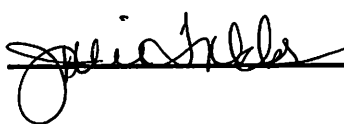
(Business Address)

Stamford, CT 06902

By: 

Title: Timothy L. Donahue
Attorney in Fact

ATTEST:



NOTE: Surety must be qualified and duly authorized to make bonds in the state. All Bonds and Sureties are subject to review and approval by the City Attorney. Valid current Power of Attorney for Corporate Surety must be attached.

NOTE: Bidder may submit a cashier's check drawn on an Alabama bank to the order of the City of Tuscaloosa equal to 5% of the amount bid, in lieu of a Corporate Surety, under the same terms.

[END DOCUMENT—OFFICE OF THE CITY ATTORNEY]



BID BOND POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint

Joseph D. Fitts, Richard F. Fitts, Charles F. Horton, Jr., Cheryl A. Camak, Timothy L. Donahue and Julie Tubbs

its true and lawful Attorney(s)-in-Fact, at New York City in the State of New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bid bonds for any and all purposes.

Such bid bonds, when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

In Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Executive Vice President thereunto authorized, on this 3rd day of March, 2014 at New York, New York.



Attest Dina Daskalakis, Corporate Secretary

HUDSON INSURANCE COMPANY

By Christopher T. Suarez, Executive Vice President

STATE OF NEW YORK COUNTY OF NEW YORK SS.

On the 3rd day of March, 2014 before me personally came Christopher T. Suarez to me known, who being by me duly sworn did depose and say that he is an Executive Vice President of HUDSON INSURANCE COMPANY, the Company described herein and which executed the above instrument, that he knows the seal of said Company, that the seal affixed to said instrument is the corporate seal of said Company, that it was so affixed by order of the Board of Directors of said Company, and that he signed his name thereto by like order.

(Notarial Seal)



ANN M. MURPHY Notary Public, State of New York No. 01MU6067553 Qualified in Nassau County Commission Expires December 10, 2017

CERTIFICATION

STATE OF NEW YORK COUNTY OF NEW YORK

The undersigned Dina Daskalakis hereby certifies

THAT the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertaking made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOVLED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force

Witness the hand of the undersigned and the seal of said Company this 27th day of October, 2015



By Dina Daskalakis, Corporate Secretary

STATE OF ALABAMA)
TUSCALOOSA COUNTY)
CITY OF TUSCALOOSA)

CITY OF TUSCALOOSA PUBLIC WORKS CONTRACT DOCUMENTS

SECTION FIVE
CONTRACT AGREEMENT
(2015)

THIS AGREEMENT made and entered into this 21ST day of DECEMBER, 2015, by and between DOMINION CONSTRUCTION, hereinafter sometimes called the CONTRACTOR, as party of the first part, and the CITY OF TUSCALOOSA, Alabama, a Municipal Corporation, hereinafter sometimes called the CITY or OWNER, as party of the second part,

W-I-T-N-E-S-S-E-T-H:

In consideration of the amounts herein named and of the mutual agreements and provisions herein contained, the Contractor and the City agree in regard to a public works project (hereinafter either the "work" or the "Project") as described in the Advertisement for Bids.

The Contractor will perform the work and/or construct the Project as well as furnish at his own cost and expense all labor, tools, equipment and transportation as are herein and in the Contract documents required to be furnished by the Contractor, and shall perform all the work in a manner and form required to construct the Project described in and shown on the contract documents as the same are hereinafter more specifically described and as provided by the plans, specifications and documents which are attached hereto and made a part hereof, as if fully set out herein and addenda together with all plans and drawings on file in the office specified below.

ARTICLE I. GENERALLY

A. **Contract Documents:** As used throughout the documents constituting the contract, the term "Contract Documents" shall mean and include the following: Advertisement for Bids, Addenda (if issued), the Instructions to Bidders, the Bid Proposal, the General Specifications, the Detail Specifications, Supplemental and Special Conditions (if attached), together with this Contract Agreement and any modifications, including change orders, if made, and the drawings, plans and profiles that are now on file in the office referred to in the advertisement, the Performance Bond and the Labor and Material Bond, executed by the Contractor in connection with this Contract and insurance requirements and certificates.

All such documents hereinabove enumerated are adopted herein by reference and constitute the Contract between the parties to the same extent as if each were set out in full in this agreement.

B. **Independent Contractor:** The Contractor enters into this Contract with the City as an independent contractor and, as such, agrees that neither the City nor its officers, agents, employees or inspectors shall be responsible for the acts or omissions of the Contractor, or any subcontractor, or any of the Contractor's or subcontractor's agents or employees, or any other persons performing any of the work pursuant to this Contract. The Contractor shall be solely responsible for controlling construction manner, means and techniques consistent with the contract documents, plans and specifications.

C. **Order of Precedence:** Should there be a direct conflict between the various elements of the contract documents to the extent that the same cannot be reconciled to be read *in para materia*, then precedence shall be given the same in the following order:

1. Subsequent modifications (change orders or amendments) to contract agreement after execution
2. Addenda (if issued)
3. Supplemental general conditions and special conditions (if included)
4. The Contract Agreement
5. General and technical specifications
6. Large Scale Drawings (if included)
7. Enlarged Plans (if included)
8. Plans (if included)
9. Instructions to bidders
10. Advertisement for bids
11. Proposal (Bid)
12. Purchasing Agent Appointment Agreement (if utilized)

Where more than one document relates to the same matter if both can be given reasonable effect both are to be retained. Written specifications will take precedence over drawings.

D. Integration; Contract Terms and Construction:

1. **Integration:** This Agreement, together with all documents which constitute the "Contract Documents," constitute the entire agreement of the parties, as a complete and final integration thereof with respect to its subject matter. All understandings and agreements heretofore had between and among the parties are merged into this Agreement, which alone fully and completely expresses their understandings. No representation, warranty, or covenant made by any party which is not contained in this Agreement or expressly referred to herein has been relied on by any party in entering into this Agreement.
2. **Amendment in Writing:** This Agreement may not be amended, modified, altered, changed, terminated, or waived in any respect whatsoever, except by a further agreement or change order, in writing, properly executed by all of the parties.
3. **Binding Effect:** This Agreement shall bind the parties and their respective personal representatives, heirs, next of kin, legatees, distributees, successors, and assigns.
4. **Captions:** The captions of this Agreement are for convenience and reference only, are not a part of this Agreement, and in no way define, describe, extend, or limit the scope or intent of this Agreement.
5. **Construction:** This Agreement shall be construed in its entirety according to its plain meaning and shall not be construed against the party who provided or drafted it.
6. **Mandatory and Permissive:** "Shall," "will," and "agrees" are mandatory; "may" is permissive.
7. **Governing Laws:** The laws of the State of Alabama shall govern the validity of this Agreement, the construction of its terms, the interpretation of the rights, the duties of the parties, the enforcement of its terms, and all other matters relating to this Agreement.
8. **Ownership of Contract Documents:** The Contract Documents, and copies of parts thereof, are furnished and owned either by the City or the design professional. All portions of the Contract Documents, and copies of parts thereof, are the instruments of service for this Project. They are not to be used on other work and are to be returned to the City on request at the completion of the Project. Any reuse of these materials without specific written verification or adaptation by the City will be at the risk of the user and without liability or legal expense to the City or Engineer/Architect. Such user shall hold the City and Engineer/Architect harmless from any and all damages, including reasonable attorneys' fees, from any and all claims arising from any such reuse. Any such verification and adoption shall entitle the City to further compensation at rates to be agreed upon by the user and the City.

E. Rules of Construction: For the purposes of this contract, except as otherwise expressly provided or unless the context otherwise requires:

1. Words of masculine, feminine or neuter gender include the correlative words of other genders. Singular terms include the plural as well as the singular, and vice versa.
2. All references herein to designated "articles," "sections," and other subdivisions or to lettered exhibits are to the designated articles, sections and subdivisions hereof and the exhibits annexed hereto unless expressly otherwise designated in context. All article, section, other subdivision and exhibit captions herein are used for reference only and do not limit or describe the scope or intent of, or in any way affect this agreement.
3. The terms "include," "including," and similar terms shall be construed as if followed by the phrase, "without being limited to".
4. The terms "herein," "hereof," and "hereunder," and other words of similar import refer to this agreement as a whole and not to any particular article, section, other subdivision or exhibit.
5. All recitals set forth in, and all exhibits to, this agreement are hereby incorporated in this agreement by reference.
6. No inference in favor of or against any party shall be drawn from the fact that such party or such party's counsel has drafted any portion hereof.
7. All references in this agreement to a separate instrument are to such separate instrument as the same may be amended or supplemented from time to time pursuant to the applicable provisions thereof.

F. Construction Manager - Multiple Trade Contracts: If indicated in the Advertisement for Bids, the City has elected to engage the services of a Construction Manager for the work on this Project. If so, the same will be indicated in the bid packages and special supplemental conditions will be attached in regard to trade contracts. Contractor, as one of the multiple trade contractors on the Project shall adhere to all terms and conditions of the contract documents, particularly the supplemental conditions regarding multiple trade or multiple prime contractors. Any provision of the general conditions in direct conflict with the supplemental conditions is superseded to the extent of the conflict. If using a Construction Manager format, then this shall be a multiple trade or multiple prime contract agreement subject to the supervision and direction of a Construction Manager, in accordance with the terms and provisions of the Construction Manager's agreement with the City, which agreement is adopted herein by reference.

G. Coordination of Plans, Specifications, etc.: The specifications, the plans, drawings and all supplementary documents are essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to be comprehensive to describe and provide a complete work. In case of discrepancy, figured dimensions shall govern.

H. Corrections of Plans, etc.: Should any portions of the plans, specifications or drawings be obscure or in dispute, they shall be referred to the Engineer/Architect and he shall decide as to the true meaning and intent. The Engineer/Architect shall also have the right to correct any errors or omissions at any time when such corrections are necessary for the proper fulfillment of said plans and specifications.

I. Taxes and Charges: Except to the extent the City and the Contractor are utilizing a "Purchasing Agent Appointment agreement," Contractor shall withhold and pay all sales and use taxes and all withholding taxes, whether local, state or federal and pay all Social Security taxes and also all State Unemployment Compensation taxes, and pay or cause to be withheld, as the case may be, any and all taxes, charges, or fees or sums whatsoever, which are now or may hereafter be required to be paid or withheld under any laws. Pursuant to Ala. Code §39-1-3 (1975), Contractor shall be reimbursed for any additional severance, sales or uses taxes incurred as a result of an increase in such taxes during performance of the contract.

J. Shop Drawings and Submittals. The Contractor shall submit shop drawings, samples and submittals depicting or representing the construction of portions of the Project in accordance with the plans and specifications to the Engineer/Architect and if there is no Engineer or Architect on the Project, to the City representative. The

Contractor shall pay for or the cost may be withheld from payments to the Contractor for more than two (2) reviews of the shop drawings, samples or submittals or similar element of work by the Engineer, Architect or City representative.

K. **Alabama Immigration Law.** By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom, to the extent allowed by Federal law.

L. **Compliance with Affordable Health Care Act.** By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal compliance laws pertaining to the Affordable Health Care Act. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom, to the extent allowed by Federal law.

ARTICLE II. PAYMENTS, CLAIMS AND CHARGES, ETC.

A. **Contract Price:** The City will pay and the Contractor will accept in full consideration for the performance of the work/Project, subject to additions and deductions (including but not limited to liquidated damages) as provided in the contract documents and herein, the sum of ONE MILLION, TWENTY-ONE THOUSAND, FIVE HUNDRED EIGHT DOLLARS & 57/100 (\$1,021,508.57) and/or in unit prices as shown in Bidder's schedule for the base bid amount of \$1,021,508.57, being the amount of the Contractor's bid as awarded by the City.

B. **Estimated Quantities and Unit Prices:** If award was made in whole or in part based upon unit prices, the Contractor agrees that the prices given in the Proposal are unit prices. The estimated quantities as stated in the Advertisement for Bids and in the Proposal and as indicated on the plans or in other places are approximate only, are subject either to increase or decrease and are only for the purpose of comparing on uniform basis the bids offered for the Project under this contract. The Contractor further agrees that should the quantities of any of the items of the work be increased, he will do the additional work at the unit prices set out in the Proposal and should the quantities be decreased, payment will be made on actual quantities at the unit prices and he will make no claim for anticipated profits for any decrease in the quantities. Actual quantities will be determined upon completion of the Project.

C. **Overtime Work by Contractor:** If the Contractor for his convenience and at his own expense should desire to carry on his work at night or outside regular hours, he shall submit written notice to the Engineer/Architect and he shall allow ample time for satisfactory arrangements to be made for inspecting the work in progress. At no time shall the notice be given less than 24 hours before such overtime work is started. The Contractor must obtain, through the Engineer/Architect, the City's approval for work at night, on Saturdays, Sundays or legal holidays. The Contractor shall light the different parts of the Project as required to comply with all applicable federal and state regulations and with all applicable requirements of the City.

Overtime hours shall be considered any hours worked by the Contractor on Saturday, Sunday and legal holidays, which in the Engineer/Architect's opinion requires the Engineer/Architect's resident observers' presence to observe such overtime work. Overtime hours requiring the presence of City inspectors shall be considered any hours worked by the Contractor in excess of eight (8) hours during any working day and/or in excess of forty (40) hours from Monday through Friday and/or any time on Saturday, Sunday or legal holiday. In general, it should be expected that the Engineer/Architect's resident observer(s) or City's inspectors will be present at all times that the Contractor is working.

If the Contractor elects to schedule and perform overtime work, the Contractor shall pay the City for the City's resident inspector's salary plus costs for each hour of overtime work. Overtime shall be rounded up to the nearest whole hour. This amount shall include the inspector's salary at overtime rate, labor additive, which includes

insurance, social security, workmen's compensation, sick pay, paid holidays, vacation pay and his vehicle and equipment. Payment to the City shall be made by a deduction from the Contractor's monthly payment invoice for any overtime worked.

D. Payments on Account/Payments Withheld/Retainage: Upon presentation of a verified application for payment, which shall include a "Contractor's Affidavit of Payment of Debts and Claims," AIA Form G706 or equivalent, then usually by the fifteenth (15th) day of each calendar month or as soon thereafter as is practical, as the Project progresses, the City shall make partial payments to the Contractor of the billable work performed less payments already made and less deductions for any incomplete, unaccepted or defective work. In making partial payments to the Contractor, there shall be retained five (5%) percent of the estimated amount of work done and value of materials stored on the site or suitably stored and insured off-site. Provided; however, after fifty (50%) percent of the Project has been satisfactorily completed, no further retainage will be withheld.

Retainage shall be held until final completion and acceptance of all work covered by the Contract Documents unless escrow or deposit arrangements are agreed to by the City. When maintenance periods are included in the Contract Documents covering highways, bridges or similar structures, such period shall be considered a component part of the contract and retainage will be held until the expiration of such periods.

On completion and acceptance of each separate building, public work or other separately identifiable and complete division of the Project in regard to which a separate price has been stated in the Contract Documents or can be separately ascertained, payment may be made in full including retainage but less deductions. Provided; however, the City will not consider making such payment on any such item of work if it is an integral part of a complete project.

All materials and work covered by partial payments as provided for herein shall become the sole property of the City; provided, however, the Contractor shall not be relieved from the sole responsibility for the care and protection of materials and work upon which payments have been made and for the restoration of any damaged work.

The City may also withhold from time to time from payment to the Contractor such an amount or amounts as may be necessary to pay and fully satisfy all claims and demands for labor and services rendered in and about the Project, including any such amount or amounts due to be paid to or by any subcontractor or supplier, amounts for City's or Engineer/Architect's observers or inspectors for contractors' overtime as herein provided, or for engineering or design services associated with Contractor initiated change orders or submittals in excess of that permitted herein. The Contractor hereby authorizes the City as its agent, to apply such amounts so withheld to the payment of any amount so due to be paid and all other just and lawful claims other than claims for damages for tort. In case of disagreement with reference to any such claim or claims, the City may keep such amounts so withheld on account of such claim or claims until such disagreement is finally settled and determined.

In addition, the City may also withhold payment of the whole or any part of a verified or approved application for payment from the Contractor to such an extent as may be necessary to protect itself from loss on account of any of the following causes discovered subsequent to its verification or approvals:

1. Defective work.
2. Evidence indicating probable filing of claims by other parties against the Contractor.
3. Failure of the Contractor or subcontractor to promptly make payments to subcontractors or for materials, labor, food stuffs and supplies.
4. Damage to another contractor under separate contract with the City.
5. Assessment of liquidated damages.

When the above grounds are removed, applications for payment will then be verified and/or approved for amounts not previously verified and approved because of them.

The Contractor shall not attempt to withdraw at any time during the term of this contract or any extensions thereof, without the expressed written consent of the City, the whole or any part of the amounts so retained by the City from payments due the Contractor by the establishment of an escrow account or by depositing securities in lieu thereof, pursuant to Ala. Code §39-2-12(e) or (f), or any amendments thereto or any equivalent law, ordinance or regulation. It is expressly agreed between the parties hereto that should the City elect not to consent to the same, then the Contractor shall not elect to, attempt to or in any manner endeavor to withdraw such retained amounts.

E. **Claims for Extra Cost:** If the Contractor claims that any instructions by drawings or otherwise involve extra cost or any extension of time, he shall notify the City in writing within ten (10) days after the receipt of such instructions and in any event before proceeding to execute the Project. Thereafter, the procedure shall be the same as that for change orders. No such claim shall be valid unless made in accordance with the terms of this section. There shall be no damages for delay.

Except as otherwise herein provided, no charge for any extra work will be allowed unless the same has been duly authorized in writing by the City and the price stated in such order.

F. **Differing Site Conditions:** If, in the performance of the Contract, subsurface or latent conditions are found to be materially different from those indicated by the plans and specifications, or unknown conditions of an unusual nature are disclosed differing materially from conditions usually inherent in work of the character shown and specified, the Contractor shall immediately notify the Engineer/Architect in writing regarding such conditions but in no event later than forty-eight (48) hours after discovery of such conditions by the Contractor.

The written notice shall describe the conditions, and other pertinent information, in no event shall such notice be later than forty-eight (48) hours before such conditions are disturbed. Upon such notice, or upon such observation of conditions, the Engineer/Architect will promptly make such changes in the plans and/or Specifications as he finds necessary (if any are necessary) to conform to the different conditions, and any increase or decrease in the cost of the Project resulting from such changes may be adjusted as provided under Change Orders or Claims for Extra Cost as set forth in the Contract documents.

G. **Change Orders:** Change orders shall be allowed only under the following conditions: 1) Minor changes for a total monetary amount less than that required for competitive bidding; or 2) Changes for matters incidental to the original contract necessitated by unforeseeable circumstances arising in the course of work under the contract; or 3) Changes due to emergencies; or, 4) Changes provided for in the original bidding and original Contract Documents as alternates; 5) Changes of relatively minor items not contemplated when the plans and specifications were prepared and the Project was bid and which are in the public interest and generally do not exceed 10 percent of the Contract Price, subject to Alabama Bid Law exceptions.

The Contractor or successful bidder is expected to complete the Project as bid and specified within the financial parameters stated therein. However, if it shall be determined that a change order condition possibly exists in any given case during the performance of the contract, the Contractor shall promptly notify in writing the representative of the City and shall not implement such change until having notified the representative of the City. If the change is minor in the opinion of the representative of the City and does not involve, 1) an adjustment in the contract sum or construction bid price, or 2) result in extension of the contract time, or 3) a material change in the contract scope of services, then the City representative may authorize the change in writing to the Contractor. The Contractor shall not perform such change until receipt of such written change order.

In the event the change order requested by the Contractor involves, 1) an increase in the contract sum or construction bid price, 2) extend the contract time, or 3) materially change the Contractor's scope of work or services,

then the Contractor shall request a change order in writing and present the same to the City representative. The representative of the City, shall determine whether this is a change order which can be allowed and, if so, what exception it would fall under. The representative of the City shall then document the same, attach the same to the Contractor's request for a change order and submit the same with his recommendation to the City Council at its next or any subsequent regularly scheduled Council meeting for approval.

The City reserves the right to institute change orders as the Owner pursuant to the aforesaid terms and conditions.

In no event is a change order to be executed by the Contractor prior to approval thereof by the City, except for emergencies.

H. **Determination of Adjustment of the Contract Sum:** The adjustment of the Contract Sum resulting from a change in the Work shall be determined by one of the following methods as determined by Owner:

1. By mutual agreement to a lump sum based on or negotiated from an itemized cost proposal from the Contractor.
2. Additions to the Contract Sum shall include the Contractor's direct costs plus a maximum 15% markup for overhead and profit. Where subcontract work is involved, the total mark-up for the Contractor and a subcontractor shall not exceed 25%. No allowance for overhead and profit shall be figured on a change which involves a net credit to the Owner. For the purposes of this method of determining an adjustment of the Contract Sum, "overhead" shall cover the Contractor's indirect costs of the change, such as the cost of bonds, superintendent and other job office personnel, watchman, job office, job office supplies and expenses, temporary facilities and utilities, and home office expenses.

I. **Construction Schedule and Periodical Estimates:** Immediately after execution and delivery of the contract and before the first partial payment is made, the Contractor shall deliver to the City and Engineer/Architect and Construction Manager, a construction schedule in a form satisfactory to the City or Construction Manager, which may include CPM for all major trades, showing the proposed dates of commencement and completion of each of the various activities, of work required under the Contract documents, the interrelationship of each activity, sequences, resources for each and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule. The Contractor shall also furnish (1) a detailed estimate giving a complete breakdown on the contract price and (2) periodical itemized estimates of the work done for the purpose of making partial payments, however the same will not be considered as fixing a basis for additions to or deductions from the contract price. Scheduling is particularly critical if Contractor is a trade contractor and adherence to the Construction Manager progress schedule is required.

NOTE: Depending upon the complexity of the work the City may require CPM or equivalent meeting all criteria above.

J. **Sales and Use Tax Savings:** Pursuant to the invitation for bids, sales and use taxes are not to be included in the bid. The project will be administered in compliance with the State of Alabama Act 2013-205, Certificate of Exemption from Sales and Use Tax for Governmental Entities, regarding sales and use taxes. The Contractor shall be responsible for obtaining a certificate of exemption from the Alabama Department of Revenue for purchases of materials and other tangible property made part of the project. Any subcontractors purchasing materials or other tangible personal property as part of the project shall also be responsible for obtaining a certificate of exemption. The estimate sales and use tax saving must be accounted for on the bid proposal. Failure to provide the estimated sales and use tax savings may render the bid as non-responsive. Other than determining responsiveness of the bid, sales and use tax accounting shall not affect the bid pricing nor shall be considered in the determination of the lowest responsible and responsive bidder

ARTICLE III. TIME

A. **Time for Completion/Delays:** The Contractor hereby agrees to commence work under this contract on the date to be specified in a written "Notice to Proceed" of the Engineer/Architect or thirty (30) days from the date of contract execution if no notice is issued, and to fully complete the Project within 150 consecutive calendar days thereafter. If this is a trade contract, then the Contractor shall perform within the time periods and at the times as established by the Construction Manager's approved construction schedule for the project. The Contractor further agrees to pay to the City, liquidated damages for each consecutive calendar day thereafter as hereinafter provided. Time is of the essence and a material element to this agreement.

NOTE: When maintenance periods are included in the contract for highways, bridges or similar structures, such periods shall be considered component parts of the contract. To the extent the construction schedule contains "float," the parties agree that the same belongs to the Project and may be utilized by either party.

Delay: If the Contractor is delayed at any time in the progress of work by any of the following causes, the Contractor may be entitled to a reasonable extension of time as determined by the City in which to complete the Project. Provided, however, no such delay nor the extension of time if granted shall be grounds for a claim by the Contractor for damages or for additional cost, expenses, overhead or profit or other compensation:

1. Fires, abnormal floods, tornadoes or other cataclysmic phenomenon of nature.
2. Strikes, embargoes, lockouts, war, acts of public enemy.
3. Change orders.
4. Acts of performance or delays in performance by other contractors employed by the City or their subcontractors.
5. Causes beyond the control of the Contractor.

Provided further, that the Contractor shall immediately give notice in writing to the City and follow extension of time procedures as provided for herein. The City expressly disclaims any liability to Contractor for any cost, expense or damage caused by other contractors, subcontractors or suppliers, including those engaged by the City. The City shall not be liable for damages or cost to the Contractor sustained due to any interference from utilities or appurtenances or from the operations of relocating the same.

B. **Extensions of Time:** All written requests for extensions of time must be submitted to Engineer/Architect within ten (10) days after the occurrence of the cause for delay. The Engineer/Architect shall ascertain the facts and the extent of the delay and shall recommend to the City Council whether it should extend the time for completing the Project. Any extension of time shall be in writing and processed as a change order.

For change orders requesting extensions of time due to rain, wind, flood or other natural phenomenon, the Contractor's written request must be accompanied, at the City's request, by a detailed report of weather at this site for the last ten (10) years with averages showing means and statistical deviations from mean averages to support request for extension.

No extension shall be made for delays due to rain, wind, flood or other natural phenomenon of normal intensity for the locality.

In the event any material changes, alterations, or additions are made as herein specified, which in the opinion of the Engineer/Architect will require additional time for execution of any work under the contract, then in that case, the time of the completion of the Project may be extended through change order. No extensions of time shall be given for any minor changes, alterations or additions. The Contractor shall not be entitled to any reparation or compensation on account of such additional time or extensions of time. To the extent that the construction schedule contains "float," the parties agree that the same belongs to the Project and may be utilized by either party.

C. **Right of the City to Terminate Contract:** If the Contractor should be adjudged as bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed for the Contractor or any of its property, or if it should persistently or repeatedly refuse or fail to supply enough properly skilled workmen or if it should refuse or fail to make prompt payment to persons supplying labor for the Project under the Contract, or persistently disregard instructions of the Engineer/Architect or fail to observe or perform any provisions of the Contract documents, or fail or neglect to promptly prosecute or perform the Project in accordance with the contract documents or otherwise be guilty of a substantial violation of any provision of the Contract documents, then the City may, on giving at least thirty (30) days' written notice to the Contractor, without prejudice to any other rights or remedies of the City in the premises, terminate the Contractor's right to proceed with the Project. In such event, the City may take over the Project and prosecute the same to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any and all excess cost occasioned to the City thereby, including attorney's fees; and in any such case, the City may take possession of and utilize in completing the Project such appliances and plant of the Contractor or its subcontractors as may be on the site work and necessary or useful thereof. In the event of termination, the same shall not relieve the Contractor nor any of its sureties of their obligation pursuant to this agreement. In the event it becomes necessary for the City to maintain any legal action against the contractor, to enforce its rights herein, the Contractor shall pay the City all expenses associated therewith including a reasonable attorney's fee.

Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement. Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, (2) such other costs actually incurred by Contractor as are permitted by the prime contract and approved by Owner; (3) plus ten percent (10%) of the cost of the work referred to in subparagraph (1) above for overhead and profit.

D. **Liquidated Damages:** Should the work under this contract not be completed within the time specified, scheduled or as extended, it is understood and agreed that there may be deducted by the City or Engineer/Architect from the partial and/or final payments to the Contractor or otherwise charged to the Contractor, a sum computed at the rate of Two Hundred Dollars (\$200.00) per day beginning from the stated or extended date of completion and continuing for so long as the Project remains incomplete. It is understood and agreed that the above deduction is not a penalty, but money due to reimburse the City/Owner for inconvenience and damage to the general public, due to the delay in the completion of the Project and is reasonable. The collection of liquidated damages by the City shall not constitute an election or waiver by the City of recovery of additional delay or non-delay related damages from the Contractor, and the City expressly reserves the right to recover actual damages for other harms resulting from delay. The provisions of the liquidated damage clause shall apply and continue to apply even if the Contractor terminates or abandons the Project prior to the scheduled completion dates.

The amounts of such liquidated damages and actual damages incurred by reason of failure to complete the work stipulated in the Contract are hereby agreed upon as reasonable estimates of the costs which may be accrued by the City. It is expressly understood and agreed that these amounts are not to be considered in the nature of penalties, but as damages which have accrued against the Contractor. The City shall have the right to deduct such damages from any amount due, or that may become due the Contractor, or the amount of such damages shall be due and collectible from the Contractor or Surety.

ARTICLE IV. WORK AND MATERIALS

A. **Cooperation of Contractor:** The Contractor shall have available on the job site, at all times, at least one (1) copy of the plans and specifications if prepared for the Project.

He shall give the Project the constant attention necessary to facilitate the progress thereof and shall cooperate with the City, Engineer/Architect and with other Contractors in every way possible. The Contractor shall at all times have a superintendent, capable of acting as his agent on the Project, who shall receive communications from the Engineer/Architect or his authorized representatives or the City's authorized representative. The superintendent shall have full authority to give and execute orders relating to the Project without delay and to promptly supply such tools, plant equipment, materials and labor as may be required.

The City reserves the right to utilize its own forces on the site or those of another contractor and to communicate through its representative directly with the Contractor.

B. Coordination - Trade Contractors: If the supplemental conditions are attached to these general conditions indicating that this Project involves the use of multiple trade or multiple prime contractors under the supervision and direction of a Construction Manager employed by the City, then each such trade contractor shall cooperate and coordinate its construction activities and operations with those of other trade contractors and other entities involved in the Project and included under different sections of the specifications that are dependent upon each other in any manner for proper and correct installation, connection and operation, to assure efficient, prompt, orderly and proper installation of each part of the Project.

When utilizing trade contractors and/or multiple prime contractors under the supervision of Construction Manager cooperation and coordination of activities is extremely important. Refer to the provisions of the supplemental conditions for detailed requirements.

C. Superintendence: The Contractor shall assign to and keep at the Project site competent supervisory personnel. The Contractor shall designate, in writing, before starting work, an authorized representative who shall be an employee of the Contractor and shall have complete authority to represent, to receive notice for, and to act for the Contractor. The Contractor shall not permit or allow any work to be conducted upon the Project site without the presence of supervisory personnel. The Engineer/Architect shall be notified in writing prior to any change in superintendent assignment. Using his best skill and attention, the Contractor shall give efficient supervision to the Project. The Contractor shall be solely responsible for all construction means, methods, techniques, and procedures, for providing adequate safety precautions, and for coordinating all portions of the Project under the Contract. It is specifically understood and agreed that neither the Engineer/Architect nor the City shall not have control or charge of and shall not be responsible for the construction means, methods, techniques, or procedures, or for providing adequate safety precautions in connection with the Project under the Contract.

D. Contractor's Tools and Equipment: The Contractor's tools and equipment used on the Project shall be furnished in sufficient quantity and of a capacity and type that will adequately and safely perform the work specified, and shall be maintained and used in a manner that will not create a hazard to persons or property, or cause a delay in the progress of the Project.

E. Furnishing Labor and Equipment: The Contractor shall furnish and pay for all equipment, labor and supervision, and all such materials as required to be furnished in the Notice to Bidders and as may other-wise be necessary to the completion of the Project and the operation of each construction crew required.

F. Employees: The Contractor shall employ only competent, skillful workers on the Project, and whenever any person shall appear to be incompetent or to act in a disorderly, unsafe improper manner, such person shall promptly be removed from the Project by the Contractor.

G. Materials and Appliances: Unless otherwise stipulated, the Contractor shall provide and pay for all other materials, water, heating, lighting, fuel, power, transportation, machinery, appliances, telephone, sanitary facilities, temporary facilities and other facilities and incidentals necessary for the execution and completion of the Project.

The Contractor warrants to the City and the Engineer/Architect that, unless otherwise specified, all materials and equipment furnished under this contract shall be new, and both workmanship and materials shall be of good quality, free of faults and defects, and in conformance with the Contract Documents. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials. In selecting and/or approving equipment for installation in the Project, neither the City nor Engineer/Architect assume responsibility for injury or claims resulting from failure of the equipment to comply with applicable federal, state, and local safety codes or requirements, or the safety requirements of a recognized agency, or failure due to faulty design concepts, or defective workmanship and materials. Material and/or equipment damaged by flooding or other causes during the construction period shall be subject to rejection by the Engineer/Architect; reconditioning and/or repairing material and/or equipment is not acceptable.

H. **Asbestos and Hazardous Materials:** Unless specifically authorized and instructed to the contrary by the City, the Contractor shall not permit, allow, place, install or incorporate into the Project or upon the work site, any hazardous material(s), including, but not limited to, any products or materials that contain asbestos in any quantity. It shall be the responsibility of the Contractor to inspect all materials and products delivered for incorporation or installation in the Project to ensure that they contain no hazardous materials or asbestos. Where the Contractor or any subcontractor has or should have a reasonable suspicion that any product or material contains asbestos or other hazardous material, the Contractor shall immediately inspect the material or product, obtain a product or material data sheet, and notify the City's representative prior to installation or incorporation of the same into the Project. Any product or material determined to contain asbestos or other hazardous material shall be removed from the Project immediately and properly disposed of as required by law. Products or material to which the contractor should pay particular attention to avoid the presence of asbestos incorporated therein include, but are not limited to the following: concrete, batt insulation, roof insulation, building felts, mastics, water proofing products, adhesives, resilient flooring products, ceiling tiles, interior coatings, exterior coatings, roofing, pipe installation, duct installation and pre-assembled items of equipment.

At the completion of the Project, the Contractor shall submit a duly executed Asbestos Affidavit in the form as attached hereto prior to final payment.

The Contractor is responsible for insuring that all of its employees and subcontractors are adequately trained to handle hazardous materials in accordance with 49 CFR §172(g).

I. **Protection of Work and Property:** The Contractor shall furnish and install all necessary temporary works for the protection of the Project. The Contractor shall at all times adequately maintain, guard and protect his own work from damage, and safely guard and protect private, commercial, industrial, the City's and others' property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the plans or specifications or caused by agents or employees of the City.

The Contractor shall protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site which are not required to be removed or do not unreasonably interfere with construction, as may be determined by the Engineer/Architect, and be responsible for all cutting or damaging of trees and shrubs or grassed areas, including damage due to careless operation of equipment, stockpiling of materials or equipment.

Care shall be taken by the Contractor in felling trees that are to be removed to avoid any unnecessary damage to vegetation or other trees that are to remain in place. Any limbs or branches unavoidably broken during such operations shall be trimmed with a clean cut and painted with an approved tree priming compound. The Contractor may be required to replace or restore at his own expense all vegetation not protected and preserved, as above required, that may be destroyed or damaged.

The Contractor shall provide and maintain all passageways, guard fences, lights, and other facilities required for protection by federal, state or municipal laws and regulations or local conditions.

The Contractor shall comply with local and state regulations governing the operation of premises which are occupied and shall perform the contract in such a manner as not to interrupt or interfere with the operation of other facilities.

The Contractor shall store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the Project as will not unduly interfere with the progress of his work or the work of any other contractor.

Necessary crossings of curbs, sidewalks, roadways or parkways shall be protected against damage and any damage shall be repaired by or at the expense of the Contractor.

The Contractor shall not place upon the Project or any part thereof, loads inconsistent with the design or safety of that portion of the Project.

The Contractor shall provide and maintain access to all public and private properties at all times and be responsible for any damage caused by his operation to existing driveways, yards, streets, parking lots, utilities, railroads, etc., and such damage shall be corrected at the Contractor's expense. Roadways authorized closed by State or Local authorities shall be maintained to provide access to all fire, police, and other emergency vehicles and all individuals having private property in the closed area. The Contractor shall notify at least 24 hours in advance the Fire, Police, and Transportation Departments having local jurisdiction, the Owner and any other individuals, businesses, or agencies that may be affected.

J. Protection of Existing Utilities. Contractor shall be responsible for any damage to existing structures or the interruption of any utility services which shall be repaired or restored promptly by and at the expense of the Contractor.

To that extent, the Contractor shall provide whatever measures are necessary to properly protect and maintain all existing utilities encountered in the course of the work. The Contractor shall be exclusively responsible to the utility owner for any and all damages to the various utilities caused by the Contractor's actions or lack of actions to adequately protect the same.

The Contractor shall determine the exact location of all existing utilities before commencing work and agrees hereby to be fully responsible and liable for any and all damages which might occur by his failure to exactly locate and/or preserve the location of any and all underground or overhead utilities. The Contractor shall be solely and directly responsible to the utility owner for any and all damages to the various utilities, caused by the Contractor's actions or lack of actions to adequately protect such utilities. If any utilities are to be affected during the course of construction, the Contractor shall so notify the owners thereof at least seventy-two (72) hours prior to any such construction activity. The Contractor shall fully cooperate and coordinate with all utility owners in the event of an interruption to any utility service. The cost for locating, uncovering and protecting underground and/or overhead utilities is included within the Contractor's bid price for various other items of work.

The Contractor shall maintain all storm sewers, drains and/or ditches so that flow is not disturbed or impeded. The Contractor shall protect storm drains, inlets and/or ditches, lawns, landscaping and other facilities, from damage during the testing, and flushing.

K. Limiting Exposures: The Contractor shall prosecute the work on the Project to insure that no part of the construction, complete or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to the following:

Excessive static or dynamic loading
Excessive internal or external pressures
Excessively high or low temperatures
Thermal shock
Excessively high or low humidity
Air contamination or pollution
Water or ice
Solvents
Chemicals
Light
Puncture
Abrasions
Heavy traffic
Soiling, staining and corrosion
Bacteria

Rodent and insect infestation
Combustion
Electrical Current
High speed operation
Improper lubrication
Unusual wear or other misuse
Contact between incompatible materials
Destructive Testing
Misalignment
Excessive weathering
Unprotected storage
Improper shipping or handling
Theft
Vandalism

The Contractor shall minimize dust and air pollution through the use of water or other devices, require the use of properly operating combustion emission control devices and by encouraging the shutdown of construction vehicles when not in use.

L. **Safety:** The completed Project shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items as may be appropriate or required by law. Further, any feature of the Project (including City-furnished or City-selected equipment) subject to such safety regulations shall be fabricated, furnished, and installed in compliance with these requirements. Contractors and manufacturers of equipment shall be held responsible for compliance with the requirements included herein. Contractors shall notify all equipment suppliers and subcontractors of the provisions of this Article.

In selecting and/or accepting equipment for installation in the Project, neither the City nor Engineer/Architect assume responsibility for any personal injury, property damage, or any other damages or claims resulting from failure of the equipment to comply with applicable safety codes or requirements, or the safety requirements of a recognized agency, or failure due to manufacturer's faulty design concepts, or defective workmanship and materials. The Contractor shall indemnify and hold the City, Program Coordinator, and Engineer/Architect harmless against any and all liability, claims, suits, damages, costs, or expenses without limitation arising out of the installation or use of such equipment.

The Contractor shall take all necessary precautions for the safety of employees on the Project and shall comply with all applicable provisions of federal, state, and municipal safety laws and building codes to prevent accidents or injury to persons on or about or adjacent to the premises where the Project is being performed. He shall erect and properly maintain at all times, as required by conditions, and progress of the Project, all necessary safeguards for the protection of workmen and the public, and shall post danger signs warning against the hazards created by features of construction and the site.

Machinery, equipment and all hazards shall be guarded or eliminated in accordance with the State Accident Prevention in Construction provisions to the extent that such provisions are not in contravention with applicable laws.

The Contractor shall do whatever work is necessary for safety and be solely and completely responsible for conditions of the jobsite, including safety of all persons (including but by no means limited to the public, site personnel, visitors, or employees) and property during the Contract period. The contract period shall include any subsequent warranty or other period associated with Project deficiency or repair and all hours including, and in addition to, normal working hours.

Safety provisions shall conform to the Federal and State Departments of Labor and the Occupational Safety and Health Act (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified in other parts of these Contract Documents. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.

The Contractor shall at all times provide proper facilities for safe access to the work by authorized government officials (federal, state, county and local) and representatives of the Owner.

M. Traffic Control: The Contractor shall be responsible for traffic control, including plan and devices to the extent the same is required due to work in, upon or in proximity to public right-of-way, streets, roads or vehicular traffic. The traffic control plan and all traffic control devices shall conform at a minimum to the Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, Federal Highway Administration. A copy of which is on file in the office of the City of Tuscaloosa Director of the Department of Transportation for examination. Copies may be obtained from the Alabama Department of Transportation. Should the appropriate public authority determine a greater degree of traffic control is required, then the Contractor shall promptly provide same. The Contractor shall submit a plan to the City Engineer for approval before commencing construction.

Reasonable means of ingress and egress by vehicular and/or pedestrian traffic to property adjacent to the Project shall be maintained at all times. The Contractor shall indemnify and hold the City harmless for any claims or causes of action including but not limited to those for inverse condemnation and/or lost profits arising out of or in any manner associated with access to or the restriction or prevention thereof to adjoining property. Traffic control and erosion control is of paramount importance during the construction of this Project and the terms and conditions in the contract documents in regard to these matters must be strictly adhered to.

N. Responsibility to Act in Emergency: In case of an emergency which threatens loss or damage to property, and/or safety, the Contractor shall act, without previous instructions from the City or Engineer/Architect, as the situation may warrant. The Contractor shall notify the Engineer/Architect thereof immediately thereafter. Any claim for compensation by the Contractor, together with substantiating documents in regard to expense, shall be submitted to the City through the Engineer/Architect. The claim will be handled in accordance with the provisions for extra work. However, if the emergency is created or aggravated by the Contractor, he shall be liable for the resulting damages. If the Contractor fails to take necessary action as required by such an emergency, the City may assign another Contractor or use his own forces to perform the emergency work. Costs or damages arising from the failure of the Contractor to act in an emergency may be deducted from the Contractor's request for payment.

O. Sanitary Regulations: The Contractor shall provide and maintain such sanitary accommodations for the use of his employees and those of his subcontractors as may be necessary to comply with the requirements and regulations of the local and State Department of Health. At a minimum, necessary sanitary conveniences for the use of the laborers on the work shall be erected and maintained by the Contractor, in such a manner and at such points as shall be approved by the Engineer/Architect. Their use shall be strictly enforced. In the Construction Manager format, the City may provide sanitary accommodations through the Construction Manager.

P. Cutting, Patching, etc.: Unless otherwise stated in the contract documents, the Contractor shall do all necessary cutting, fitting and patching of the Project that may be required to properly receive the work, to make its several parts join together properly, receive and provide for the work of various trades, and be received by the work of other contractors, or as required by drawings and specifications to complete the Project. After such cutting, he shall replace or restore or repair and make good all defective or patched work as required by the Engineer/Architect. He shall not cut, excavate or otherwise alter any work in any manner or by a method or methods that will endanger the Project, adjacent property, workmen, the public or the work of any other contractor. The Contractor shall check

the location of all sleeves, openings, slots, etc., for the piping, ducts, breeching, conduits, louvers, grills, fans, etc., as they are laid out on the job.

Provisions for openings, holes and clearances through walls, beams, floors, ceilings and partitions shall be made and checked by the Contractor and/or his subcontractor in advance of constructing such parts of the Project and unnecessary, superfluous or dangerous cutting shall be avoided.

Pipes passing through concrete or masonry walls shall be protected by pipe sleeves two sizes larger than the pipe, plus its installation to provide free movement.

Under no condition shall structural, framing or other parts or members subjected to computed stress be cut or disturbed without the approval of the Engineer/Architect. Any plates, studs or joists, and/or rafters that are approved to be cut to execute necessary work shall be securely strapped and braced to restore their strength by approved methods.

Unless otherwise indicated in Supplemental Conditions, all road crossings and/or driveways cut by the Contractor during the performance of the Project shall be returned to service as soon as possible and replaced or repaired within seven (7) calendar days.

All major thoroughfares must be repaired the same day as cut. The Contractor shall be responsible for the safety and welfare of the traveling public while construction work is being done and until the City accepts the Project.

The Contractor will replace at his own expense, all pipe and accessories that may be broken, damaged, stolen or lost and all materials that may become damaged, lost, stolen or misused.

The Engineer/Architect's approval shall be obtained before cutting or drilling holes in concrete or masonry that tend to damage or weaken the load capacity.

Q. Trailers: With the approval of the City or Engineer/Architect, the Contractor may park trailers or other structures for housing men, tools, machinery and supplies, but they will be permitted only at approved places and their surroundings shall be maintained at all times in a sanitary and satisfactory manner by the Contractor. On or before the completion of the Project, all such trailers or structures shall be removed, unless the City authorizes their abandonment without removal, together with all rubbish and trash, at the expense of the Contractor.

R. Construction Staking: If necessary, the Engineer or the City will furnish initial lines and grades to establish the initial horizontal and vertical control points and define the beginning and ending points of the Project. The Contractor is responsible for engaging the services of a qualified Engineer or land surveyor to replace and/or re-establish in accordance with the construction plans and/or specs, all construction stakes that are disturbed, displaced or destroyed during construction.

If the Contractor finds any errors or discrepancies with the construction staking or the criteria upon which it is based, he/she shall promptly notify the Owner's representative.

S. Periodic Cleanup: The Contractor shall periodically, at least weekly, or as requested during the progress of the Project, clean up and remove from the premises, all refuse, rubbish, scrap materials and debris caused by its employees or its subcontractors resulting from its work, to the end that all times the premises are sanitary, safe, reasonably clean, orderly and workmanlike. Trash and combustible materials shall not be allowed to accumulate inside buildings or elsewhere on the premises. At no time shall any rubbish be thrown from window openings, except during renovations with adequate precautions and into proper receptacles. The Contractor shall comply with all municipal litter and construction site ordinances.

Before the Project is considered as complete, all rubbish created by or in connection with the construction must be removed by the Contractor and the premises left in a condition by the Contractor satisfactory to the City. Street, curbs, crosswalks, pavements, sidewalks, fences and other public and private property disturbed shall be restored to their former condition or better, and final payment will be withheld until such work is finished by the Contractor.

Contractor shall conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. No burning or burying of rubbish or waste materials is permitted on the Project site. The Contractor shall dispose of any hazardous material in a safe manner, off site, in accordance with applicable laws and regulations and shall not dispose of volatile or hazardous waste in storm or sanitary sewer drainage ditches, streams or waterways.

Contractor shall periodically wet down dry materials and rubbish to lay dust and prevent blowing dust; and shall provide adequate and approved containers for collection and disposal of waste material, debris and rubbish, removing grease, dust, dirt, stains, labels, fingerprints and other foreign materials from exposed and semi-exposed surfaces.

T. **Termite Control.** If the Project involves construction of a building or if otherwise specifically required by the City, then the Contractor shall provide soil treatment for termite control under all interior slabs on grade and foundation walls, and as herein specified. Contractor shall also comply with manufacturer's instructions and recommendations for work, including preparation of substrate and application and shall engage a professional pest control operator, licensed in accordance with regulations of governing authorities for application of soil treatment solution and doing business in the state where the Project is located for a minimum of five (5) years.

Contractor shall not apply soil treatment solution until excavating, filling and grading operations are completed, except as otherwise required in construction operations. To insure penetration, the soil treatment will not be applied to frozen or excessively wet soils or during inclement weather. Contractor shall comply with all handling and application instructions of the soil toxicant manufacturer. The type of materials to be used for soil poisoning shall first be submitted to the City for approval.

The soil treatment solution shall be an emulsible concentrate insecticide for dilution with water, specially formulated to prevent infestation by termites. Fuel oil will not be permitted as a dilutant.

Contractor shall strictly comply with the Environmental Protection Agency's (EPA) rules and regulations governing chemicals and their use. Only soil treatment solutions which are not injurious to planting shall be used. Other solutions may be used as recommended by Applicator when acceptable to the EPA, local governing authorities, and the Engineer/Architect.

Contractor shall comply with the following requirements when applying the soil treatment solution:

1. Surface Preparation: Remove foreign matter which could decrease effectiveness of treatment on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and foundations. Toxicants may be applied before placement of compacted fill under slabs if recommended by toxicant manufacturer.
2. Under slab-on-grade structures, treat soil before concrete slabs are placed using either power sprayer or tank type garden sprayer.
 - (A) Apply 4-gallons of chemical solution per 10 linear feet to soil in critical areas under slab, including entire inside perimeter inside of foundation walls, along both sides at interior partition walls, around plumbing pipes and electric conduit penetrating slab, and around interior column footings.

- (B) Apply one gallon of chemical solution per 10 sq. ft. as an overall treatment under slab and attached slab areas where fill is soil or unwashed gravel. Apply 1-1/2 gallons of chemical solution to areas where fill is washed gravel or other coarse absorbent material.
 - (C) Apply 4 gallons of chemical solution per 10 linear feet of trench for each foot of depth from grade to footing, along outside edge of building. Dig a trench 6" to 8" wide along outside of foundation to a depth of not less than 12". Punch holes to top of footing at not more than 12" o.c. and apply chemical solution. Mix chemical solution with the soil as it is being replaced in trench.
3. Post signs in areas of application warning workers that soil poisoning has been applied. Remove signs when areas are covered by other construction.
 4. Reapply soil treatment solution to areas disturbed by subsequent excavation or other construction activities following application.

U. Erosion Control.

1. To the extent there has been issued by the City Engineer a land development permit in accordance with applicable ordinances, the Contractor shall conform to and abide by all terms and conditions of such permit.
2. Erosion control measures shall be performed on all disturbed areas in accordance with the BMPP included in the Notice of Intent and with Section 665, Alabama Highway Department Specifications. The CONTRACTOR will perform all erosion control measures necessary to prevent silt and soil from leaving construction area and entering private property or the "Waters of the State." Erosion control measures shall be in strict accordance with Alabama Non Point Source Management Program Document and EPA Storm Water Pollution Prevention for Construction Activities.
3. In accordance with Section 665 of Alabama Highway Department Specifications, temporary erosion control work shall involve the construction of temporary berms, dikes, drains, fences, dams, etc. with the use of temporary seeding, mulching, erosion control netting, hay bales, sandbags, check dams, etc., as necessary in order to prevent silt and soil from leaving rights-of-way and entering private property or from washing into drainage structures located on State or County rights-of-way. CONTRACTOR shall mow grassed areas as required during the construction phase of the contract.
4. Erosion control measures shall be maintained by the CONTRACTOR through the warranty period of the contract. If additional measures are required to correct problems which might occur, these shall be performed by the CONTRACTOR at no additional cost to the OWNER.
5. Materials used for erosion control measures shall be in accordance with Section 665.02 of Alabama Highway Department Specifications and shall include hay bales, sandbags, silt fencing rip rap, crushed stone, mulch or other materials necessary in order to accomplish erosion control.

V. Wastewater Containment and Management Plan. In accordance with ADEM Consent Order, NPDES permit NO. AL0022713, Tuscaloosa WWTP, Tuscaloosa County (125) dated September 8, 2009 and the "City of Tuscaloosa, Water and Sewer Department Engineering Report and Compliance Plan", December 2009; to the extent that construction activity by the Contractor involves any wastewater infrastructure or construction activities in close proximity to any wastewater infrastructure and/or to any City sanitary sewer assets the Contractor shall submit to the City Engineer, prior to commencing construction, a wastewater containment and management plan (the "Plan"). The Plan shall adequately address the means, methods and techniques to be employed by the Contractor for containing and transporting wastewater in a sanitary manner without, at any time, permitting the discharge of wastewater into the environment or creating the necessity of a State required sanitary sewer overflow report. The Plan shall be submitted by the Contractor to the Office of City Engineer for review and approval before commencing any construction activity. The City Engineer may waive the requirement of submitting a Plan if he/ she determines that the construction activity to which the Plan would relate does not involve any potential for the discharge of wastewater into the environment or creating the potential for the necessity of a State required sanitary sewer overflow report.

W. **Environmental Clause/Covenant.** Contractor shall not allow any toxic, hazardous or contaminated substances or gases (including, but not limited to, asbestos and raw materials which include hazardous constituents or any other similar substances or materials which are included under or regulated by any local, state, or federal law, rule or regulation pertaining to environmental regulations, contamination, clean-up or disclosure such as, without limitation, the Comprehensive Environmental Response Compensation and Liability Act of 1980 ("CERCLA"); the Clean Air Act (42 U.S.C. Sec. 7401 et seq.); the Clean Water Act (33 U.S.C. §1251 et seq.); the Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.); and the Toxic Substances Control Act (42 U.S.C. §2601 et seq.) or state environmental clean-up or disclosure acts and statutes as all such acts and statutes exist now or are hereafter amended (such acts and statutes referred to herein as "Environmental Laws")(such substances or gases referred to herein as 'Hazardous Substances') to be stored, located, or discharged on the premises without specific prior written consent of the City. Contractor shall comply with all Environmental Laws affecting the premises. Contractor covenants to hold the City, its officers, agents and employees harmless from and against any loss, costs, damage or expenses (including attorney's fees and expenses) arising out of the presence of Hazardous Substances (as hereinbefore described) on or about the premises or the violation of any Environmental Laws with respect thereto, the occurrence of which Hazardous Substances on the premises or the violation of any Environmental Laws shall have arisen solely from the acts or omissions of Contractor, its subcontractors, agents, invitees and employees. This indemnity shall survive the termination of this contract and shall inure to the benefit of the City of Tuscaloosa, its successors and assigns.

ARTICLE V. INSURANCE, LIABILITY, ETC.

A. Contractor's Insurance (Generally):

1. **Insurance Required.** The Contractor shall not commence work under this contract until it has obtained all insurance required by the Contract documents and such insurance has been accepted by the City. The Contractor shall maintain the required insurance during the term of the contract including any extensions of the term.

Insurance shall be written in comprehensive form by insurance companies rated A- or better by A. M. BEST and shall protect the Contractor and the City against claims for injuries to members of the public (including City employees) or damages to property of others (including City property) arising out of any act of the Contractor or any of its agents, employees or subcontractors and shall cover both on-site and off-site operations under this contract and insurance coverage shall extend to any motor vehicles or other related equipment, irrespective of whether the same is owned, non-owned or hired.

The obtaining and maintaining by Contractor and subcontractors of the insurance required herein does not relieve the Contractor of any responsibilities, obligations or duties to the City pursuant to this contract.

2. **Additional Insurance.** The Contractor shall have an insurance professional review the Contractor's activities in regard to the performance of this contract and the Contractor shall obtain any further or additional insurance or greater limits as recommended by the insurance professional.

3. **Insurance Limits.** Neither the setting of insurance limits or requirements nor the acceptance or approval of the same by the City imply or represent that the limits or the insurance carrier is sufficient or that such insurance actually has been obtained, that being the responsibility of the Contractor.

4. **Subcontractors.** The Contractor shall require all subcontractors to take out and maintain the type of insurance required herein to the extent of their involvement in the Project so as to be adequate to protect against liability. In the event any work under this Contract is performed by a subcontractor(s), the Contractor shall remain responsible for any liability directly or indirectly arising out of the work performed under this Contract, regardless of whether or not such work is covered by the subcontractor's insurance. The Contractor shall not allow any

subcontractor to commence work on the project until all similar insurance required of the subcontractor has been obtained. All subcontractors shall maintain required insurance during the term of the contract including any extensions of the term.

5. City's Right to Review Coverage. The City shall have the right to inspect and approve Contractor's insurance coverage herein required. Should the City deem it advisable to modify the coverage in any way, it shall so request of the Contractor in writing and should the Contractor fail to modify the coverage, then the City may pay the cost of any increased coverage or take credit for any decreases as may be appropriate. Review or acceptance of insurance by the City or representatives of the City shall not relieve or decrease the responsibility of the Contractor hereunder.

6. Waiver of Subrogation. To the extent that the Contractor is required to maintain insurance coverage for loss or damage to property or bodily injury, including Builders Risk All Risk insurance, the insurance must waive and the Contractor hereby waives subrogation of claims against the City, its officers, agents and employees.

7. City as Additional Insured. The City shall be named as additional insured , for ongoing and completed operations for up to two (2) years, on the Contractor's and any subcontractor's policies for any claims arising out of work performed under this Contract. The Contractor shall provide the City with a Certificate of Insurance naming the City as an additional insured using ISO for CG 2010 1185 (or a substitute form providing equivalent coverage) or on the combination of ISO forms CG 20 10 07 04 or CG 20 33 07 04 and CG 20 37 07 04 (or a substitute or ISO form providing equivalent coverage) naming the City as an additional insured , giving all parties a 30 notice of cancellation or intent not to renew the insurance, a waiver of subrogation and list any and all exclusions. The coverage available to the City as an additional insured shall not be less than \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate (subject to a per project general aggregate applicable to the project,), \$2,000,000 Products/completed Operations Aggregate, and \$1,000,000 Personal and Advertising injury limits. Additional insured coverage shall apply as primary, non contributory, insurance with any other insurance afforded to the City and the Contractor.

8. Elevators, Hoist and Cranes. If the Contractor or a subcontractor will utilize in connection with the performance of the work pursuant to this contract an elevator, material hoist, crane or other equipment, or conveyor, then the Contractor shall take out and maintain or require the subcontractor to take out and maintain insurance that shall protect the Contractor and the City against claims for injuries to members of the public (including City employees) or damages to property of others (including City property) arising out of any act of the Contractor or any of its agents, employees or subcontractors resulting from the operation of such elevator, material hoist, crane or other equipment, or conveyor.

B. Insurance:

1. Workmen's Compensation Insurance: The Contractor shall take out and maintain during the term or any extensions of this contract Workmen's Compensation Insurance as required by Alabama law for all of its employees employed at the site of the Project or off-sites related to the Project and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor.

In case any class of employees engaged in any work under this contract at the site of the Project is not protected under the Workmen's Compensation statute, the Contractor shall provide, and shall cause each subcontractor to provide, adequate accident insurance for the protection of its employees not otherwise protected.

Water or Navigational Exposure; Where work under this contract may trigger the requirement for Federal Longshoreman's and Harbor worker's Act and Federal Jones Act or insurance required by other applicable law or regulations, the Contractor shall obtain the same if required.

2. Comprehensive Automobile and Vehicle Liability Insurance: The Contractor shall maintain during the term or any extensions of this contract, comprehensive automobile and vehicle liability insurance. The limits of liability shall not be less than \$1,000,000 combined single limit or equivalent.

3. Commercial General Liability Insurance: The Contractor shall maintain during the term or any extensions of this contract, Commercial General Liability Insurance, including officers, agents and employees. The limits of liability shall not be less than \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate (subject to a per project general aggregate applicable to the project), \$2,000,000 Products/Completed Operations Aggregate, and \$1,000,000 Personal and Advertising Injury Limits Combined Single Limit or equivalent.

4. Owner's Protective Insurance: For projects with a contract amount of \$500,000.00 or greater, an Owner's Protective Policy is required in the minimum amount of \$1,000,000 each occurrence. Provided; however, the City may require such insurance on projects of lesser amount if an insurance limit amount is stated herein.

5. Umbrella Excess Liability Over Primary Insurance: The Contractor shall take out and maintain during the term of this contract, and any extensions thereof, Umbrella Excess Liability Insurance. The minimum limits of coverage shall be as follows:

Each Occurrence	\$ <u>1,000,000</u>
Aggregate	\$ <u>2,000,000</u>

The coverage shall be over the required general liability insurance and automobile liability insurance as a minimum. There shall be no gaps or sublimit deductibles, etc.

6. Miscellaneous Insurance: The Contractor shall provide whatever insurance may be required of the City or the Contractor by permits or agreements, etc., with the railroad, highways, or other utilities. The Contractor shall familiarize himself with all insurance requirements contained in easements, permits, and agreements associated with this Project. The Contractor shall provide any Railroad Protective Liability and other General Liability Insurance in the amounts contained in the agreements, permits or easements or in greater amounts if higher limits are appropriate or required elsewhere. The Contractor shall bear the cost of all required insurance and shall include in his bid a sufficient amount to cover the cost of all required insurance. To the extent the City obtains permits or licenses for railroad or highway bores, crossings or other work involved in the Project, the Contractor shall obtain adequate insurance to protect itself and the City.

7. Builders Risk All Risk Insurance: To the extent applicable to the Project, the Contractor shall secure and maintain during the life of this Contract, Builder Risk All Risk Insurance coverage for 100 percent of the Contract Price. This insurance shall not exclude coverage for earthquake, landslide, tornado, flood, collapse or loss due to the result of faulty workmanship. Such insurance shall also provide for any damages caused by injury to, or destruction of, tangible property, including loss of use resulting therefrom, and shall pay all losses to the Contractor and the City as their interest may appear.

If this is a trade contract under a construction manager format, the provisions of this subsection shall not apply.

8. **Proof of Carriage of Insurance:** The Contractor shall furnish the City with satisfactory proof of carriage of the insurance required herein, in the form of an insurance certificate or if the City elects in the form of a policy. Insurance shall be in a form satisfactory to the City.

(A) The Contractor's and any subcontractor's general liability and automobile liability insurance shall endorse the Owner (City of Tuscaloosa), its officers, agents and employees, as additional insured's for any claims arising out of work performed under this contract.

(B) The Contractor's insurance endorsing the Owner and others as additional insured's shall be "primary" and non contributory as to such endorsed insured's.

(C) Cancellation: The certificate and policy, as the case may be, shall state that the City shall be given thirty (30) days' written notice of cancellation or any change in the insurance coverage.

(D) There shall be a statement that the Contractor and any subcontractors waive subrogation as to the City, its officers, agents, employees and Program Coordinator.

(E) There shall be a statement that full aggregate limits apply per job or contract.

(F) Agents verification of Contractor's insurance on form provided by the City or equivalent.

(G) Insurance shall contain no exclusions for x, c or u.

(G) Full aggregate limits must apply per job or contract.

C. **No Personal Liability of Public Officials:** In carrying out any of the provisions hereof in exercising any authority granted by the Contract, there will be no personal liability upon any public official.

D. **Indemnity:** To the maximum extent permitted by law, the Contractor shall save harmless, indemnify and defend the City, its officers, agents and employees from and against any and all claims and losses, cost, expense or liability including attorney's fees and litigation costs caused by, arising out of, resulting from, or occurring in connection with the performance of the work by the Contractor or any subcontractor, regardless of the fault, breach of contract, or negligence of the City, its officers, agents or employees excepting only such claims or losses that have been adjudicated to have been caused solely by the negligence of the City and regardless of whether or not the Contractor is or can be named a party in a litigation.

Contractor agrees to indemnify and/or reimburse the City for any fines, violations, charges, suits, or sums of money imposed by the Alabama Department of Environmental Management (ADEM), Environmental Protection Agency (EPA), or any administrative agency on the City of Tuscaloosa for any sewage or contaminate discharged or Wetlands regulations violation as a result of or arising out of the work by the Contractor pursuant to this agreement.

E. **Errors and Omissions.** The Contractor does agree to release and hold harmless the City of Tuscaloosa or any of its officers, agents and employees and its Program Coordinator from any damages claimed by the Contractor or subcontractors resulting from or attributable in whole or in part to, errors in or omissions of the plans and specifications, including final drawings of the Engineer/Architect or other design professionals. As to plans, specifications or designs prepared by independent design professionals, the parties agree that any City review or approval thereof was only for overall suitability, maintenance and usability and there are no express or implied warranties by the City as to the adequacy, accuracy, correctness, or code compliance thereof.

F. **Exclusion of Contractor Claims:** In performing its obligations, the Engineer/Architect and its consultants may cause expense for the Contractor or its subcontractors and equipment or material suppliers. However, those parties and their sureties shall maintain no direct action against the City or its officers, employees, agents and program coordinator for any claim arising out of, in connection with, or resulting from the Engineering services performed or required to be performed where such services are performed in good faith to protect the City or the Public.

G. **Inadequate Surety/Insurance.** It is further mutually agreed between the parties hereto that if, at any time after the execution of this agreement, any of the surety bonds of the Contractor or subcontractors relating to the

Project for its faithful performance shall be deemed by the City to be unsatisfactory, or if for any reason such bond(s) ceases to be adequate to cover the performance of the work or the surety ceases to do business by agent in Tuscaloosa County, Alabama, the Contractor shall, at its expense, within five (5) days after the receipt of notice from the City so to do, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the City. In such event, no further payment to the Contractor shall be deemed to be due under this agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the City.

H. **Changes.** When changes in the scope of work by written order or change orders aggregate in amount equal to 10 percent of the total contract, including the change order or change orders, the insurance coverage included under this heading shall be increased accordingly by the Contractor. Proof of coverage shall be established by endorsement to the original policy or by re-issue of the original policy to include the added coverage, or in accordance with any other acceptable policy with the insuring company for increasing the coverage.

ARTICLE VI. OBSERVATION OF THE PROJECT

A. **Generally:** The Contractor shall furnish the Engineer/Architect and/or the City's observer with every reasonable facility for ascertaining whether or not the work performed is in accordance with the requirements and intent of the Specifications and Contract Documents. No work shall be done without suitable inspection by the Engineer/Architect's Inspector or the City's observer. Payment for work or failure to reject any defective work shall not in any way prevent later rejection when such defect is discovered, nor obligate the City to final acceptance. All work done when not in accordance with the Plans, specifications and contract will be rejected and, without cost to the City, shall immediately be removed and other work done in accordance therewith by the Contractor. If the Contractor fails to remove the work as above ordered, then the Engineer/Architect shall have the right and authority to stop the Contractor and his work at once and the City may correct the work as herein provided at the cost and expense of the Contractor.

Inspection is not acceptance and shall not constitute acceptance by the City.

The work shall also be subject to inspection by representatives of the City of Tuscaloosa Building Inspection Department.

B. **Observation of the Project:** The Engineer/Architect, the City and its observers, agents, any agency having jurisdiction, and their representatives shall have access at all times to the Project for inspection whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and inspection. The City or the Engineer/Architect may appoint or assign observers, with designated duties and restricted authority, to inspect the Project as may be directed, or to make special observations requested in advance by the Contractor, and to report progress of the Project, and manner of procedure, quality of the material and workmanship, and compliance with the Contract Documents.

Inspection or observation is not acceptance and shall not constitute acceptance by the City.

All materials, workmanship, equipment, processes of manufacture, and methods of construction, shall be subject to inspection, examination, and test by such persons at any and all places where such manufacture and/or construction are being carried on. The Engineer/Architect shall have the right to reject material, workmanship and/or equipment that are defective or otherwise not in accordance with the drawings and Specifications and require its correction by the Contractor. Rejected workmanship shall be satisfactorily corrected, and rejected material shall be satisfactorily replaced with proper material by the Contractor without charge therefor, and the Contractor shall promptly segregate and remove the rejected material from the premises. Provided; however, neither the presence or absence of such observers nor the giving or failure to give such advice, direction or instruction shall in any manner relieve the Contractor from any contract requirement.

Upon rejection of material and/or workmanship by the Engineer/Architect or the City, there may be occasion where such deficiencies may be corrected more economically and timely through modification of the design versus removal and replacement. In such instances, the Engineer/Architect shall provide design services on behalf of the City necessary for analysis and correction of the rejected work. Costs associated with hourly fees for these professional services shall be paid by the City and deducted from payment to the Contractor based on the actual costs incurred. Prior to beginning any analysis and accrual of associated professional service fees, the Engineer/Architect shall provide the Contractor and City notice in writing of the intent to begin, summary of the scope of work, estimated time to complete, and estimated total fees. Any costs associated with corrective work performed by the Contractor to remedy such deficiencies shall be the sole responsibility of the Contractor.

Neither the City observers nor the Engineer/Architect, will be authorized to revoke, alter, relax, or waive any requirements of the Contract Documents; to issue instructions contrary to the drawings and Specifications; nor shall they supervise and direct work for the Contractor, nor unreasonably interfere with the Contractor's operations beyond the extent necessary to make certain that the Project is being carried out according to the contract requirements.

Any advice which they may give the Contractor shall not be construed as binding the City in any way, nor as releasing the Contractor from any of the contract requirements.

If the Contractor considers any work demanded of it to be outside the contract requirements, or any ruling of the Engineer/Architect or an inspector to be unfair, it may immediately, upon such work being demanded or ruling made, request written instructions from the Engineer/Architect, or inspector, or within ten days file an appeal to the Engineer/Architect or the City, stating clearly and in detail the basis of its objections. However, pending the decision on such appeal no work shall be done in disregard of the rulings of the Engineer/Architect or inspector or his instructions on items of work affected by such appeal.

The Contractor shall furnish promptly, without extra compensation, all reasonable facilities, labor, and material necessary for safe and convenient access, inspection, and tests that may be required by the Engineer/Architect.

C. Authority and Duties of Observers: If City or consultant inspectors, whether for the Engineer/Architect or Construction Manager, are being utilized, they shall be authorized and permitted to inspect all work done. The Inspector shall not be authorized to alter or waive any requirements of the Specifications. He shall have authority to call the attention of the Contractor to failure of the work to conform to the specifications and Contract. He may suspend the Project until any questions at issue can be referred to and decided by the Engineer/Architect or the City.

Neither the Engineer/Architect, Inspector, the City or other representatives for the City shall be responsible in any way for construction means, methods or techniques, nor for the safety of the construction work, progress, or employees of the Contractor or any subcontractors, except as set forth in the Construction Manager contract, if applicable.

The presence of the Inspector shall not in any manner lessen the responsibility of the Contractor pursuant to this agreement.

D. Defective Work/Correction of Work by the City: The inspection of the work shall not relieve the Contractor of any of its obligations to fulfill its contract and defective work shall be made good, notwithstanding that such work has been previously inspected by the Engineer/Architect and accepted or estimated for payment. The failure of the Engineer/Architect or inspector to condemn improper workmanship shall not be considered as a waiver of any defect, whether known at the time or discovered later, or as preventing the City at any time subsequently from recovering damages for work actually defective. All work shall be guaranteed by the Contractor against defects in workmanship for a period of one year from date of final payment.

Upon failure and/or neglect by the Contractor to promptly prosecute or perform the work in accordance with the contract documents, including any requirements with respect to the construction schedule, plans or

specifications, the City may, without prejudice to any other remedy it may have, correct such deficiencies and may deduct the actual cost thereof from payment, then or thereafter due to the Contractor.

E. **Disagreement:** Should any disagreement or difference arise as to the estimated quantities or classifications or as to the meaning of the drawings or specifications, or any point concerning the character, or acceptability or nature of the several kinds of work, or construction thereof, the decision of the Engineer/Architect shall be final and conclusive and binding on the Contractor.

F. **Stop Work Orders:** During unseasonable weather all work must stop when the Engineer/Architect so directs and all work must be suitably protected by Contractor at all times. However, the Engineer/Architect shall be under no obligation to stop work on the Project. If the Project is stopped, the Contractor shall not be entitled to extra compensation for delays or problems associated with the stoppage.

G. **Progress Meetings:** The Contractor shall conduct regular progress meetings during the course of the Project at least once a month or more often if requested by the City or Engineer/Architect. The meetings shall be held at a site convenient to all parties and if a site cannot be agreed upon, the City will designate a site.

The Contractor or designated representative, the Contractor's Superintendent, all subcontractors, engineers, inspectors, and the City's representative shall attend.

The Contractor shall keep accurate written minutes of the meetings and forward copies thereof to the Engineer/Architect and the City's representative before the next scheduled meeting.

If a trade contract, progress meetings will be conducted by the Construction Manager, who will keep minutes. All trade contractors shall attend unless excused by the Construction Manager.

ARTICLE VII. PROJECT COMPLETION

A. **Substantial Completion:** "Substantial completion" shall be that degree of completion of the Project or a defined portion of the Project, as evidenced by the Engineer/Architect's written notice of Substantial Completion, sufficient to provide the City, at its discretion, the full-time use of the Project or defined portion of the work for the purposes for which it was intended. "Substantial Completion" of an operating facility or operating component of the Project shall be that degree of completion that has provided a minimum of seven (7) continuous days of successful, trouble-free operation in a "fully automatic" manner acceptable to the City and Engineer/Architect and with all redundant systems fully operational. All equipment contained in the Project, plus all other components necessary to enable the owner to operate the facility in the manner that was intended, shall be complete on the substantial completion date.

When the Contractor considers that the Project, or where acceptable to the City, a designated portion thereof is substantially complete, the Contractor shall prepare and submit to the Engineer/Architect a list of items to be completed or corrected and request an inspection for Substantial Completion. The failure by the Contractor to include any items on such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents. After inspection and/or if an operating facility, after a minimum of seven (7) continuous days of successful, trouble free operation has been achieved during startup, the Engineer/Architect may, at his sole discretion, issue a written notice of substantial completion for the purpose of establishing the starting date for specific equipment guarantees or warranties, and to establish the date that the City will assume the responsibility for the cost of operating such equipment.

Said notice shall not be considered as final acceptance of any portion of the Project or relieve the Contractor from completing the remaining work, including any remaining performance or acceptance testing, within the specified time and in full compliance with the Contract Documents. Specifically, the issuance of a written notice of Substantial Completion shall not relieve the Contractor of his obligation to promptly remedy any omissions and latent or unnoticed defects in the Project covered by the written Notice of Substantial Completion.

B. **Final Inspection:** Upon notice from the Contractor that its work is complete, the Engineer/Architect and/or other representatives of the City shall make a final inspection of the work or Project and conduct test or tests if applicable. The Engineer/Architect shall notify the Contractor of all apparent and/or visible instances where the Project fails to comply with the plans and specifications and contract documents, as well as any defects he may discover (punch list). The Contractor shall immediately make such alterations as are necessary to make the Project comply with the plans and specifications and to the satisfaction of the Engineer/Architect.

Upon completion of all such repairs in a satisfactory manner, and when the Engineer/Architect has determined that the work or Project is acceptable under the contract, including this provision and after publication of final completion and all other requirements of final payment as provided for in this agreement, then he shall issue a final certificate of payment to the City stating that the balance is due the Contractor, less such amounts as may have been withheld by the City from time to time as provided in the contract documents. In recommending to the City that it make such final payment to the Contractor, the Engineer/Architect shall also issue a certificate of final acceptance wherein he shall recommend to the City that it accept the Project and/or work as final and complete pursuant to the contract documents.

Verification, approval, inspection, final inspection, issuance of final acceptance, issuance of final certificate of payment, action or approval by the City upon the final certificate of payment or final acceptance shall not in any way relieve the Contractor of responsibility for faulty materials or workmanship.

All warranty or guarantee periods shall commence and start to run from the date of substantial completion.

C. **"As Built" Drawings:** Unless waived by the City representative, the Contractor must provide to the City a set of "as built" drawings acceptable to the City as a component part of the Project prior to final payment.

D. **Final Cleanup:** Before final completion and final acceptance, the Contractor shall remove from the City's property or rights-of-ways and from all public and private property, all tools, scaffolding, false work, temporary structures and/or utilities, including the foundations thereof (except such as the City permits in writing to remain); rubbish and waste materials resulting from its operation or caused by its employees; and shall remove all surplus materials, leaving the site clean and true to line and grade, and the Project in a safe and clean condition ready for use and operation. In addition to the above, the Contractor shall be responsible for the following special cleaning for all trades as the Project shall have been completed:

1. Cleaning of all painted, enameled, stained or baked enamel work: removal of all marks, stains, fingerprints and splatters from such surfaces.
2. Cleaning of all glass: cleaning and removing of all stickers, labels, stains and paint from all glass and the washing and polishing of the same on interior and exterior.
3. Cleaning or polishing of all hardware.
4. Cleaning all tile, floor finishing of all kinds; removal of all splatters, stains, paint, dirt, and dust, the washing and polishing of all floors as recommended by the manufacturer or required by the Engineer/Architect.
5. Cleaning of all manufactured articles, materials, fixtures, appliances and equipment; removal of all stickers, rust stains, labels (except instructional and/or safety labels) and temporary covers and cleaning and conditioning of all manufactured articles, materials, fixtures, appliances, electrical, heating and air conditioning equipment as recommended or directed by the manufacturers, unless otherwise required by the Engineer/Architect; blowing out or flushing out of all foreign matter from all dust pockets, piping, tanks, pumps, fans, motors, devices, switches, panels, fixtures, boilers, similar features; and freeing identification plates on all equipment or excess paint and the polishing thereof.

In the case of failure to comply with the above requirements for any part of the Project within the time specified by the Engineer/Architect, he may cause the work to be done and deduct the cost thereof from the contract

price on the next or succeeding application for payment, or in the event that the cost exceeds the balance due the Contractor, bill the Contractor for the excess.

E. **Notice of Completion:** The Contractor shall, immediately after the completion of the Project and acceptance by the Owner as provided for herein, give notice as required by Ala. Code §39-1-1(f) by an advertisement in some newspaper of general circulation published within the city or county wherein the Project has been done for a period of four (4) successive weeks. The advertisement shall advise interested parties to contact both the Contractor and the specific City representative. The City's representative shall be named along with his proper mailing address. In no instance shall a final payment be made upon the contract until the expiration of thirty (30) days after the completion of the notice. Proof of publication of said notice shall be made by the Contractor to the City of Tuscaloosa by affidavit of the Publisher and a printed copy of the notice published.

Provided, however, that the requirements hereinabove stated for notice and advertisement shall not apply to contractors performing contracts of less than Fifty Thousand Dollars (\$50,000.00) in amount and the governing body of the City of Tuscaloosa so as to expedite final payment, shall cause notice of final completion of such contract to be published one time in Tuscaloosa County and shall post notice of final completion on the City of Tuscaloosa's bulletin board for one (1) week and shall require the Contractor to certify under oath that all bills have been paid in full. Final settlement with such Contractor may be made at any time after the notice shall have been posted for one (1) entire week.

NOTE: When maintenance periods are included in the contract for highways, bridges or similar structures, such periods shall be considered component parts of the contract.

F. **Final Payment:** Upon completion of the Project by the Contractor and acceptance by the City's representatives of all work required of the Contractor for the Project, but not until thirty (30) days after completion of the notice, the amount due the Contractor pursuant to the Contract Documents shall be paid upon the presentation by the Contractor to the City's representative of the following:

1. A properly executed and duly certified voucher for payment, verified by architect, engineer or other City representative, including therewith evidence that all payrolls and all amounts due for labor and materials, other than claims for damages due to tort, have been fully paid and satisfied and there are no outstanding claims or demands associated with the work on the Project.
2. A release of all claims and claims of lien against the City from the Contractor and all major subcontractors (the City may waive the requirement for subcontractor releases) arising under and by virtue of the contract, on the form attached, duly executed by the Contractor and with the consent of the surety. The Contractor may specifically except claims of the Contractor from the operation of the release if specifically excepted therefrom in stated amounts and the reason therefor. The Contractor may with the consent of the City representative, if any subcontractor refuses to furnish such a release, furnish a bond with surety satisfactory to the City representative to indemnify against such claims.
3. Proof of publication of notice of completion including affidavit of publisher and a printed copy of the notice so published, as provided by law.
4. In accordance with Ala. Code §39-2-12(c), a non-resident contractor shall satisfy the City that he or she has paid all taxes due and payable to the State, the City and all applicable political subdivisions.

G. **Acceptance of Final Payment Constitutes Release:** The acceptance by the Contractor of the final payment shall release the City, the Engineer/Architect, as representatives of the City, and their officers, employees, agents, and subconsultants from all claims and all liability to the Contractor for all things done or furnished in connection with the Project, and every act of the City and others relating to or arising out of the work except claims previously made in writing and still unsettled. No payment, however, final or otherwise, shall operate to release the

Contractor or his Sureties from obligations under this Contract and the Performance Bond, Payment Bond, and other bonds, warranties and guarantees as herein provided.

ARTICLE VIII. WARRANTY AND GUARANTEES

A. Warranty and Guarantee:

1. Warranty: The Contractor warrants to the City and the Engineer/Architect that all materials and equipment furnished under this Contract will be new unless otherwise specified and that all work, materials and equipment will be of good quality, free from fault and defects and in conformance with the contract documents. The work must be safe, substantial and durable construction in all respects. All work, materials and equipment not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Warranties shall commence to run from the date of substantial completion.

The work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The Contractor hereby guarantees the Project and the work on the Project against defective materials or faulty workmanship for a minimum of one (1) year after final payment by the City and shall replace or repair any defective materials or equipment or faulty workmanship during the period of guarantee at no cost to the City.

2. Guarantee: If, within the designated warranty period or if not designated, within one (1) year from the date of substantial completion, any of the work, materials or equipment is found to be defective or not in accordance with the contract documents, the Contractor shall correct it promptly after receipt of written notice from the City to do so, unless the City has previously specifically given the Contractor a written acceptance of such specific condition. This obligation shall survive termination of the Contract. The City shall give such notice promptly after discovery of the condition.

3. Roofing Guarantee: If the Project involves a roof on a building or other structure, then the Contractor shall execute and provide the Roofing Guarantee in the form attached hereto. The guarantee shall be delivered to the City and Engineer/Architect prior to final payment.

4. Termite Warranty: If the Project involves termite treatment as required in Article IV, then the Contractor shall furnish to the City a written warranty certifying that the applied soil poisoning treatment will prevent the infestation of subterranean termites and that if subterranean termite activity is discovered during the warranty period, Contractor shall re-treat the soil and repair or replace any damage caused by termite infestation. The warranty shall be for a period of five (5) years from the date of treatment signed by Applicator and Contractor.

B. **Correction of Defective Work During Warranty/Guarantee Period**: The Contractor hereby agrees to make, at his own expense and no cost to the City, all repairs or replacements necessitated by defects in materials or workmanship, provided under the terms of this Contract, and pay for any damage to other works resulting from such defects, which become evident within 1 year after the date of substantial completion unless substantial completion is established by the Engineer/Architect only for specified items of equipment, or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents unless the City has previously given the Contractor a written acceptance of such defects. The Contractor shall promptly correct such defects upon receipt of a written notice from the City to do so. This obligation shall survive the termination of the Contract.

Unremedied defects identified for correction during the warranty period described herein before, but remaining after its expiration, shall be considered as part of the obligations of the warranty. Defects in material, workmanship, or equipment which are remedied as a result of obligations of the warranty shall subject the remedied portion of the Project to an extended warranty period of 1 year after the defect has been remedied.

Repetitive malfunction of equipment shall be cause for equipment replacement and an extension of the guarantee period for the equipment to a date 1 year following acceptable replacement.

The Contractor further assumes responsibility for a similar guarantee for all work and materials provided by subcontractors or manufacturers of packaged equipment components.

The Contractor also agrees to hold the City and the Engineer/Architect and employees harmless from liability or damages, including the Engineer/Architect's and attorneys' fees, and cost and expenses of litigation of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written order for same from the City. If the Contractor fails to make the repairs and replacements promptly, or in an emergency where delay would cause serious risk, or loss, or damage, the City may have the defective work corrected or the rejected work removed and replaced, and the Contractor and his Surety shall be liable for the cost thereof. The Contractor during the warranty period shall repair/replace as rapidly as possible any and all equipment, materials, etc., which are found to be defective. Should any items not be repaired/replaced within thirty (30) days from the time it is reported to the Contractor by the City, then the warranty period shall be extended on that item for a period equal to the time that the item has remained defective, incomplete, or inoperable as determined by the City. The Contractor must certify that the item has been corrected.

The City's rights under this Article shall be in addition to, and not a limitation of, any other rights and remedies available by law.

ARTICLE IX. LAWS, PERMITS, ETC.

A. Laws and Regulations/Royalties, Patents, Copyrights and Permits and Rights-of-Way: The Contractor shall comply with and keep itself fully informed of all laws, ordinances and regulations of federal, state, City and county in any manner effecting those engaged or employed in the Project, or the materials used in the Project, or in any way affecting the conduct of the Project, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. The Contractor shall possess all permits and licenses required by applicable law, rule or regulation for the performance of the Project. If any discrepancy or inconsistency should be discovered in this contract, or in the drawings or specifications herein referred to, in relation to any law, ordinance, regulation, order or decree, it shall forthwith report the same in writing to the Engineer/Architect. It shall at all times, itself, observe and comply with all such existing and future laws, ordinances and regulations.

The Contractor shall protect and indemnify the City, Engineer/Architect, and their respective employees, officers, subconsultants, and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, or regulations. All permits, licenses, and inspection fees necessary for prosecution and completion of the Project shall be secured and paid for by the Contractor, unless otherwise specified.

The Contractor shall obtain and pay for all licenses and permits and shall pay all fees and charges for connection to outside service and the use of property required for the execution and completion of the Project.

The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and code requirements applicable in or bearing on the conduct of the Project unless in conflict with contract requirements. If the Contractor ascertains at any time that any requirements of the Contract is at variance with applicable laws, ordinances, regulations, or building code requirements, it shall promptly notify the Engineer/Architect and any necessary adjustment of the Contract will be made as herein specified under change in orders.

The Contractor shall pay all applicable federal, state and local taxes and assessments on the Project. Wherever the law of the place of building requires a special tax, consumer, use, occupation, or other tax, the Contractor shall pay such tax.

The Contractor shall pay all royalties and license fees. The Contractor shall hold and save the City and its agents and employees harmless from liability of any nature or kind, including costs and expenses, for or on account

of any patented or unpatented invention, process, article or appliance manufactured or used in the performance of the contract, including its use by the City.

To the extent that the Project has not been permitted or registered by the Engineer or City, the Contractor shall register or obtain any and all necessary National Pollutant Discharge Elimination System (NPDES) Permits required by USEPA or the Alabama Department of Environmental Management (ADEM) as well as any applicable storm water permits or registration for the construction of the improvements specified in the Contract Documents. The Contractor shall abide by all regulations and conditions relative to the permit or registration and attachments to the permit or registration, including but not limited to sampling and monitoring. The Contractor shall fulfill for the City all the requirements made upon the City by the permit(s) or registration.

The Contractor shall be fully responsible for all aspects of erosion and sediment control. The Contractor shall utilize whatever measures are necessary to prevent pollution or siltation due to his activities. As a minimum, the Contractor shall strictly comply with the erosion control methods referenced in the Alabama Soil and Water Conservation Committee "Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas," latest edition (referred to as the "Alabama Handbook").

If the Contractor has information that any process, article or item specified or delineated by the Engineer/Architect is an infringement of a patent or a copyright, it shall promptly give such information to the Engineer/Architect.

B. Alabama Department of Transportation Rights-of-Way: If any portion of the Project involves work upon State right-of-way, the Contractor agrees to provide the Alabama Department of Transportation with a bond or certified check in the amount required, made payable to the Alabama Department of Transportation, to guarantee the faithful performance of the provisions of a permit and to guarantee that the Contractor shall maintain the work in a manner suitable to the Alabama Department of Transportation for a period of one (1) year. The Alabama Department of Transportation Bond Form must be used. At the end of one (1) year from the completion of this work, the Department of Transportation will return the certified check or bond to the applicant provided all provisions of this permit have been complied with. Otherwise, the Department of Transportation shall apply the certified check or bond to the cost of repairing the rights-of-way with State forces.

C. Tuscaloosa County Right-of-Way: If any portion of the Project involves work upon County right-of-way, the Contractor agrees to execute an application and file with Tuscaloosa County a bond or certified check in the amount required, made payable to Tuscaloosa County to guarantee the faithful performance of this provision of this work suitable to the County for a period of one (1) year. At the end of one year from the completion of this work, the County will return the certified check or bond to the applicant provided all provisions of this permit have been complied with. Otherwise, the County shall apply the certified check or bond on the cost of repairing the right-of-way with the County forces.

D. Storm Water Permit and Monitoring:

1. To the extent that the Project has not been permitted or registered by the Engineer or the City, and the Project is defined as an NPDES Construction Site per ADEM Admin. Code Chapter 335-6-12 (the Rule), the Contractor shall submit to the Alabama Department of Environmental Management (ADEM) a Notice of Registration (NOR) under the Rule for Storm Water Discharges during construction activities.
The Contractor shall strictly adhere to all requirements of the NOR and the rule regardless of which party has obtained coverage.
2. Compliance with all provisions of ADEM Admin. Code Chapter 335-6-12 and this registration is required, including but not limited to, the preparation and implementation of a Construction Best Management Practices Plan (CBMPP) and any other plans as may be required, the regular

maintenance of the Best Management Practices (BMPs) to the maximum extent practicable and the submittal of required reports. As required by the Rule, the Contractor shall retain a Qualified Credentialed Professional (QCP) to prepare the CBMPP and to certify that it was prepared in accordance with the requirements of the "Alabama Handbook" and the Rule.

3. This registration neither precludes nor negates an operator's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.
4. The Contractor, unless application for registration has already been made, will be furnished a Storm Water NOR application package when the contract is awarded. The Storm Water NOR application package will include the following:
 - a. Typical transmittal letter to ADEM.
 - b. NOR applications filled out with Project information.
 - c. Project area map.
 - d. Other data as required by the NOR for Tier 1 waters if applicable.
5. The Contractor will complete or furnish the following items and submit to ADEM within five working days of the receipt of the NOR application provided by the Owner.
 - a. Information as outlined in the typical letter of transmittal, to the address indicated on the letter of transmittal, by registered mail or hand deliver.
 - b. The "Alabama Department of Environmental Management (ADEM), Field Operations Division Storm Water Program" Notice of Registration (NOR); NOR shall be signed by a responsible official who is the operator, owner, the sole proprietor of a sole proprietorship, a general/controlling member or partner, or an executive officer of at least the level of vice-president for a corporation. Additionally, the QCP is required to sign the CBMPP certification part of the NOR.
 - c. Determine applicable fee per ADEM Fee Schedule F and make check payable to: Alabama Department of Environmental Management for the NOR and submit to the Alabama Department of Environmental Management with the NOR application.
6. Application for the Storm Water Permit shall be made by the Contractor no later than five working days after receipt of application provided by Owner. The Contractor shall not commence any construction activities until ADEM has issued the authorization number for the Project.
7.
 - a. Payment will be made to the Contractor for obtaining the storm water NOR as specified herein for the lump sum amount as shown in the bid schedule. If there is no line item for registration, obtaining the NOR shall be considered a subsidiary obligation of mobilization.
 - b. Individual erosion and sediment control items shall be paid for at the unit prices as shown in the bid schedule. Routine inspections will be performed by the Owner's representative or Engineer to verify compliance with the CBMPP and the Rule shall be the Contractor's responsibility and shall be incidental to the storm water registration.
 - c. If no individual erosion and sediment control items are included in the bid schedule the cost of these items shall be incidental to the lump sum amount as shown in the bid schedule for Storm Water Monitoring and Temporary Erosion and Sediment Control and payment shall be made pro rata as the Project progresses.

E. The Contractor shall perform all work in compliance with and as required by any State, Federal or Local registration, permit or license, the terms and conditions of which are adopted herein by reference. The Contractor agrees to indemnify and hold harmless the City, Engineer, and their respective officers, agents and employees from any fines, penalties, damages, claims, liability or judgment arising out of or in any manner associated with the Contractor's failure to perform work on the Project in strict accordance with all storm water registration, permit or license requirements.

ARTICLE X. MISCELLANEOUS CLAUSES

A. Notice and Service Thereof:

1. All notices, demands, requests, change orders, instructions, approvals and claims shall be in writing. Unless expressly otherwise provided elsewhere in this agreement, any election, notice or other communication required or permitted to be given under this agreement shall be in writing and deemed to have been duly given if provided in accordance with the provisions hereof.
2. Any notice to or demand upon the Contractor shall be in writing and shall be sufficiently given if addressed to the Contractor at the address stated herein and deposited in the United States mail in a sealed envelope with sufficient postage prepaid or delivered with charges prepaid to any telegraph company for transmission to the Contractor at such address. It shall also be sufficient if such notice or demand be served upon the Contractor personally or its local representative in charge of the Project or delivered at his local office. The Contractor shall, from time to time, designate to the City in writing any change of address to which such notice or demand shall be sent.
3. Any notice to or demand upon the City shall be in writing and shall be sufficiently given if delivered to the office of the City's representative or if addressed to the City representative and deposited in the United States mail in a sealed envelope with sufficient postage prepaid or delivered with charges prepaid to any telegraph company for transmission to such representative of the City.

B. City Representative: The City's representative on this Project is hereby designated as WENDY MCBRIDE, PE and whose address is TUSCALOOSA CITY HALL. All references to Engineer or Architect shall be to the City representative if no Engineer or Architect is involved in the Project.

With a copy to: Glenda Webb, Esquire, City Attorney, Office of the City Attorney
City of Tuscaloosa, Post Office Box 2089, Tuscaloosa, Alabama 35403-2089
Telephone: (205) 248-5140, Facsimile: (205) 349-0328

C. Contractor Representative: The Contractor's representative on this Project is hereby designated as BRIAN WHEAT, P.E. and whose address is P.O. BOX 70 DUNCANVILLE, AL 35456.

D. Capacity: Each party to this agreement represents and warrants to the other as follows:

1. That it is an individual of the age of majority or otherwise a legal entity duly organized and in good standing pursuant to all applicable laws, rules and regulations.
2. That each has full power and capacity to enter into this agreement, to perform and to conclude the same including the capacity, to the extent applicable, to grant, convey and/or transfer; areas, assets, facilities, properties, (both real and personal), permits, consents and authorizations and/or the full power and right to acquire and accept the same.
3. That to the extent required, each party has obtained the necessary approval of its governing body or board and a resolution or other binding act has been duly and properly enacted by such governing body or board authorizing this agreement and said approval has been reduced to writing and certified or attested by the appropriate official of the party.
4. That each party has duly authorized and empowered a representative to execute this agreement on their respective behalf and the execution of this agreement by such representative fully and completely binds the party to the terms and conditions hereof.
5. That absent fraud, the execution of this agreement by a representative of the party shall constitute a certification that all such authorizations for execution exist and have been performed and the other party shall be entitled to rely upon the same. To the extent a party is a partnership, limited liability company or joint venture, the execution of this agreement by any member thereof shall bind

the party and to the extent that the execution of agreement is limited to a manager, managing partner or specific member then the person so executing this agreement is duly authorized to act in such capacity for the party.

6. That each party represents and warrants to the other that there is no litigation, claim or administrative action threatened or pending or other proceedings to its knowledge against it which would have an adverse impact upon this transaction or upon either's ability to conclude the transaction or perform pursuant to the terms and conditions of this agreement.
7. That each party has obtained any and all required permits, approvals and/or authorizations from third parties to enable it to fully perform pursuant to this agreement.
8. Under the provisions of the Constitution and laws of the State of Alabama, each party has the power to consummate the transactions contemplated by this agreement;
9. Each party represents and warrants that the execution and delivery of this agreement and the consummation of the transactions contemplated herein will not conflict with, be in violation of, or constitute (upon notice or lapse of time, or both) a default under the laws of the State of Alabama, any resolution, agreement, or other contract agreement, or instrument to which a party is subject, or any resolution, order, rule, regulation, writ, injunction, decree or judgment of any governmental authority or court having jurisdiction over the party.
10. This agreement constitutes the legal, valid and binding obligation of each party and is enforceable against each party in accordance with its terms, except in so far as the enforceability thereof may be limited by:
 - (a) Bankruptcy, insolvency or other similar laws affecting the enforcement of creditors' rights
 - (b) General principles of equity, regardless of whether such enforceability is considered as a proceeding at equity or at law.
11. Neither party will enter into any agreement to do anything prohibited in this agreement or enter into any agreement or take any action which would in any way impair the ability of the other party to faithfully and fully perform its obligations hereunder.
12. Under the provisions of the Constitution and laws of the State of Alabama, each party has the power to consummate the transactions contemplated by this agreement.

E. Ownership of Contract Documents: The Contract Documents, and copies of parts thereof, are furnished and owned either by the City or the Engineer/Architect. All portions of the Contract Documents, and copies of parts thereof, are the instruments of service for this Project. They are not to be used on other work and are to be returned to the City on request at the completion of the Project. Any reuse of these materials without specific written verification or adaptation by the City will be at the risk of the user and without liability or legal expense to the City or Engineer/Architect. Such user shall hold the City, its officers, agents and employees harmless from any and all damages, including reasonable attorneys' fees, from any and all claims arising from any such reuse. Any such verification and adoption shall entitle the City to further compensation at rates to be agreed upon by the user and the City.

F. No Waiver of Rights: Neither the inspection by the City or the Engineer/Architect or any of their officers, employees, agents, or subconsultants, nor any order by the City for payment of money, nor any payment for, or acceptance of, the whole or any part of the Project by the City or Engineer/Architect, nor any extension of time or change order, nor any possession taken by the City or its employees, or non enforcement of any provision of this agreement by either party shall operate as a waiver of any provision of this agreement, or any power herein reserved to the City, or any right to damages, nor shall any waiver of any breach in this agreement be held to be a waiver of any other or subsequent breach. Acceptance or final payment shall not be final and conclusive with regards to latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the City's rights under any warranty.

G. Subletting or Assigning of Contract:

1. **Limitations:** The Contractor shall not sublet, assign, transfer, convey, sell or otherwise dispose of any portion of the agreement, his obligations, right, or interest therein, or its power to execute such agreement, to any person, firm or corporation without written consent of the City and such written consent shall not be construed to relieve the Contractor of any duty or responsibility for the fulfillment of the agreement. A sale, conveyance or transfer of 50% or more of the stock or ownership of the Contractor shall be considered an assignment. Provided; however, in no event shall any portion of this agreement be assigned to an unsuccessful bidder whose bid was rejected because he or she was not a responsible or responsive bidder. Use of subcontracts up to a combined (total) value of 50 percent of the value of all work will not be construed as an assignment. Unless otherwise stipulated in the proposal or general conditions, the Contractor shall perform, with its own organization, work with the value not less than fifty (50) percent of the value of all work embraced in the contract.
2. **Subcontractor's Status:** A subcontractor shall be recognized only in the capacity of an employee or agent of the Contractor.

H. Third Party Beneficiaries: It is the intent of the parties hereto that there shall be no third party beneficiaries to this agreement.

I. Final Integration: This Agreement constitutes the entire agreement of the parties, as a complete and final integration thereof with respect to its subject matter. All written or oral understandings and agreements heretofore had between and among the parties are merged into this Agreement, which alone fully and completely expresses their understandings. No representation, warranty, or covenant made by any party which is not contained in this Agreement or expressly referred to herein has been relied on by any party in entering into this Agreement.

J. Force Majeure: Neither party to this Agreement shall hold the other party responsible for damages or delay in performance caused by acts of God, strikes, lockouts or other circumstances beyond the reasonable control of the other or the other party's employees, agents or contractors.

K. Amendment in Writing: This Agreement may not be amended, modified, altered, changed, terminated, or waived in any respect whatsoever, except by a further agreement in writing, properly executed by all of the parties.

L. Binding Effect: This agreement shall bind the parties and their respective personal representatives, heirs, next of kin, legatees, distributees, successors, and assigns.

M. Captions: The captions of this Agreement are for convenience and reference only, are not a part of this Agreement, and in no way define, describe, extend, or limit the scope or intent of this Agreement.

N. Construction: This Agreement shall be construed in its entirety according to its plain meaning and shall not be construed against the party who provided or drafted it.

O. Mandatory and Permissive: "Shall", "will", and "agrees" are mandatory; "may" is permissive.

P. Governing Laws: The laws of the State of Alabama shall govern the validity of this Agreement, the construction of its terms, the interpretation of the rights, the duties of the parties, the enforcement of its terms, and all other matters relating to this Agreement.

Q. Liability of the City or City Officials. Notwithstanding any provision hereof to the contrary, the parties agree and acknowledge that the liability and obligations of the City, City officials or City employees as set forth herein are subject to the limitations imposed on municipalities by the Constitution and laws of the State of Alabama. No

present or future official, officer or employee of the City shall ever be personally liable for the performance of any obligations hereunder.

R. Non Discrimination: The Contractor agrees that in performing the work and services as required herein under this agreement, not to discriminate against any person on the basis of race color, religion, sex, age or disability. (The Contractor shall fully comply with the Americans with Disabilities Act), the Fair Labor Standards Act and all other applicable laws and regulations).

S. Fines and Penalties: The Contractor shall be solely liable for any and all fines or penalties which may be levied by any governmental authority against the Owner and/or Contractor which are related to the Contractor's operations. The Owner shall deduct the amount of the levied fine or penalty from the Contract amount.

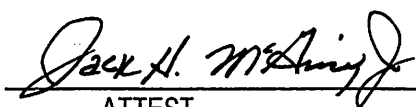
T. Agreement Date/Counterparts: The date of this Agreement is intended as and for a date for the convenient identification of this Agreement and is not intended to indicate that this Agreement was necessarily executed and delivered on said date. This instrument may be executed in any number of counterparts, each of which so executed shall be deemed an original, but all such counterparts shall together constitute but one and the same instrument.

U. Use of Words and Phrases. The following words and phrases, where used in this document, shall be given the following and respective interpretations: "Herein," "hereby," "hereunder," "hereof," and other equivalent words refer to this document as an entirety and not solely to the particular portion hereof in which any such word is used.

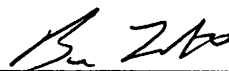
The definitions set forth in any portion of this Agreement unless the text or context indicates differently shall be deemed applicable whether the words defined are herein used in the singular or the plural. Wherever used herein any pronoun or pronouns shall be deemed to include both singular and plural and to cover all genders.

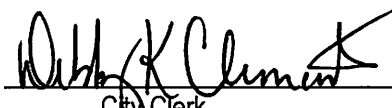
V. Severability. Each provision of this agreement shall be considered to be severable and, if for any reason, any such provision or any part thereof, is determined to be invalid and contrary to any existing or future applicable law, such invalidity shall not impair the operation of or affect those portions of this agreement that are valid, but this agreement shall be construed and enforced in all respects as if the invalid or unenforceable provision or part thereof had been omitted.

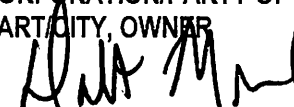
IN TESTIMONY WHEREOF, said Contractor has hereto affixed its signature and said City of Tuscaloosa has caused these presents to be executed by Walter Maddox, Mayor of the City of Tuscaloosa, and attested by the City Clerk, on the day and year first above written, in four counterparts, each of which shall, without proof or accounting for the other, be accepted as an original.


ATTEST

PARTY OF THE FIRST PART
DOMINION CONSTRUCTION
Contractor

BY: 
ITS: VP

ATTEST:

City Clerk

CITY OF TUSCALOOSA, A MUNICIPAL CORPORATION/PARTY OF THE SECOND PART/CITY, OWNER

Walter Maddox, Mayor

STATE OF ALABAMA)
COUNTY OF TUSCALOOSA)

I, Whitnee Sandlin, a Notary Public in and for said State at Large, hereby certify that Brian Wheat, who is named as _____, is signed to the foregoing document, and,

- Who is known to me, or
- Whose identity I proved on the basis of _____, or
- Whose identity I proved on the oath/affirmation of _____, a creditable witness to the signer of the above document

and that being informed of the contents of the document, he/she, as such officer and with full authority, executed the same voluntarily on the day the same bears date.

Given under my hand and official seal this the 21 day of December, 2015.

Whitnee Sandlin
Notary Public.

My Commission Expires: 10/3/17

STATE OF ALABAMA)
COUNTY OF TUSCALOOSA)

Before me, the undersigned, a Notary Public in and for the State of Alabama, appeared Walter Maddox, Mayor of the City of Tuscaloosa and acknowledged that his signature is affixed hereto in his capacity as Mayor of the City of Tuscaloosa.

Done this the 14th day of December, 2015.

Vickie Hilliard
Notary Public in and for the
State of Alabama at Large

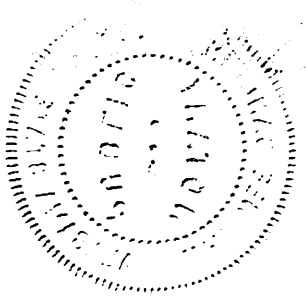
My Commission Expires: 2/3/19

[END OF CONTRACT AGREEMENT OFFICE OF THE CITY ATTORNEY]

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CITY OF TUSCALOOSA PUBLIC WORKS CONTRACT DOCUMENTS
SECTION SIX
PERFORMANCE BONDS
(2015)

STATE OF ALABAMA)
TUSCALOOSA, COUNTY)

KNOWN ALL MEN BY THESE PRESENTS, that we, Dominion Construction Company, Inc.
as principal and Hudson Insurance Company (hereinafter called the "Surety"), as
surety, do hereby acknowledge ourselves indebted and firmly bound and held unto the City of Tuscaloosa, Alabama,
(hereinafter called the "City") a municipal corporation existing under and by virtue of the laws of the State of
Alabama, for the use and benefit of those entitled thereto, in the penal sum of \$1,021,508.57
for the payment of which well and truly be made in lawful money of the United States, we do hereby bind ourselves,
our successors and assigns and personal representatives, jointly and severally, firmly by the presents.

BUT THE CONDITION OF THE FOREGOING OBLIGATION OR BOND IS THIS:

WHEREAS, the City has entered into a certain written contract with said Contractor for the _____
Juanita Drive Improvements Project in accordance with contract documents
therefore on file in the Office of the Neel-Schaffer & Almon Associates at the price of, to-wit: _____
One Million Twenty-one Thousand Five Hundred Eight And 57/100THS (\$1,021,508.57) as more fully appears in
said written contract bearing the date of 21ST DECEMBER, 20____, which contract is
hereby referred to and made a part hereof to the same extent as if set out herein in full.

NOW, THEREFORE, if the Contractor shall fully and faithfully perform all the undertakings and obligations
under the said agreement or contract herein before referred to and shall fully indemnify and save harmless the said
City from all costs and damages whatsoever which it may suffer by reason of any failure on the part of said
Contractor so to do, and shall fully reimburse and repay the said City any and all outlay and expense which it may
incur in making good any such default, and shall guarantee all workmanship against defects for a period of one year,
this obligation or bond shall be null and void, otherwise it shall remain in full force and effect.

And, for value received it is hereby stipulated and agreed that no change, extension of time, alteration or
addition to the terms of said agreement or contract or in the work to be performed thereunder or the specifications
accompanying the same shall in any wise affect the obligations of the principal or of the surety under this bond, and
notice is hereby waived of any such change, extension of time, alternative of or addition to the terms of the
agreement or contract or to the work or to the specifications.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and said Surety has
hereunto caused to be affixed its corporate signature and seal, by its duly authorized officers on the 21ST day of
DECEMBER, 2015.

Dominion Construction Company, Inc.

Principal

X By [Signature]

Title

Hudson Insurance Company

Surety

By [Signature]

Julie Tubbs, Attorney-in-Fact

Title

ATTEST:

[Signature]



POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint

Joseph D. Fitts, Richard F. Fitts, Charles F. Horton, Jr., Cheryl A. Camak, Timothy L. Donahue and Julie Tubbs

its true and lawful Attorney(s)-in-Fact, at New York, New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bonds and undertakings given for any and all purposes, also to execute and deliver on its behalf as aforesaid renewals, extensions, agreements, waivers, consents or stipulations relating to such bonds or undertakings provided, however, that no single bond or undertaking shall obligate said Company for any portion of the penal sum thereof in excess of the sum of Ten Million Dollars (\$10,000,000.00).

Such bonds and undertakings when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Executive Vice President thereunto duly executed, on this 27th day of July, 2012 at New York, New York.



HUDSON INSURANCE COMPANY

Attest... Dina Daskalakis Assistant Corporate Secretary

[Handwritten signature of Dina Daskalakis]

By... Christopher T. Suarez Executive Vice President

[Handwritten signature of Christopher T. Suarez]

STATE OF NEW YORK COUNTY OF NEW YORK. SS.

On the 27th day of July, 2012 before me personally came Christopher T. Suarez to me known, who being by me duly sworn did depose and say that he is an Executive Vice President of HUDSON INSURANCE COMPANY, the corporation described herein and which executed the above instrument, that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

(Notarial Seal)



ANN M. MURPHY Notary Public, State of New York No. 01MU6067553 Qualified in Nassau County Commission Expires December 10, 2017

[Handwritten signature of Ann M. Murphy]

STATE OF NEW YORK COUNTY OF NEW YORK

CERTIFICATION

The undersigned Dina Daskalakis hereby certifies: That the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertakings made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOLVED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force.

Witness the hand of the undersigned and the seal of said Corporation this ___ day of ___, 20__.



By... Dina Daskalakis, Assistant Corporate Secretary

[Handwritten signature of Dina Daskalakis]

CITY OF TUSCALOOSA PUBLIC WORKS CONTRACT DOCUMENTS

**SECTION SEVEN
LABOR AND MATERIAL BOND
(2015)**

KNOWN ALL MEN BY THESE PRESENTS, that we, Dominion Construction Company, Inc.
(hereinafter called the "Contractor") of P.O. Box 70, Duncanville, Alabama 35456
as principal and Hudson Insurance Company (hereinafter called the
"Surety"), as surety, do hereby acknowledge ourselves indebted and firmly bound and held unto the City of
Tuscaloosa, Alabama, (hereinafter called the "City"), a municipal corporation, existing under and by virtue of the
Laws of the State of Alabama, for the use and benefit of those entitled thereto, in the penal sum of _____
One Million Twenty-one Thousand Five Hundred Eight And 57/100THS
(\$1,021,508.57) for the payment of which well and truly to be made in lawful money of the
United States, we do hereby bind ourselves, or successors, assigns and personal representatives, jointly and
severally, firmly by these presents.

BUT THE CONDITION OF THE FOREGOING OBLIGATION OR BOND IS THIS:

WHEREAS: the City has entered into a certain written contract with said Contractor for the
Juanita Drive Improvements Project, in accordance with contract documents therefore on
file in the Office of the Neel-Schafer & Almon Associates at the price of, to-wit:
One Million Twenty-one Thousand Five Hundred Eight And 57/100THS (\$1,021,508.57)
as more fully appears in said written contract bearing date of 21st DECEMBER, 2015, which contract is
hereby referred to and made a part hereof to the same extent as if set out herein in full.

NOW, THEREFORE, if said Principal and all subcontractors to whom any portion of the work provided for in
said contract is sublet and all assignees of said Principal and of such subcontractors shall promptly make payment to
all persons supplying him or them with labor, foodstuffs, or supplies for or in the prosecution of the work provided for
in such contract, or in any amendment or extension of or addition to said contract, and for the payment of
reasonable attorney's fees, incurred by the claimant or claimants in suits on said bond, then the above obligation
shall be void; otherwise, it shall remain in full force and effect.

PROVIDED, however, that this bond is subject to the following conditions and limitations:

(a) Any person, firm or corporation that has furnished labor, foodstuffs, or supplies for or in the
prosecution of the work provided for in said contract, payment for which has not been made, shall have a direct right
of action in his or their name or names against the principal and surety on this bond, which right of action shall be
asserted in a proceeding, instituted in the county in which the work provided for in said contract is to be performed
and in any county in which said Principal or Surety does business. Such right of action shall be asserted in a
proceeding instituted in the name of the claimant or claimants for his or their use and benefit against said Principal
and Surety or either of them (but not later than one year after the final settlement of said Contract) in which action
such claim or claims shall be adjudicated and judgment rendered thereon.

(b) In addition to any other legal mode of service, service of summons and other process in suits on
this bond brought in Tuscaloosa County may be had on the Principal or the Surety in accordance with Title 27,
Chapter 3, Section 24 of the Ala. Code (1975) by serving a copy of the summons and complaint or other pleading or
process, with the Commissioner of Insurance of the State of Alabama or his/ her designee and the Principal and
Surety agree to be bound by such mode of service above described and consents that such service shall be the
same as personal service on the Principal or Surety.

(c) The Surety shall not be liable hereunder for any damages or compensation recoverable under any workmen's compensation or employer's liability statute.

(d) In no event shall the Surety be liable for a greater sum than the penalty of this bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement of said contract.

(e) This bond is given pursuant to the terms of Title 39, Chapter 1, Section 1 of the Ala. Code (1975), and all the provisions of law with reference to this character of bond as set forth in said section or as may hereinafter be enacted are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said Contractor has hereunder affixed its signature and said Surety has hereunto caused to be affixed its corporate signature and seal, by its duly authorized officers on the 21ST day of DECEMBER, 2015.

Dominion Construction Company, Inc.

Principal

By:



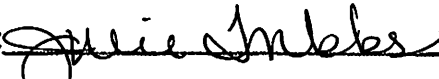
Vice President

Title

Hudson Insurance Company

Surety

By:



Julie Tubbs, Attorney-in-Fact

Title

ATTEST:





POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint

Joseph D. Fitts, Richard F. Fitts, Charles F. Horton, Jr., Cheryl A. Camak, Timothy L. Donahue and Julie Tubbs

its true and lawful Attorney(s)-in-Fact, at New York, New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bonds and undertakings given for any and all purposes, also to execute and deliver on its behalf as aforesaid renewals, extensions, agreements, waivers, consents or stipulations relating to such bonds or undertakings provided, however, that no single bond or undertaking shall obligate said Company for any portion of the penal sum thereof in excess of the sum of Ten Million Dollars (\$10,000,000.00).

Such bonds and undertakings when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

In Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Executive Vice President thereunto duly signed, on this 27th day of July, 2012 at New York, New York.



HUDSON INSURANCE COMPANY

Attest: Dina Daskalakis Assistant Corporate Secretary

[Signature of Dina Daskalakis]

By: Christopher T. Suarez Executive Vice President

[Signature of Christopher T. Suarez]

STATE OF NEW YORK COUNTY OF NEW YORK. SS.

On the 27th day of July, 2012 before me personally came Christopher T. Suarez to me known, who being by me duly sworn did depose and say that he is an Executive Vice President of HUDSON INSURANCE COMPANY, the corporation described herein and which executed the above instrument, that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

(Notarial Seal)



STATE OF NEW YORK COUNTY OF NEW YORK

[Signature of Ann M. Murphy]

ANN M. MURPHY Notary Public, State of New York No. 01MU6067553 Qualified in Nassau County Commission Expires December 10, 2017

CERTIFICATION

The undersigned Dina Daskalakis hereby certifies:

That the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertakings made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOLVED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force.

In Witness the hand of the undersigned and the seal of said Corporation this ___ day of ___, 20__.



By: Dina Daskalakis, Assistant Corporate Secretary

[Signature of Dina Daskalakis]



Company ID Number: 468942
Client Company ID Number: 545270

The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer, the E-Verify Employer Agent and DHS respectively.

If you have any questions, contact E-Verify at 1-888-464-4218.

Approved by:

Employer Dominion Construction Co Inc.

<u>Brandy Ethridge</u> Name (Please Type or Print)	<u>Office Manager</u> Title
<u>Brandy Ethridge</u> Signature	<u>09/30/2015</u> Date

E-Verify Employer Agent Alabama Department of Homeland Security

<u>brittany jordan</u> Name (Please Type or Print)	 Title
<u>Electronically Signed</u> Signature	<u>04/18/2012</u> Date

Department of Homeland Security – Verification Division

<u>USCIS Verification Division</u> Name (Please Type or Print)	 Title
<u>Electronically Signed</u> Signature	<u>04/18/2012</u> Date

**Information Required
For the E-Verify E-Verify Employer Agent Program**

Information relating to your Company:

Company Name: Dominion Construction Co Inc.



Company ID Number: 468942
Client Company ID Number: 545270

Company Facility Address: 5126 McFarland Boulevard E Suite D

Tuscaloosa, AL 35405

County or Parish: TUSCALOOSA

Employer Identification
Number: 263598571

North American Industry
Classification Systems
Code: 237

Administrator:

Number of Employees: 5 to 9



CITY OF TUSCALOOSA

BUSINESS LICENSE

EXPIRES DECEMBER 31, 2015



THIS LICENSE IS NOT TRANSFERABLE
OWNERSHIP CHANGE REQUIRES NEW LICENSE
LOCATION CHANGE REQUIRES APPROVAL

ACCOUNT ID: 003666
ISSUE NO: 5587
ISSUE DATE: 02/16/2015

2015

NAICS: 236200
CATEGORY: CONTRACTOR
TYPE: GENERAL

DOMINION CONSTRUCTION CO INC
FREE, MICHAEL
PO BOX 70
DUNCANVILLE, AL 35456

LINDA S. MCKINNEY
DIRECTOR OF REVENUE

WALTER MADDOX
MAYOR

****RENEW BEFORE FEBRUARY 16TH TO AVOID PENALTIES****

BUSINESS COPY / BUSINESS LICENSE RECEIPT

<p>PLEASE POST TOP PORTION IN A VISIBLE LOCATION</p>	<p>CITY OF TUSCALOOSA REVENUE DEPARTMENT P O BOX 2089 TUSCALOOSA, AL 35403 PHONE: (205) 248-5200 FAX: 205-349-0180 www.tuscaloosa.com</p>
<p>BUSINESS: DOMINION CONSTRUCTION CO INC 5126 MCFARLAND BL E TUSCALOOSA, AL 35405</p>	
<p>NAICS: 236200 CATEGORY: CONTRACTOR TYPE: GENERAL ACCOUNT ID: 003666 ISSUE NO: 5587 ISSUED BY: JGH ISSUE DATE: 02/16/2015</p>	<p>AMOUNT: 4,910.91 SUB TOTAL: 4,910.91 ISSUE FEE: 5.00 AMOUNT PAID: 4,915.91</p>



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/24/2015

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Fitts Agency, Inc. 1806 6th Street Tuscaloosa AL 35401	CONTACT NAME: Debbie Wheat	FAX (A/C. No.): 205-342-3467
	PHONE (A/C. No. Ext.): 205-342-3524	E-MAIL ADDRESS: dwheat@fittsagency.com
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Sentry Insurance		24988
INSURER B : Bridgefield Casualty Ins Co		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

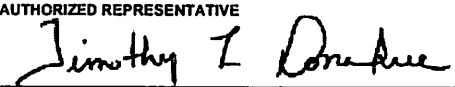
INSURED
DOMIN-2
Dominion Construction Company
Michael Free
P O Box 70
Duncanville AL 35456

COVERAGES CERTIFICATE NUMBER: 803117696 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GENL AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	Y		TSM02943	7/28/2015	7/28/2016	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS			TSA02942	7/28/2015	7/28/2016	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	UMBRELLA LIAB EXCESS LIAB DED RETENTION \$			TAU02941	7/28/2015	7/28/2016	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	196-22096	7/28/2015	7/28/2016	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
A	Leased/Rented			TSM02943	7/28/2015	7/28/2016	\$1,000 Ded \$2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Project: A15-1090 Jaunita Drive Improvements. City of Tuscaloosa, its officers, agents & employees are covered as additional insured on general liability as required by written contract prior to a loss. Waiver of subrogation applies to general liability in favor of certificate holder.

CERTIFICATE HOLDER City of Tuscaloosa 2201 University Blvd Tuscaloosa AL 35401	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

**BUSINESS AUTO
ANC 101**

POLICY NUMBER: TSA02942

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY

**ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - AUTOMATIC
STATUS WHEN REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU**

THIS ENDORSEMENT MODIFIES INSURANCE PROVIDED UNDER THE FOLLOWING:

BUSINESS AUTO LIABILITY COVERAGE PART

BLANKET -AS REQUIRED BY WRITTEN CONTRACT

- A. WHO IS AN INSURED (SECTION II) is amended to include as an insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability arising out of your ongoing operations performed for the insured. A person's or organization's status as an insured under this endorsement ends when your operations for that insured are completed.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**WAIVER OF TRANSFER OF RIGHTS TO RECOVERY
AGAINST OTHERS TO US**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization: BLANKET AS REQUIRED BY CONTRACT

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

The TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US Condition (Section IV - COMMERCIAL GENERAL LIABILITY CONDITIONS) is amended by the addition of the following:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

STATE OF ALABAMA)
TUSCALOOSA COUNTY)
CITY OF TUSCALOOSA)

CONTRACTOR'S RELEASE OF LIENS AND CLAIMS

Project No. _____

THIS Contractor's Release of Liens and Claims is made in accordance with that certain contract between the CITY OF TUSCALOOSA, ALABAMA, a Municipal Corporation, (hereinafter the "City") and _____ (hereinafter the "Contractor" or undersigned), for a project known as _____ in regard to which the undersigned warrants and certifies to the City as follows:

1. That there are no amounts owed by the undersigned or any tier of subcontractor or supplier of the undersigned which could become the basis for a lien or suit against the properties of the Contractor or the property of the City or any funds held by or in the possession of the City in regard to the Project.
2. That the undersigned has satisfied all claims and indebtedness of every nature in any way connected with the work, including (but not limited to) all payrolls, amounts due to subcontractors, accounts for labor performed and materials furnished, incidental services, liens and judgments.
3. In consideration of the receipt by the undersigned from the City of final payment under the above mentioned contract, the undersigned hereby waives and relinquishes all liens and claims of lien which the undersigned may have against the aforesaid property or funds; and further, undersigned also hereby remises, releases and forever discharges the City, its officers, agents and employees, of any and all claims, demands and causes of action whatsoever which the undersigned has, might have or could have against the City by reason of or arising out of the above-mentioned contract. The undersigned further agrees to indemnify and hold the City, its officers, agents and employees harmless against any and all claims or demands from subcontractors or suppliers arising out of the aforementioned contract.

IN WITNESS WHEREOF, the undersigned has duly executed this release this the _____ day of _____, 20_____.

CONTRACTOR:

BY: _____

TITLE: _____

I, _____, after being duly sworn, depose and say as follows: That I am the _____ of the _____ Corporation and hereby certify that I am duly authorized to execute this Contractor's Release of Liens and Claims.

STATE OF ALABAMA)
TUSCALOOSA COUNTY)

Sworn to and subscribed before me on this the _____ day of _____, 20_____.

Notary Public

CONSENT OF SURETY:

SURETY

BY: _____

ATTORNEY-IN-FACT FOR SURETY

CITY OF TUSCALOOSA PUBLIC WORKS
ROOFING GUARANTEE
Project No. _____

Name of Project _____

Location _____

Owner City of Tuscaloosa

General Contractor _____

Address _____

Date of Acceptance _____ Date of Expiration _____

1. The General Contractor does hereby certify to the City of Tuscaloosa that the roofing work included in this contract was installed in strict accordance with all requirements of the plans and specifications.

2. The General Contractor does hereby guarantee the roofing and associated work including all flashing, both composition and metal, against leaks due to faulty workmanship for a period of five (5) years and against leaks due to faulty or defective materials for twenty (20) years, starting on the date of acceptance of the Project by the City.

3. Subject to the terms and conditions listed below, the General Contractor guarantees that during the Guarantee Period he will at his own cost and expense, make or cause to be made such repairs to, or replacements of said work, as are necessary to correct faulty and defective work and materials as are necessary to maintain said work in watertight conditions, and further, to respond on or within three (3) calendar days upon proper notification of leaks or defects by the City or Architect.

A. Specifically excluded from this Guarantee are damages to the work, other parts of the building and building contents caused by: Lightning, windstorm, hail storm and other unusual phenomena of elements; and, Fire. When the work has been damaged by any of the foregoing causes, the Guarantee shall be null and void until such damage has been repaired by the General Contractor, and until the cost and expense thereof has been paid by the City or by the responsible party so designated.

B. During the Guarantee Period, if the City allows alteration of the work by anyone other than the General Contractor, including cutting, patching and maintenance in connection with penetrations, and positioning of anything on the roof, this Guarantee shall become null and void upon the date of said alterations. If the City engages the General Contractor to perform said alterations, the Guarantee shall not become null and void, unless the General Contractor, prior to proceeding with said work, shall have notified the City in writing, showing reasonable cause for claim that said alterations would likely damage or deteriorate the work, thereby reasonably justifying a termination of this Guarantee.

C. Future building additions will not void this guarantee, except for that portion of the future addition that might affect the work under this contract at the point of connection of the roof areas, and any damage caused by such addition. If this contract is for roofing of an addition to an existing building, then this guarantee covers the work involved at the point of connection with the existing roof.

D. During the Guarantee Period, if the original use of the roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray cooled surface, flooded basin, or other use of service more severe than originally specified, this Guarantee shall become null and void upon the date of said change.

E. The City shall promptly notify the General Contractor of observed, known or suspected leaks, defects or deterioration, and shall afford reasonable opportunity for the General Contractor to inspect the work, and to examine the evidence of such leaks, defects or deterioration.

IN WITNESS THEREOF, this instrument has been duly executed this the ___ day of _____, 20__.

General Contractor's Authorized Signature
NAME AND TITLE _____

CITY OF TUSCALOOSA
ASBESTOS AFFIDAVIT
Project No. _____

DATE: _____

BUILDING OWNER: _____

PROJECT: _____

TO WHOM IT MAY CONCERN:

The undersigned certifies that to the best of his knowledge, no products containing asbestos have been included in the construction of the captioned Project. Special care was exercised to avoid asbestos-containing products, including reviewing product data sheets, reviewing product labels, and visually verifying products in the field. Special care to avoid asbestos has been used in the selection, purchase, and installation of products, including, but not limited to, the following: concrete, batt insulation, roof insulation, building felts, mastics, waterproofing products, adhesives, resilient flooring products, ceiling tiles, interior coatings, exterior coatings, roofing, pipe insulation, duct insulation, and pre-assembled items of equipment.

Respectfully submitted,

Signature

Typed Name

Title

Firm Name

Address

Sworn to and subscribed before me on this the _____
day of _____, 20_____.

Notary Public.

County, State

My Commission Expires:

PROJECT NAME JUANITA DRIVE
IMPROVEMENT PROJECT
PROJECT NO. A15-1090
CONTRACTOR/INSURED _____
DOMINION CONSTRUCTION COMPANY

STATE OF ALABAMA)
)
TUSCALOOSA COUNTY)

AGENT'S VERIFICATION OF CONTRACTOR'S INSURANCE

This is to certify to the City of Tuscaloosa, Alabama, a Municipal Corporation, that the Contractor in the above referenced Project does possess a policy or policies of insurance reflected on the Certificate of Insurance issued for the Project by the undersigned agency of which I am an authorized representative. I have read the contract document as it relates to insurance requirements and said Contractor's insurance is effective as of the dates stated in the certificate and meets or exceeds all ratings, limits, and amounts as required by the same.

This the _____ day of _____, 20_____.

AGENCY: _____

BY: _____

ITS: _____

STATE OF ALABAMA)
TUSCALOOSA COUNTY)
CITY OF TUSCALOOSA)

NOTICE TO PROCEED WITH PUBLIC WORKS PROJECT
CITY OF TUSCALOOSA, ALABAMA

Project Name: JUANITA DRIVE IMPROVEMENTS PROJECT
Project No.: A15-1090
✓ Date: Jan 15, 2016

TO: DOMINION CONSTRUCTION COMPANY, INC.
P.O. BOX 70
DUNCANVILLE, ALABAMA 35456



Pursuant to Ala. Code §39-2-10 (1975), you are hereby notified to immediately commence work in full accordance with the terms and conditions of the Contract Documents in the above referenced Project, dated DEC. 21ST, 20 15, on or before x Jan 30, 20 16, and you are to complete the work within the time specified therein.

CITY OF TUSCALOOSA, ALABAMA
A MUNICIPAL CORPORATION
Post Office Box 2089
Tuscaloosa, Alabama 35403-2089

✓ By: 
City's Representative

ACCEPTANCE OF NOTICE

I, on behalf of the above named contractor, do hereby accept receipt of the above notice to proceed with the referenced Project and acknowledge the contents of the same on this the 6 day of Jan 20 16.

✓ CONTRACTOR:

By Its: 

CONTRACT CHANGE ORDER NO.
City of Tuscaloosa, Office of the City Attorney

DATE: _____ **PROJECT:** JUANITA DRIVE IMPROVEMENTS PROJECT

TO: DOMINION CONSTRUCTION COMPANY, INC. _____
(Contractor)

TERMS: You are hereby authorized, subject to the provisions of your Contract for this Project, to make the following changes thereto in accordance with the attached Change Order Request and supporting documents and to:

FURNISH the necessary labor, materials and equipment to:

TOTAL ADDITION OR REDUCTION TO CONTRACT PRICE:

(Note: Numbers in parentheses are deductions).

ORIGINAL CONTRACT PRICE	\$ _____
LESS CONTINGENCY/ALLOWANCE	\$ _____
NET ORIGINAL CONTRACT PRICE	\$ _____
Net total of previous Change Orders	\$ _____
Previous revised Contract Price	\$ _____
This Change Order No. _____ <input type="checkbox"/> Add <input type="checkbox"/> Deduct	\$ _____
Revised Contract Price this date	\$ _____

Extension of time resulting from this Change Order _____ (Indicate number of calendar days).

The amount of this Change Order will be the responsibility of _____

This Contract Modification constitutes full and mutual accord and satisfaction for all time and all cost related to this change. By acceptance of this Contract Modification, the Contractor hereby agrees that the modification represents an equitable adjustment to the Contract, and further, agrees to waive all right to file any further claims or changes arising out of or as a result of this change, or the accumulation of executed Contract Modifications on this Contract.

The Contractor and Owner(s) hereby agree to the terms of this Change Order as contained herein.

CONSENT OF SURETY

(Company)

By: _____

RECOMMENDED

By: _____

(Design Engineer or Architect)

CONTRACTING PARTIES

(Contractor)

By: _____
(Authorized Representative)

CITY OF TUSCALOOSA

By: _____
(Mayor)

CITY OF TUSCALOOSA
OFFICE OF THE CITY ATTORNEY

**CHANGE
ORDER
REQUEST**

OWNER: CITY OF TUSCALOOSA

ARCHITECT/ENGINEER: _____

CONTRACTOR: _____

PROJECT: _____

CHANGE ORDER REQUEST NO. _____ DATE: _____

1. DESCRIPTION OF CHANGE:

2. CHANGE ORDER COSTS: _____

Proposal Attached _____ Cost Estimated/Proposal Required

<i>Item</i>	<i>Quantity</i>	<i>Material Unit Price</i>	<i>Labor (Hours)</i>	<i>Labor Unit Price</i>	<i>Sub-Total Cost</i>
a.					
b.					
c.					
d.					
e.					
f.*					
TOTAL:					

*If more than 6 items, provide attachments.

3. INSTITUTED BY:

4. JUSTIFICATION OF NEED:

5. JUSTIFICATION OF CHANGE ORDER VERSUS COMPETITIVE BIDDING:

6. COSTS REVIEW:

7. THIS CHANGE ORDER IS SUBMITTED FOR REVIEW AND APPROVAL AND IS CLASSIFIED AS THE FOLLOWING TYPE:

- Minor change of a total monetary value less than required for competitive bidding.
 - Changes for matters relatively minor and incidental to the original contract necessitated by unforeseeable circumstances arising during the course of work.
 - Emergencies arising during the course of work.
 - Change or alternates provided for in the original bidding where there is no difference in price of the Change Order from the original best bid on the Alternate.
 - Change of relatively minor terms not contemplated when the plans and specifications were prepared and the Project was bid and which are in the public interest and do not exceed 10% of the Contract Price.
-

8. EXTENSION OF TIME REQUESTED: Calendar Days:

RECOMMENDED:

APPROVED:

BY: _____
Tuscaloosa's Consulting Engineer/Architect

BY: _____
Contractor

BY: _____
City Representative

BY: _____
Owner's Legal Advisor

BY: _____
Owner's Authorized Representative

STATE OF ALABAMA)
COUNTY OF TUSCALOOSA)
CITY OF TUSCALOOSA)

**LEGAL NOTICE
NOTICE OF COMPLETION OF PUBLIC WORKS PROJECT
(Over \$50,000)**

Pursuant to Ala. Code §39-1-1 (1975), notice is hereby given that
_____ has completed its contract with
(Name of Company)
the City of Tuscaloosa, Alabama, for the _____
(Name of Project)
located at _____ . This notice will be
(Location of the Project)
published for a period of four (4) successive weeks beginning: _____
(Date)

A final settlement will not be made upon the contract until the expiration of thirty (30) days after completion of notice. Any person or firm having claims on said Project for materials or labor should contact the above contractor at:

(Address of Contractor)

in the time and manner as required by law.

**CITY OF TUSCALOOSA
OFFICE OF THE CITY ATTORNEY
P. O. BOX 2089
TUSCALOOSA, ALABAMA 35403**

DATED: _____

CITY OF TUSCALOOSA
SPECIAL CONDITIONS FOR
FEDERALLY FUNDED CONTRACTS

I. DEFINITIONS

"Construction Contract" means a contract for construction, rehabilitation, alteration, and/or repair, including painting and decorating.

Contractor" means an entity that has entered into an agreement with the local government for the performance of specific work on a project or activity, the provision of professional services, or for the supply of equipment and/or materials.

"HUD" means U.S. Department of Housing and Urban Development (Federal Agency).

"Local Government" means the City of Tuscaloosa.

"Program" means the Community Development Block Grant Disaster Recovery (CDBG-DR) (Federal Program) operated under the provisions of U.S. Department of Housing and Urban Development ("HUD")

"Projects/Activities" means those undertakings which are included in the Program and are funded wholly or in part by Community Development Block Grant Disaster Recovery (CDBG-DR) (Federal Program) operated under the provisions of U.S. Department of Housing and Urban Development ("HUD").

"Project Area" means the corporate limits of the City of Tuscaloosa.

"Subcontractor" means a person, firm or corporation supplying services or labor and materials or only labor or only materials for work at the site of the project, for and under contract or agreement with the Contractor.

II. CONFLICT OF INTEREST

A. Interest of Members of the Local Government. No officer, employee or agent of the local government who exercises any function or responsibilities in connection with the planning and carrying out of the program, or any other person who exercises any functions or responsibilities in connection with the program, shall have any personal financial interest, direct or indirect, in this contract, and the Contractor shall take appropriate steps to assure compliance.

B. The Contractor agrees that it will incorporate into every subcontract required in writing the following provision: Interest of Contractor and Employees. The Contractor agrees that no person who presently exercises any functions or responsibilities in connection with the program, has any personal financial interest, direct or indirect, in this contract. The Contractor further covenants that he presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of his services hereunder.

The Contractor further covenants that in the performance of this contract no person having any conflicting interest shall be employed. Any interest on the part of the Contractor or his employees must be disclosed to the City. Provided, however, that this paragraph shall be interpreted in such a manner so as not to unreasonably impede the statutory requirement that maximum opportunity be provided for employment of and participation by low income residents of the area.

C. Provisions of the Hatch Act. Neither the funds provided by this agreement nor the personnel employed in the administration of the agreed upon work shall be in any way or to any extent engaged in the conduct

of political activities in contravention of Chapter 15 of Title 5, U. S. Code.

III. **EQUAL OPPORTUNITY REQUIREMENTS:** During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, or disability. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, age, or disability. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensations; and selection of training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, or disability.

3. The Contractor will send to each labor union or representative of workers with which he has collective bargaining agreement or other contract or understanding, a notice advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Contractor will furnish to the local government all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the local government, HUD, and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules regulations, and orders.

6. In the event of the Contractor's non-compliance with the nondiscrimination clauses of this agreement or with any of the said rules, regulations, or orders, this agreement may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further local government contracts in accordance with procedures authorized in Executive Order 11246 of September 24 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the City, Secretary of Labor, or as otherwise provided by law.

7. The Contractor will include the provisions of paragraph 1 through 6 above in every subcontract or purchase order unless exempted by rules, regulations, or orders of the local government or the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed as a means of enforcing such provisions, including sanctions for noncompliance: Provided however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the City, the Contractor may request the local government to enter into such litigation to protect the interests of the local government.

8. The Contractor agrees that it will assist and cooperate actively with the local government and the Secretary of Labor in obtaining the compliance of subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the local government and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the local government in the discharge of its primary responsibility for securing compliance.

9. The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a Contractor debarred from, or who has

not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order. In addition, the agency agrees that if it fails or refuses to comply with these undertakings, the local government may take any or all of the following actions: terminate or suspend in whole or in part this contract; refrain from extending any further assistance to the Contractor under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received from such Contractor.

10. **Non-segregated Facilities.** The Contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Contractor covenants that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. As used in this paragraph, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise.

11. No person in the United States shall, on the ground of race, color, religion, sex, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity made possible by or resulting from this contract. The agency and each employer will comply with all requirements imposed by or pursuant to Title VI of the Civil Rights Act of 1964.

12. The Contractor shall maintain data which records its affirmation action in equal opportunity employment, including but not limited to employment, upgrading, demotions, transfers, recruitment or recruitment advertising, layoffs or terminations, pay or other compensation, and selection for training.

IV. LABOR STANDARDS PROVISIONS - CONSTRUCTION CONTRACTS ONLY

A. Contract Work Hours and Safety Standards Act

1. **Overtime Requirements.** No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any work-week in which he is employed on such work to work in excess of forty hours in any work-week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of forty hours in any work-week.
2. **Violations; Liability for Unpaid Wages; Liquidated Damages.** In the event of any violation of the clause set forth in subparagraph 1, the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his unpaid wages. In addition, such Contractor and subcontractor shall be liable to the City for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the clause set forth in subparagraph 1 in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work-week of forty hours without payment of the overtime wages required by the clause set forth in subparagraph 1.
3. **Withholding for Unpaid Wages and Liquidated Damages.** The local government may withhold or cause to be withheld, from any monies payable on account of work performed by the Contractor or subcontractor, such sums as may administratively be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages.

B. Employment of Certain Persons Prohibited. No person under the age of sixteen years and no person who at the time, is serving sentence in a penal or correctional institution shall be employed on the work covered by this contract.

C. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the labor standards provisions of this contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceedings or has testified or is about to testify in any proceedings under or relating to the labor standards applicable under this contract.

D. Questions Concerning Certain Federal Statutes and Regulations. All questions arising under this contract which relate to the application or interpretation of the aforesaid Contract Work Hours and Safety Standards Act, the regulations issued by the Secretary of Labor, United States Department of Labor, pursuant to said Act, or the labor standards provisions of any other pertinent Federal statute, shall be referred, through the City of Tuscaloosa and the Secretary of Housing and Urban Development, to the Secretary of Labor, United States Department of Labor, for said Secretary's appropriate ruling or interpretation which shall be authoritative and may be relied upon for the purpose of this contract.

V. ENVIRONMENTAL PROTECTION REQUIREMENTS

A. The Contractor hereby agrees that any facility to be utilized in the performance of any nonexempt contract or subcontract shall not be a facility included on the list of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.

B. The Contractor also agrees to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

C. As a condition of the award of the contract, the Contractor agrees to give prompt notice to the City of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

D. The Contractor agrees that it will include or cause to be included the criteria and requirements in subparagraph A through D of this section in every nonexempt subcontract and that it will take such action as the City or the EPS may direct as a means of enforcing such provisions.

VI. FINANCIAL MANAGEMENT: The Contractor shall maintain effective control over and accountability for all funds, property, and other assets that are provided for by this agreement. The Contractor shall adequately safeguard all such assets and shall assure that they are used solely for authorized purposes.

A. Ineligible Costs. In addition to any costs that are ineligible under other criteria included herein the following costs are specifically ineligible:

1. Bad Debts. Any loses arising from uncollected accounts and other claims, and related costs.
2. Contingencies. Contributions to a contingency reserve or any similar provisions for unforeseen events.
3. Contributions and Donations.
4. Entertainment. Costs of amusements, social activities, and incidental costs, such as meals, beverages, lodgings, and gratuities, relating to entertainment.
5. Fines and Penalties. Costs resulting from violations of or failure to comply with Federal,

State, and local laws and regulations.

6. Interest and Other Financial Costs. Interest on borrowing (however represented), bond discounts, cost of financing and refinancing operations, and legal and professional fees paid in connection herewith.
7. Legislative Expenses. Salaries and other expenses of local government bodies such as county supervisors, city councils, school boards, etc., whether incurred for purposes of legislation or executive direction.
8. Membership Expenses. Cost of membership in an organization which devotes a substantial part of its activities to influencing legislation.
9. Travel. Costs in excess of those allowed by the Contractor for its equivalent employees. In any case, the difference in cost between first-class air accommodations and less-than-first-class air accommodations are not available and is so documented.
10. Meeting Attendance. Costs of attending meetings which are not open for attendance on a non-segregated basis.

B. Property Management Standards. The Contractor's property management standards for non-expendable personal property acquired under this contract shall include the following procedural requirements:

1. Property records shall be maintained accurately and provide for: a description of the property; manufacturer's serial number or other identification number; acquisition data, cost, and source of property; percentage of Federal funds used in the purchase of property; location, use and condition of the property; and ultimate disposition data including sales price or the method used to determine current fair market value.
2. A physical inventory of property shall be taken and the results reconciled with the property records at least once each year to verify the existence, current utilization, and continued need for the property.
3. A control system shall be in effect to ensure adequate safeguards to prevent loss, damage, or theft to the property. Any loss, damage, or theft of non-expendable property shall be investigated and fully documented.
4. Adequate maintenance procedures shall be implemented to keep the property in good condition.

C. Procurement Standards

1. The Contractor shall maintain a code or standard of conduct which shall govern the performance of its officers, employees, or agents in contracting with and expending grant funds. Local government officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from Contractors or potential Contractors.
2. All procurement transactions regardless of whether negotiated or advertised and without regard to dollar value shall be conducted in a manner so as to provide maximum open and free competition.

VII. GENERAL REQUIREMENTS

A. Retention of Records. All records maintained by the Contractor that pertain to this agreement shall be retained by the Contractor for a period of three years or such longer period as the local government or HUD may require in specific cases.

B. Reports and Information. The Contractor, at such times as the local government may require, shall furnish such statements, reports, records, data and information, as may be requested pertaining to matters covered

by this agreement.

C. Audit Requirements. The local government, the Comptroller General of the United States, and/or _____ (Federal Agency), or any of the duly authorized representatives shall have access to all tasks, accounts, records, reports, files and other papers or property of the Contractor pertaining to funds provided under this agreement for the purpose of making surveys, audits, examinations, excerpts, and transcripts. The Contractor's financial management system shall be audited at least once a year. Audits may be made at less frequency considering the nature, size and complexity of the activity. The Contractor shall implement a systematic method to assure timely and appropriate resolution of audit findings and recommendations.

D. Breach of Contract Terms and Conditions. In the event of the Contractor's noncompliance with the terms and conditions of this contract or with any of the said rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part. Provided, that the right of the Contractor to proceed with this contract shall not be terminated or the Contractor charged with liquidated damages because of delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted, to acts of God, or of the public enemy, acts of the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes, if the Contractor shall within ten days from the beginning of any such delay notify the City in writing of the cause of the delay. The City shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in the City's judgment, the findings of fact justify such an extension, and the City's findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal, within thirty days, by the Contractor to the City whose decision on such appeal as to the facts of delay and the extension of time for completing the work shall be final and conclusive on the parties hereto.

E. Safety Standards. No Contractor or subcontractor contracting for any part of a construction contract shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards promulgated by the Secretary of Labor.

F. Lead-based Paint Regulations. The construction or rehabilitation of residential structures with assistance provided under this contract is subject to the HUD Lead-based Paint regulations, 24 CFR part 35. Should this contract include activities involving the construction or rehabilitation of residential structures, the Contractor hereby agrees to comply with the regulations of 24 CFR part 35.

G. Subcontracts. The Contractor shall insert in any subcontracts all of the terms and conditions set forth in this contract and also a clause requiring the subcontractors to include these terms and conditions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

H. Davis-Bacon. As applicable, Contractors shall comply with the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 CFR Part 5), the provisions of which are incorporated by reference into this contract as if contained herein.

I. Debarment of contactors/subcontractors / City's right to monitor. All contracting and subcontracting agencies shall be actively registered in the sam.gov system and have a non-debarred status to perform work. The City of Tuscaloosa shall have all rights to any and all documentation related to the project. Periodic monitoring visits will be performed by City of Tuscaloosa staff to ensure all federal and contract requirements are followed.

J. Green Building Standard for Replacement and New Construction of Residential Housing. Contractors must meet the Green Building Standard in this subparagraph for: (i) all new construction of residential buildings; and (ii) all replacement of substantially-damaged residential buildings. Replacement of residential buildings may include reconstruction (i.e., demolishing and re-building a housing unit on the same lot in substantially the same manner) and may include chances to structural elements such as flooring systems, columns or load bearing interior or exterior walls. For purposes of this Notice, the Green Building Standard means the contractor will require that all

construction covered by subparagraph, above, meet an industry-recognized standard that has achieved certification under at least one of the following programs (i) ENERGY STAR (Certified Homes or Multifamily High Rise); (ii) Enterprise Green Communities; (iii) LEED (NC, Homes, Midrise, Existing Buildings O&M, or Neighborhood Development); (iv) ICC-700 National Green Building Standard; (v) EPA Indoor AirPlus (ENERGY STAR a prerequisite); or (vi) any other equivalent comprehensive green building program, including regional programs. Standards for rehabilitation of non-substantially-damaged residential buildings: For rehabilitation other than that described in subparagraph, above, contractors must follow the guidelines specified in the HUD CPD Green Building Retrofit Checklist, available on the CPD Disaster Recovery Web site. Contractors must apply these guidelines to the extent applicable to the rehabilitation work undertaken, including the use of mold resistant products when replacing surfaces such as drywall. When older or obsolete products are replaced as part of the rehabilitation work, rehabilitation is required to use ENERGY STAR- labeled, WaterSense labeled, or federal Energy Management Program (FEMP)- designated products and appliances. Implementation: For construction projects completed under construction, or under contract prior to the date that federal assistance was approved for the project the contractor is encouraged to apply the applicable standards to the extent feasible but the Green Building Standard is not required; (ii) for specific which an ENERGY STAR-or-WaterSense-labeled or FEMP-designated product does not exist, the requirement to use such products does not apply. The City encourages contractors to implement green infrastructure policies to the extent practicable.

VIII. ADECA-FUNDED CONTRACTS: The Contractor shall include the following provisions in all construction contracts funded by the Alabama Department of Economic and Community Affairs (ADECA). For all ADECA-funded construction contracts, in the event the provisions contained in this section conflict with provisions contained elsewhere in this document, the provisions contained in this section shall prevail.

A. Section 109 Clause, Housing and Community Development Act of 1974. No person in the United States shall on the grounds of race, color, national origin or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

B. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) (applicable to contract/subcontracts exceeding \$10,000). Contractor's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for	Goals for
Minority	Female
Participation	Participation
(Insert Goals)	(Insert Goals)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area. If the Contractor performs construction work in a geographic area located outside of the covered area, it shall apply the goals established for such geographic area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its Federally involved and non-Federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the

Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

C. "Section 3" Compliance in the Provision of Training, Employment and Business Opportunities.

1. The work to be performed under this Contract is a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12, U.S.C. 1701u. Section 3 requires that to the greatest extent feasible, opportunities for training and employment be given lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by, persons residing in the area of the project.
2. The parties to this Contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set forth in 24 CFR 135, and all applicable rules and orders of the Department issued thereunder prior to the execution of this Contract. The parties to this Contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.
3. The Contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement or other contract or understanding, if any, a notice advising the said labor organization or workers' representative of this commitment under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.
4. The Contractor will include this Section 3 clause in every subcontract for work in connection with the project and will, at the direction of the applicant for or recipient of Federal financial assistance, take appropriate action pursuant to the subcontract upon a finding that the Subcontractor is in violation of regulations issued by the Secretary of Housing and Urban Development, 24 CFR Part 135. The Contractor will not subcontract with any Subcontractor where it has notice or knowledge that the latter has been found in violation of regulations under 24 CFR Part 135 and will not let any subcontract unless the Subcontractor has first provided it with a preliminary statement of ability to comply with the requirements of these regulations.
5. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued hereunder prior to the execution of the Contract, shall be a condition of the Federal financial assistance provided to the project, binding upon the applicant or recipient for such assistance, its successors and assigns. Failure to fulfill these requirements shall subject the applicant or recipient, its contractors and subcontractors, its successors and assigns to those sanctions specified by the grant or loan agreement or contract through which Federal assistance is provided, and to such sanctions as are specified in 24 CFR Part 135.

D. Section 402 Veterans of the Vietnam Era (if \$10,000 or over). Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era.

1. The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor

agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based on their disability or veteran status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. The Contractor agrees that all suitable employment openings of the Contractor which exist at the time of the execution of this Contract and those which occur during the performance of this Contract, including those not generated by this Contract and including those occurring at an establishment of the Contractor other than the one wherein the Contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The Contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required. State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs 4 and 5.
3. Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and non-veterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the Contractor from any requirements in Executive Orders or regulations regarding nondiscrimination in employment.
4. The reports required by paragraph 2 of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the Contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C.1787. The Contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this Contract identifying data for each hiring location copies of the reports submitted until the expiration of one year after final payment under the Contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.
5. Whenever the Contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by the contract

clause.

6. This clause does not apply to the listing of employment openings which occur and are filled outside of the 50 states, the District of Columbia, Puerto Rico, Guam and the Virgin Islands.
7. The provisions of paragraphs 2, 3, 4 and 5 of this clause do not apply to openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer-union arrangement for that opening.
8. As used in this clause:
 - a. "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: production and nonproduction; plant and office; laborers and mechanics; supervisory and nonsupervisory; technical; and executive, administrative, and professional openings that are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than three days' duration, and part-time employment. It does not include openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement nor openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security, or where the requirement of listing would otherwise not be for the best interest of the Government.
 - b. "Appropriate office of the State employment service system" means the local office of the Federal-State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico and the Virgin Islands.
 - c. "Openings which the Contractor proposes to fill from within his own organization" means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the Contractor proposed to fill from regularly established "recall" lists.
 - d. "Openings which the Contractor proposes to fill pursuant to customary and traditional employer-union hiring arrangements" means employment openings which the Contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the Contractor and representatives of his employees.
9. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
10. In the event of the Contractor's non-compliance with the requirements of this clause, actions for non-compliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
11. The Contractor agrees to post in conspicuous places, available to employees and

applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notice shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

12. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.
13. The Contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontractor or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for non-compliance.

E. Certification of Compliance with Air and Water Acts (applicable to Federally assisted construction contracts and related subcontracts exceeding \$100,000). Compliance with Air and Water Acts. During the performance of this Contract, the Contractor and all Subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Contract Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended. In addition to the foregoing requirements, all nonexempt Contractors and Subcontractors shall furnish to the Owner, the following:

1. A stipulation by the Contractor or Subcontractors that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
2. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
3. A stipulation that as a condition for the Contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, or EPA indicating that a facility utilized, or to be utilized for the Contract, is under consideration to be listed on the EPA List of Violating Facilities.
4. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraphs A through D of this section in every nonexempt subcontract and requiring that the Contractor will take such actions as the Government may direct as a means of enforcing such provisions.

F. Compliance with Copeland Act Requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

G. Drug-Free Workplace Requirements. The Drug-Free Workplace Act of 1988 (42 U.S.C. 701) requires grantees (including individuals) of federal agencies, as a prior condition of being awarded a grant, to certify that they will provide drug-free workplaces. Each potential recipient must certify that it will comply with drug-

free workplace requirements in accordance with the Act and with HUD's rules at 24 CFR part 24, subpart F.

H. Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

IV. DISASTER RECOVERY FUNDED CONTRACTS: The Contractor shall include the following provisions in all Disaster Recover (DR) funded construction contracts. For all DR-funded construction contracts, in the event the provisions contained in this section conflict with provisions contained elsewhere in this document, the provisions contained in this section shall prevail.

A. The Contractor agrees to abide by all applicable Federal regulations in receiving, disbursing and accounting for Community Development Block Grant funds including, but not limited to all applicable sections of 24 CFR 570.

B. ADA Compliance. The Contractor hereby covenants and agrees that, in performing its responsibilities and obligations hereunder, the Contractor, its officers, agents or employees will not, on the grounds of race, color, sex, religion, national origin, disability or age, discriminate or permit discrimination against any person or groups of persons in any manner. The Contractor further agrees to comply with all applicable State and Federal ordinances and regulations, including but not limited to, the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA), the Civil Rights Act of 1964 and any regulations promulgated there under.

C. Section 3 Compliance. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (Section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations. Contractor agrees to send to each labor organization or representative of workers with which the Contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the Contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin. Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135. Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after Contractor is selected by before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 135. Noncompliance with HUD's regulations in 24

CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

D. Section 109 Compliance. No person in the United States will, on the ground of race, color, national origin, religion, or sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity administered or provided under this Agreement, pursuant to Section 109 of title I of the Housing and Community Development Act of 1974 (Title I) (42 U.S.C. 5309).

E. Section 402 Compliance. Contractors and subcontractors shall take affirmative action to employ and advance in employment qualified covered veterans. Disabled veterans, recently separated veterans (veterans within 3 years of their discharge or release from active duty), veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized (referred to as "other protected veterans"), and Armed Forces service medal veterans are covered veterans under VEVRAA, pursuant to the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended (VEVRAA).

F. Copeland Anti-Kickback Act Compliance. Pursuant to The Copeland "Anti-Kickback" Act, 40 USC §3145 and 18 USC §874, no contractor or subcontractor operating under this agreement shall induce an employee to give up any part of the compensation to which he or she is entitled under his or her contract of employment. Contractors and subcontractors shall submit a weekly statement of the wages paid to each employee performing on covered work during the preceding payroll period.

G. Affirmative Action. During the performance of this contract, the contractors and subcontractors operating under this agreement shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Contractors and subcontractors operating under this agreement shall comply with Affirmative Action laws and regulations to ensure equal employment opportunities, including, but not limited to 41 CFR Part 60-1; 41 CFR Part 60-2; 41 CFR Part 60-250; 41 CFR Part 60-741; compliance with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity."

H. Compliance with Goals for Minority and Female Participation. The City of Tuscaloosa has voluntarily adopted a Minority / Disadvantaged Business Enterprise ("MBE/DBE/WBE") Program designed to encourage the participation and development of minority and disadvantaged business enterprises and to promote equal business opportunities to the fullest extent allowed by state and federal law. It is the intent of the City to foster competition among contractors, suppliers, and vendors that will result in better quality and more economical services rendered to the City. Under this policy, the City of Tuscaloosa has established a goal of ten to twenty percent (10-20%) inclusion of minority and disadvantaged business enterprises for all services required to deliver City projects. In no case shall the stated percentage be the determining factor in contract awards. Rather, contractors must demonstrate a good faith effort to attain the desired percentage goal. The Developer is encouraged to adopt corresponding goals to those of the City's Minority / Disadvantaged Business Enterprise ("MBE/DBE/WBE") Program.

I. Compliance with Environmental Laws; including The Clean Air Act and Clean Water Act. Contractors and subcontractors operating under this agreement shall be responsible for ensuring compliance with Federal, State, or local pollution control laws and related requirements, including but not limited to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). If a contracting officer becomes aware of noncompliance with clean air or water standards in facilities used in performing nonexempt contracts, that contracting officer shall notify the agency head, or a designee, who shall promptly notify the EPA Administrator or a designee in writing.

J. Byrd Anti-Lobbying Agreement. Contractors operating under this agreement shall file the required certification under the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award

covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

K. HUD Form 4010 See next page.

Federal Labor Standards Provisions

U.S. Department of Housing and Urban Development Office of Labor Relations

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (I) **Minimum Wages.** All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section I(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(II) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract in the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (l) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(li) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/asa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

Previous editions are obsolete

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(II)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(III) The contractor or subcontractor shall make the records required under subparagraph A.3.(I) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(I) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(II) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

Previous editions are obsolete

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

6. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) **Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

L. Davis Bacon-Wage Rates

See Exhibit B to follow starting on Page 108.



Brandy - <brandy@dominioncon.com>

Tax Exemption

1 message

Brandy - <brandy@dominioncon.com>
To: keambria@revenue.alabama.gov

Wed, Dec 2, 2015 at 5:28 PM

I am attaching all the information for an exemption certificate for the Juanita Drive project in Tuscaloosa, Al. If possible please email the form back to me. Please let me know if you need any additional information.

***Thank You,
Brandy Ethridge
Dominion Construction Co. Inc
P.O. Box 70
Duncanville, AL. 35456
205-342-2030 office
205-345-6130 fax***

 scan0004.pdf
1667K



ALABAMA DEPARTMENT OF REVENUE
SALES AND USE TAX DIVISION
P.O. Box 327710 • Montgomery, AL 36132-7710

ST: EXC-01
6/15

Application For
Sales and Use Tax Certificate of Exemption

FOR GOVERNMENT ENTITY PROJECT

This Certificate of Exemption will be limited to purchases which qualify for an exemption of sales and use taxes pursuant to Rule No. 810-6-3-.77

PROJECT INFORMATION:

PROJECT NAME Juanita Drive Improvements Project		PROJECT OWNER'S FEIN (EXEMPT ENTITY) 63-6001379	
STREET ADDRESS OF PROJECT (CITY AND COUNTY INCLUDED) Juanita Drive	CITY Tuscaloosa	ZIP 35404	COUNTY Tuscaloosa

APPLICANT'S INFORMATION:

RELATION: (CHOOSE ONE) <input type="checkbox"/> Government Entity <input checked="" type="checkbox"/> General Contractor <input type="checkbox"/> Sub-Contractor			
APPLICANT'S LEGAL NAME Dominion Construction Co., Inc		FEIN 26-3598571	
DBA		CONSUMER'S USE TAX ACCOUNT NUMBER r009016488	
MAILING ADDRESS: STREET P.O. Box 70	CITY Duncanville	STATE Al	ZIP 35456
		COUNTY Tuscaloosa	
CONTACT PERSON Brandy Ethridge		BUSINESS TELEPHONE NUMBER (205) 342-2030	
EMAIL ADDRESS brandy@dominioncon.com			
PROJECT START DATE (PROVIDED BY GENERAL CONTRACTOR) 01/15/16		PROJECT COMPLETION DATE (PROVIDED BY GENERAL CONTRACTOR) 06/15/16	
ESTIMATED START DATE (FOR APPLICANT)		ESTIMATED COMPLETION DATE (FOR APPLICANT)	
WILL THE APPLICANT HAVE ANY SUB-CONTRACTORS ON THIS JOB? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, please attach list.		NAME OF PARTY WITH WHOM YOUR CONTRACT IS WITH City of Tuscaloosa	
JOB DESCRIPTION			
WILL ANY POLLUTION CONTROL EXEMPTION BE APPLICABLE? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		ESTIMATED POLLUTION CONTROL COST \$	
TOTAL PROJECT BID AMOUNT (APPLICANT'S PORTION OF PROJECT) \$ 1,021,508.57	LABOR COST (APPLICANT'S PORTION OF PROJECT) \$ 627,901.57	MATERIAL COST (APPLICANT'S PORTION OF PROJECT) \$ 150,981.00	

PROJECT NAME

Juanita Drive Improvements Project

PROJECT OWNER'S FEIN (EXEMPT ENTITY)

63-6001379

FORM OF OWNERSHIP:

Individual Partnership Corporation Multi member LLC Single member LLC Government Entity

If applicant is a corporation, a copy of the certified certificate of incorporation, amended certificate of incorporation, certificate of authority, or articles of incorporation should be attached. If the applicant is a limited liability company or a limited liability partnership, a copy of the certified articles of organization should be attached.

OWNERSHIP INFORMATION:

Corporations – give name, title, home address, and Social Security Number of each officer.

Partnerships – give name, home address, Social Security Number or FEIN of each partner.

Sole Proprietorships – give name, home address, Social Security Number of owner.

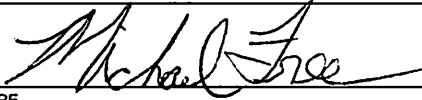
LLC – give name, home address, and Social Security Number or FEIN of each member.

LLP – give name, home address, and Social Security Number or FEIN of each partner.

Michael Free 421-27-8166 - 12490 Sleepy Hollow Road Duncanville, Al. 35456 - *President*

Michael Free

NAME (PLEASE PRINT)



SIGNATURE

President

TITLE

12/02/15

DATE

REVENUE DEPARTMENT USE ONLY

Examiner's Remarks _____

Examiner _____ Date _____

Supervisor's Recommendation _____

Supervisor _____ Date _____

**Instructions For Preparation of Form ST: EXC-01
Sales and Use Tax Certificate of Exemption for Government Entity Project**

In order to expedite the processing of your application, please include the following documentation when submitting your application:

Exempt Entity:

1. Signed Application
2. Copy of Executed/Signed Contract and/or Letter of Intent

General Contractor:

1. Signed Application
2. Copy of Executed/Signed Contract and/or Letter of Intent
3. List of Sub-Contractors
4. Alabama Board of General Contractor's License
5. State/County Business License (usually obtained through county probate office)
6. Any other municipal business licenses associated with the project

Sub-Contractor:

1. Application
2. Alabama Board of General Contractor's License
3. State/County Business License (usually obtained through county probate office)
4. Any other municipal business licenses associated with the project
5. List of Sub-Contractors (if any)

General contractors and sub-contractors:

Any updates regarding the sub-contractors working on a project, additions and/or deletions, must be submitted to the Department within 30 days of occurrence.

If an extension is needed for a project, please contact the Department of Revenue at the address, numbers, or emails listed below.

THERE IS A FILING REQUIREMENT IF YOUR APPLICATION IS APPROVED. The return will be filed through the Consumer's Use Tax account. If you do not currently have a Consumer's Use Tax account, one will be opened for you. The return should be filed every filing period that the Contractor's Exemption Certificate is active/open and should include the Project No., Exemption No., and the total amount of purchases for the filing period. If there is no product purchased with the exemption certificate, then a zero return must be filed for the period. There is a requirement of one entry for each exemption certificate that is active for each filing period. The information associated with the Contractor's Exemption Certificates is input at the bottom of the return.

The application and applicable documentation may be mailed, faxed, or emailed to the following:

Fax: (334) 353-7867

Emails: amber.hartley@revenue.alabama.gov brenda.wallace@revenue.alabama.gov

Mailing Address: ATTN: Contractor's Exemption
Alabama Dept. of Revenue
Sales & Use Tax Division - Room 4303
PO Box 327710
Montgomery, AL 36132-7710

Exhibit A

THE CITY OF TUSCALOOSA MINORITY ENTERPRISE/DISADVANTAGED BUSINESS ENTERPRISE (MBE/DBE/WBE) POLICY FOR PUBLIC WORKS PROJECTS OVER \$50,000

General Mission Statement

THE CITY OF TUSCALOOSA (hereinafter, "City") has voluntarily adopted a Minority/Disadvantaged Business Enterprise (MBE/DBE/WBE) Program designed to encourage the participation and development of minority and disadvantaged business enterprises and to promote equal business opportunities in the City to the fullest extent allowed by state and federal law.

It is the intent of the City to foster competition among contractors, suppliers, and vendors that will result in better quality and more economical services rendered to the City. Under this policy, the City of Tuscaloosa has established a goal of ten to twenty percent (10-20%) inclusion of minority and disadvantaged business enterprise (hereinafter sometimes "MBE/DBE/WBE") for all services required to deliver City projects. In no case shall the stated percentage be the determining factor in contract awards. Rather, contractors must demonstrate a good faith effort to attain the desired percentage goal.

Program Goals

It is the goal of this program:

- To ensure non-discrimination in the award and administration of City contracts.
- To help to remove barriers to the participation of DBE/MBE/WBE's in competing for City contracts.
- To ensure a level playing field exists on which DBE/MBE/WBE's can compete fairly for City contracts.

Definition

1. "Minority Business Enterprise" ("MBE") means a business which is an independent and continuing enterprise for profit, performing a commercially useful function and is at least fifty-one percent (51%) owned and controlled by an African American, or Black American.

2. "Women-owned Business Enterprise" ("WBE") means a business which is an independent and continuing enterprise for profit, performing a commercially useful function and is at least fifty-one percent (51%) owned, operated and controlled on a daily basis by one or more female American citizens.

3. "Disadvantaged Business Enterprise" (DBE) means a business which is an independent and continuing enterprise for profit, performing a commercially useful function and is owned by a majority of persons who are United States citizens or permanent resident aliens (as defined by the Immigration and Naturalization Service) of the United States, and who are Asian, Black, Hispanic or Native Americans, according to the following definitions:

"Asian" – means persons having origins in any of the original people of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands.

"African American" or "Black American" means persons having origins in any black racial group of Africa.

"Hispanic" means persons of Spanish or Portuguese culture with origins in Mexico, South of Central America, or the Caribbean Islands regardless of race.

"Native American" means persons having origins in any of the original people of North America, including American Indians, Eskimos and Aleuts.

Equal Business Opportunity

It is the policy of the City to promote full and equal business opportunities for all persons doing business with the City, regardless of race, sex or national origin. It is the ultimate goal of this policy to promote an equitable business climate district. The City will seek to increase minority and women participation for contracts that require formal bids. These efforts will be for contracts above \$50,000 as allowed by the Alabama Public Works law. These efforts are designed to help prevent discrimination against minorities and disadvantaged businesses and promote more completion among vendors, suppliers, and contractors of the City of Tuscaloosa.

The City has established a goal of ten to twenty percent (10-20%) of the total construction related expenditures to be provided by minority and disadvantaged business enterprises. While the policy provides for voluntary participation by the City and is dependent upon race-neutral and gender-neutral considerations, contractors are encouraged to comply with the City's policy. The City of Tuscaloosa shall periodically review the policy, including race/gender-neutral remedies, to determine its effectiveness.

Good Faith Effort

The City require contractors to demonstrate a good faith effort to attain the goal of 10-20% participation of MBE/DBE/WBE's in all levels of the Public Works contracting process. Contractors shall document their efforts to obtain minority and disadvantaged business participation in the bid documents. Contractors should note that failure to document a good faith effort to the satisfaction of the City may subject the contractor to bid rejection for non-responsiveness.

The following process shall constitute a good faith effort under the City's policy:

(1) Contractors deciding to bid on a City project shall submit the MBE/DBE/WBE Documentation Statement and Acknowledgement (Form 1). Submission of Form 1 confirms the commitment of the contractor to participate in the inclusion effort for the project. Form 1 must be submitted to the City of Tuscaloosa Recovery Operations Department no later than seven (7) days prior to the bid, or at the pre-bid conference, whichever is earlier. The City reserves the right to modify the submittal deadline as-needed.

(2) Contractors shall submit MBE/DBE/WBE Bid Solicitation Notice (Form 2). Form 2 must be submitted to the City of Tuscaloosa Recovery Operations Department no later than seven (7) days prior to the bid, or at the pre-bid conference, whichever is earlier. The City reserves the right to modify the submittal deadline as-needed.

(3) Contractors shall submit a brief plan for achieving the stated MBE/DBE/WBE Participation Goal for his/her trade (Form 3). Form 3 must be submitted in the contractor's sealed bid.

(4) Contractor shall submit a listing of all MBE/DBE/WBE contractors that submitted bids (**Form 4**). Form 4 must be submitted in the contractor's sealed bid. (Note: In the event a MBE/DBE/WBE contractor submits a bid after the general contractor has sealed the bid, contractors should write on the envelope the name(s) and scope of work of the MBE/DBE/WBE contractor who submitted the bid.)

(5) Contractors shall be required to work in cooperation with the City in the implementation of this program. Failure to do so, in the discretion of the City, may result in a rejection of bid due to non-responsiveness.

Following compliance with item (5) above, submission of Form 1, Form 2, Form 3, and Form 4 at the above-prescribed times shall satisfy the good faith effort requirement. Failure to do so may result in rejection of bid due to non-responsiveness.

Additional Administrative Requirements/Procedure

(1) Once a tentative contract award has been made, the successful contractor shall submit a list of all MBE/DBE/WBE firms the contractor proposes to utilize during the execution of the contract (**Form 5**). In addition, the contractor shall include on Form 5 all firms that the major subcontractors propose to utilize.

(2) If the successful contractor will be subcontracting less than the started percentage goal, the Contractor must complete a "MBE/DBE/WBE Unavailability Certification" (**Form 6**). Form 6 is due once a tentative contract award has been made.

(3) Contractors shall obtain the listing of certified MBE/DBE/WBE business by contacting the City of Tuscaloosa Recovery Operations Department to assist in soliciting MBE/DBW/WBE participation for the project.

(4) Contractors shall not be required to use a MBE/DBE/WBE subcontractor who cannot display reasonable technical and financial qualifications to perform the work in question.

(5) In addition to the above requirements, contractors should note that the City reserves the right to periodically audit payroll records to ensure compliance with the program. The City employs the services of a Compliance Director.

(6) Upon completion of the project and prior to release of retainage or final payment, the contractor shall submit a Project Closeout Report (**Form 7**) that includes final accounting of all MBE/DBE/WBE firms utilized on the project.

(7) On a monthly basis, contractors shall submit updated MBE/DBE/WBE reports (Monthly Report Form) to identify any changes in MBE/DBE/WBE firm utilization (**Form 8**). Contractors shall submit Form 8 directly to the City of Tuscaloosa Recovery Operations Department.

Race/Gender – Neutral Remedies

The City recognizes that race/gender – neutral remedies may be effective tools used to increase MBE/DBE/WBE participation. Therefore, the City will continue to explore these remedies. The remedies will include, but will not be limited to, the following:

1. Technical assistance techniques to identify and increase the participation of MBE/DBE/WBE's in the City's contracting, subcontracting and purchasing opportunities.
2. Continuation of the certification process.

The City will periodically review the success of these measures in order to determine the extent to which the measures provide equitable access to the City's contracting, subcontracting and purchasing opportunities.

The City has determined that this policy complies with all applicable local, state and national laws concerning the contracting and purchasing process. The City shall not sacrifice product quality for lower pricing, but

shall make all awards in accordance with applicable law. It shall be the primary responsibility of the City to insure that this policy is followed, and that all actions regarding the contracting and purchasing process comply with all applicable statutes as well as the defined goals relative to MBE/DBE/WBE participation on all construction projects.

Contact Information:

City of Tuscaloosa Office of Resilience and Innovation
Robin Edgeworth, Chief Resilience Officer
(205) 248-5725
redgeworth@tuscaloosa.com

**Form 1 (one page)
Documentation Statement and Acknowledgement**

**(Due no later than seven (7) days prior to the bid, or at the pre-bid
conference, whichever is earlier)**

PROJECT NAME: _____

The City of Tuscaloosa has adopted a program to encourage the participation of Minority Business Enterprises/Disadvantaged Business Enterprises (MBE/DBE/WBE) on its public works construction projects. The signed statement serves as a commitment by the undersigned company to comply with this program as outlined by the City, relative to the involvement of MBE/DBE/WBE firm in City guidelines.

The undersigned Company will adhere to City program guidelines set forth to utilize MBE/DBE/WBE businesses in all construction projects, and all program forms (1-8) have been reviewed and understood.

Company Representative (Signature)

Date

Company Representative (Printed)

Title

Company Name

Telephone Number

City, State, Zip

Fax Number

Form 2 (6 pages)
Bid Solicitation Notice

(Due no later than seven (7) days prior to the bid, or at the pre-bid
Conference, whichever is earlier)

BID DATA

1. GENERAL CONTRACTOR: _____

ADDRESS: _____

CONTACT (S): _____

PHONE: _____

FAX: _____

E-MAIL: _____

2. OWNER: _____

3. NAME OF PROJECT: _____

4. SCHEDULE PRE-BID MEETING

DATE/TIME: _____

LOCATION: _____

5. DATE/TIME FOR RECEIPT OF BIDS: _____

6. SCHEDULE BID OPENING

DATE/TIME: _____

LOCATION: _____

7. ESTIMATED JOB START DATE: _____

8. ESTIMATED COMPLETION DATE: _____

PROJECT: _____

LOCATION: _____

BID DATE: _____

GENERAL CONTRACTOR CONTACT:

NAME _____

ADDRESS: _____

TELEPHONE: () _____

FAX: () _____

EMAIL: () _____

DEADLINE FOR PROPOSALS

DATE/TIME

* Estimated Contract Opportunity Value:
(1) 0-25,000 (2) 25,000-50,000 (3) 50,000-100,000 (4)
100,000 - 500,000 (5) over 500,000

**DIVISION 02 - EXISTING CONDITIONS
(1) (2) (3) (4) (5) ***

- 02 21 SURVEYS
- 02 32 GEOTECHNICAL INVESTIGATIONS
- 02 41 DEMOLITION
- 02 42 REMOVAL and SALVAGE of CONSTRUCTION MATERIALS
- 02 43 STRUCTURE MOVING
- 02 55 SITE CONTAINMENT
- 02 55 UNDERGROUND STORAGE TANK REMOVAL
- 02 51 TRANSPORTATION and DISPOSAL of HAZARDOUS MATERIALS
- 02 52 ASBESTOS REMEDIATION
- 02 53 LEAD REMEDIATION
- 02 55 MOLD REMEDIATION
- 02 01 CHEMICAL SAMPLING, TESTING and ANALYSIS

02 _____
(Please fill-in other opportunity)

DIVISION 3 - CONCRETE (1) (2) (3) (4) (5)

- 03 01 MAINTENANCE OF CONCRETE
- 03 11 CONCRETE FORMING
- 03 13 CONCRETE ACCESSORIES
- 03 21 REINFORCING STEEL
- 03 22 WELDED WIRE FABRIC REINFORCING

- 03 30 CAST-IN-PLACE CONCRETE
- 03 31 STRUCTURAL CONCRETE
- 03 35 CONCRETE FINISHING
- 03 37 SPECIALTY PLACED CONCRETE
- 03 39 CONCRETE CURING
- 03 41 PRECAST STRUCTURAL CONCRETE
- 03 45 PRECAST ARCHITECTURAL CONCRETE
- 03 47 SITE-CAST CONCRETE
- 03 62 NON-SHRINK GROUTING
- 03 63 EPOXY GROUTING
- 03 61 CONCRETE CUTTING
- 03 62 CONCRETE BORING
- 03 _____

(Please fill-in for other opportunity)

DIVISION 4 - MASONRY (1) (2) (3) (4) (5)

- 04 21 CLAY UNIT MASONRY
- 04 22 CONCRETE UNIT MASONRY
- 04 25 UNIT MASONRY PANELS
- 04 30 MULTIPLE-WYTHE MASONRY
- 04 43 STONE MASONRY
- 04 57 MASONRY FIREPLACES
- 04 71 MANUFACTURED BRICK MASONRY
- 04 73 MANUFACTURED STONE MASONRY
- 04 _____

(Please fill-in for other opportunity)

DIVISION 5 - METALS (1) (2) (3) (4) (5)

- 05 12 STRUCTURAL STEEL FRAMING
- 05 14 STRUCTURAL ALUMINUM FRAMING
- 05 18 WIRE ROPE ASSEMBLIES
- 05 21 STEEL JOIST FRAMING
- 05 31 STEEL DECKING
- 05 35 RACEWAY DECKING ASSEMBLIES
- 05 41 STRUCTURAL METAL STUD FRAMING
- 05 42 COLD-FORMED METAL JOIST FRAMING
- 05 44 COLD-FORMED METAL TRUSSES
- 05 61 METAL STAIRS
- 05 62 METAL RAILINGS
- 05 63 METAL GRATINGS
- 05 65 METAL STAIR TREADS & NOSING
- 05 68 METAL CASTINGS
- 05 68 FORMED METAL FABRICATIONS
- 05 71 DECORATIVE METAL STAIRS
- 05 73 DECORATIVE METAL RAILINGS
- 05 75 DECORATIVE FORMED METAL
- 05 _____

(Please fill-in for other opportunity)

**DIVISION 6 - WOODS, PLASTICS & COMPOSITES
(1) (2) (3) (4) (5)**

- 06 11 WOOD FRAMING

- 06 12 STRUCTURAL PANELS
- 06 15 WOOD DECKING
- 06 16 SHEATING
- 06 17 SHOP FABRICATED STRUCTURAL WOOD
- 06 22 MILLWORK
- 06 25 PREFINISHED PANEL
- 06 26 PANELING
- 06 43 WOOD STAIRS & RAILINGS
- 06 44 ORNAMENTAL WOODWORK
- 06 48 WOOD FRAMES
- 06 _____
(Please fill-in for other opportunity)

DIVISION 7 - THERMAL & MOISTURE PROTECTION

- 07 11 DAMPPROOFING
- 07 12 BUILT-UP BITUMINOUS WATERPROOFING
- 07 13 SHEET WATERPROOFING
- 07 16 CEMENTIOUS & REACTIVE WATERPROOFING
- 07 19 WATER REPELLANTS
- 07 21 THERMAL INSULATION
- 07 22 ROOF & DECK INSULATION
- 07 24 EXTERIOR INSULATION & FINISH SYSTEMS
- 07 25 WEATHER BARRIERS
- 07 26 VAPOR RETARDERS
- 07 31 SHINGLES & SHAKES
- 07 32 ROOF TILES
- 07 33 NATURAL ROOF COVERINGS
- 07 41 ROOF PANELS
- 07 42 WALL PANELS
- 07 46 SIDING
- 07 51 BUILT-UP BITUMINOUS ROOFING
- 07 52 MODIFIED BITUMINOUS MEMBRANE ROOFING
- 07 53 ELASTOMETRIC MEMBRANE ROOFING
- 07 54 THERMOPLASTIC MEMBRANE ROOFING
- 07 56 FLUID APPLIED ROOFING
- 07 58 ROLL ROOFING
- 07 61 SHEET METAL ROOFING
- 07 65 FLEXIBLE FLASHING
- 07 71 ROOF SPECIALTIES
- 07 72 ROOF ACCESSORIES
- 07 81 APPLIED FIREPROOFING
- 07 84 FIRESTOPPING
- 07 91 PREFORMED JOINT SEALS
- 07 92 JOINT SEALANTS
- 07 95 EXPANSION CONTROL
- 07 _____
(Please fill-in for other opportunity)

DIVISION 8 - OPENINGS {1} {2} {3} {4} {5}

- 08 11 METAL DOORS & FRAMES
- 08 12 METAL FRAMES
- 08 13 METAL DOORS
- 08 14 WOOD DOORS
- 08 16 COMPOSITE DOORS
- 08 17 INTEGRATED DOOR OPENING ASSEMBLIES
- 08 31 ACCESS DOORS & PANELS
- 08 32 SLIDING GLASS DOORS
- 08 33 COILING DOORS & GRILLES
- 08 34 SPECIAL FUNCTION DOORS
- 08 36 PANEL DOORS
- 08 38 TRAFFIC DOORS
- 08 41 ENTRANCES & STOREFRONTS
- 08 42 ENTRANCES
- 08 43 STOREFRONTS
- 08 44 CURTAIN WALL & GLAZED ASSEMBLIES
- 08 51 METAL WINDOWS
- 08 52 WOOD WINDOWS
- 08 53 PLASTIC WINDOWS
- 08 54 COMPOSITE WINDOWS
- 08 56 SPECIAL FUNCTION WINDOWS
- 08 62 UNIT SKYLIGHTS
- 08 63 METAL-FRAMED SKYLIGHTS
- 08 71 DOOR HARDWARE
- 08 74 ACCESS CONTROL HARDWARE
- 08 75 WINDOW HARDWARE
- 08 79 HARDWARE ACCESSORIES
- 08 81 GLASS GLAZING
- 08 83 MIRRORS
- 08 84 PLASTIC GLAZING
- 08 88 SPECIAL FUNCTION GLAZING
- 08 91 LOUVERS
- 08 95 VENTS
- 08 _____
(Please fill-in for other opportunity)

DIVISION 9 - FINISHES {1} {2} {3} {4} {5}

- 09 21 PLASTER & GYPSUM ASSEMBLIES
- 09 22 SUPPORTS FOR PLASTER & GYPSUM
- 09 23 GYPSUM PLASTERING
- 09 24 CEMENT PLASTERING
- 09 26 VENEER PLASTERING
- 09 28 BACKING S & UNDERLAYMENTS
- 09 29 GYPSUM
- 09 30 TILING
- 09 51 ACOUSTICAL CEILINGS
- 09 54 SPECIALTY CEILINGS
- 09 62 SPECIALTY FLOORING
- 09 63 MASONRY FLOORING
- 09 64 WOOD FLOORING

- 09 65 RESILIENT FLOORING
- 09 66 TERRAZZO FLOORING
- 09 68 CARPETING
- 09 72 WALL COVERINGS
- 09 77 SPECIAL WALL SURFACING
- 09 91 PAINTING
- 09 93 STAINING & TRANSPARENT FINISHING
- 09 96 HIGH PERFORMANCE COATINGS
- 09 97 SPECIAL COATINGS
- 09 _____

(Please fill-in for other opportunity)

DIVISION 10 - SPECIALTIES {1} {2} {3} {4} {5}

- 10 11 VISUAL DISPLAY UNITS
- 10 14 SIGNAGE
- 10 22 PARTITIONS
- 10 26 WALL & DOOR PROTECTION
- 10 28 TOILET, BATH & LAUNDRY ACCESSORIES
- 10 44 FIRE PROTECTION SPECIALTIES
- 10 51 LOCKERS
- 10 71 EXTERIOR PROTECTION
- 10 74 MANUFACTURED EXTERIOR SPECIALTIES
- 10 75 FLAGPOLES
- 10 81 PEST CONTROL DEVICES
- 10 88 SCALES
- 10 _____

(Please fill-in for other opportunity)

DIVISION 11 - EQUIPMENT {1} {2} {3} {4} {5}

- 11 11 VEHICLE SERVICE EQUIPMENT
- 11 12 PARKING CONTROL EQUIPMENT
- 11 13 LOADING DOCK EQUIPMENT
- 11 14 PEDESTRIAN CONTROL EQUIPMENT
- 11 24 MAINTENANCE EQUIPMENT
- 11 31 RESIDENTIAL APPLIANCES
- 11 33 RETRACTABLE STAIRS
- 11 41 FOODSERVICE STORAGE EQUIPMENT
- 11 42 FOOD PREPARATION EQUIPMENT
- 11 43 FOOD DELIVERY CARTS AND CONVEYORS
- 11 44 FOOD COOKING EQUIPMENT
- 11 46 FOOD DISPENSING EQUIPMENT
- 11 47 ICE MACHINES
- 11 48 CLEANING & DISPOSAL EQUIPMENT
- 11 52 AUDIO-VISUAL EQUIPMENT
- 11 53 LABORATORY EQUIPMENT
- 11 66 ATHLETIC EQUIPMENT
- 11 67 RECREATIONAL EQUIPMENT
- 11 82 SOLID WASTE HANDLING
- 11 _____

(Please fill-in for other opportunity)

DIVISION 12 - FURNISHINGS {1} {2} {3} {4} {5}

- 12 21 WINDOW BLINDS
- 12 22 CURTAINS & DRAPES
- 12 23 INTERIOR SHUTTERS
- 12 24 WINDOW SHADES
- 12 32 MANUFACTURED CASEWORK
- 12 35 SPECIALTY CASEWORK
- 12 36 COUNTERTOPS
- 12 46 FURNISHING ACCESSORIES
- 12 48 RUGS & MATS
- 12 51 OFFICE FURNITURE
- 12 52 SEATING
- 12 54 HOSPITALITY FURNITURE
- 12 56 INSTITUTIONAL FURNITURE
- 12 61 FIXED AUDIENCE SEATING
- 12 63 STADIUM & ARENA SEATING
- 12 67 PEWS & BENCHES
- 12 92 INTERIOR PLANTERS & ARTIFICIAL PLANTS
- 12 93 SITE FURNISHINGS
- 12 _____

(Please fill-in for other opportunity)

DIVISION 13 - SPECIAL CONSTRUCTION {1} {2} {3} {4} {5}

- 13 11 SWIMMING POOLS
- 13 17 TUBS & POOLS
- 13 18 ICE RINKS
- 13 21 CONTROLLED ENVIRONMENT ROOMS
- 13 24 SPECIAL ACTIVITY ROOMS
- 13 28 ATHLETIC & RECREATIONAL SPECIAL CONSTRUCTION
- 13 31 FABRIC STRUCTURES
- 13 34 FABRICATED ENGINEERED STRUCTURES
- 13 36 TOWERS
- 13 42 BUILDING MODULES
- 13 48 SOUND, VIBRATION, & SEISMIC CONTROL
- 13 49 RADIATION PROTECTION
- 13 _____

(Please fill-in for other opportunity)

DIVISION 14 - CONVEYING SYSTEMS {1} {2} {3} {4} {5}

- 14 11 MANUAL DUMBWAITERS
- 14 12 ELECTRIC DUMBWAITERS
- 14 21 ELECTRIC TRACTION ELEVATORS
- 14 24 HYDRAULIC ELEVATORS
- 14 27 CUSTOM ELEVATOR CABS & DOORS
- 14 28 ELEVATOR EQUIPMENT & CONTROLS
- 14 31 ESCALATORS

- 14 32 MOVING WALKS
- 14 42 WHEELCHAIR LIFTS
- 14 51 CORRESPONDENCE & PARCEL LIFTS
- 14 91 FACILITY CHUTES
- 14 92 PNEUMATIC TUBE SYSTEMS
- 14 _____

(Please fill-in for other opportunity)

DIVISION 21 -FIRE SUPPRESSION {1} {2} {3} {4} {5}

- 21 11 FIRE-SUPPRESSION WATER SERVICE PIPING & METHODS
- 21 12 FIRE SUPPRESSION STANDPIPES
- 21 13 FIRE SUPPRESSION SPRINKLER SYSTEMS
- 21 21 CARBON-DIOXIDE FIRE EXTINGUISHING SYSTEMS
- 21 22 CLEAN AGENT FIRE EXTINGUISHING SYSTEMS
- 21 31 CENTIFUGAL FIRE PUMPS
- 21 _____

(Please fill-in for other opportunity)

DIVISION 22-PLUMBING {1} {2} {3} {4} {5}

- 22 07 PLUMBING INSULATION
- 22 11 FACILITY WATER DISTRIBUTION
- 22 13 FACILITY SANITARY SEWERAGE
- 22 14 FACILITY STORM DRAINAGE
- 22 41 COMMERCIAL PLUMBING FIXTURE
- 22 42 COMMERCIAL PLUMBING FIXTURES
- 22 45 EMERGENCY PLUMBING FIXTURES
- 22 47 DRINKING FOUNTAINS & WATER COOLERS
- 22 51 SWIMMING POOL PLUMBING SYSTEMS
- 22 66 CHEMICAL-WASTE SYSTEMS FOR LAB & HEALTHCARE FACILITIES
- 22 _____

(Please fill-in for other opportunity)

DIVISION 23-HEATING VENTILATION AIR CONDITIONING {1} {2} {3} {4} {5}

- 23 07 HVAC INSULATION
- 23 09 INSTRUMENTATION & CONTROL FOR HVAC
- 23 13 FACILITY FUEL-STORAGE TANKS
- 23 21 HYDRONIC PIPING & PUMPS
- 23 22 STEAM & CONDENSATE PIPING & PUMPS
- 23 31 HVAC DUCTS & CASINGS
- 23 33 AIR DUCT ACCESSORIES
- 23 34 HVAC FANS
- 23 37 AIR OUTLETS & INLETS
- 23 38 VENTILATION HOODS

- 23 41 PARTICULATE AIR FILTRATION
- 23 52 HEATING BOILERS
- 23 54 FURNACES
- 23 56 SOLAR ENERGY HEATING EQUIP.
- 23 57 HEAT EXCHANGES FOR HVAC
- 23 62 PACKAGED COMPRESSOR & CONDENSOR UNITS
- 23 63 REFRIGERANT CONDENSORS
- 23 64 PACKAGED WATER CHILLERS
- 23 65 COOLING TOWERS
- 23 73 INDOOR CENTRAL-STATION AIR-HANDLING UNITS
- 23 74 PACKAGED OUTDOOR HVAC EQUIP
- 23 82 CONVECTION HEATING & COOLING UNITS
- 23 84 HUMIDITY CONTROL EQUIPMENT
- 23 _____

(Please fill-in for other opportunity)

DIVISION 26-ELECTRICAL {1} {2} {3} {4} {5}

- 26 09 INSTRUMENTATION & CONTROL FOR ELECTRICAL SYSTEMS
- 26 12 MEDIUM VOLTAGE TRANSFORMERS
- 26 22 LOW VOLTAGE TRANSFORMERS
- 26 24 SWITCHES & PANELS
- 26 25 ENCLOSED BUS ASSEMBLIES
- 26 27 LOW VOLTAGE DISTRIBUTION EQUIPMENT
- 26 28 LOW VOLTAGE CIRCUIT PROTECTIVE DEVICES
- 26 29 LOW VOLTAGE CONTROLLERS
- 26 32 PACKAGED GENERATOR ASSEMBLIES
- 26 35 POWER FILTERS & CONDITIONERS
- 26 42 CATHODIC PROTECTION
- 26 51 INTERIOR LIGHTING
- 26 52 EMERGENCY LIGHTING
- 26 53 EXIT SIGNS
- 26 54 CLASSIFIED LOCATION LIGHTING
- 26 55 SPECIAL PURPOSE LIGHTING
- 26 56 EXTERIOR LIGHTING
- 26 61 LIGHTING SYSTEMS & ACCESSORIES
- 26 71 ELECTRICAL MACHINES
- 26 _____

(Please fill-in for other opportunity)

COMMUNICATIONS- 27 {1} {2} {3} {4} {5}

- 27 13 COMMUNICATIONS BACKBONE CABLING
- 27 41 AUDIO-VIDEO SYSTEMS
- 27 51 DISTRIBUTED AUDIO VIDEO
- 27 52 HEALTHCARE COMMUNICATIONS & MONITORING SYSTEMS
- 27 53 DISTRIBUTED SYSTEMS

27 _____
(Please fill-in for other opportunity)

ELECTRONIC SAFETY & SECURITY- 28 {1} {2} {3} {4} {5}

28 13 COMMUNICATIONS BACKBONE CABLING
 28 16 INTRUSION DETECTION
 28 23 VIDEO SURVEILLANCE
 28 31 FIRE DETECTION
 28 33 FUEL-GAS DETECTION
 28 39 MASS NOTIFICATION SYSTEMS
 28 _____
(Please fill-in for other opportunity)

EARTHWORK-31 {1} {2} {3} {4} {5}

31 06 SCHEDULES FOR EARTHWORK
 31 11 CLEARING & GRUBBING
 31 13 SELECTIVE TREE & SHRUB REMOVAL & TRIMMING
 31 14 EARTH STRIPPING & STOCKPILING
 31 22 GRADING
 31 23 EXCAVATION & FILL
 31 25 EROSION & SEDIMENTATION
 31 31 SOIL TREATMENT
 31 32 SOIL STABILIZATION
 31 33 ROCK STABILIZATION
 31 36 GABIONS
 31 37 RIPRAP
 31 41 SHORING
 31 43 CONCRETE RAISING
 31 45 VIBROFLORATION & DENSIFICATION
 31 48 NEEDLE BEAMS
 31 48 UNDERPINNING
 31 52 COFFERDAMS
 31 56 SHURRY WALLS
 31 62 DRIVEN PILES
 31 63 BORED PILES
 31 _____
(Please fill-in for other opportunity)

EXTERIOR IMPROVEMENTS- 32 {1} {2} {3} {4} {5}

32 11 BASE COURSES
 32 12 FLEXIBLE PAVING
 32 13 RIGID PAVING
 32 16 CURBS, GUTTERS SIDEWALKS & DRIVEWAYS
 32 17 PAVING SPECIALTIES
 32 18 ATHLETIC & RECREATIONAL SURFACING
 32 31 FENCES & GATES
 32 32 RETAINING WALLS
 32 34 FABRICATED BRIDGES
 32 35 SCREENING DEVICES
 32 84 PLANTING IRRIGATION
 32 91 PLANTING PREPARATION
 32 92 TURF & GRASSES

32 93 PLANTS
 32 94 PLANTING ACCESSORIES
 32 98 TRANSPLANTING
 32 _____
(Please fill-in for other opportunity)

UTILITIES-33 {1} {2} {3} {4} {5}

33 11 WATER UTILITY DISTRIBUTION PIPING
 33 12 WATER UTILITY DISTRIBUTION EQUIPMENT
 33 16 WATER UTILITY STORAGE TANKS
 33 21 WATER SUPPLY WELLS
 33 31 SANITARY UTILITY SEWERAGE PIPING
 33 36 UTILITY SEPTIC TANKS
 33 41 STORM UTILITY DRAINAGE PIPING
 33 42 CULVERTS
 33 44 STORM UTILITY WATER DRAINS
 33 46 SUBDRAINAGE
 33 49 STORM DRAINAGE STRUCTURES
 33 51 NATURAL GAS DISTRIBUTION
 33 52 LIQUID FUEL DISTRIBUTION
 33 71 ELECTRICAL UTILITY TRANSMISSION & DISTRIBUTION
 33 81 COMMUNICATIONS & STRUCTURES
 33 _____
(Please fill-in for other opportunity)

TRANSPORTATION-34 {1} {2} {3} {4} {5}

34 11 RAIL TRACKS
 34 41 ROADWAY SIGNALING AND CONTROL EQUIPMENT
 34 71 ROADWAY CONSTRUCTION
 34 72 RAILWAY CONSTRUCTION
 34 _____
(Please fill-in for other opportunity)

MATERIAL PROCESSING & HANDLING EQUIPMENT-41 {1} {2} {3} {4} {5}

41 21 CONVEYORS
 41 22 CRANES & HOISTS
 41 _____
(Please fill-in for other opportunity)

POLLUTION CONTROL EQUIP-44 {1} {2} {3} {4} {5}

44 11 PARTICULATE CONTROL EQUIPMENT
 44 _____
(Please fill-in for other opportunity)

WATER & WASTEWATER EQUIPMENT-46

{1} {2} {3} {4} {5}
 46 07 PACKAGED WATER & WASTEWATER TREATMENT EQUIPMENT
 46 _____
(Please fill-in for other opportunity)

FORM 3 (1 page)

PARTICIPATION GOAL

(Must be submitted in the contractor's sealed bid)

General Contractor: Dominion Construction Co. Inc.

Contact: Brian Wheat

Name of Project: Juanita Drive Improvements Project

Date Submitted: October 27, 2015

The project has a goal of ten to twenty percent (10-20%) MBE/DBE/WBE participation. Provide a brief summary of how this goal will be achieved. Failure to submit this form may result in a bid being rejected for non-responsiveness.

My goal for this project is 10 %.

I plan on achieving this goal by: Solicit bids from MBE/DBE/WBE subcontractors that supply necessary services related to the project & utilizing any of them that come in with the lowest bid.



PO Box 70
Duncanville, Alabama 35456
205-342-2030
205-345-6130

MBE/DBE/WBE CONTACTS

FOR

JUANITA DRIVE IMPROVEMENTS PROJECT

- Ton Rutley – Called 10/22/2015 - and emailed bid tabs.
- Clifton Williams – Called 10/22/2015 - Had no email or fax machine so he will come pick them up.
- Paul Leatherwood – Called 10/22/2015 - Had no email so he is coming by to get bid tabs.
- Kenneth Ratliff – Called 10/22/2015 - We emailed bid tabs.
- A&A Debris Removal – Called 10/22/2015 – Emailed bid tabs.
- Frierson Lawn service – Called 10/22/2015 – Emailed bid tabs.
- James Paving – Called 10/22/2015 – Emailed bid tabs.
- Nathaniel Williams – Called 10/22/2015 – Emailed bid tabs.
- Spencer Management – Called 10/22/2015 – Emailed bid tabs.
- Jimmy Abrams – Called 10/22/2015 – Emailed bid tabs.



Brandy - <brandy@dominioncon.com>

Juanita Drive Improvements Project Bid tabs

2 messages

Brandy - <brandy@dominioncon.com>

Thu, Oct 22, 2015 at 11:42 AM

To: Nathaniel Williams <munfordinc@aol.com>, jamespaving@yahoo.com, Jimmy Frierson <friersonlawnservice@gmail.com>, carmonspencer@gmail.com, Anthony Bell <Anthonybell5932@yahoo.com>, allseasons4930@yahoo.com, ken@makconstructioninc.com

You have expressed interest in bidding the Jaunita Drive City Improvements Project for the City of Tuscaloosa. All bids need to be received by October 26, 2015 @ 11:00am. Please email your bids to Brian Wheat brian@dominioncon.com as I will be out of the office until Tuesday 10/27/2015. You can also call Brain with any questions at 205-342-2030. Thank You for your interest in bidding with us.

Sincerely,
Brandy Ethridge
Dominion Construction Co. Inc
P.O. Box 70
Duncanville, AL. 35456
205-342-2030 office
205-345-6130 fax

 scan0021.pdf
1272K

Brandy - <brandy@dominioncon.com>

Thu, Oct 22, 2015 at 11:52 AM

To: allseason4930@yahoo.com

Brandy Ethridge
Dominion Construction Co. Inc
P.O. Box 70
Duncanville, AL. 35456
205-342-2030 office
205-345-6130 fax

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1272K

Form 4
Contractors Submitting Bids
(Must be submitted in the contractor's sealed bid)

General Contractor: _____

Contact: _____

Name of Project: _____

Date Submitted: _____

<u>All MBE/DBE/WBE Firms Submitting Bids</u>	<u>Scope of Work</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

FORM 5
CONTRACTORS SUBMITTING BIDS
(Must be submitted following tentative bid award)

General Contractor: Dominion Construction Co., Inc.

Contact: Brandy Ethridge

Name of Project: Juanita Drive Improvements Project

Total Contract Amount: \$ 1,021,508.57

Total Amount of All Subcontractors: \$ 242,626.00

Date Submitted: October 27, 2015

<u>All MBE/DBE/WBE firms to be utilized</u>	<u>Scope of Work</u>	<u>Contract Amount</u>
<u>Cheyenne Contracting</u>	<u>Sidewalks</u>	<u>\$51,109.00</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(Use additional pages if necessary)

Form 6



PO Box 70
Duncanville, Alabama 35456
205-342-2030
205-345-6130

Juanita Drive Improvements
MBE/WBE/DBE

I have attached copies of the entire email request for form #6 I sent to DBE/WBE/MBE businesses we solicited for bids on the Juanita Drive project that didn't respond. Only one of the businesses responded to the request, MAK Construction. I have attached that completed form with their comments. I also included our email correspondence with MAK Construction regarding the negative comments they used in response on form # 6. They have not responded to my request of more information. If you need any additional information please let me know.

Thanks,

Brandy Ethridge
Dominion Construction Co., Inc.
205-342-2030

Form 6
Unavailability Certification
(Must be submitted following tentative bid award)

I, Brandy Ethridge - Office Manager (Name/Title), of
Dominion Construction Co., Inc (Company) certify that on
October 22, 2015 (Date) I contacted the following Minority/Disadvantaged Business
 Enterprise to obtain proposals/bids for the following work items:

<u>MDE/DBE/WBE Firm</u>	<u>Work Items Sought</u>	<u>Form of Proposal Sought</u>
<u>Frierson Lawn Service</u>	<u>Any/all items qualified to perform</u>	<u>Broke down per bid tabs/ lump sum</u>
<u>Mak Construction</u>	<u>Any/all items qualified to perform</u>	<u>Broke down per bid tabs/ lump sum</u>
<u>Ton Rutley - Allseasons</u>	<u>Any/all items qualified to perform</u>	<u>Broke down per bid tabs/ lump sum</u>
<u>Spencer Management</u>	<u>Any/all items qualified to perform</u>	<u>Broke down per bid tabs/ lump sum</u>
<u>A & A Debris Removal</u>	<u>Any/all items qualified to perform</u>	<u>Broke down per bid tabs/ lump sum</u>

To the best of my knowledge and belief, said Minority/Disadvantaged Business Enterprises were unavailable for work on this project, or unable to prepare a proposal/bid for the following reason(s): I have no knowledge of the reasons why any of the contacted business didn't submit a bid.

(This form to be completed by each MBE/DBE/WBE listed, which was contacted, but did not submit a bid/proposal)

Mak Construction (Name of MBE/DBE/WBE) was offered an opportunity to submit a proposal on the above identified work on October 22, 2015 (Date) by Dominion Construction Co., Inc (Company Name).

The above statement is a true and accurate account of why I did not submit a proposal/bid on this project.

Kenneth Rodolf (Signature of MBE/DBE/WBE)

December 4, 2015 (Date)
President/CEO (Title)

(Use additional pages if necessary)

In response as to why we did not submit a bid:
 1. Bid was not received 72 hours before bid solicitation;
 2. Bid request did not have proper information to complete bid; and
 3. Request for additional information was not delivered in a timely manner.



Brandy - <brandy@dominioncon.com>

Juanita Drive Improvements Project Bid tabs

2 messages

Patricia Cade <pcade@makconstructioninc.com>

Fri, Dec 4, 2015 at 11:38 AM

To: brandy@dominioncon.com

Good morning, Brandy.

Attached is the form sent to MAK Construction for completion. Additional remarks has been added. If you have any questions, please contact me at pcade@makconstructioninc.com.

Patricia Cade, MPA, Executive Administrator
MAK Construction, Inc.
(205) 887-6111
www.makconstructioninc.com

MAK CONSTRUCTION IS AN EQUAL OPPORTUNITY EMPLOYER

CONFIDENTIALITY NOTE: The information transmitted, including attachments, is intended only for the person(s) or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and destroy any copies of this information.

 **MAK_Dominion Construction_12.4.2015.pdf**
272K

Brandy - <brandy@dominioncon.com>

Fri, Dec 4, 2015 at 11:54 AM

To: Patricia Cade <pcade@makconstructioninc.com>

The bid deadline was Oct. 26, 2015. We sent out the email requesting bids on Oct. 22, 2015 that is more than 72 hours. I do not have any correspondence where questions were submitted. If there was any please send me a copy but we want you to bid anything you are qualified for for any projects we will be involved with in the future. Once again please send me information on correspondence about the bid so I can find out what happened there.

Thank You,

Brandy Ethridge
Dominion Construction Co. Inc
P.O. Box 70
Duncanville, AL. 35456
205-342-2030 office
205-345-6130 fax

[Quoted text hidden]

Form 7
Project Closeout Report
 (To be submitted upon completion of project)

General Contractor: _____
 Contact: _____
 Name of Project: _____
 Total Contract Amount: \$ _____
 Final Contract Amount: \$ _____
 Date Submitted: _____

<u>All MBE/DBE/WBE firms verified</u>	<u>Original subcontract amount</u>	<u>Final subcontract amount</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Form 8
Monthly Report Form
 (To be submitted monthly directly to the City's consultant)

General Contractor: _____
 Contact: _____
 Name of Project: _____
 Total Contract Amount: \$ _____
 Date Submitted: _____

Billings

Each MBE/DBE/WBE Contractor utilized	Original subcontract amount	Previous amount	This period amount	Total Amount

(Use additional pages if necessary)

General Decision Number: AL150002 01/02/2015 AL2

Superseded General Decision Number: AL20140002 *Juanita Drive*

State: Alabama

Construction Type: Highway

Counties: Blount, Calhoun, Etowah, Shelby, St Clair and Tuscaloosa Counties in Alabama.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, bulding structures in rest areas projects, and railroad construction; bascule, suspension & spandrel arch bridges desgned for commercial navigation; bridges involving marine construction; other major bridges)

Note: Executive Order (EO) 13658 establishes an hourly minimum wage of \$10.10 for 2015 that applies to all contracts subject to the Davis-Bacon Act for which the solicitation is issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.10 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/02/2015

* SUAL2011-001 01/04/2011

	Rates	Fringes
Carpenter.....	\$ 13.88	
Concrete finisher.....	\$ 13.26	
Electrician.....	\$ 19.73	
Laborers:		
Asphalt Raker.....	\$ 11.23	
Concrete Laborer.....	\$ 10.84	
Grade Checker.....	\$ 12.58	
Guardrail Erector.....	\$ 12.47	
Pipe Layer.....	\$ 12.58	
Side Rail/Form Setter.....	\$ 11.97	
Traffic Control Specialist..	\$ 11.27	
Unskilled.....	\$ 9.84	
Power equipment operators:		
Aggregate Spreader.....	\$ 14.17	
Asphalt Distributor.....	\$ 14.27	
Asphalt Paver.....	\$ 11.85	
Asphalt Spreader.....	\$ 13.65	
Backhoe, Clamshell,		

Dragline, and Shovel.....	\$ 15.87
Broom (Sweeper).....	\$ 11.68
Bulldozer.....	\$ 14.73
Crane & Derrick.....	\$ 20.63
Front End Loader.....	\$ 13.38
Mechanic.....	\$ 17.54
Milling Machine.....	\$ 12.31
Motor Grader and Motor Patrol.....	\$ 16.10
Oiler/Greaseman.....	\$ 13.33
Roller (Self-Propelled).....	\$ 12.38
Scraper.....	\$ 13.00
Striping Machine.....	\$ 15.20
Track Hoe/Excavator.....	\$ 14.64
Tractor and Loader (farm rubber tired).....	\$ 11.40
Tractor/Loader (all other work).....	\$ 11.22

Truck drivers:

Multi-Rear Axle.....	\$ 12.25
Single Rear Axle.....	\$ 11.54

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the

most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour

<http://www.wdol.gov/wdol/scafiles/davisbacon/AL2.dvb?v=0>

Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



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SECTION 01010 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 Related Documents:

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to the Section.

1.2 Project Identification:

- A. The project shall generally include utility and street improvements located on Juanita Drive and on 6th Street, in the Alberta City area of Tuscaloosa. This will involve replacement of the existing water and sewer mains, and will include new roadway construction and streetscaping of portions of Juanita Drive and 6th Street. The areas to be improved will include streets, concrete sidewalk, handicap ramps, and traffic control and traffic signs.

1.3 Contractor Use of Premises:

- A. General: During the construction period, the Contractor shall have full use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of the project.

END OF SECTION 01010

SECTION 01060 - REGULATORY AND SAFETY EQUIPMENT

- 1.1 General:
- A. The Contractor shall maintain all work areas within or outside the project boundaries free of environmental pollution, abide by all applicable regulations set forth by Federal, State and Local authorities, and provide a safe work area for workers and the general public.
- 1.2 Protection of Existing Utilities:
- A. The Contractor shall provide whatever measures are necessary to properly protect and maintain all existing utilities encountered in the work.
 - B. The Contractor shall be solely and directly responsible to the utility owner for any and all damages to the various utilities, caused by the contractor's failure to adequately protect such utilities.
 - C. The Contractor shall notify utility owners that are affected during construction 48-hours in advance of the construction operation.
 - D. The Contractor shall cooperate fully with all utility owners in the event of interruption of service to the utility.
 - E. The Contractor shall maintain all storm sewers, drains and/or ditches so that flow is not disturbed.
 - F. The Contractor shall protect storm drains, inlets and/or ditches from damage during all testing, flushing, and disinfection processes.
- 1.3 Protection and Access to Public and Private Rights-of-Way:
- A. The Contractor shall provide and maintain access to all public and private properties at all times. Roadways authorized closed by State or Local authorities shall be maintained to provide access to all fire, police, and other emergency vehicles and all individuals having private property in the closed area. The Contractor shall notify at least 24 hours in advance the local Fire, Police, and Transportation Departments, the Mayor's office, and any other individuals, businesses, or agencies that may be affected.
 - B. All driveways shall be protected and access maintained by the Contractor during the construction phase.
- 1.4 Protection of Air Quality:
- A. The Contractor shall minimize air pollution through the use of water or other devices on bare earth during dry, windy periods, the use of properly operating combustion emission control devices and by encouraging the shutdown of construction vehicles when not in use.

1.5 Traffic Control Devices:

- A. The Contractor shall provide and maintain, in service at all times, traffic control devices, barricades, cones, flagmen, etc. as necessary and/or required by State and Local authorities.
- B. The Contractor shall protect the public by adequately fencing, lighting, and/or flagging the construction work zone.
- C. All traffic control devices shall conform to the Alabama Manual on Uniform Traffic Control Devices, Latest Edition.

1.6 Safety:

- A. The Contractor shall do whatever work is necessary for safety and be solely and completely responsible for conditions of the jobsite, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and not be limited to normal working hours and any subsequent warranty period associated with project deficiency or repair.
- B. Safety provisions shall conform to the Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and all other applicable federal, state, county, and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified in other parts of these Contract Documents. Where any of these are in conflict, the more stringent requirement shall be followed. The Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.
- C. The Contractor shall at all times provide proper facilities for safe access to the work by authorized government officials (federal, state, county and local) and representatives of the Owner.

1.7 Payment:

- A. No separate payments shall be made for regulatory and safety requirements as costs for this item of work shall be incorporated in the various unit pricing of the work.

END OF SECTION 01060

SECTION 01300 - SUBMITTALS

PART 1 - SUBMITTALS

1.1 General:

- A. This section of specifications covers the General Requirements for the preparation and assembly of submittals during the progress of the work. Any questions concerning the submittal process should be directed to the Engineer.

1.2 Administrative Submittals:

- A. All administrative submittals required in the Bid Documents, General Conditions, Supplementary Conditions, or Technical Specifications shall be provided by the Contractor. These submittals include but are not limited to payrolls, construction schedules, EEO documentation (if required), etc.
- B. All permits to Federal, State or Local authorities shall be submitted promptly by the Contractor.
- C. The Contractor shall submit on a daily basis the number of persons employed in the construction process, both Contractor and Subcontractor personnel, their classification, equipment used during the day, equipment added or deleted from the jobsite and the amount of work accomplished in each classification of work performed that day.

1.3 Technical Submittals:

- A. All submittals shall be bound with a Table of Contents, clearly indicating all included material submittals.
- B. Completely identify each submittal and re-submittal by showing at least the following information.
 - 1. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.
 - 2. Name of project as it appears in the bid documents.
 - 3. Drawing number and specifications section number to which the submittal applies.
 - 4. Whether this is an original submittal or resubmittal.
- C. Prior to submittal for Engineer's review, use all means necessary to fully coordinate all material, including the following procedures:
 - 1. Determine and verify all field dimensions and conditions, materials, catalog numbers, and similar data.
 - 2. Coordinate as required with all trades and with all public agencies involved.

3. Secure all necessary approvals from public agencies and others and signify by stamp, or other means, that they have been secured.
 4. Clearly indicate all deviations from the Contract Documents.
- D. **Grouping of Submittals:** Unless otherwise specifically permitted by the Engineer, make all submittals in groups containing all associated items; the Engineer may reject partial submittals as not complying with the provisions of the Contract Documents.
- E. **General:** Make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for possible revision and resubmittal, and for placing orders and securing delivery.
- F. **In scheduling, allow at least seven (7) full working days for the Engineer's review following his receipt of the submittal.**
1. **Delays:** Cost of delays occasioned by tardiness of submittals may be back-charged as necessary and shall not be borne by the Owner.

1.4 **Substitutions:**

- A. **Engineer's Approval Required:** The Contract is based on materials, equipment, and methods described in the Contract Documents:
1. The Engineer will consider proposals for substitution of materials, equipment, and methods only when such proposals are accompanied by full and complete technical data and all other information required by the Engineer to evaluate the proposed substitution.
 2. Do not substitute materials, equipment, or methods unless such substitution has been specifically accepted, in writing, for this work by the Engineer.
- B. **Or Equal:** Where the phrase "or equal" or "or equal as approved by the Engineer" occurs in the Contract Documents, do not assume that material, equipment, or methods will be approved as equal by the Engineer unless the item has been specifically accepted, in writing, for this work by the Engineer.
1. The decision of the Engineer shall be final.

1.5 **Shop Drawings:**

- A. **Scale Required:**
1. Unless otherwise specifically directed by the Engineer, make all Shop Drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection to the work.
- B. **Type of Prints Required:**
1. Unless otherwise specifically directed by the Engineer, make all Shop Drawing prints in blue or black line on white background.

C. Number of Prints Required:

1. Submit all Shop Drawings in the quantity which is required to be returned plus four copies which will be retained by the Engineer.

1.6 Copies Required:

- A. In general, unless directed otherwise by the Engineer, the Contractor's submittals shall be in sufficient quantities to allow four (4) copies to be retained by the Engineer.

1.7 Work Performed Prior to Submittal Acceptance:

- A. Any and all work performed by the Contractor prior to submittal review shall be at the Contractor's risk. No payment shall be made on items prior to a reviewed submittal.

END OF SECTION 01300

SECTION 02060 - DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of buildings. (N/A)
 - 2. Demolition and removal of structures.
 - 3. Demolition and removal of site improvements, including curb and gutter, drives, etc.
 - 4. Disconnecting, capping or sealing, and abandoning site utilities in place.
 - 5. Disconnecting, capping or sealing, and removing site utilities.

1.3 DEFINITIONS

- A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.
- B. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to Owner's designated storage area.
- C. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in locations indicated.
- D. Existing to Remain: Protect construction indicated to remain against damage and soiling during demolition. When permitted by the Engineer, items may be removed to a suitable, protected storage location during demolition and then cleaned and reinstalled in their original locations.

1.4 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, or otherwise indicated to remain the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.
- B. Historical items indicated remain the Owner's property. Carefully remove and salvage each item in a manner to prevent damage and deliver promptly to the Owner.

- C. Historical items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to the Owner, which may be encountered during demolition, remain the Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to the Owner.
 - 1. Cooperate with Owner's archaeologist or historical adviser.

1.5 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections, for information only, unless otherwise indicated.
- B. Proposed dust-control measures.
- C. Proposed noise-control measures.
- D. Schedule of demolition activities indicating the following:
 - 1. Detailed sequence of demolition and removal work, with starting and ending dates for each activity.
 - 2. Dates for shutoff, capping, and continuation of utility services.
- E. Inventory of items to be removed and salvaged.
- F. Inventory of items to be removed by Owner.
- G. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by demolition operations.
- H. Record drawings at Project closeout according to Division 1 Section "Contract Closeout."
 - 1. Identify and accurately locate capped utilities and other subsurface structural, electrical, or mechanical conditions.
- I. Landfill records for record purposes indicating receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.6 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition Work similar to that indicated for this Project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before starting demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

SECTION 01801 - CLEANING AND MAINTENANCE

PART 1 - GENERAL

1.1 Work Included:

- A. This section covers the work necessary for cleaning during construction and final cleaning on completion of the work.
- B. At all times maintain areas covered by the Contract and adjacent public properties free from accumulations of waste, debris, and rubbish caused by construction operations.
- C. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish and waste materials on project site. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains. Do not dispose of wastes into streams or waterways.
- D. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

1.2 Cleaning During Construction:

- A. During execution of work, clean site and adjacent public properties and dispose of waste materials, debris, and rubbish to assure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish.
- D. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from exposed and semi-exposed surfaces.
- E. Repair, patch, and touch up marred surfaces to specified finish to match adjacent surfaces.

1.3 Final Cleaning:

- A. At the completion of work on all contracts and prior to final inspection, the Contractor shall clean the entire project of all construction debris, materials, etc., from the work area and any other areas affected by the work. The areas shall be cleared and restored to as good or better than original condition.
- B. Should the Contractor not remove rubbish or debris from the site as specified above, the Owner reserves the right to have the cleaning done at the expense of the Contractor.
- C. Repair, patch, and touch-up marred surfaces to specified finish, to match adjacent surfaces.
- D. Broom clean paved surfaces; rake clean other surfaces of grounds.

- E. Power-wash all paved surfaces to remove stains and tire marks.
- G. Remove from the Owner's property all temporary structures and all materials, equipment, and appurtenances not required as a part of, or appurtenant to, the completed work. See Section 01500 TEMPORARY FACILITIES AND CONTROLS.
- F. The Owner will assume responsibility for cleaning as of the date of Substantial Completion of the project or portions thereof, and after the Contractor has satisfactorily completed final cleaning of the project or the same portions thereof.

1.4 Payment:

- A. No separate payment for maintenance and cleaning will be made.

END OF SECTION 01801

- C. Predemolition Conference: Conduct conference at Project site to comply with preinstallation conference requirements of Division 1 Section "Project Meetings."

1.7 PROJECT CONDITIONS

- A. Buildings to be demolished will be vacated and their use discontinued before start of Work. (N/A)
- B. Owner assumes no responsibility for actual condition of buildings to be demolished. (N/A)
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Asbestos: It is not expected that asbestos will be encountered in the course of this Contract. If any materials suspected of containing asbestos are encountered, do not disturb the materials. Immediately notify the Engineer and the Owner.
 - 1. Asbestos will be removed by Owner before start of Work. (N/A)
- D. Storage or sale of removed items or materials on-site will not be permitted.

1.8 SCHEDULING

- A. Arrange demolition schedule so as not to interfere with Owner's on-site operations.

PART 2 - PRODUCTS (Not Applicable)

2.1 SOIL MATERIALS

- A. Requirements for satisfactory soil materials are specified in Division 2 Section "Earthwork."
 - 1. Obtain approved borrow soil materials off-site when sufficient satisfactory soil materials are not available on-site. It is the Contractor's responsibility to coordinate pick-up of soil samples by Owner's representative of material to be used as borrow material for analysis and PD establishment. The Contractor will not be allowed to begin fill operations until this information is established for compaction testing.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

- D. Survey the condition of the building to determine whether removing any element might result in a structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during demolition. (N/A)
- E. Perform surveys as the Work progresses to detect hazards resulting from demolition activities.

3.2 UTILITY SERVICES

- A. Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
- B. Owner will arrange for disconnecting and sealing indicated utilities serving structures to be demolished before start of demolition work, when requested by Contractor. (N/A)
- C. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving structures to be demolished.
 - 1. Arrange to shut off indicated utilities with utility companies.

3.3 PREPARATION

- A. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.
- B. Employ a certified, licensed exterminator to treat building and to control rodents and vermin before and during demolition operations. (N/A)
- C. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- D. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around demolition area.
 - 1. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 - 3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.

- E. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of existing retaining walls, buildings, etc. to remain.
 - 1. Strengthen or add new supports when required during progress of demolition.

3.4 EXPLOSIVES

- A. Explosives: Use of explosives will not be permitted.
- B. Explosives: Do not bring explosives to the site or use explosives without written consent of Owner and authorities having jurisdiction. Such written consent will not relieve Contractor of total responsibility for injury to people or for damage to property due to blasting operations. Perform required blasting in compliance with governing regulations. (NA)

3.5 POLLUTION CONTROLS

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
 - 1. Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution, when using water.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level. (N/A)
- C. Clean adjacent buildings and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before start of demolition.

3.6 DEMOLITION

- A. Building Demolition: Demolish buildings completely and remove from the site. Use methods required to complete Work within limitations of governing regulations and as follows: (N/A)
 - 1. Locate demolition equipment throughout the building and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 2. Dispose of demolished items and materials promptly. On-site storage or sale of removed items is prohibited.
 - 3. Small buildings may be removed intact when permitted by Engineer and approved by authorities having jurisdiction.
 - 4. Demolish concrete and masonry in small sections.
 - 5. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 6. Break up and remove concrete slabs on grade, unless otherwise shown to remain.

7. Remove air-conditioning equipment without releasing refrigerants.
- B. Below-Grade Construction: Demolish foundation walls and other below-grade construction, as follows:
1. Remove below-grade construction, including foundation walls and footings, to at least 12 inches below grade.
 2. Remove below-grade construction, including foundation walls and footings, to the depths indicated. (N/A)
 3. Completely remove below-grade construction, including foundation walls and footings, storm drain, sanitary sewer, water distribution/fire protection, etc.
 4. Break up and remove below-grade concrete slabs, unless indicated to remain.
 5. Break up below-grade concrete slabs into sections no larger than 24 inches square and leave in place.
 6. Remove old debris such as trolley railings and ties, abandoned tanks, vaults, basements, etc.
- C. Filling Below-Grade Areas: Completely fill below-grade areas and voids resulting from demolition of buildings, pavements, utilities, basements, coal shutes, etc., with soil materials according to requirements specified in Division 2 Section "Earthwork", and/or stone as shown in the Construction Plans.
- D. Damages: Promptly repair damages to adjacent facilities caused by demolition operations.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 02060

SECTION 02100 - SITE PREPARATION, GENERAL

PART 1 - GENERAL

1.1 Work Included:

- A. Prior to starting construction operations, the Contractor shall remove all vegetable growth, debris, and other objectionable matter standing or lying on the surface within the limits of the areas to be excavated or filled, and shall demolish and remove them from such buildings and other structures as are specifically designated on the plans for removal.
- B. Any damage to natural terrain or to vegetation or objects designated to remain shall be repaired, replaced, or otherwise compensated for, as determined by the Engineer, at the Contractor's expense.
- C. Contractor shall remove all trees from the construction area except those trees that are designated in the field by the Owner to remain intact. This shall include complete stump removal to avoid future settlement. The Contractor may backfill with soil materials according to requirements specified in Division 2 Section "Earthwork" or with stone. Backfill of holes created by stump removal is considered a subsidiary obligation and there shall be no additional pay for this work.

END OF SECTION 02100

SECTION 02102 - EXISTING UTILITIES

PART 1 - GENERAL

1.1 Existing Utilities:

- A. The Contractor shall be responsible for and shall protect existing utilities. Where existing utilities are interrupted, damaged, or taken off line for connection to other facilities, or are taken out of service for any reason associated with the work, the Contractor shall work expeditiously and continuously (including through meals and around the clock) to return the utility to service as soon as possible. Where the Contractor plans to remove existing utilities from service with the prior expressed approval of the utility and the Owner, the Contractor shall coordinate with persons, businesses, or parties that may be affected by the temporary loss of service.
1. As shown in the Construction Plans, the Contractor shall install all conduits, equipment pads, pedestals, etc., for each private utility company. The installation and materials shall be approved and to the satisfaction of each private utility company representative before the underground conduit system shall be turned over to each private utility company to install below ground utilities. The Contractor shall not relinquish ownership of the conduit system until all below ground utilities are pulled/installed and the systems are energized/activated, allowing the retirement of above ground utilities.
 2. All coordination with private utility companies is the sole responsibility of the Contractor. Proper scheduling of private utility company crews to install new services and retire existing services shall rest on the Contractor's timely, advance coordination of the overall project schedule with each private utility company. There shall be no additional contract time granted for the Contractor's failure to coordinate in a timely fashion with the private utility companies.
- B. Any adjustments (temporary or otherwise), protection, support, removal, relocation, or repairs, etc. to utilities shall be performed by the utility (at the expense of the Contractor). Alternatively, if the utility desires, such activity shall be performed by the Contractor at his expense in a manner meeting the approval of the utility.

END OF SECTION 02102

SECTION 02110 - CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 Work Included:

- A. The Engineer will designate the areas to be cleared and grubbed and will indicate all trees, shrubs, plants, and other items to remain. Any damage to natural terrain or to vegetation or objects designated to remain shall be repaired, replaced, or otherwise compensated for as determined by the Engineer at the expense of the Contractor.
- B. Where required, the Contractor shall post with the Owner any performance bond or liability insurance which may be required to guarantee the satisfactory replacement or repair of materials, structures or landscaping within the work area.
- C. Ornamental trees, cultivated shrubs and similar growths which occupy streets, alleys, or other public rights-of-way or easements but which lie outside the limits of excavation shall remain undisturbed and shall be carefully preserved and protected by the Contractor throughout all stages of the construction work.
- D. All cut or scarred surfaces of trees or shrubs shall be treated with an asphaltum base paint specially prepared for tree surgery.
- E. The Contractor shall not enter upon private property for any purpose without first obtaining permission from its Owner and he shall be responsible for the preservation of, and shall use every precaution necessary to prevent damage to all trees, shrubbery, fences, culverts, bridges, pavement, driveways, sidewalks, etc., and to all water, sewer, gas, telephone, and electric lines thereof, and to all other public or private property along or adjacent to the work.

1.2 Clearing:

- A. The area within the construction limits shall be cleared of all surface objects, and all trees, stumps, roots and other objectionable obstructions resting on or protruding from the surface of the original ground except those designated to be retained.

1.3 Grubbing:

- A. All areas within the construction limits shall be grubbed of all objectionable matter on or projecting to the ground surface.
- B. All fill areas shall be grubbed to a depth of at least one foot below the natural ground.

1.4 Clearing and Grubbing Limits:

- A. Clear and grub within grading limits shown by sections and new contours shown on the drawings.
- B. Clear and grub within the limits of building and paving lines and to a point five (5) feet beyond building lines.

- C. Clearing and grubbing limits for utilities, where not specifically indicated on the drawings, will be determined by the area necessary to complete the work.
- D. In no case shall the clearing and grubbing limits extend beyond property and/or easement lines established by the Owner, unless the Contractor obtains permission from the adjoining owner or owners.

1.5 Disposal of Materials:

- A. The Contractor shall submit a plan for the satisfactory disposal of materials and debris from the clearing and grubbing operations for approval by the Engineer.
- B. The Contractor must comply with all local, state, and federal laws and ordinances pertaining to the type material being disposed of and secure and submit written permission from any applicable agencies regarding the method of disposal.

END OF SECTION 02110

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.1 Related Documents:

- A. Drawings and general provisions of the Contract including General, Supplemental, and Special Conditions.
- B. Geotechnical Report.

1.2 Summary:

- A. This specification section covers stripping, excavation, borrow, fill placement, undercutting, and other items incidental to earthwork operations required to complete the work.
- B. For purposes of earthwork construction, all soils shall be classified using the Unified Soil Classification System.
- C. The Contractor shall be fully responsible for the disposal of all excess materials resulting from excavation or other earthwork operations.
- D. The Contractor shall be fully responsible for furnishing, delivering, and placing all fill material necessary to achieve the finish grades indicated in the contract documents.
- E. The Contractor shall be fully responsible for location, construction, maintenance, and removal of all haul road. The Contractor shall be responsible for obtaining all rights-of-way necessary for the completion of the work and not indicated in the Contract Documents.
- F. The Geotechnical Report and Geotechnical Representative shall specify compaction requirements, approve materials to be used in fill locations, review and approve cut slopes, and review and approve required benching for various earthen materials found on-site during the grading operations.
- G. The Contractor shall be responsible for the prevention of erosion, runoff control and for the protection of existing streams. Hay bales, silt fencing and sheeting exposed areas shall be utilized to minimize sediment transport from cut areas, temporary spoil piles and other exposed areas.
- H. The Contractor is responsible for obtaining stormwater and runoff permits, as required. Contractor is responsible for monitoring and reporting, as required.
- I. Where excavations are made adjacent to existing buildings, other structures or utilities or in paved streets or alleys, the Contractor shall sheet, shore and brace the sides of the excavation adequately so as to prevent any undermining of or settlement beneath such structures, utilities or pavements. Where necessary, the Contractor shall be responsible for underpinning or bracing existing structures, utilities or pavement to prevent settlement or other damage. Where necessary, the Contractor shall be responsible for temporarily relocating existing utilities. All such relocations shall be coordinated with the Owner of the utility.

- J. Sheeting, shoring, and bracing materials shall not be left in place unless shown in the contract documents or approved in writing by the Engineer. Such materials shall be removed in such manner as to protect the work, workmen, the Owner's facilities, adjacent property and the general public.
- K. The Contractor shall take all due precautions for the safety of the work, the workmen, the Owner's facilities and the general public.
- L. The Contractor shall comply with federal, state, and local ordinances, laws, guidelines and regulations related to earthwork and excavation.
- M. In all cases, where materials are deposited around open excavations, they shall be placed so that, in the event of rain, no damage will result to the work or adjacent property.

1.3 Submittals:

- A. The Contractor shall submit laboratory test data for each type of compacted fill material indicating the following:
 - 1. Supplier or borrow location.
 - 2. Maximum Standard Proctor Density-ASTM D698.
 - 3. Optimum Moisture Content.
 - 4. Liquid Limit.
 - 5. Plasticity Index.

1.4 Quality Assurance:

- A. The Contractor will engage the services to perform in-place density testing, as directed by the Engineer. (N/A)
- B. The Owner will secure geotechnical services to perform in-place density testing as directed by the Engineer.

1.5 Definitions:

- A. Common Excavation:
 - 1. Common excavation shall be defined as the excavation of all material that can be excavated, transported and unloaded by the use of heavy ripping equipment and wheel tractor scrapers with push tractors or that can be excavated and dumped into place or loaded onto hauling equipment by means of excavators having a rated capacity of one cubic yard and equipped with attachments (shovel, bucket, backhoe, dragline, clam shell, rock teeth, etc.) appropriate to the character of the materials and the site conditions.
 - 2. The presence of isolated boulders or rock fragments larger than one cubic yard in size will not in itself be sufficient cause to change the classification of the surrounding material.

B. Removal of Unsuitable Material:

1. Unsuitable Material shall be defined as material not suitable for structural placement. Unsuitable Material shall include, but not limited to, excavation containing topsoil, muck, stumps, concrete, and other debris. The Engineer's determination of what is unsuitable material shall be final.

C. Off-Site Borrow - Select:

1. The Contractor is responsible for the stockpiling of select earth fill, available on site, such that it is not mixed with undesirable materials. The Contractor is further responsible for transporting select earthfill as required for utilization in areas indicated in the Contract Documents. Failure to stockpile and transport select earthfill shall not entitle the Contractor to additional compensation.
2. The Contractor shall provide acceptable material from off site.

PART 2 - PRODUCTS

2.1 General:

PART 3 - EXECUTION

3.1 General:

- A. The Contractor is solely responsible for the means and methods required to perform the excavation, site grading, and backfill operations required to complete the work. No portion of the plans and/or specifications shall be construed as limiting either the extent of excavation required or the equipment required to effect the work.

3.2 Safety:

- A. The Contractor shall proceed with the work in a manner to insure the safety of the work, workmen, the general public, adjacent utilities and structures.
- B. Excavated surfaces too steep to be safe and stable if unsupported shall be supported as necessary to safeguard the work and workmen, to prevent sliding or settling of the adjacent ground, and to avoid damaging existing improvements. The width of the excavation shall be increased if necessary to provide space for sheeting, bracing, shoring, and other supporting installations. The Contractor shall furnish, place and subsequently remove such supporting installations. There shall be no additional compensation for sheeting, bracing, shoring, and other supporting installations.

3.3 Placement of Fill:

- A. Fill materials shall be as indicated on the drawings or specified elsewhere herein.
- B. All areas to receive fill shall be scarified to a depth of 6" and compacted prior to the

placement of any fill material.

- C. Compaction shall be accomplished by sheepsfoot rollers, pneumatic-tired rollers, steel wheeled rollers or other equipment well suited to the soil being compacted.
- D. Material shall be moistened or aerated as necessary to provide the required moisture content.
- E. Satisfactory material shall be placed in 8" inches loose depth and then compacted. Lifts greater than this and unapproved by the Geotechnical Representative shall be removed and reinstalled at the Contractor's expense.
- F. No material shall be placed on surfaces that are muddy, frozen, or that contain frost.
- G. Sloped surfaces steeper than 4 horizontal to 1 vertical shall be plowed, stepped, benched or broken up as directed by the Engineer.
- H. If the surface of any layer becomes too hard and smooth for proper bond with the succeeding layer, it shall be scarified parallel to the axis of the fill to a depth of not less than 6 inches and recompacted before the next layer is placed.
- I. The top surfaces of embankments shall be maintained approximately level during construction, except that a crown or cross-slope of not less than 2 percent shall be maintained to insure effective drainage, and except as otherwise specified for drain fill zones. If the drawings or specifications require or the Engineer directs that fill be placed at a higher level in one part of an embankment than another, the top surface of each part shall be maintained as specified above.
- J. Fill placed at densities lower than the specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be reworked to meet the requirements of removed and replaced by acceptable fill. The replacement fill and the foundation, abutment and fill surfaces upon which it is placed shall conform to all requirements of this specification for foundation preparation, approval, placement, moisture control, and compaction.
- K. Compaction requirements for fill shall be as determined by ASTM D 698, with a moisture content of + or - 3% of optimum, and a minimum Standard Proctor of 98%.

3.4 Stripping:

- A. Unless otherwise shown on the drawings or specified herein:
 - 1. Strip all areas within permanent easements for pipelines.
 - 2. Strip 5-feet outside of edge of pavement or outside edge of gutter, the greater of the two, for roadways.
 - 3. Strip 5-feet outside of building lines or 5-feet beyond the top of slope for structural excavating.
 - 4. The Contractor may strip additional areas within the limits of the construction

easements and/or the job site at its option.

- B. Stripping shall be to a depth to remove all topsoil and objectionable materials from the job site.

3.5 Excavation Limits:

- A. Excavation for structures shall be sufficiently large for the proper placing of the forms and concrete and for dewatering purposes but shall not be excessively large in horizontal area.
- B. Excavation beyond the specified lines and grades (over-excavation) shall be backfilled by the Contractor, at its own expense, with a material acceptable to the Engineer.
- C. Excavation for manholes shall not be greater in horizontal area than that required to allow one foot clear between the outer surface of manholes and the wall of the excavation or the sheeting used to protect it.

3.6 Structure Backfill:

- A. Backfilling around foundations or structures shall be promptly accomplished.
- B. Before backfilling newly constructed walls, the Contractor shall allow all concrete sufficient curing time to obtain strength necessary to withstand backfilling.
- C. Selected earthfill shall be used for backfilling, unless otherwise detailed.
- D. No trash shall be allowed to accumulate in the space to be backfilled, and this space shall be well cleared before backfill is placed.
- E. The backfill shall be compacted by mechanical tamping or rolling in layers not over six (6) inches thick and shall be compacted as indicated on the standard details.

END OF SECTION 02200

SECTION 02240 - CRUSHED AGGREGATE BASE

PART 1 - GENERAL

1.1 Work Included:

- A. This specification gives specific requirements for materials and installation of crushed aggregate base.

1.2 Materials:

- A. Materials shall meet the requirements of the latest edition of the State of Alabama Department of Transportation Standard Specifications for Highway Section 825, Gradation Type "B".

1.3 Installation:

- A. No material shall be placed until the preceding layer has been approved by the Engineer. Such layer shall be properly shaped according to contours shown on the grading plan.
- B. Material shall be mixed to a uniform consistency by road-mixing, yard-mixing, or plant-mixing.
- C. Materials found not meeting the requirements of this specification shall be removed by the Contractor or brought into conformance.
- D. Material shall be spread to a uniform thickness and compacted to 100% S.P.D. as determined by AASHTO T-99. Finished material shall be the thickness noted otherwise on the plans or Bid Schedule.
- E. Material shall extend the full width to and shaped to accept curbing as shown by the typical section.
- F. Material shall be kept at or near optimum moisture during the compaction process and until the succeeding layer is placed.
- G. The Contractor shall shape the finished base to reasonably close conformity to the contours shown by the grading plan.
- H. The Contractor shall maintain the base layer until such time as the succeeding layer is placed.

END OF SECTION 02240

SECTION 02250 - TRENCHING, BACKFILL AND COMPACTION

PART 1 - GENERAL

1.1 Summary:

- A. This Section of Specifications deals with the requirements for Trenching, Backfill, and Compaction for utility lines placed in roadways, lawns or unimproved property or any other area.

1.2 Products Installed but not Furnished Under This Section:

- A. Ductile Iron Pipe and Fittings
- B. PVC Pipe
- C. Gate Valves
- D. Valve Boxes and Vaults
- E. Water Service Connections
- F. Manholes and Covers
- G. Fire Hydrants

1.3 Related Sections:

- A. Section 02660 – Water System
- B. Section 02722 – Sanitary Sewer System
- C. Section 02920 – Seeding and Mulching
- D. Section 02600 – Ductile Iron Pipe and Fittings
- E. Section 02433 – Storm Sewers

1.4 Payment:

- A. Payment for trenching, bedding, backfill, and compaction shall be considered incidental to the cost of the pipe, and no separate payment shall be made.
- B. No separate payment shall be made for sloping back of trench walls, shoring, blasting, fence removal and replacement, or the protection and/or replacement of plants, trees, structures, etc. In general, the condition after construction shall be as good, or better, than before construction. No payment will be made unless specifically itemized in the Bid Schedule.

1.5 References:

- A. U.S. Department of Labor, Occupational Safety and Health Administration.
- B. State of Alabama Department of Transportation Standard Specifications for Highway Construction.

1.6 Project Conditions:

A. Environmental Requirements:

1. The Contractor shall maintain all drainage ways, gutters, etc., at all times. The Contractor at his own expense shall remove any eroded or washed material that enters pipes, ditches, or streams.
2. The Contractor shall provide erosion control as required to protect surrounding areas from damage.
3. All areas damaged as a result of erosion shall be repaired to a condition equal or better than the condition prior to construction, as determined by the Engineer.

PART 2 - PRODUCTS

2.1 Materials:

A. Select Backfill:

1. Unless otherwise shown on the Construction Plans, ***Initial Select Backfill*** to be installed around the pipe shall be No. 8910 crushed limestone meeting or exceeding the requirements of the Alabama Department of Transportation Standard Specifications for Highway Construction, Latest Edition.
2. Unless otherwise shown on the Construction Plans and not including the initial select backfill around the pipe, ***Select Backfill*** where specified or required shall be No. 57 crushed limestone. Crushed stone shall meet or exceed the requirements of the Alabama Department of Transportation Standard Specifications for Highway Construction, Latest Edition, Section 801.

B. Standard Backfill:

1. Standard backfill shall consist of native soils free of large rocks, boulders and other deleterious substances.

C. Bedding:

1. Class "1" Bedding shall be Alabama Department of Transportation Standard Specifications for Highway Construction, Section 801, No. 8910 or No. 57 crushed limestone as specified in the plans.
2. Class "2" Bedding shall be reinforced concrete 3000 psi design mix.
3. Unless specified on the drawings or required by the Engineer, pipe shall be bedded in native soil (Class "3").

D. Trench Foundation

1. Trench foundation material shall be Alabama Department of Transportation Standard Specifications for Highway Construction, Section 801, No. 2 crushed limestone. This material shall only be used when approved in advance by the Engineer.

2.2 Source Quality Control:

- A. The Contractor shall supply gradation analysis for each type of crushed stone used.

PART 3 - EXECUTION

3.1 Examination of Conditions:

- A. The Contractor shall examine the area to be trenched and verify his requirements for trenching.

3.2 Protection and Removals:

A. Fences:

1. All fences in conflict with the proposed construction shall be removed in a neat and workmanlike manner and then replaced immediately following construction operations. Where materials removed are not suitable for reuse, they shall be replaced with new material of equal or better quality and construction. All fences shall be rebuilt to line, with posts well set, wires fastened with new staples or ties and well stretched. All corner and end posts shall be well braced and set a minimum of 30 inches in the ground.

B. Utility Poles, Guy Wires, Miscellaneous Poles, Etc.:

1. All utility poles, guy wires, sign posts and similar private obstructions which are indicated on the plans or existing on the ground shall be removed and replaced by the Contractor at his own expense. In the event street signposts or signs are damaged or destroyed by the Contractor's operations, they may be replaced by the Owner at the Contractor's expense.
2. When it is necessary to remove or adjust any utilities, representatives of the utilities involved shall be notified to decide the method and nature of work to be done. The Contractor shall make satisfactory arrangements with other utilities for the required removal or adjustments at the Contractor's expense, unless otherwise specified.
3. The Contractor shall be held liable for damage, including negligent or willful damage to any other utility and shall pay for the cost of all necessary repairs and any damages resulting to public or private property resulting therefrom.

4. The Contractor shall take whatever means necessary to support sewer mains to their true line and grade when they are encountered during excavation. The pipe shall be supported so that no leakage will occur and under no circumstances will the Contractor be allowed to bypass raw sewage or allow raw sewage to leak into the trench. If a repair becomes necessary the contractor shall use materials of the same type and class of pipe. At a minimum, PVC pipe and fittings shall conform to ASTM D3034, SDR 26. All couplings to existing pipe shall be manufactured couplings and all metal parts shall be stainless steel.
- C. Ornamental Shrubs and Trees:
1. Ornamental shrubs and trees shall not be removed unless directed by the Engineer. When ornamental shrubs and/or trees are to be removed and replaced, the following steps shall be followed:
 - a. Remove all trees, shrubs or plants, which interfere with construction with root system intact and protect from drying during construction period.
 - b. Replace plant to original location as soon as possible, ensure that hole is large enough, and no damage is done to root system.
 - c. Fill hole with good topsoil and tamp lightly and firmly into place and water plant.
 2. Contractor shall replace any plant, tree, or shrub which is disturbed by construction and dies within 1 year with like kind and size, at no cost to the Owner.
- D. Adjacent Property:
1. The Contractor shall confine his operations to the rights-of-ways and/or easements designated. The Contractor shall repair any damage to adjacent property at no additional cost to the Owner.
- E. Private Drives and Sidewalks:
1. The Contractor shall keep all private drives and sidewalks open and accessible at all times.
 2. All streets and public roads shall be kept open and accessible to emergency vehicles at all times.
- F. Existing Underground Utilities:
1. The Contractor shall protect all existing utilities during the trenching operation. The Contractor shall cooperate fully with the utility's requests for temporary and permanent supports during the trenching operation and shall furnish and install supports at no additional cost to the Owner.

2. Storm sewers in conflict with the proposed trench may be carefully dislodged and stockpiled. The pipes shall be cleaned and replaced immediately after new construction is clear. Storm sewers damaged by the Contractor shall be replaced with new pipe at no additional cost to the Owner. All storm sewers removed shall be re-laid to proper grade on a firm bedding so that settlement will not occur.

3.3 Trench Preparation:

A. Clearing and Grubbing:

1. Where clearing or partial clearing of the right-of-way or easements is necessary, such work shall be completed prior to trench excavation. Projecting materials such as trees, logs, brush, hedges, etc., shall be cut as near to the surface of the ground as possible, and all stumps and roots shall be grubbed out unless specifically stated otherwise. All materials so cleared and grubbed shall be removed from the site. In no case shall excavated materials be allowed to cover brush or trees prior to disposal. Clearing and grubbing costs shall be included in the unit price bid for the related pipe unless a specific line item for clearing and grubbing is included in the bid schedule.
2. The Contractor shall bear all costs of disposing of all cleared and grubbed materials. Unless otherwise specified, all merchantable timber cut from the area designated to be cleared shall become the property of the Contractor.
3. Burning will be permitted, provided the Contractor obtains permits and meets the requirements of the proper fire authorities and any other state, county or local ordinances. Burning on private property will not be permitted without written permission of the Owner of the property. The authority to burn shall in no way relieve the Contractor from damages, which may result from his operations. **(BURNING NOT PERMITTED ON THIS PROJECT)**
4. In no case shall any materials from clearing and grubbing operations be left on the project, or be pushed onto abutting private properties, or be buried in embankments or trenches on the project.
5. On public property, existing trees or limbs over 2 inches in diameter shall not be cut unless they are within 7 feet of pipe centerline or specific permission is received from the Engineer. On private easements or in lawns, no trees or brush shall be cleared or cut without prior approval of the Engineer or Inspector. The Contractor shall be required to remove trees, shrubs or plants on private property intact, and to ball the roots, keep watered as required, and replant in their original location upon completion of pipe laying operations, unless written permission is obtained from the Engineer, or unless otherwise specified. The Contractor shall replace, at his own expense, any trees, shrubs, or plants which are damaged as a result of his operations, or which die within 1 year of the time it was disturbed or damaged.

B. Saw Cutting:

1. Prior to beginning the trenching operation in paved areas such as roads, drives, and parking lots, all paving shall be saw cut to a minimum depth of 2 inches. All paving materials shall be removed and disposed of prior to the trenching operation.
2. Prior to beginning the saw cutting, all traffic control devices, barricades, cones and permits required shall be obtained and in place.

C. Verification of Existing Utilities:

1. Prior to the excavation but after the saw cutting in paved areas, the Contractor shall unearth all known utilities and confirm the location and depth of such utility sufficiently far enough in advance to adjust the vertical or horizontal alignment of the pipeline if necessary.

3.4 Trench Construction:

A. General:

1. Trenching or excavation for pipe lines shall consist of the excavation necessary for the installation of sanitary or storm sewers, water lines, gas lines, and other utilities and all appurtenant facilities, including manholes, junction boxes, inlets, outlets, thrust blocks, and pipe protection as called for on the Drawings.
2. Trench excavation shall be made in an open cut unless tunneling or other construction methods are specifically authorized, and shall be true to the lines and grades shown on the plans or established by the Engineer.
3. When vertical banks for trench excavation are not practical to construct or create dangerous conditions to workmen, the banks may be sloped provided that such excavation does not damage adjacent structures. However, when trench banks are sloped, such banks shall be cut to vertical planes as specified above for that part of the ditch below the level of one (1) foot above the top of the pipeline.
4. All streets, sidewalks, crossings, fire hydrants, water valves, fire alarm boxes and other similar public utilities are to be kept open or accessible for their intended use.
5. Every drain, gutter, culvert, or sewer for surface drainage encountered is to be kept open for both temporary and permanent flow, or if necessarily closed, other adequate provision for drainage is to be made.
6. In all cases where materials are deposited along open trenches, they shall be placed so that in the event of rain, no damage will result to the work and/or to adjacent property.
7. Pipe trenches shall not be excavated more than 300 feet in advance of pipe laying and temporary bridges or cross walks shall be constructed where required to maintain vehicular or pedestrian traffic.

8. Trench widths shall be confined to dedicated rights-of-way or construction easements, unless special written agreements have been made with the affected property owner. Place all excavated materials within easements or rights-of-way, and do not obstruct any public or private roadways or streets.
9. Where select backfill is specified or required, all excavated materials shall be promptly removed and disposed of by the Contractor.

B. Rock Excavation:

1. Rock encountered in trench excavation for pipe lines shall be removed for the over-all width of trench and to a depth of 6-inches below the bottom of the barrel of pipe 24-inches in diameter and smaller, and 8-inches below the bottom of pipe 24 to 36 inches in diameter, and 12-inches below pipe larger than 36-inches in diameter, if rock extends to such depths.
2. Where pipelines are constructed on concrete cradles, rock shall be excavated to the bottom of the cradle as shown on the plans. When necessary to provide sufficient working space, rock shall be excavated to additional depth for bell holes. (N/A)
3. After the Engineer has inspected the completed excavation, the space below the ultimate pipe or structure grade shall be filled with an approved foundation material and compacted to the proper grade.
4. Drilling and blasting methods used in rock excavation shall be optional with the Contractor but shall be conducted with due regard to the safety of persons and property in the vicinity of the work and in strict conformity with all laws, ordinances, or regulations governing blasting and the use of explosives. The Contractor shall be licensed for this type of blasting and shall follow the insurance requirements of the general conditions. The Contractor shall also notify the fire department at least 48 hours in advance of any blasting. **(DRILLING AND BLASTING WILL NOT BE ALLOWED ON THIS PROJECT)**
5. Rock excavation near existing structures of all types shall be conducted with the utmost care, and every precaution shall be taken to prevent damage to such structures. Any damage or injury of whatever nature to persons or property caused directly or indirectly by blasting operations shall be promptly repaired, replaced, or compensated for by the Contractor at his own expense and to the satisfaction of the persons injured or the owners of the property damaged.

C. Sheeting, Shoring and Bracing:

1. The sides of all trenching excavations shall be sufficiently sheeted, shored, and braced whenever necessary to prevent slides, cave-ins, settlements or movement of the banks and to maintain the excavation clear of obstructions that will, in any way, hinder or delay the progress of the work.
2. Wood or steel sheet piling of ample design and type shall be used when necessary.

3. All sheeting, shoring, and bracing shall have sufficient strength and rigidity to withstand the pressures exerted and to maintain the walls of the excavation properly in place and protect all persons and property from injury or damage.
4. Where excavations are made adjacent to existing buildings or other structures, or in paved streets or alleys, the Contractor shall take particular care to sheet, shore and brace the sides of the excavation adequately so as to prevent any undermining of or settlement beneath such structures or pavement. Underpinning of adjacent structures shall be done when necessary. The Contractor will be liable for any damage to any structure that results from his operations.
5. Sheeting, shoring or bracing materials shall not be left in place unless so shown by the plans or ordered by the Engineer. Such materials shall be removed in such manner as will not endanger or damage the new structure or any existing structures or property, either public or private, in the vicinity, and so as to avoid cave-ins or slides. No trench sheeting and bracing shall be removed until the trench has been backfilled one foot above the top of the pipe.

D. Trenching Through Dikes or Fill Sections:

1. Trenching through existing dikes or fill sections shall be accomplished in accordance with general trenching requirements as specified elsewhere.
2. Trenching for pipe lines or other utilities through dikes or fill sections under construction shall not begin until the new dike or fill section has been constructed, enlarged, or otherwise improved to an elevation 3 feet above the top of the pipe or other utility being installed.
3. Where existing dikes or fill sections are being used for the storage of liquids such as a lagoon, reservoir, pond, lake, canal, or other structure, the Contractor shall take whatever means necessary to preserve the integrity of the structure. No leakage of the stored liquid out of the structure will be allowed without the written approval of the owners of said structure.

E. Minimum Trench Widths:

1. All excavations shall be made to the lines and grades as established by the drawings, and shall be open cut through whatever material encountered. The Engineer may, if requested, make changes in the trench alignment to avoid major obstructions, if such changes can be made within the easement right-of-way without adversely affecting the intended function of the facility. In areas where soil conditions permit normal excavation of the trench, the sides shall be cut as nearly vertical as possible from the bottom of the trench to a point at least 12 inches above the top of the pipe. The trench width shall conform to Table 2 of the AWWA C600 Specification.

3.5 Dewatering:

- A. The Contractor shall at all times provide and maintain the necessary equipment and means for removal of all water from excavated areas. All excavated areas shall be kept free of water while any work is in progress. Particular precautions shall be taken to prevent the displacement of structures or pipelines as a result of accumulated water.
- B. Bedding material or pipe shall not be placed in wet or unstable trenches. Soil that cannot be properly dewatered shall be excavated and dry material tamped in place to such a depth as may be required to provide a firm trench bottom.
- C. All water removed or diverted from excavations shall be disposed of in a manner that will prevent damage to adjacent property or any flooding of streets or property. Disposal of trench water through the pipeline under construction shall not be allowed.
- D. Water shall be removed and disposed of so as to not damage adjacent property or existing drainage ways.

3.6 Trench Foundation Material:

- A. Where unsuitable materials for supporting pipe cushion are encountered, these materials shall be removed and replaced with trench foundation material, as directed by the Engineer.
- B. Trench foundation material shall be placed at the specified trench width from the bottom of the excess excavation to the bottom grade line of the pipe cushion.
- C. Trench foundation material so placed shall be as shown on the trench detail drawings or specified herein. If not shown on the drawings, trench foundation material shall consist of Alabama Department of Transportation Standard Specifications for Highway Construction, Section 801, No. 2 crushed limestone.
- D. Payment for trench foundation material will be limited to situations approved in advance by the Engineer.

3.7 Bedding and Backfill:

- A. General:
 - 1. All areas where bedding is not specifically called for or required by the Engineer, the pipe shall be bedded in native soils. Bell holes shall be excavated so that the entire pipe length rests on firm soil.
 - 2. Areas undercut by the Contractor through negligence, or his convenience, shall be backfilled and tamped with approved materials at the expense of the Contractor. In paved areas, the backfill material shall be select backfill.
 - 3. Bedding shall meet the requirements of Paragraph 2.01 of these specifications.

4. Backfilling shall not begin before the Engineer or Inspector has inspected the grade and alignment of the pipe.
5. If select backfill is not specified, backfilling to a point 12-inches above the top of the pipe, defined as the pipe zone, shall be done with good earth, sand or gravel and shall be free from large rocks or hard lumpy materials. Large rocks shall be defined as any larger than 2-inches in diameter. No materials of perishable, spongy or otherwise unsuitable nature shall be used in backfilling. It is essential that the completed backfill be done in such a manner as to minimize voids in the backfill.
6. Place trench backfill material at approximately the same rate along both sides of the pipe and compact by tamping in layers not to exceed 8 inches of loose fill up to the horizontal centerline of the pipe. The intent is to cradle the pipe so that the full length is uniformly supported on firm bedding and the weight of the pipe and backfill is borne uniformly by the lower half of the pipe barrel. Special attention should be given to the backfilling and tamping procedures to insure that no voids or un-compacted areas occur beneath the pipe. The use of granular material for backfill in the pipe zone shall constitute a pay item only when so directed by the Engineer. After this, fill and compact the trench as specified below, depending upon the location of the work and danger from subsequent settlement.
7. All backfilling shall be done in such a manner that will not disturb or injure the pipe or structure over or against which it is being placed. Any pipe or structure injured, damaged, or moved from its proper line or grade during backfilling operations, shall be replaced or repaired and then re-backfilled as herein specified, at the expense of the Contractor.

B. Trench Backfill and Pipe Bedding:

1. Pipe bedding and trench backfill shall be constructed as shown on the drawings for trench details. If no trench details are shown on the drawings, then the Contractor shall install the utilities as described in Paragraphs 3.07 B.3 and 3.07 B.4.
2. Where pipes are installed in unpaved areas, unless specifically shown on the drawings or called out in the Bid Schedule to be unimproved, the areas shall be considered to be Improved areas and shall be constructed accordingly.

3. Pipe Bedding and Trench Backfill – *Gravity Pipe*:

- a. Under Pavement (Asphalt or Concrete and/or Gravel Drives):

Pipe Material – Ductile Iron and Concrete

Bedding – 6” ALDOT No. 57 crushed limestone

Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to springline in max. 8” loose layers mechanically compacted

Final Backfill – Select backfill ALDOT No. 57 to top of trench in maximum 8” layers mechanically compacted

Pipe Material – PVC

- Bedding – 6” ALDOT No. 57 crushed limestone
- Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to 6” above top of pipe in maximum 8” loose layers mechanically compacted
- Final Backfill – Select backfill ALDOT No. 57 to top of trench in maximum 8” layers mechanically compacted

b. Improved Areas:

Pipe Material – Ductile Iron

- Bedding – 6” ALDOT No. 57 crushed limestone
- Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to springline in max. 8” loose layers mechanically compacted
- Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 98% SPD

Pipe Material – Concrete

- Bedding – Class 3 Native Material *
- Initial Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 98% SPD
- Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 98% SPD

Pipe Material – PVC

- Bedding – 6” ALDOT No. 57 crushed limestone
- Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to 6” above top of pipe in maximum 8” loose layers mechanically compacted
- Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 98% SPD

c. Unimproved Areas:

Pipe Material – Ductile Iron

- Bedding – 6” ALDOT No. 57 crushed limestone
- Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to springline in max. 8” loose layers mechanically compacted
- Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 90% SPD

Pipe Material – PVC

- Bedding – 6” ALDOT No. 57 crushed limestone
- Initial Backfill – Select Backfill ALDOT No. 57 crushed limestone from bottom of pipe to 6” above top of pipe in maximum 8” loose layers mechanically compacted
- Final Backfill – Standard backfill to top of trench in maximum 8” loose

layers compacted to 90% SPD

4. Pipe Bedding and Trench Backfill – *Pressure Pipe*:

a. Under Pavement-Asphalt or Concrete and/or Gravel Drives:

Pipe Material – Ductile Iron

Bedding - Class 3 Native Material *

Initial Backfill – Select backfill ALDOT No. 57 crushed limestone from bottom of pipe to springline in maximum 8” loose layers mechanically compacted

Final Backfill – Select backfill to top of trench ALDOT No. 57 crushed limestone in maximum 8” layers mechanically compacted

Pipe Material – PVC

Bedding - Class 3 Native Material *

Initial Backfill – Select backfill ALDOT No. 8910 crushed limestone from bottom of pipe to 12” above top of pipe in maximum 8” loose layers compacted to 98% SPD

Final Backfill – Select backfill to top of trench ALDOT No. 57 crushed limestone in maximum 8” layers mechanically compacted.

b. Improved Areas:

Pipe Material – Ductile Iron and/or PVC

Bedding – Class 3 Native Material *

Initial Backfill – Standard backfill from bottom of pipe to springline in maximum 8” loose layers compacted to 98% SPD

Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 98% SPD

c. Unimproved Areas:

Pipe Material – Ductile Iron and/or PVC

Bedding – Class 3 Native Material *

Initial Backfill – Standard backfill from bottom of pipe to springline in maximum 8” loose layers compacted to 90% SPD

Final Backfill – Standard backfill to top of trench in maximum 8” loose layers compacted to 90% SPD

** Where trench bottom is rock provide 6” layer of trench foundation material as approved by the Engineer.*

3.8 Cleaning:

- A. The Contractor shall thoroughly clean all areas damaged during construction of excess fill, construction debris, etc.
- B. All gutters and adjacent curbing shall be swept clean of debris and materials that may hinder

storm water flow.

3.9 Protection:

- A. The Contractor shall protect the newly constructed pipeline from damage until final acceptance of the work.

END OF SECTION 02250

SECTION 02260 - SUBSURFACE CROSSING

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications covers the requirements for making subsurface crossings by the bore and jack method or tunneling method where specified on the drawings.

1.2 Methods and Definitions:

- A. All excavation required for subsurface crossings shall be unclassified. No allowance or separate payment shall be made for excavation and/or rock excavation for subsurface crossings.
- B. Where tunneling is shown on the drawings or called out in the specifications, the Contractor shall use the tunneling method.
- C. Where boring and jacking is shown on the drawings or called out in the specifications, the Contractor has the option to install these crossings by the tunneling method. If the Contractor encounters rock or other obstacles or for any other reason decides to use tunneling in lieu of bore and jacking, he may do so at no additional cost to the owner.
- D. Where reference is made to bore, jack, or casing in the specifications or on the drawings, it shall be interpreted to also mean tunneling and liner plate. No reference to boring, jacking, or casing shall restrict the Contractor from using tunneling as the installation method as defined in Paragraph 1.2-C above.

1.3 Products Installed but not Furnished Under this Section:

- A. Ductile Iron Pipe
- B. Masonry End Plugs
- C. Thrust Blocking
- D. Steel Casing Pipe

1.4 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction
- B. Section 02600 - Ductile Iron Pipe and Fittings
- C. Section 02660 - Water System

1.6 References:

- A. AWWA C600, Installation of Ductile Iron Water Main and Appurtenances.
- B. State of Alabama Department of Transportation Standards for the Accommodating Utilities on Highway Right-of-Ways.
- C. American Railway Engineering Association Manual for Railway Engineering.

1.7 Regulatory Requirements:

- A. The contractor shall follow any requirements imposed by the State of Alabama Department of Transportation on roads and highways under their jurisdiction.
- B. Crossings under railroads shall be subject to the requirements of the particular railroad being crossed. In general, the railroad companies will furnish, at the contractor's expense, day and night watchmen, flagmen, and inspectors. The contractor shall include in his bid monies to cover said inspectors, watchmen, and flagmen.
- C. The Contractor shall strictly comply with all OSHA requirements, standards, regulations and guidelines. In addition, the Contractor shall take whatever measures are necessary to insure the safety of his personnel and subcontractors, the Owner, its representatives, and the public.

1.8 Site Conditions:

- A. The contractor shall familiarize himself with the existing conditions and have the proper material and equipment on hand prior to commencing the work.
- B. Subsurface Crossings:
 - 1. The contractor shall install, as a minimum, reflective tape and barricades, consisting of wooden handrails installed in a manner to protect the public around all open pits.
 - 2. Open pits shall be marked with flashing lights and wooden handrails to protect pedestrians.
 - 3. Any requirements imposed by the City or the Alabama Department of Transportation shall be in addition to the above requirements.
 - 4. The contractor shall maintain drainage in all open ditches around open bore pits.

5. The contractor shall take all precautions against damage to the roadbed structure, railway roadbed and any structures crossed by a subsurface crossing.

1.9 Scheduling:

- A. The contractor shall schedule all subsurface crossings with the City and other appropriate agencies.
- B. Subsurface Crossings under railroads or state highways shall be scheduled with the appropriate railroad company prior to the start of any work.

PART 2 - PRODUCTS

2.1 Materials:

A. Subsurface Crossings:

1. Steel Casing Pipe:

- a. All casing pipe shall be steel and conform to ASTM A-252, Grade 2, and of the diameter called for on the plans. In general, the casing pipe shall be large enough in diameter to accommodate the flange or joint on the carrier pipe.
- b. Steel casing shall have a minimum yield point of 35,000 psi.
- c. Steel casing pipe shall have as a minimum the following wall thicknesses:

<u>DIAMETER OF CASING PIPE</u>	<u>MINIMUM WALL THICKNESS</u>
8 through 16 inches	0.3125 (5/16) inches
18 through 20 inches	0.3438 (11/32) inches
22 through 24 inches	0.3750 (3/8) inches
26 through 28 inches	0.4375 (7/16) inches
30 through 34 inches	0.5313 (17/32) inches
36 through 38 inches	0.5625 (9/16) inches
40 through 48 inches	0.6875 (11/16) inches

- d. The outside of the casing pipe shall be coated with coal tar epoxy as per AWWA C210 latest edition.
- e. Tunnel liners used in the tunneling method shall be approved by the Engineer prior to installation.

- f. Where more than one segment of steel casing pipe is required to complete the crossing, each segment must be welded to form one continuous casing. All segments to be welded shall be squarely cut, cleanly beveled, and welded. Welding of steel casing shall conform to the requirements of AWS D1.1 and be full penetration, butt welds around the full circumference of the casing. The exposed metal shall be coated with coal tar epoxy as per AWWA C210 latest edition.
2. Steel Casing Spacers:
 - a. Steel casing spacer shall be constructed with 304 stainless steel, 14 gauge minimum, 12-inch wide bands; 0.09 inch minimum PVC liner; 10 gauge minimum stainless steel risers and 2-inch wide glass reinforced plastic runners. Steel casing spacers shall be PSI Casing Spacers as manufactured by Corrosion Control Products Company, Gardenia, California.
3. Casing End Seals:
 - a. Casing end seals shall be made of 1/8" minimum synthetic rubber and be on one piece construction, with stainless steel bands to make a water tight connection around the carrier pipe and the steel casing. Casing end seals shall be PSI Casing End Seals, Model "C" as manufactured by Corrosion Control Products Company, Gardenia, California.

PART 3 - EXECUTION

3.1 Preparation:

A. Subsurface Crossing:

1. The contractor shall excavate a bore pit of ample size to accommodate boring/tunneling equipment, casing/liner and carrier pipe, but not of a size that will damage the roadbed or surrounding utilities.
2. The contractor shall protect existing roadbed, railway roadbed, sidewalk, utility or other existing structures from damage.
3. The contractor shall use shoring and bracing as necessary to prevent slides and cave-ins of the pit walls and to comply with OSHA and/or other safety requirements.
4. The contractor shall use wooden railing, barricades, flashing lights, reflective tape and/or other measures deemed necessary to protect vehicles and pedestrians.

5. The contractor shall dispose of all the material excavated from the pit in a manner acceptable to the Engineer. No material will be allowed to spill onto any traveled path of a vehicle, onto any sidewalk, or damage any private property. If necessary, the contractor will store excavated material off-site if surrounding conditions do not permit ample storage on site.
6. The contractor shall maintain all open ditches and channel all water around the bore or tunnel pit in such a manner as to prevent the obstruction of storm runoff, etc.

3.2 Installation:

A. Subsurface Crossing:

1. Where the tunneling method for water installation is used, the carrier pipe shall be ductile iron, and the tunnel liner must be of a design approved by the Engineer prior to beginning the tunneling operation.
2. After completion of the bore and jack or tunneling operation, the carrier pipe will be fitted with appropriate steel casing spacers to hold the pipe to the correct line and grade. Steel casing spacers shall be positioned to ensure no metallic contact between the carrier pipe and the casing and to properly support the carrier pipe. An end casing spacer shall be positioned within 6-inches of each end of the casing.
3. Each end of the casing and/or tunnel shall be sealed with a rubber casing end seal with stainless steel rings to eliminate any water or soil from entering the casing pipe.
4. After a completed installation of the casing and carrier pipe, the bore pit shall be backfilled and tamped. Compaction shall meet the requirements of the trench leading up to the bore pit but in no case shall the compaction be less than 90% of the maximum density as determined by AASHTO T-99.
5. After completion of the backfill operation, the bore pit and surrounding area damaged by construction shall be seeded and mulched as per Section 2920 Seeding and Mulching. No separate payment shall be made for clean up, seeding, grassing or mulching.

END OF SECTION 02260

SECTION 02290 – SLOPE PROTECTION AND EROSION CONTROL

PART 1 GENERAL

1.1 Section Includes:

- A. This section of specifications covers the requirements of the contractor to protect the project site and adjoining properties from soil erosion and runoff. This Section reviews methods of construction, erosion control measures, maintenance of erosion control features, and construction runoff permitting.

1.2 Related Sections:

- A. Section 02250 – Trenching, Backfill, and Compaction
- B. Section 02920 – Seeding and Mulching

PART 2 MATERIALS

2.1 Temporary Berms:

- A. A temporary berm is constructed of compacted soil or riprap, with or without a shallow ditch, at the top of fill slopes or transverse to the centerline of fills. These berms are used temporarily at the top of newly constructed slopes to prevent excessive erosion until permanent controls are installed or slopes stabilized.

2.2 Temporary Slope Drains:

- A. A temporary slope drain is a facility consisting of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, sod or other material acceptable to the Engineer that may be used to carry water down slopes to reduce erosion.

2.3 Sediment Structures:

- A. Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.

2.4 Check Dams:

- A. Check dams are barriers composed of logs and poles, large stones, or other materials placed across a natural or constructed drainway.

2.5 Temporary Seeding and Mulching:

- A. Temporary seeding and mulching are measures consisting of seeding, mulching, fertilizing, and matting utilized to reduce erosion. All cut and fill slopes, including waste sites and borrow pits, shall be seeded when and where necessary to control erosion.

2.6 Brush Barriers:

- A. Brush barriers shall consist of brush, tree trimmings, shrubs, plants, and other approved refuse from the clearing and grubbing operation.
- B. Brush barriers are placed on natural ground at the bottom of fill slopes, where the most likely erodible areas are located, to restrain sedimentation particles.

2.7 Baled Hay or Straw Checks:

- A. Baled hay or straw erosion checks are temporary measures to control erosion and prevent siltation. Bales shall be either hay or straw, containing five (5) cubic feet or more of material.
- B. Baled hay or straw checks shall be used where the existing ground slopes toward or away from the embankment along the toe of slopes, in ditches, or other areas where siltation erosion or water runoff is a problem.

2.8 Temporary Silt Fences:

- A. Silt fences are temporary measures utilizing woven wire or other approved material attached to posts with filter cloth composed of burlap, plastic filter fabric, etc., attached to the upstream side of the fence to retain the suspended silt particles in the run-off water.

PART 3 EXECUTION

3.1 General:

- A. The Contractor shall obtain an NPDES permit in accordance with requirements of this section and in compliance with regulations established by the EPA and the ADEM.
- B. The Contractor shall exercise planning and forethought in coordinating the work of protecting the project and adjoining properties from soil erosion by effective and continuous erosion control methods of either a temporary or a permanent nature.
- C. Prior to construction, the Contractor shall meet with the Engineer and review in detail the expected problem areas in regard to the erosion control work. Different solutions shall be discussed so that the best method might be determined. It is the responsibility of the Contractor to develop an erosion control plan acceptable to the Engineer. Erosion control measures shown on the Drawings or in Standard Details are the minimum required and are meant as a guide for the Contractor.

- D. Before beginning work on the site, the Contractor shall submit to the Engineer, for his review and approval, a plan for control of soil erosion.
- E. The Contractor shall plan his clearing work and his entire construction operations in such a manner as to effectively control soil erosion and prevent pollution of streams, ponds, and/or drains as would result from silt or soil runoff or as would result from any materials used in the construction operations such as oil, grease, paints, chemicals, or any construction debris.
- F. The Contractor shall intercept and block drainage from the construction site by means of silt fences, silt barriers, sedimentation pools or other measures as required.
- G. Silt fences, wherever used on the site, shall consist of hay bales securely fastened in place or, if approved, permeable-barrier fabric designed to filter water and retain silt. Fabric shall be set securely in the ground and firmly held in place.
- H. The erosion control work shall cover all disturbed areas within the project and/or easement along which the project has been installed. Erosion control work shall not be limited to the easement but shall include all disturbed areas as necessary.

3.2 Methods of Construction:

- A. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.
- B. Construction operations shall be restricted to the areas of work indicated on the Plans and to the area which must be entered for the construction of temporary or permanent facilities. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow, and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of wetlands and adjacent watercourses. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, or other control devices or methods as necessary to control erosion.
- C. Excavated soil material shall not be placed adjacent to wetlands or watercourses in a manner that will cause it to be washed away by high water or runoff. Earth berms or diversions shall be constructed to intercept and divert runoff water away from critical areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the Engineer. If, for any reason, construction materials are washed away during the course of construction, the Contractor shall remove those materials from the fouled areas as directed by the Engineer at no cost to the Owner.

- D. For work within easements, all materials used in construction such as excavation, backfill, roadway, and pipe bedding and equipment shall be kept within the limits of the easements.
- E. The Contractor shall not pump silt-laden water from trenches or other excavations into wetlands or adjacent watercourses. Instead, silt-laden water from excavations shall be discharged within areas surrounded by baled hay or into sediment traps to ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area shall be avoided.
- F. Prohibited construction procedures include, but are not limited to, the following:
 - 1. Dumping of spoil material into any streams, wetlands, surface waters, or unspecified locations.
 - 2. Indiscriminate, arbitrary, or capricious operation of equipment in wetlands or surface water areas.
 - 3. Pumping of silt-laden water from trenches or excavations into surface waters or wetlands.
 - 4. Damaging vegetation adjacent to or outside of the construction area limits.
 - 5. Disposal of trees, brush, debris, paints, chemicals, asphalt products, concrete curing compounds, fuels, lubricants, insecticides, washwater from concrete trucks or hydroseeders, or any other pollutant in wetlands, surface waters, or unspecified locations.
 - 6. Permanent or unauthorized alteration of the flow line of any stream.
- G. Any temporary working roadways required shall be clean fill approved by the Engineer. In the event fill is used, the contractor shall take every precaution to prevent the fill from mixing with native materials of the site. All such foreign fill materials shall be removed from the site following construction.

3.3 Erosion Checks:

- A. The Contractor shall furnish and install baled hay or straw erosion checks in all locations indicated on the Plans, surrounding the base of all deposits of stored excavated materials outside of the disturbed area, and where indicated by the Engineer. Checks, where indicated on the Plans, shall be installed immediately after the site is cleared and before excavation has begun at the locations indicated. Checks located around stored material shall be located approximately 6-feet from that material. Bales shall be held in place with two 2-inches by 2-inches by 4-foot wooden stakes. Each bale shall be butted tightly against the adjoining bale to preclude short-circuiting of the erosion check.

3.4 Maintenance of Erosion Control Features:

- A. The temporary erosion control features installed by the Contractor shall be acceptably maintained by the Contractor until no longer needed or permanent erosion control methods are installed. Any materials removed shall become the property of the Contractor.
- B. Silt fences shall have sediment deposits removed if it reaches a depth of fifteen inches (15") or ½ the height of the fence. Sediment removed from the silt fence shall be removed from the site.
- C. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of work as scheduled, and are ordered by the Engineer, such work shall be performed by the Contractor at his own expense.

3.5 Construction Runoff Permitting:

- A. It shall be the responsibility of the contractor to obtain a State NPDES General Permit ALR100000 for construction site runoff as part of this project. Application for coverage is made by submittal of a Notice of Intent (NOI) and a permit fee to:

ADEM – Water Division
P.O. Box 301463
Montgomery, AL 36130-1463

- B. The construction general permit requires the Contractor to use Best Management Practices (BMPs) to control storm water runoff. The general permit requires inspections on monthly basis, at a minimum, to ensure compliance with State water quality standards. Onsite precipitation must also be recorded.

END OF SECTION 02290

SECTION 02433 - STORM SEWERS

PART 1 - GENERAL

1.1 Work Included:

- A. This section shall cover the work of furnishing and constructing storm sewers of the kind, strength, and size pipe provided in the proposal in accordance with the requirements of these specifications and installing such sewers at the location shown on the plans or designated and in conformity with established lines and grades. These items shall also include the furnishing and construction of such joints necessary, cutting and connections to other pipe, catch basins, in-walls, etc., and may be required to complete the work shown on the plans or as directed.

1.2 Products:

A. Materials:

1. Concrete Pipe: All pipe material shall be reinforced concrete pipe, Class III, Class IV, and Class V, conforming to ASTM C-76 Specifications, minimum. Pipe extensions shall be of the type and class of piping being extended.
2. Plastic Pipe: All plastic pipe shall be HDPE (High Density Polyethylene) storm sewer pipe, double walled, smooth inner wall, bell and spigot joints, and rubber O-rings, conforming to ASTM F-477.
3. Pipe Extensions: Pipe extensions shall be of the type and class of piping extended.

1.3 Execution:

- A. Trenches: The trench shall be excavated beginning at the outlet end and proceed upgrade true to the established line and grade. Trenches shall be properly sheeted and braced wherever needed and conform to Section 02250 of these Specifications and trench standard details in the Construction Plans.
- B. Pipe Laying: The laying of pipes and finished trenches shall be started at the outlet end and proceed upgrade so that the spigot or groove ends point in the direction of the flow. All pipe shall be laid with ends abutting and with not more than one inch variation from established alignment at the vertical center line or from grade at the flow line. The bottom of the trench shall be shaped accurately to the outside surface of the pipe for a depth of at least 1/10 of the outside diameter. The pipe shall be fitted and matched so that when laid in the work, they will form a sewer with a smooth uniform invert. Hubs or bells shall be carefully cleaned before pipes are lowered into the trenches. Pipes shall be so lowered as to avoid damage and unnecessary handling in the trench.
- C. Sealing Joints: Joints shall be sealed with mortar, bituminous plastic cement, rubber type gaskets or other type sealers that may be approved. Joints shall be thoroughly cleaned before being sealed and shall be sealed for the full circumference of the joint unless otherwise directed.

- D. **Backfilling:** All trenches and excavation shall be bedded and backfilled as shown on the drawings. Backfilling shall not begin until mortar joints have cured or until backfilling is authorized by the Engineer.

1.4 **Construction Staking:**

- A. The construction staking shall include horizontal locations of inlets, manholes, etc., with vertical grade information provided to determine pertinent invert elevations. These elevations should match those shown on the Construction Plans. It is the Contractor's responsibility to protect horizontal and vertical offset stakes at all times and remove them only as directed by the Engineer. These stakes shall be used to verify any claimed grade/elevation discrepancies, if any occur. If the Contractor fails to retain these original stakes, then any discrepancy claims shall be disregarded and the piping, manholes, etc., shall be reinstalled at the Contractor's expense.

END OF SECTION 02433

SECTION 02500 - ASPHALT PAVING

PART 1 - GENERAL

1.1 Section Includes:

- A. This Section of Specifications covers the material and installation requirements for asphalt patching over excavated trenches in roads, parking lots and driveways.
- B. This Section of Specifications covers material and installation requirements for asphalt overlay, asphalt full build-up in roads, parking lots, and driveways.

1.2 General Information:

- A. The Contractor shall refer to the bid proposal for the type of payment to be made for patching and paving. Measurement for asphalt patching shall be the trench width as specified by Table 2 of AWWA C600 plus 2 feet. The trench width for utilities and utility services less than 4 inches shall be 2-feet. For manholes, cleanouts and other fittings, the measurement shall allow 2-feet on all sides of the actual dimension of the fitting itself.
- B. The average weight per square yard of plant mix to be placed will be specified by the plans. The Engineer may direct in writing that the designated weight be increased or decreased in certain areas. It shall be the Contractor's responsibility to place and spread the material uniformly to such thickness as will produce the specified average weight per square yard, separately for each layer of base, binder, and surface, and to maintain a continuing check on tonnage and yardage throughout the day's operation to insure uniform specified weight.

If the average weight per square yard of any unit is found deficient by more than 10 percent of the specified average weight per square yard, the Engineer will determine (1) whether the Contractor shall remove and replace the deficient unit without payment for the removal or the material removed, or (2) whether the Contractor may leave the deficient unit in place and cover it with a layer of the same mix of adjusted maximum size aggregate, of not less than 80 pounds per square yard average. In case (2), the surface layer shall not be featheredged at the end of the overlay layer, but a sufficient amount of the surface beyond the ends of the deficient unit shall be removed, to a neat line across the pavement, to allow placing the full 80 pounds per square yard and make a joint that will meet the surface requirements. The Contractor will be paid for the deficient layer plus as much of the 80 pound overlay as is needed to bring the total up to the designated average weight per square yard for that unit.

If the average weight per square yard placed for any unit is more than ten (10) percent in excess of the weight specified by the Engineer, the amount over 110% shall not be paid for.

Measurement shall be taken from the actual width of paving in feet times the length of paving in feet divided by nine (9) to obtain square yardage.

Measurement for asphalt leveling shall be taken from the actual truck weights with the weight tickets being furnished at the job site with each truck. Only tickets received on the day the asphalt is installed shall be accepted.

1.3 References:

- A. State of Alabama Department of Transportation Standard Specifications for Highway Construction, Latest Edition.

1.4 Quality Assurance:

- A. The work of asphalt paving shall be accomplished by skilled workmen experienced in the laying of asphalt.
- B. All equipment shall be of a design and size to successfully accomplish the work.

1.5 Project Conditions:

- A. The Contractor shall comply with all environmental laws and requirements pertaining to the work.
- B. The Contractor shall take adequate measures to control dust in the work area.
- C. The Contractor shall thoroughly inspect the backfilled trench and assure himself that proper laying conditions exist.
- D. The Contractor shall provide and maintain adequate and safe traffic control.

PART 2 - PRODUCTS

2.1 Materials:

A. Prime Coat:

- 1. Prime Coat shall be emulsified asphalt, Type AE-P, tar types RT2 or RT3, or cutback asphalts MC 250, RC70 or RC250 as defined in Section 804 of the Alabama Department of Transportation Standard Specifications.
- 2. Prime Coat shall be applied at the rate of 0.22 to 0.25 gallons per square yard over the entire area to be treated with asphalt.

B. Tack Coat:

- 1. Tack coat shall be emulsified asphalt type SS-1, SS-1h, or RS-2 or Asphalt Cement Grade AC-10 or AC-20 as defined in Section 804 of the State of Alabama Department of Transportation Standard Specifications.
- 2. Tack Coat shall be applied at a rate not to exceed 0.10 gallons per square yard.

C. Asphalt Patch:

1. Asphalt paving used in patching shall be Improved Bituminous Concrete Binder as defined in Section 424 of the State of Alabama Department of Transportation Standard Specifications.
2. Materials shall meet the requirements of Article 424.02 of the above mentioned specifications.
3. The Contractor shall refer to the Bid Proposal or Drawings for the quantity of material to be applied per square yard.

D. Asphalt Paving:

1. Asphalt used in paving shall be Improved Bituminous Concrete Plant Mix, meeting the specification outlined in Section 424 of the State of Alabama Department of Transportation Specifications.
2. Asphalt final layer placed for paving and/or overlay in streets, parking lots, drives, and patches shall be Improved Bituminous Concrete Wearing Surface, Mix "A" and all materials used shall conform to Article 424 of the State of Alabama Department of Transportation Specifications.
3. The Contractor shall refer to the Bid Proposal or Drawings for the quantity of material to be applied per square yard.

E. Traffic striping and control markings shall conform to Sections 701 and 703 of the State of Alabama Department of Transportation Standard Specifications for Highway Construction. All striping, delineations, markers, etc., damaged or destroyed during the construction shall be replaced by the Contractor at his expense.

F. Before overlaying the street, the Contractor shall raise or lower all valve boxes, manholes and other embedded items, including items that have previously been paved over. No extra payment will be made for these adjustments.

G. AKG Surfacing:

1. The Contractor shall clear, grub, scarify and compact the sub-base prior to placing the base material.
2. Base material shall be as defined in Section 825, Type B, of the State of Alabama Department of Transportation Standard Specifications, and shall be compacted to 98% SPD.
3. AKG Surface shall be as defined in Section 401 of the State of Alabama Department of Transportation Standard Specifications.

2.2 Equipment:

- A. Equipment used in asphalt patching and/or asphalt paving shall meet the requirements of Article 410.03a of the State of Alabama Department of Transportation Specifications.
- B. Equipment used in the application of Prime Coat and Tack Coat shall comply with Article 401.03a of the above mentioned Specifications.

2.3 Temperature and Weather Requirements:

A. Prime and Tack Coat:

- 1. Bituminous materials shall not be placed on wet surfaces or when the air temperature is below 60-degrees F.
- 2. Bituminous materials shall not be placed when the temperature is expected to fall below freezing during the night regardless of the daytime temperature.

B. Asphalt Patching and Overlay:

- 1. The asphalt mixture shall be placed only upon an approved underlying course that is dry.
- 2. Asphalt layers of 200-pounds per square yard or less shall not be placed when the air temperature is below 40-degrees F. The air temperature must be 40-degrees F. and rising before the spreading operation is started and the spreading operation shall be stopped when the air temperature is 45-degrees F. and falling.
- 3. For asphalt layers over 200-pounds per square yard, the above temperatures shall be lowered by 5-degrees.

PART 3 - EXECUTION

3.1 Execution:

A. Prime and Tack Coat:

- 1. All loose material, dust and foreign material shall be removed from the surface. Cleaning shall be continued until all caked and loose dirt and dust are removed.

B. Asphalt Patching:

- 1. All designated areas to be patched shall be trimmed to neat vertical lines to the depth of patch specified. All loose material shall be removed. A prime or tack coat shall be applied as specified above. The asphalt shall be placed and compacted to a degree that further consolidation of the patch is not anticipated.
- 2. Any patched areas that do consolidate shall be replaced or additional material brought in to bring the patch up to the surrounding level.

3. All asphalt or concrete streets, parking areas and drives shall be patched the same day they are cut. Temporary or cold patch material may be used until the permanent patch can be placed; however, no extra payment will be made for temporary patching.
4. The Contractor shall delineate with construction warning signs (lighted at night) any "bump" and/or rough patch areas that will greatly impact the public until the patch is complete and smoothly graded with no settlement.

3.2 Application:

A. Prime and Tack Coat:

1. Prime and Tack Coat shall be uniformly applied at the rate specified by pressurized distributors.
2. All areas to be treated with an asphalt surface treatment shall be primed and/or tacked.

B. Asphalt Patch and Overlay:

1. Asphalt patching may be applied with spreaders, by hand, or with motor graders. All areas inaccessible to large equipment shall be spread by hand.
2. Asphalt patching shall be thoroughly compacted through the use of steel wheeled rollers and/or rubber tired rollers. Density shall be as specified on the drawings in the Bid Proposal or in the State of Alabama Department of Transportation Standard Specifications.
3. Asphalt paving overlay shall be applied with spreaders; except in inaccessible areas spreading may be done by hand, uniformly placing the desired rate per square yard over the underlying surface.
4. As soon as the mixture has set sufficiently to prevent cracking, the mixture shall be rolled with steel wheel and rubber-tired rollers to compact the mixture. Density shall be as specified on the drawings or in the Bid Proposal.

3.3 Testing and Surface Requirements:

- A. Testing of the asphalt mixtures shall be performed at the discretion of the Engineer. Testing shall include but not be limited to density tests and extraction tests.
- B. The finished surface of asphalt overlays shall be checked with string, level and/or straightedge. The finished surface shall not vary more than 1/4" from the required sections as measured at right angles to the roadway centerline. The finished surface shall not vary more than 3/8" in any 25-foot section measured parallel to the centerline at the following locations: one foot inside of the edges of pavement, at the centerline and at other points as designated.

3.4 Maintenance:

- A. The contractor shall maintain and protect the newly laid asphalt until final acceptance of the work.

END OF SECTION 02500

SECTION 02290 – SLOPE PROTECTION AND EROSION CONTROL

PART 1 GENERAL

1.1 Section Includes:

- A. This section of specifications covers the requirements of the contractor to protect the project site and adjoining properties from soil erosion and runoff. This Section reviews methods of construction, erosion control measures, maintenance of erosion control features, and construction runoff permitting.

1.2 Related Sections:

- A. Section 02250 – Trenching, Backfill, and Compaction
- B. Section 02920 – Seeding and Mulching

PART 2 MATERIALS

2.1 Temporary Berms:

- A. A temporary berm is constructed of compacted soil or riprap, with or without a shallow ditch, at the top of fill slopes or transverse to the centerline of fills. These berms are used temporarily at the top of newly constructed slopes to prevent excessive erosion until permanent controls are installed or slopes stabilized.

2.2 Temporary Slope Drains:

- A. A temporary slope drain is a facility consisting of stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, sod or other material acceptable to the Engineer that may be used to carry water down slopes to reduce erosion.

2.3 Sediment Structures:

- A. Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.

2.4 Check Dams:

- A. Check dams are barriers composed of logs and poles, large stones, or other materials placed across a natural or constructed drainway.

2.5 Temporary Seeding and Mulching:

- A. Temporary seeding and mulching are measures consisting of seeding, mulching, fertilizing, and matting utilized to reduce erosion. All cut and fill slopes, including waste sites and borrow pits, shall be seeded when and where necessary to control erosion.

2.6 Brush Barriers:

- A. Brush barriers shall consist of brush, tree trimmings, shrubs, plants, and other approved refuse from the clearing and grubbing operation.
- B. Brush barriers are placed on natural ground at the bottom of fill slopes, where the most likely erodible areas are located, to restrain sedimentation particles.

2.7 Baled Hay or Straw Checks:

- A. Baled hay or straw erosion checks are temporary measures to control erosion and prevent siltation. Bales shall be either hay or straw, containing five (5) cubic feet or more of material.
- B. Baled hay or straw checks shall be used where the existing ground slopes toward or away from the embankment along the toe of slopes, in ditches, or other areas where siltation erosion or water runoff is a problem.

2.8 Temporary Silt Fences:

- A. Silt fences are temporary measures utilizing woven wire or other approved material attached to posts with filter cloth composed of burlap, plastic filter fabric, etc., attached to the upstream side of the fence to retain the suspended silt particles in the run-off water.

PART 3 EXECUTION

3.1 General:

- A. The Contractor shall obtain an NPDES permit in accordance with requirements of this section and in compliance with regulations established by the EPA and the ADEM.
- B. The Contractor shall exercise planning and forethought in coordinating the work of protecting the project and adjoining properties from soil erosion by effective and continuous erosion control methods of either a temporary or a permanent nature.
- C. Prior to construction, the Contractor shall meet with the Engineer and review in detail the expected problem areas in regard to the erosion control work. Different solutions shall be discussed so that the best method might be determined. It is the responsibility of the Contractor to develop an erosion control plan acceptable to the Engineer. Erosion control measures shown on the Drawings or in Standard Details are the minimum required and are meant as a guide for the Contractor.

- D. Before beginning work on the site, the Contractor shall submit to the Engineer, for his review and approval, a plan for control of soil erosion.
- E. The Contractor shall plan his clearing work and his entire construction operations in such a manner as to effectively control soil erosion and prevent pollution of streams, ponds, and/or drains as would result from silt or soil runoff or as would result from any materials used in the construction operations such as oil, grease, paints, chemicals, or any construction debris.
- F. The Contractor shall intercept and block drainage from the construction site by means of silt fences, silt barriers, sedimentation pools or other measures as required.
- G. Silt fences, wherever used on the site, shall consist of hay bales securely fastened in place or, if approved, permeable-barrier fabric designed to filter water and retain silt. Fabric shall be set securely in the ground and firmly held in place.
- H. The erosion control work shall cover all disturbed areas within the project and/or easement along which the project has been installed. Erosion control work shall not be limited to the easement but shall include all disturbed areas as necessary.

3.2 Methods of Construction:

- A. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.
- B. Construction operations shall be restricted to the areas of work indicated on the Plans and to the area which must be entered for the construction of temporary or permanent facilities. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow, and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of wetlands and adjacent watercourses. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, or other control devices or methods as necessary to control erosion.
- C. Excavated soil material shall not be placed adjacent to wetlands or watercourses in a manner that will cause it to be washed away by high water or runoff. Earth berms or diversions shall be constructed to intercept and divert runoff water away from critical areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the Engineer. If, for any reason, construction materials are washed away during the course of construction, the Contractor shall remove those materials from the fouled areas as directed by the Engineer at no cost to the Owner.

- D. For work within easements, all materials used in construction such as excavation, backfill, roadway, and pipe bedding and equipment shall be kept within the limits of the easements.
- E. The Contractor shall not pump silt-laden water from trenches or other excavations into wetlands or adjacent watercourses. Instead, silt-laden water from excavations shall be discharged within areas surrounded by baled hay or into sediment traps to ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area shall be avoided.
- F. Prohibited construction procedures include, but are not limited to, the following:
 - 1. Dumping of spoil material into any streams, wetlands, surface waters, or unspecified locations.
 - 2. Indiscriminate, arbitrary, or capricious operation of equipment in wetlands or surface water areas.
 - 3. Pumping of silt-laden water from trenches or excavations into surface waters or wetlands.
 - 4. Damaging vegetation adjacent to or outside of the construction area limits.
 - 5. Disposal of trees, brush, debris, paints, chemicals, asphalt products, concrete curing compounds, fuels, lubricants, insecticides, washwater from concrete trucks or hydroseeders, or any other pollutant in wetlands, surface waters, or unspecified locations.
 - 6. Permanent or unauthorized alteration of the flow line of any stream.
- G. Any temporary working roadways required shall be clean fill approved by the Engineer. In the event fill is used, the contractor shall take every precaution to prevent the fill from mixing with native materials of the site. All such foreign fill materials shall be removed from the site following construction.

3.3 Erosion Checks:

- A. The Contractor shall furnish and install baled hay or straw erosion checks in all locations indicated on the Plans, surrounding the base of all deposits of stored excavated materials outside of the disturbed area, and where indicated by the Engineer. Checks, where indicated on the Plans, shall be installed immediately after the site is cleared and before excavation has begun at the locations indicated. Checks located around stored material shall be located approximately 6-feet from that material. Bales shall be held in place with two 2-inches by 2-inches by 4-feet wooden stakes. Each bale shall be butted tightly against the adjoining bale to preclude short-circuiting of the erosion check.

3.4 Maintenance of Erosion Control Features:

- A. The temporary erosion control features installed by the Contractor shall be acceptably maintained by the Contractor until no longer needed or permanent erosion control methods are installed. Any materials removed shall become the property of the Contractor.
- B. Silt fences shall have sediment deposits removed if it reaches a depth of fifteen inches (15") or ½ the height of the fence. Sediment removed from the silt fence shall be removed from the site.
- C. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of work as scheduled, and are ordered by the Engineer, such work shall be performed by the Contractor at his own expense.

3.5 Construction Runoff Permitting:

- A. It shall be the responsibility of the contractor to obtain a State NPDES General Permit ALR100000 for construction site runoff as part of this project. Application for coverage is made by submittal of a Notice of Intent (NOI) and a permit fee to:

ADEM – Water Division
P.O. Box 301463
Montgomery, AL 36130-1463

- B. The construction general permit requires the Contractor to use Best Management Practices (BMPs) to control storm water runoff. The general permit requires inspections on monthly basis, at a minimum, to ensure compliance with State water quality standards. Onsite precipitation must also be recorded.

END OF SECTION 02290

SECTION 02433 - STORM SEWERS

PART 1 - GENERAL

1.1 Work Included:

- A. This section shall cover the work of furnishing and constructing storm sewers of the kind, strength, and size pipe provided in the proposal in accordance with the requirements of these specifications and installing such sewers at the location shown on the plans or designated and in conformity with established lines and grades. These items shall also include the furnishing and construction of such joints necessary, cutting and connections to other pipe, catch basins, in-walls, etc., and may be required to complete the work shown on the plans or as directed.

1.2 Products:

A. Materials:

1. Concrete Pipe: All pipe material shall be reinforced concrete pipe, Class III, Class IV, and Class V, conforming to ASTM C-76 Specifications, minimum. Pipe extensions shall be of the type and class of piping being extended.
2. Plastic Pipe: All plastic pipe shall be HDPE (High Density Polyethylene) storm sewer pipe, double walled, smooth inner wall, bell and spigot joints, and rubber O-rings, conforming to ASTM F-477.
3. Pipe Extensions: Pipe extensions shall be of the type and class of piping extended.

1.3 Execution:

- A. Trenches: The trench shall be excavated beginning at the outlet end and proceed upgrade true to the established line and grade. Trenches shall be properly sheeted and braced wherever needed and conform to Section 02250 of these Specifications and trench standard details in the Construction Plans.
- B. Pipe Laying: The laying of pipes and finished trenches shall be started at the outlet end and proceed upgrade so that the spigot or groove ends point in the direction of the flow. All pipe shall be laid with ends abutting and with not more than one inch variation from established alignment at the vertical center line or from grade at the flow line. The bottom of the trench shall be shaped accurately to the outside surface of the pipe for a depth of at least 1/10 of the outside diameter. The pipe shall be fitted and matched so that when laid in the work, they will form a sewer with a smooth uniform invert. Hubs or bells shall be carefully cleaned before pipes are lowered into the trenches. Pipes shall be so lowered as to avoid damage and unnecessary handling in the trench.
- C. Sealing Joints: Joints shall be sealed with mortar, bituminous plastic cement, rubber type gaskets or other type sealers that may be approved. Joints shall be thoroughly cleaned before being sealed and shall be sealed for the full circumference of the joint unless otherwise directed.

- D. **Backfilling:** All trenches and excavation shall be bedded and backfilled as shown on the drawings. Backfilling shall not begin until mortar joints have cured or until backfilling is authorized by the Engineer.

1.4 **Construction Staking:**

- A. The construction staking shall include horizontal locations of inlets, manholes, etc., with vertical grade information provided to determine pertinent invert elevations. These elevations should match those shown on the Construction Plans. It is the Contractor's responsibility to protect horizontal and vertical offset stakes at all times and remove them only as directed by the Engineer. These stakes shall be used to verify any claimed grade/elevation discrepancies, if any occur. If the Contractor fails to retain these original stakes, then any discrepancy claims shall be disregarded and the piping, manholes, etc., shall be reinstalled at the Contractor's expense.

END OF SECTION 02433

SECTION 02500 - ASPHALT PAVING

PART 1 - GENERAL

1.1 Section Includes:

- A. This Section of Specifications covers the material and installation requirements for asphalt patching over excavated trenches in roads, parking lots and driveways.
- B. This Section of Specifications covers material and installation requirements for asphalt overlay, asphalt full build-up in roads, parking lots, and driveways.

1.2 General Information:

- A. The Contractor shall refer to the bid proposal for the type of payment to be made for patching and paving. Measurement for asphalt patching shall be the trench width as specified by Table 2 of AWWA C600 plus 2 feet. The trench width for utilities and utility services less than 4 inches shall be 2-feet. For manholes, cleanouts and other fittings, the measurement shall allow 2-feet on all sides of the actual dimension of the fitting itself.
- B. The average weight per square yard of plant mix to be placed will be specified by the plans. The Engineer may direct in writing that the designated weight be increased or decreased in certain areas. It shall be the Contractor's responsibility to place and spread the material uniformly to such thickness as will produce the specified average weight per square yard, separately for each layer of base, binder, and surface, and to maintain a continuing check on tonnage and yardage throughout the day's operation to insure uniform specified weight.

If the average weight per square yard of any unit is found deficient by more than 10 percent of the specified average weight per square yard, the Engineer will determine (1) whether the Contractor shall remove and replace the deficient unit without payment for the removal or the material removed, or (2) whether the Contractor may leave the deficient unit in place and cover it with a layer of the same mix of adjusted maximum size aggregate, of not less than 80 pounds per square yard average. In case (2), the surface layer shall not be featheredged at the end of the overlay layer, but a sufficient amount of the surface beyond the ends of the deficient unit shall be removed, to a neat line across the pavement, to allow placing the full 80 pounds per square yard and make a joint that will meet the surface requirements. The Contractor will be paid for the deficient layer plus as much of the 80 pound overlay as is needed to bring the total up to the designated average weight per square yard for that unit.

If the average weight per square yard placed for any unit is more than ten (10) percent in excess of the weight specified by the Engineer, the amount over 110% shall not be paid for.

Measurement shall be taken from the actual width of paving in feet times the length of paving in feet divided by nine (9) to obtain square yardage.

Measurement for asphalt leveling shall be taken from the actual truck weights with the weight tickets being furnished at the job site with each truck. Only tickets received on the day the asphalt is installed shall be accepted.

1.3 References:

- A. State of Alabama Department of Transportation Standard Specifications for Highway Construction, Latest Edition.

1.4 Quality Assurance:

- A. The work of asphalt paving shall be accomplished by skilled workmen experienced in the laying of asphalt.
- B. All equipment shall be of a design and size to successfully accomplish the work.

1.5 Project Conditions:

- A. The Contractor shall comply with all environmental laws and requirements pertaining to the work.
- B. The Contractor shall take adequate measures to control dust in the work area.
- C. The Contractor shall thoroughly inspect the backfilled trench and assure himself that proper laying conditions exist.
- D. The Contractor shall provide and maintain adequate and safe traffic control.

PART 2 - PRODUCTS

2.1 Materials:

A. Prime Coat:

- 1. Prime Coat shall be emulsified asphalt, Type AE-P, tar types RT2 or RT3, or cutback asphalts MC 250, RC70 or RC250 as defined in Section 804 of the Alabama Department of Transportation Standard Specifications.
- 2. Prime Coat shall be applied at the rate of 0.22 to 0.25 gallons per square yard over the entire area to be treated with asphalt.

B. Tack Coat:

- 1. Tack coat shall be emulsified asphalt type SS-1, SS-1h, or RS-2 or Asphalt Cement Grade AC-10 or AC-20 as defined in Section 804 of the State of Alabama Department of Transportation Standard Specifications.
- 2. Tack Coat shall be applied at a rate not to exceed 0.10 gallons per square yard.

C. Asphalt Patch:

1. Asphalt paving used in patching shall be Improved Bituminous Concrete Binder as defined in Section 424 of the State of Alabama Department of Transportation Standard Specifications.
2. Materials shall meet the requirements of Article 424.02 of the above mentioned specifications.
3. The Contractor shall refer to the Bid Proposal or Drawings for the quantity of material to be applied per square yard.

D. Asphalt Paving:

1. Asphalt used in paving shall be Improved Bituminous Concrete Plant Mix, meeting the specification outlined in Section 424 of the State of Alabama Department of Transportation Specifications.
2. Asphalt final layer placed for paving and/or overlay in streets, parking lots, drives, and patches shall be Improved Bituminous Concrete Wearing Surface, Mix "A" and all materials used shall conform to Article 424 of the State of Alabama Department of Transportation Specifications.
3. The Contractor shall refer to the Bid Proposal or Drawings for the quantity of material to be applied per square yard.

E. Traffic striping and control markings shall conform to Sections 701 and 703 of the State of Alabama Department of Transportation Standard Specifications for Highway Construction. All striping, delineations, markers, etc., damaged or destroyed during the construction shall be replaced by the Contractor at his expense.

F. Before overlaying the street, the Contractor shall raise or lower all valve boxes, manholes and other embedded items, including items that have previously been paved over. No extra payment will be made for these adjustments.

G. AKG Surfacing:

1. The Contractor shall clear, grub, scarify and compact the sub-base prior to placing the base material.
2. Base material shall be as defined in Section 825, Type B, of the State of Alabama Department of Transportation Standard Specifications, and shall be compacted to 98% SPD.
3. AKG Surface shall be as defined in Section 401 of the State of Alabama Department of Transportation Standard Specifications.

2.2 Equipment:

- A. Equipment used in asphalt patching and/or asphalt paving shall meet the requirements of Article 410.03a of the State of Alabama Department of Transportation Specifications.
- B. Equipment used in the application of Prime Coat and Tack Coat shall comply with Article 401.03a of the above mentioned Specifications.

2.3 Temperature and Weather Requirements:

A. Prime and Tack Coat:

- 1. Bituminous materials shall not be placed on wet surfaces or when the air temperature is below 60-degrees F.
- 2. Bituminous materials shall not be placed when the temperature is expected to fall below freezing during the night regardless of the daytime temperature.

B. Asphalt Patching and Overlay:

- 1. The asphalt mixture shall be placed only upon an approved underlying course that is dry.
- 2. Asphalt layers of 200-pounds per square yard or less shall not be placed when the air temperature is below 40-degrees F. The air temperature must be 40-degrees F. and rising before the spreading operation is started and the spreading operation shall be stopped when the air temperature is 45-degrees F. and falling.
- 3. For asphalt layers over 200-pounds per square yard, the above temperatures shall be lowered by 5-degrees.

PART 3 - EXECUTION

3.1 Execution:

A. Prime and Tack Coat:

- 1. All loose material, dust and foreign material shall be removed from the surface. Cleaning shall be continued until all caked and loose dirt and dust are removed.

B. Asphalt Patching:

- 1. All designated areas to be patched shall be trimmed to neat vertical lines to the depth of patch specified. All loose material shall be removed. A prime or tack coat shall be applied as specified above. The asphalt shall be placed and compacted to a degree that further consolidation of the patch is not anticipated.
- 2. Any patched areas that do consolidate shall be replaced or additional material brought in to bring the patch up to the surrounding level.

3. All asphalt or concrete streets, parking areas and drives shall be patched the same day they are cut. Temporary or cold patch material may be used until the permanent patch can be placed; however, no extra payment will be made for temporary patching.
4. The Contractor shall delineate with construction warning signs (lighted at night) any "bump" and/or rough patch areas that will greatly impact the public until the patch is complete and smoothly graded with no settlement.

3.2 Application:

A. Prime and Tack Coat:

1. Prime and Tack Coat shall be uniformly applied at the rate specified by pressurized distributors.
2. All areas to be treated with an asphalt surface treatment shall be primed and/or tacked.

B. Asphalt Patch and Overlay:

1. Asphalt patching may be applied with spreaders, by hand, or with motor graders. All areas inaccessible to large equipment shall be spread by hand.
2. Asphalt patching shall be thoroughly compacted through the use of steel wheeled rollers and/or rubber tired rollers. Density shall be as specified on the drawings in the Bid Proposal or in the State of Alabama Department of Transportation Standard Specifications.
3. Asphalt paving overlay shall be applied with spreaders; except in inaccessible areas spreading may be done by hand, uniformly placing the desired rate per square yard over the underlying surface.
4. As soon as the mixture has set sufficiently to prevent cracking, the mixture shall be rolled with steel wheel and rubber-tired rollers to compact the mixture. Density shall be as specified on the drawings or in the Bid Proposal.

3.3 Testing and Surface Requirements:

- A. Testing of the asphalt mixtures shall be performed at the discretion of the Engineer. Testing shall include but not be limited to density tests and extraction tests.
- B. The finished surface of asphalt overlays shall be checked with string, level and/or straightedge. The finished surface shall not vary more than 1/4" from the required sections as measured at right angles to the roadway centerline. The finished surface shall not vary more than 3/8" in any 25-foot section measured parallel to the centerline at the following locations: one foot inside of the edges of pavement, at the centerline and at other points as designated.

3.4 Maintenance:

- A. The contractor shall maintain and protect the newly laid asphalt until final acceptance of the work.

END OF SECTION 02500

SECTION 02528 - CONCRETE CURB AND GUTTER

PART 1 - GENERAL

1.1 Work Included:

- A. Concrete curb and gutters, valley gutters and other curbing, shall be constructed to the shape and cross-sections as shown on the detail drawing.
- B. Curb and gutters, valley gutters, etc., shall be placed on material meeting or exceeding the requirements of the processed roadbed or base material underlying adjacent paving.
- C. Concrete for all curbing shall be a minimum of 3000 psi and meet the requirements of the concrete specifications.

1.2 Forms:

- A. Contractor shall use standard type metal forms for all curbing except where noted.
- B. Forms shall be straight and free from warps and adequately braced to insure no moving during concrete placement.
- C. Where short radii occur forms may be constructed of wood and bent to form the proper curvature, if approved by the Engineer. All wood forms so used shall provide the required shape and cross-section as the standard metal forms.
- D. Hand forming and pouring of curbing shall be of the highest quality. This pertains to areas where the Contractor makes tie-ins or pours curbing, valley gutter, etc., in decorative locations where machine curb is not possible. High quality will be considered consistent, straight pours, with almost no waving, depressions, or deviations in the general shape of the curb, gutter, etc., required as shown on the Standard Details in the Construction Plans. Low quality, non-aesthetically pleasing concrete work shall be removed and reinstalled at the Contractor's expense.

1.3 Machine Curbs:

- A. Machine curbs are acceptable where approved in writing by the Engineer.
- B. Approval by the Engineer will require a field demonstration of the acceptability of the machine to be used.

1.4 Protection of Curbs:

- A. The Contractor shall be fully responsible for the protection of all curb and gutter sections until final acceptance of the work.
- B. Any damaged, misaligned, or otherwise unacceptable section of curb and/or curb and gutter combination shall be replaced at no cost to the Owner.

1.5 Method of Measurement:

- A. Quantities for curb and/or curb and gutter combinations shall be determined by field measurement.

END OF SECTION 02528

SECTION 02600 - DUCTILE IRON PIPE AND FITTINGS

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications covers the material and installation requirements for ductile iron pipe and fittings.
- B. The testing requirements for materials, in-place, specified under this section shall conform to Section 2660 – Water System and Section 2722 – Sanitary Sewer System.

1.2 Related Sections:

- A. Section 02250 – Trenching, Backfilling, and Compaction
- B. Section 02722 – Sanitary Sewer System
- C. Section 02660 – Water System

1.3 References:

- A. ANSI/AWWA C104/A21.4 – American National Standard for Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water.
- B. ANSI/AWWA C105/A21.5 – American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
- C. ANSI/AWWA C110/A21.10 – American National Standard for Ductile-Iron and Gray-Iron Fittings, 3-in. through 48-in., for water and other liquids.
- D. ANSI/AWWA C111/A21.11 – American National Standards for Rubber-Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
- E. ANSI/AWWA C115/A21.15 – American National Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges
- F. ANSI/AWWA C150/A21.50 – American National Standard for the Thickness Design of Ductile-Iron Pipe.
- G. ANSI/AWWA C151/A21.51 – American National Standard for Ductile-Iron Pipe, Centrifugally Cast for Water and Other Liquids.

H. ANSI/AWWA C153/A21.53 – American National Standard for Ductile-Iron Compact Fittings for Water Service.

I. AWWA C600 – Installation of Ductile Iron Water Mains and Their Appurtenances.

1.4 Quality Assurance:

A. All piping, fittings, and appurtenances installed by the Contractor shall be new and unused and shall be suitable for the intended purposes.

B. Each joint of pipe shall be plainly marked at the site of manufacturer to indicate the class, thickness, and/or strength.

1.5 Delivery, Storage and Handling:

A. All ductile iron pipe and fittings are subject to inspection at delivery and other times as deemed necessary by the Engineer. Any pipe and/or fittings damaged during delivery shall be promptly removed from the job site.

B. Ductile-iron pipe shall be stored off the ground supported by timbers, railings or concrete supports and shall be of sufficient size to avoid contact with the ground or adjacent piping. Supports shall have chocks to prevent movement. Stacking shall be low enough to provide a safe condition, especially in neighborhoods and accessible areas.

C. Pipe and fittings shall be stored to prevent damage to the interior or exterior lining. The interior of all pipe and fittings shall be kept free of dirt and debris. Ductile iron pipe shall not be stacked higher than specified in Table 1 of AWWA C600.

D. Pipe and fittings shall be loaded and unloaded by hoists or skids to avoid sudden impact to the material. In no case shall the pipe or fittings be dropped. Slings, hooks, or pipe tongs shall be padded to avoid damage to the exterior or interior linings.

E. Gaskets for mechanical joint and push-on joint pipe and fittings shall be stored in a cool dry place out of direct sunlight. Contact with petroleum based substances is prohibited.

PART 2 - PRODUCTS

2.1 Approved Manufacturers:

- A. American Cast Iron Pipe Company
- B. U.S. Pipe
- C. Others as approved by the Engineer

2.2 Materials: Ductile iron pipe and fittings shall conform to the following:

A. Pipe and Fittings

1. In general, ductile iron pipe for underground work shall have push-on or mechanical joints; ductile iron pipe for exposed work shall have flanged joints. Where shown on the drawings, grooved-end pipe shall be used to allow removal of valves and fittings.
2. Ductile iron pipe with push-on or mechanical joints shall conform to ANSI/AWWA C150/A21.50 and ANSI/AWWA C151/A21.51, latest revision. Push-on or mechanical joints shall conform to the requirements of ANSI/AWWA C111/A21.11.
3. Pipe pressure classes and wall thicknesses shall be in accordance with bury depths and laying conditions as specified in C150/A21.50 and C151/A21.51. Unless otherwise shown differently on the Drawings or in the Bid Schedule minimum pipe requirements are as follows:
 - a. Minimum pressure classes for buried *water* pipe shall be 350 psi for pipes ≤ 12 inches, 250 psi for pipes ≤ 24 inches, and 150 psi for pipe ≥ 30 inches in diameter.
 - a. Minimum thickness classes for buried *sewer* pipe shall be AWWA thickness Class 52 for pipes ≤ 16 inches, Class 50 for pipes ≥ 18 inches in diameter.
4. Ductile iron pipe with flanged or grooved joints shall conform to the requirements of ANSI/AWWA C115/A21.15 (including appendix) and shall have a pressure rating of 350 psi for pipes ≤ 12 inches, and a pressure rating of 250 psi for pipes ≥ 14 inches. Flanges for threading onto ductile iron pipe shall conform to the requirements of ANSI/AWWA C115/A21.15.
5. Fittings for ductile iron pipe with push-on or mechanical joints shall conform to the requirements of ANSI/AWWA C110/A21.10 and shall have a pressure rating of 350 psi for sizes ≤ 24 inches, and a pressure rating of 250 psi for sizes ≥ 30 inches. Ductile iron fittings for ductile iron pipe with push-on or mechanical joints may be compact fittings conforming to ANSI/AWWA C153/A21.53. Joints shall be mechanical joints conforming to the requirements of ANSI/AWWA C111/A21.11.

6. Fittings for flanged ductile iron pipe shall conform to the requirements of ANSI/AWWA C110/A21.10 (including appendix) and shall have a pressure rating of 250 psi. Fitting flanges shall conform to the requirements of ANSI/AWWA C110/A21.10. Gaskets for flanged joints shall be full face of first quality red rubber, 1/8-inch thick.

B. Coatings and Linings:

1. Exposed piping shall have exterior rust inhibitive primer coating compatible with finished paint.
2. All ductile iron pipe and fittings for underground installation shall receive an exterior bituminous coating of 1-mil minimum thickness.
3. All ductile iron pipe and fittings shall have an interior cement-mortar lining with asphaltic seal coat in accordance with ANSI/AWWA C104/A21.4.
4. All sanitary sewer ductile iron pipe and fittings shall be lined with a 40-mil thickness coating of Protecto 401 amine cured ceramic epoxy or approved equal.
5. Where shown on the drawings or required by the City Engineer, ductile iron pipe and fittings situated in aggressive soils shall be polyethylene wrapped in accordance with ANSI/AWWA C105/A21.5. Wrappings shall be 8-mil low density or 4-mil high density, cross-laminated (HDCL) polyethylene film.

PART 3 - EXECUTION

3.1 Examination:

- A. The contractor shall examine the site, trench and surrounding conditions to assure proper installation of the pipe and associated fittings.
- B. The contractor shall examine pipe and fittings for any scratches or abrasions to the coating or linings, or other physical damage prior to its installation.
- C. Trenches shall be inspected for proper alignment and grade. Check trench bottom to ensure proper clearance from other utilities, pipelines or existing structures.
- D. Any bedding required by the drawings or specifications shall be installed prior to pipe placement.

3.2 Installation:

- A. Pipe installation shall be according to this section of the specification and the manufacturer's instructions and/or referenced specifications.
- B. Every care shall be taken in the handling, cutting, and laying of pipe and fittings to avoid damaging the interior or exterior coating. Damaged or defective areas shall be repaired or replaced to the satisfaction of the Engineer.
- C. Any ductile iron fitting showing a crack, any fitting or pipe which has received a severe blow that may have caused an incipient fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the job site. In any pipe showing a distinct crack and in which it is believed there is no incipient fracture beyond the limits of the visible crack, the cracked portion, if so approved, may be cut off by and at the expense of the Contractor before the pipe is laid so that the pipe used may be perfectly sound. The cut shall be made in the sound barrel at a point at least 12 inches from the visible limits of the crack. Except as otherwise approved, all cutting shall be done with a machine having rolling wheel cutters or knives adapted to the purpose. All cut ends shall be beveled and shall be examined for possible cracks caused by cutting. Special care shall be taken to avoid excessive heat during cutting which might damage pipe lining.
- D. Each section of ductile iron pipe shall be placed in the prepared trench with the full length of the barrel resting upon the pipe bed and with the pipe bell over a bell hole excavated at the proper location to accommodate the bell. No temporary supports under the pipe such as bricks, rocks, etc., shall be permitted.
- E. Any pipe found defective shall be replaced. Cracked pipe may be cut as specified previously in this section if authorized by the Engineer.
- F. Pipeline shall be laid with bells in direction of laying, unless it is necessary to do otherwise to make connections to existing pipe. Where pipe is to be laid on a slope, the direction of laying shall be from downstream to upstream.
- G. All lumps, blisters, and excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped clean and dry and be free from dirt, sand, grit, or any foreign material before the pipe is laid. Foreign material shall be prevented from entering the pipe while it is being placed in the trench. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.
- H. As each length of pipe is placed in the trench, the joint shall be assembled and the pipe brought to correct line and grade as shown on the drawings.

- I. Assembly of ductile iron push-on joints and mechanical joints shall be in accordance with AWWA Specifications C600, Section 3.4. The contractor shall use particular care in cleaning the socket, plain end and gasket. Mechanical joint bolts shall be tightened to the proper torques shown in Table 4, AWWA Standard C600.
- J. Deflections of ductile iron pipe having mechanical joints, if authorized by the Engineer, shall not exceed the deflection limits shown in Table 6, AWWA Standard C600. All bolts and set screws shall be checked immediately before backfilling.
- K. Deflections for push-on joint pipe shall conform to Table 5 of AWWA C600.
- L. At times when pipe laying is not in progress, the open ends of pipe shall be closed by the use of pipe plugs or other methods approved by the Engineer to keep mud, water, and other debris out of the pipe.
- M. Pipe cutting for the insertion of valves and fittings shall follow the manufacturer's recommendations. No torch cutting shall be allowed. Interior and exterior coatings shall be repaired and touched-up per manufacturer's recommendations.
- N. Trenches shall be backfilled according to Section 2250 - Trenching, Backfill and Compaction.

END OF SECTION

SECTION 02607 – PRECAST CONCRETE MANHOLES

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications covers the material and installation requirements for precast concrete manhole sections with tongue-and-groove joints, masonry transition to manhole frame, covers, anchorage and accessories.
- B. The testing requirements for materials, in-place, specified under this section shall conform to Section 02722 – Sanitary Sewer System.

1.2 Related Sections:

- A. Section 02250 – Trenching, Backfilling, and Compaction
- B. Section 02722 – Sanitary Sewer System

1.3 References:

- A. ASTM A48 – Standard Specification for Gray Iron Castings.
- B. ASTM C443 – Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
- C. ASTM C478 – Standard Specification for Precast Reinforced Concrete Manhole Sections.
- D. ASTM C923 - Resilient Connectors Between Reinforced Concrete Manhole Structures and Pipes.
- E. International Masonry Industry All-Weather Council (IMIAC): Recommended Practices and Guide Specification for Cold Weather Masonry Construction.

1.4 Qualifications:

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum of five years documented experience.

1.5 Environmental Requirements:

- A. Masonry construction shall not be performed when ambient temperatures are 40-degrees F. and falling unless provisions for heating and protecting the work are approved. Protect new masonry from freezing for 48-hours after completion of the masonry work.

PART 2 - PRODUCTS

2.1 Materials:

- A. Precast Manhole Base and Sections:

1. All precast manholes shall be new, unused manholes delivered directly from the manufacturer to the job site. The date of manufacture and the name or trademark of the manufacturer shall be clearly marked on the outside of the barrel.
 2. Precast concrete manholes shall be of reinforced concrete manhole sections conforming to the requirements of ASTM C478. The concrete when tested in compression shall not be less than 4000 psi and absorption shall not exceed 9%.
 3. Precast manhole base and sections shall be a minimum of 48-inches inside diameter. Precast manhole base shall have a minimum wall thickness of 5 inches and minimum bottom thickness of 6 inches. Minimum wall thickness of the manhole riser sections shall be 5 inches for 48" I.D. sections, 6 inches for 60" I.D. sections, and 7 inches for 72" I.D. sections.
 4. Manhole base, riser, transition, and cone sections shall have offset tongue and groove joints and shall be made watertight with prelubricated rubber gaskets conforming to ASTM C443 and butyl sealant waterstops. Pre-lubricated gaskets shall be Tylox Superseal as manufactured by Hamilton-Kent; butyl sealant waterstop shall be Conseal CS-231, in widths as recommended by the manufacturer.
 5. Manholes shall be assembled with the fewest number of sections to makeup the required height, thereby reducing the number of joints. The use of more than one riser section of 16 inches or less shall be prohibited. The Engineer may require that any manhole not composed of the minimum number of sections be replaced.
 6. Precast eccentric cone shall be provided at top section of manhole. Eccentric cone shall have the same reinforcing as manhole base and sections. Cone sections shall be made with a minimum 5-inch wall thickness at the bottom and 8-inch wall thickness at the top. Where watertight manhole frame and covers are indicated on the drawings, cone sections shall be supplied with four (4) stainless steel anchor bolts.
 7. Two lift holes shall be cast into each cone or riser section for purposes of handling and placement.
 8. Openings for inlet and discharge sewer pipes shall be provided in the manhole base section and in the riser section for drop manholes. Openings shall be at positions and elevations as indicated on the plans, and may be cast into the manhole wall or mechanically cored at the manufacturing facility. Openings shall be sized to accommodate the flexible manhole sleeve.
- B. Precast Concrete Adjusting Rings:
1. Provide precast concrete adjusting rings, as required, between top of eccentric cone and finished grade.
 2. Precast concrete adjusting rings shall be of same materials of construction as manhole bases and sections, grooved top and bottom.
 3. Adjusting rings shall be 3 or 4 inches high by 5 inches thick. Maximum combined height of adjustment rings shall be limited to 12 inches.

C. Flexible Manhole Sleeves:

1. Flexible manhole sleeves suitable for use in precast or cored openings utilizing premolded shapes positioned with expansion rings shall comply with the requirements of ASTM C923 and shall be manufactured by Kor-N-Seal or approved equal. Flexible connectors shall be installed as recommended by the manufacturer.

D. Manhole Steps:

1. Manhole steps shall be Copolymer Polypropylene Plastic Coating over 1/2-inch minimum Grade 60 steel reinforcing, 12-inches wide, with slip resistant surface.
2. Manhole steps shall conform to ASTM C478 as manufactured by M.A. Industries, Model PSI-PF, or equal. Steps shall be centered under the manhole cover opening and be vertically aligned on 16-inch centers.

E. Manhole Frames and Covers:

1. Manhole frames and covers shall be close-grained, cast-iron, smooth, clean, free of blisters, blowholes and other defects and conform to ASTM A48, Class 30B. Plane or grind bearing surfaces to ensure a flat, fine surface. Castings judged to be defective by the Owner or Engineer will be rejected and shall be replaced by the Contractor.
2. Covers and frames shall be "Heavy-Duty" type, rated for a minimum of H-20 loading. Covers and frames shall be made in the United States.
3. Manhole covers shall be cast with two non-penetrating type pick holes. Covers shall not have vent holes.
4. Manhole frames and covers shall be of either Standard Type (non-bolted) or Watertight Type (bolt-down), as indicated on the drawings. If not indicated, manhole covers shall be standard type. In locations where the manhole rim elevation is below the 100-year flood elevation, manhole frame and covers shall be Watertight Type.
5. Manhole frames and covers shall conform to the manufacturer dimensions required by the City of Tuscaloosa and shown on the Drawings.
6. When watertight frames are required, manhole joints shall be supplied with 3" x 16" x 1/2" bitumastic-coated steel strap anchors and bolts as shown on the Drawings.

F. Non-Shrink Grout

1. Non-shrink grout shall be used to seal openings in the manhole base and riser sections such as lift holes and around flexible sleeve connections as shown on the standard details. Non-shrink grout shall be Thoro WaterPlug or approved equal.
2. Surface preparation, mixing and application shall strictly adhere to manufacturer's recommendations.

PART 3 - EXECUTION

3.1 Excavation and Backfill:

- A. Perform excavation to lines and grades established by the Drawings. Construct excavation a minimum of two (2) feet in diameter larger than the outside dimensions of the manhole base and sections.
- B. If material in bottom of excavation is unsuitable for supporting manhole, excavate unsuitable material to a depth specified by the Engineer and backfill resulting void with Alabama Department of Transportation No. 57 crushed limestone.
- C. Backfill around manholes constructed in paved areas or areas to be paved with Alabama Department of Transportation No. 57 crushed limestone. Mechanically compact backfill in 8-inch loose lifts with vibratory compaction equipment.
- D. Backfill around manholes in unimproved areas and lawns with native materials, compacted in 8-inch loose lifts to minimum density of 98% Standard Proctor Density.

3.2 Granular Base:

- A. Remove standing water from excavation. Place 12-inches minimum of Alabama Department of Transportation #57 stone and compact with vibratory compaction equipment.
- B. Excavations deeper than 12-inches below required grade of manhole base, not approved by the Engineer, shall be filled with Alabama Department of Transportation No. 57 crushed limestone and compacted by vibratory compaction equipment at no additional cost to the Owner.

3.3 Placing Manhole Base and Sections:

- A. Manholes shall be constructed to the sizes, shapes, dimensions, and at the locations shown on the plans.
- B. Precast manhole bases shall be set plumb and true to the lines and grades specified by the plans. Manholes out of plumb in excess of 1/4-inch in eight (8) feet shall be reset.
- C. Clean ends of manhole sections of foreign materials and inspect ends for damage.
- D. Place prelubricated gasket into recess. Place butyl sealant waterstop. Follow gasket and waterstop manufacturers' installation instructions. Set manhole section.
- E. When new openings are required in existing manholes, openings shall be core drilled.
- F. Install flexible manhole sleeves on pipes at the precast or core drilled openings according to manufacturer's recommendations. Grout around flexible sleeve as shown on the Drawings.
- G. Seal lifting holes and flexible manhole sleeves in manhole on the interior and exterior with non-shrink grout to divert infiltration.

3.4 Manhole Invert:

- A. Manhole inverts shall be constructed of cement mortar and shall have the same cross-section as the invert of the sewers which they connect. The manhole invert shall be carefully formed to the required size and grade by gradual and even changes in sections. Changes in direction of flow through the sewer shall be made to a true curve with as large a radius as the size of the manhole will permit.
- B. For pipe diameters less than 48 inches, a bench shall be constructed on each side of the flow channel. The bench shall slope one (1) inch per foot. Bench shall be made of non-shrink grout.
- C. Where the difference in the invert elevation of two or more sewers 18-inches in diameter or smaller intersecting in one manhole is 2-feet or more, a drop manhole shall be constructed in the manner shown on the Drawings. They shall be similar in construction to the standard manhole except that a drop connection of pipe and fittings of the proper size and material shall be constructed outside the manhole and supported by 3,000 psi concrete. The manhole and drop connection shall be placed on a 12-inch reinforced concrete foundation base. The drop connection piping assembly shall be bolted to the barrel of the manhole riser. Drop connection piping shall be ductile iron.
- D. When manholes are constructed over existing sewers and a full section of pipe is through manhole, break out top section of pipe and cover exposed edges of pipe with grout.

3.5 Manhole Frames and Covers:

- A. Install manhole frames and covers with top surface adjoining surrounding grade in improved areas, or 18 inches above grade in unimproved areas. Where manholes are constructed in paved areas, the top surface of the frame and cover shall be tilted so as to conform to the exact slope, crown and grade of the existing pavement adjacent thereto. Set manhole frames at the required elevation in a full bed of grout to provide for proper bonding to cone section and/or concrete adjusting rings.
- B. Where manhole frame elevation requires adjustment, precast concrete adjusting rings shall be used. A minimum 1/4-inch bed of non-shrinking grout shall be placed between the manhole cone section and the adjusting ring. Same grout thickness shall be provided in between adjusting rings when multiple rings are necessary. Butyl sealant waterstop shall be placed beneath the frame and in between each concrete adjusting ring as shown on the drawings. Butyl sealant shall be Conseal CS-231.
- C. Manhole frame shall be positioned concentrically above the precast cone section or adjusting rings and set in a full bed of non-shrinking grout. A thick ring of non-shrinking grout extending to the outer edge of the precast cone section or adjusting ring shall be placed all around and on top of the manhole frame. The non-shrinking grout shall be smoothly finished and have a slight slope to shed water away from the frame and cover.
- D. Check manhole cover for fit in frame. If a manhole cover is either excessively loose or tight in the frame, or rocks, wobbles, or moves in the frame, the frame and cover shall be removed and replaced by the Contractor.

3.6 Manhole Height Adjustment

- A. Adjust height of existing manholes at locations shown on the Drawings. Height adjustment may include lowering or raising the existing manhole.
- B. For manholes located in the roadway or sidewalk, height shall be adjusted such that the rim and cover are flush with the proposed pavement or concrete. For manholes located in non-paved areas, height shall be adjusted such that the rim and cover are 6" above the proposed grade.

3.7 Protective Coatings

- A. Where shown on the drawings or directed by the Engineer, manholes shall be protected from corrosion by the use of factory applied ceramic epoxy linings.
- B. Epoxy coating shall be an amide cured ceramic epoxy, Permite PCS-9043 Type II or approved equal. The epoxy shall be applied to a 40 mils dry film thickness on the inside of the structure per the manufacturer's recommendations.

END OF SECTION 02607

SECTION 02612 - REINFORCED CONCRETE PIPE

PART 1 - GENERAL

1.1 Materials:

- A. Concrete pipe used for gravity sewers shall be tested under and comply with ASTM Specification C-76, except as modified herein. All concrete pipe shall have bell and spigot joints suitable for installation with rubber "o-ring" gaskets and with a rectangular groove in the spigot end to receive the rubber gasket and contain the deformed gasket on all four sides when the joint is complete.
- B. Concrete sewer pipe shall be the class, diameter, and length as specified on the Construction Drawing.
- C. Concrete pipe shall be centrifugally cast or horizontally cast on a vibrating table or vertically cast with end ring form to accurately form the bell and spigot to true dimensions with a nominal clearance of not more than 1/8 inch.
- D. Centrifugally cast pipe shall have B wall thickness. Horizontally cast or vertically cast pipe shall have C wall thickness.
- E. Horizontally cast pipe shall have a flat base approximately one-half the inside diameter of the pipe in width and for the total length of the pipe barrel.
- F. Concrete pipe shall be cast in laying lengths of not less than 7.5 feet.
- G. Materials used in the manufacture of all concrete sewer pipe shall comply with the following ASTM Specifications: Portland Cement C-150, Type II or C-175, Type II-A, or C-205 for Blast Furnace Slag Cement; Aggregates, C-33, coarse aggregates shall be crushed limestone.
- H. Joints and gaskets shall comply with AWWA Specification C-302.
- I. Each joint of pipe shall have stamped thereon the class of reinforcement and the wall thickness designation.
- J. All interior surfaces of the pipe shall be sandblasted and properly cleaned to remove all foreign matter, dust, dirt, and loosely bonded concrete.
- K. Pipe shall be aged a minimum of seven (7) days prior to lining application.
- L. The Engineer, upon completion of the job, will require a certificate from the manufacturer that the required amount of coatings were purchased to adequately coat the pipe on the job.

1.2 Installation:

- A. Concrete sewer pipe shall be properly cured, as previously specified, and shall not be installed in less than 14 days after curing is complete.

- B. Rubber ring gasket joints for concrete sewer pipe shall be installed according to the pipe manufacturer's specifications and recommendations. Extreme care shall be used in joining large diameter pipe to avoid damaging the rubber ring or displacing it from the proper operating position.
- C. The inside of all bells and outside of all spigots shall be wiped to remove all dirt, water, or other foreign matter so that their surfaces are clean and dry when pipes are joined.
- D. Rubber ring gaskets shall be uniformly coated with lubricant sealer furnished by pipe manufacturer immediately prior to pipe installation. The spigot end shall then be centered to exact line and grade and then sealed by forcing the spigot into the bell in an approved manner.

END OF SECTION 02612

SECTION 02622 - POLYVINYL CHLORIDE GRAVITY SEWER PIPE

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications covers the material requirements for polyvinyl chloride (PVC) pipe, fittings, and laterals for use in gravity sewer applications.
- B. The installation requirements for pipe specified under this section shall conform to Section 02250 – Trenching, Backfill and Compaction.
- C. The testing requirements for materials, in-place, specified under this section shall conform to Section 02722 – Sanitary Sewer System.

1.2 Related Sections:

- A. Section 02250 – Trenching, Backfill and Compaction
- B. Section 02722 – Sanitary Sewer System

1.3 References

- A. ASTM D1784, latest revision, Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds.
- B. ASTM D3034, latest revision, Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- C. ASTM D2412, latest revision, External Properties of Plastic Pipe by Parallel Plate Loading.
- D. ASTM D3212, latest revision, Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
- E. ASTM F477, latest revision, Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
- F. ASTM D2321, latest revision, Standard Recommended Practice for Installation of Flexible Thermoplastic Sewer Pipe.
- G. AWWA C900 – Polyvinyl Chloride (PVC) Pressure Pipe, and Fabricated Fittings, 4 inches–12 inches, for Water Distribution.

1.4 Quality Control and Assurance:

- A. All pipe and fittings shall be inspected at the factory and on the job site. The pipe shall be homogeneous throughout and free from cracks, holes, foreign inclusions, or other defects. The pipe shall be as uniform in color as commercially practical. PVC pipe shall have a ring painted around the spigot ends in such a manner as to allow field checking of setting depth of pipe in the socket.
- B. PVC sewer pipe shall be marked with the manufacturer's name, production lot number, ASTM designation, PVC cell classification or material code, dimension ratio or standard dimension ratio, and the nominal diameter. All PVC pipe shall be manufactured in the United States.

- C. All PVC pipe shall be new and unused and properly stored at the manufacturer to prevent degradation of the pipe due the exposure to sunlight and excessive heat.
- D. Pipe must be delivered to job site by means, which will adequately support it, and not subject it to undue stresses. In particular, the load shall be so supported that the bottom rows of pipe are not damaged by “egging” or crushing. Pipe shall be unloaded carefully and strung or stored as close to the final point of placement as is practical. Pipe shall not be stored outside where subject to sunlight.
- E. Pipe which has been stored by the Contractor for three (3) months or longer shall not be acceptable.

PART 2 – MATERIALS

2.1 PVC Gravity Sewer:

- A. PVC gravity sewer pipe shall be made from compounds conforming to ASTM D1784. PVC pipe and fittings, 8 to 12 inches in diameter, shall conform to and be tested under all of the requirements of ASTM D3034. This designation specifies minimum requirements and test methods for materials, dimensions, workmanship, flattening resistance, impact resistance, pipe stiffness, extrusion quality, and pipe marking. PVC gravity sewer shall have a wall thickness equal to or greater than SDR 26.
- B. Minimum pipe stiffness ($F/ \Delta Y$) at 5 percent deflection shall be 115 for all sizes when calculated in accordance with ASTM D2412.
- C. PVC sewer pipe shall be supplied in standard lengths of at least 12 feet 6 inches. Longer lengths are permitted. PVC gravity sewer pipe shall be green in color.
- D. Fittings for service connections shall be of the factory made inline type conforming to the requirements of ASTM D3034 and shall have a wall thickness equal to or greater than SDR 26. Service connections shall be made with wye fittings. Saddle type fittings shall not be used.
- E. All pipe and fittings shall be joined by means of an integral wall bell and spigot with a flexible watertight elastomeric seal. Joint material and testing requirements shall conform to ASTM D3212 and ASTM F477.

2.2 PVC Laterals

- A. PVC service laterals for PVC sewer mains shall be of same material described in 2.01A above.
- B. PVC service laterals for ductile iron sewer mains shall be AWWA C-900 pipe and shall have a wall thickness equal to or greater than DR 25.
- C. Contractor shall provide an easily removable, watertight and airtight, gasketed plug at the end of the service lateral.

PART 3 – EXECUTION

3.1 PVC Gravity Sewer:

- A. In addition to the requirements for installation and testing specified in Section 02722 – Sanitary Sewer System, installation of PVC gravity sewer pipe shall conform to ASTM D2321 and manufacturer's recommendations unless otherwise amended in these Specifications.
- B. Trenching, backfill, and compaction shall conform to Section 02250 – Trenching, Backfill and Compaction of these Specifications.
- C. The inside of all bells and outside of all spigots shall be wiped to remove all dirt, water, or other foreign matter so that their surfaces are clean and dry when the pipes are joined.
- D. Immediately before joining PVC pipe, the joining surfaces shall be completely coated by brushing with the lubricant sealer furnished by the pipe manufacturer. The spigot end shall then be centered to exact line and grade and then sealed by forcing the spigot into the bell in an approved manner.
- E. Pipe that has been field cut must be beveled for insertion into the gasketed joint. Bevel can be made with hand or power tool. In either case, the finished bevel should be the same as the factory bevel.

3.2 PVC Laterals

- A. In addition to the requirements for installation and testing specified in Section 02722 – Sanitary Sewer System, installation of PVC laterals pipe shall conform to ASTM D2321 and manufacturer's recommendations unless otherwise amended in these specifications. Connection between service lateral and sewer main shall be watertight. PVC service laterals shall be installed for each lot and extend from the collector sewer to user's property line.
- B. Trenching, backfill, and compaction shall conform to Section 02250 – Trenching, Backfill and Compaction of these Specifications.
- C. A PVC-coated electronic service marker shall be located six inches above the top of the lateral just beyond the curb.

END OF SECTION 02622

SECTION 02660 - WATER SYSTEM

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications shall cover the testing, disinfection and general installation requirements for a potable water system and/or line.

1.2 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction
- B. Section 02600 - Ductile Iron Pipe and Fittings
- C. Section 15105 - Resilient Seated Gate Valves
- D. Section 15090 - Valve Boxes and Vaults
- E. Section 15300 - Fire Hydrants

1.3 Unit Prices:

- A. No separate payment shall be made for flushing, testing, disinfection or other items specified in this section. All costs associated with this section shall be considered incidental to the pipe.

1.4 References:

- A. AWWA C300 AWWA Standard for Hypochlorites
- B. AWWA C301 AWWA Standard for Liquid Chlorine
- C. AWWA C600 AWWA Standard for the Installation of Ductile Iron Water Mains and their Appurtenances.
- D. AWWA C651 AWWA Standard for Disinfecting Water Mains
- E. AWWA C900 AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch, for Water.

1.5 System Requirements:

- A. The Contractor shall furnish a complete and operable water system, installed according to the standards and accepted practices for waterline construction. These specifications and references specifically called for in these specifications shall be considered minimum, other incidental items may be necessary to construct a complete and operable water system.

- B. The water system shall be free of leakage as defined in Section 02660, Part 3.2, Paragraph B.6 and ready for use by the Owner upon final acceptance.

1.6 Regulatory Requirements:

- A. The Contractor shall familiarize himself with the regulatory requirements of the following governing agencies. Any deviations specified in these specifications from these agency requirements shall be promptly brought to the attention of the Engineer.
 - 1. Alabama Department of Environmental Management
 - 2. The Owner
 - 3. Local Water Works Department
 - 4. American Water Works Association

1.7 Site Conditions:

- A. The Contractor shall familiarize himself with the existing conditions and special site requirements of the job.
- B. Any street cuts or crossings shall be coordinated with the Owner and/or Owner's Representative. Any and all traffic control measures specified shall be incorporated by the Contractor.
- C. Street cuts or crossings along or across State of Alabama Department of Transportation Right-of-Way shall follow the guidelines and requirements of the Alabama Manual on Uniform Traffic Control Devices.
- D. The Contractor shall contact the City of Tuscaloosa Water Works Department concerning the use of water to be used in the flushing, pressure testing, and disinfection if project is associated with the City of Tuscaloosa Water System.
- E. The Contractor shall take appropriate measures to control the disposal of water used in the testing, flushing and disinfection of water lines. The Contractor shall adequately protect streets and adjacent property from the discharge of this water. Any damages shall be borne by the Contractor. Water used for disinfection may contain high concentrations of chlorine. Any environmental damage to lakes or streams shall be the sole responsibility of the Contractor.
- F. The Contractor shall coordinate with the Engineer and water works officials on the timing of all tests, flushing and disinfection of all water lines.
- G. The Contractor shall coordinate with the Engineer and water works officials on all tie-ins to existing system lines and valves.

PART 2 - PRODUCTS

2.1 Manufacturers:

- A. All manufacturers of equipment used in the water line and/or system shall be experienced in the manufacture of such equipment for the water industry.
- B. Equipment of like nature shall be of the same manufacturer as to maintain standardization of operation, maintenance, spare parts and manufacturer's service.

2.2 Equipment and Materials:

- A. All equipment used in the water system shall be new and unused, first quality and from established manufacturers.
- B. Equipment shall meet the requirements of the related sections of these specifications and associated governing agency.

2.3 Testing Equipment:

- A. The Contractor shall have on hand proper testing apparatus and associated accessories prior to beginning any tests. All fittings, piping, pressure gauges and pumps shall be in proper working order.

PART 3 - EXECUTION

3.1 Thrust Blocking:

- A. All pressure pipe 2-inches in diameter and over shall be provided with thrust restraints. Thrust restraints shall consist of concrete thrust blocks and/or mechanical restraining rods and attachments shall be furnished at all hydrants, valves, fittings, plugs, and pipe bends.
- B. The bearing area for concrete thrust blocking shall conform to 24-hour test. Special blocking detailed in the Construction Plans shall supercede these requirements.
- C. Concrete used in thrust blocking shall have a minimum compressive strength of 2000 psi in 28-days.
- D. The concrete blocking shall be placed in such a way to contain the thrust force and still maintain accessibility of the pipe and fittings for repair. Nuts, bolts, glands, etc. shall be free of concrete. No separate payment shall be made for concrete blocking or thrust restraint.

- E. Fire hydrants shall be restrained as detailed in the Construction Plans.
- F. All restraining rods, clamps, and accessories shall be coated with a bitumastic coating before and after installation. The surface shall be cleaned thoroughly and the bitumastic coating applied as per manufacturer's recommendations.

3.2 Testing:

A. Flushing:

1. Prior to beginning the pressure test, the water line shall be flushed to remove any dirt and debris trapped in the line. All valves shall be partially opened and closed during the flushing process.
2. All mains shall be flushed with a velocity of at least 2.5 feet per second as specified by the Alabama Department of Environmental Management.

B. Hydrostatic Pressure Test:

1. The Contractor shall coordinate with the Owner and slowly fill the section of line to be tested with water. The line shall then be pressurized to 1.5 times the working pressure of the line, but in no case less than 150 psi. The working pressure shall be as defined by the Owner.
2. Trapped air shall be expelled at all valves and hydrants. High points in the line without access to a valve or hydrant shall be tapped and a corporation stop installed. Upon completion of the test, the corporation stop shall be left in place. A copper line shall be installed from the corporation stop to a curb stop and a meter box installed.
3. Upon complete removal of all air entrapped in the line, the line shall be again filled with water and pressurized and testing begun. Duration of the test shall be two hours for uncovered pipe and six hours for covered pipe. The test pressure shall not vary by + or - 5 psi during the duration of the test.
4. A recording pressure gauge shall be installed and pressure fluctuations recorded for the duration of the test. Test charts and records shall be available to the Engineer at the end of each test.
5. All visible leaks encountered during testing shall be repaired.

6. Leakage shall not be greater than determined by the following formula:

$$L = \frac{SDP^{1/2}}{133,200}$$

L = Leakage in gallons per hour

S = Length of tested pipe (ft.)

D = Diameter of pipe (in.)

P = Average test pressure during the duration of the test (P.S.I.)

7. Leakage in excess of that determined by the above formula shall be repaired at the expense of the Contractor. The leakage test shall then be repeated until the project complies with the allowable leakage.

C. Disinfection:

1. After a successful pressure test has been achieved, the waterline shall be chlorinated for the purpose of disinfection.
2. The Contractor shall use the hypochlorite continuous feed method for chlorine application as specified in AWWA Standard C651.
3. Chlorine solution shall be introduced to achieve a concentration of at least 50 mg/l in all parts of the line.
4. The chlorine solution shall be allowed to remain in the pipe for a period of not less than 24-hours at which time the chlorine concentration shall be not less than 25 mg/l.
5. All pipe and appurtenances shall be flushed with clean water until the chlorine residual is reduced to 1 mg/l or less until compatible with the existing system. The Contractor shall not flush any lines unless the local Water Department is present.
6. Bacteriological samples shall be collected in sterile jars by the Contractor.
7. The Owner shall perform the water analysis. All costs associated with the disinfection shall be borne by the Contractor, except sample collection and analysis for one set of sampling which shall be paid for by the Owner.
8. The water line and appurtenances shall not be placed in service until an acceptable laboratory analysis has been completed.

9. If the initial disinfection fails to produce satisfactory samples, disinfection as required above shall be repeated by the Contractor at his expense until satisfactory samples have been obtained.

3.3 Existing Utility Crossings:

- A. Water mains paralleling existing sanitary sewers shall be positioned a minimum of 5-foot horizontally from the sewer.
- B. If insufficient space is available to maintain the 5-foot separation, the bottom of the waterline shall be placed a minimum of 18-inches above the top of the sewer.

3.4 Protection:

- A. The Contractor shall maintain and protect the completed water line until final acceptance by the owner. Any damages to the line shall be repaired by the Contractor prior to acceptance.

END OF SECTION 02660

SECTION 02722 - SANITARY SEWER SYSTEM

PART 1 - GENERAL

1.1 Section Includes:

- A. This section of specifications covers installation requirements of gravity sewer pipe and pressure sewer pipe. Testing requirements for gravity sewers, manholes, and force mains are also provided in this section.
- B. All materials used in the construction of sewers shall be new and unused when delivered to the job site and shall be suitable for installation and operation under the conditions for which they are to be used.

1.2 Related Sections:

- A. Section 2622 – Polyvinyl Chloride Gravity Sewer Pipe
- B. Section 2600 – Ductile Iron Pipe and Fittings
- C. Section 2607 – Precast Concrete Manholes
- D. Section 2250 – Trenching, Backfilling and Compaction
- E. Section 2290 – Slope Protection and Erosion Control

PART 2 – PRODUCTS

2.1 General:

- A. The Contractor shall provide all materials, equipment, and labor necessary to accomplish the work as shown or specified herein.

2.2 Materials:

- A. All materials used in the construction of sewers shall be new and unused when delivered to the work and shall be suitable for installation and operation under the conditions for which they are to be used.
- B. All sewer pipe and materials used in its manufacture shall be tested and inspected by an approved commercial testing laboratory prior to delivery to the site and all materials which fail to conform to these specifications shall be rejected.
- C. After delivery to the site, any materials which have been damaged in transit or are otherwise unsuitable for use in the work shall be rejected and immediately removed from the site. Certified copies in duplicate of the inspection and acceptance reports of the testing laboratory shall be supplied to the Engineer prior to use of these materials.
- D. Each joint of pipe delivered to the work shall be stamped or marked to indicate the testing laboratory's acceptance or approval. The cost of inspecting and testing materials shall be borne by the Contractor, and the Engineer shall approve the Laboratory. The Engineer may require laboratory tests of other materials should he consider this necessary to get such materials to comply with the specifications.

- E. Certified mill test certificates will be accepted for PVC and DI pipe fittings.

PART 3 – INSTALLATION

3.1 Gravity Sewer Pipe Laying - General:

- A. Before sewer pipe is placed in position in the trench, the bottom and sides of the trench shall be carefully prepared and the necessary bracing and sheeting installed.
- B. Unless noted otherwise on the drawings, all gravity sewer lines shall be installed with a minimum thirty-six (36) inches of cover.
- C. A properly designed and operated laser beam device may be used to align and grade the pipe. Laser beam devices used shall be carefully calibrated at intervals not to exceed 30 calendar days.
- D. Air blowers must be used in conjunction with laser beam devices and must be sufficient to provide an air flow through the pipe of 4 to 6 mph.
- E. If approved by the Engineer, the batter board method may be used. A mason's line shall then be tightly stretched above ground level, parallel to and directly above the axis of the pipe to be installed; this line to be supported at intervals not exceeding 50 feet. The exact line and grade for each section of pipe shall be determined by measuring down from this line to the invert of the pipe in place. Each pipe shall be accurately placed to the exact line and grade called for on the plans. The Contractor shall furnish all labor and materials necessary for erecting batter boards.
- F. Water shall not be allowed to run or stand in the trench while pipe laying is in progress or before the joints are completed or before the trench has been backfilled. The Contractor shall not open up at any time more trench than his available pumping facilities are able to dewater.
- G. Each piece of pipe and special fitting shall be carefully inspected before it is placed and no defective pipe shall be laid in the trench. Pipe laying shall proceed up-grade, starting at the lower end of the grade and with the bells uphill.
- H. After pipe laying has begun, it shall continue progressively up-grade. No section of pipe installation will be skipped without a written request for such procedures from the Contractor and approved by the Engineer.
- I. Bell holes shall be of sufficient size to allow ample room for properly making the pipe joints. Bell holes shall be cut not more than five joints ahead of pipe laying. The bottom of the trench and the crushed stone cushion between bell holes shall be carefully graded so that the pipe barrel will rest on a solid foundation for its entire length. Each joint shall be laid so that it will form a close concentric joint with adjoining pipe and so as to avoid sudden offsets and inequalities in the flow line.
- J. Backfilling of trenches shall be started immediately after the pipe is in place and the joints completed and inspected by the Owner's Representative.

- K. A metallic tape or wire shall be installed in the same trench with all non-metallic pipe (PVC) in order that the pipe may be located with electronic metal detection equipment. Wire shall be T.W. 12-gauge solid copper conforming to specifications for annealed copper, ASTM B-3 and Underwriters Laboratories Thermoplastic Insulated Wire Standard No. 83, latest revision. Wire shall be Simplex BW3001, or equal. Pipe detector tape shall be two (2) inch wide minimum metalized tape. Tape shall be Griffolyn Company, Inc., Terratape 2" D., or equal. Wire and/or Tape shall be secured to pipe at intervals of 20 feet.
- L. Manholes shall be installed according to Section 2607 – Precast Concrete Manholes.

3.2 Laterals Installation:

- A. Wyes shall be installed in sanitary sewer lines at all points shown on the plans or specified herein. If such branches are not to be used immediately, they shall be closed with gasketed plugs specifically designed for such purpose.
- B. If the work consists of the construction of a sewer that is to replace an existing sewer, all of the existing service lines shall be connected to the new line.
- C. Wyes shall be installed in sanitary sewers so as to properly serve each existing house and each vacant lot facing or abutting on the street or alley in which the sewer is being laid, and at such other locations as may be designated by the Engineer. The exact location of each connection shall be determined by the Engineer before backfilling.
- D. Should ductile pipe lining be scratched, chipped, or otherwise damaged during the tapping process, it shall be properly repaired or recoated by the Contractor.
- E. Laterals shall be bedded and backfilled according to Section 2250 – Trenching, Backfill, and Compaction.
- F. Where the depth of cut is over 8 feet or where the grade of a sanitary sewer is lower than necessary to drain abutting property, and when designated by the Engineer, connecting risers shall be installed to serve each existing house and each vacant lot facing or abutting on the street in which the sewer is being laid.
- G. Connecting risers shall be either 4 or 6 inches in diameter installed from a wye connection to the elevation designated by the Engineer. The wye or tee connection shall be securely supported by a block of concrete, as shown on the drawings, to support the riser pipe. Open ends of connecting risers shall be closed, as herein before specified for wye branches. Backfilling shall be carefully done around these risers.

3.3 Pressure Sewer Pipe Laying – General

- A. Before sewer pipe is placed in position in the trench, the bottom and sides of the trench shall be carefully prepared and the necessary bracing and sheeting installed.
- B. Unless noted otherwise on the drawings, all pressure sewers shall be installed with a minimum of thirty-six (36) inches of cover.

- C. Water shall not be allowed to run or stand in the trench while pipe laying is in progress or before the joints are completed or before the trench has been backfilled. The Contractor shall not open up at any time more trench than his available pumping facilities are able to dewater.
- D. Each piece of pipe and special fitting shall be carefully inspected before it is placed and no defective pipe shall be laid in the trench. No section of pipe installation will be skipped without a written request for such procedures from the Contractor and approved by the Engineer.
- E. All pressure pipe 4 inches and over in diameter shall be provided with adequate thrust restraints. Thrust restraints, consisting of concrete thrust blocks and/or mechanical restraining rod attachment shall be furnished at all fittings, plugs, and all pipe bends as shown on the Drawings.
- F. Air release valves, Air/Vacuum release valves, and Combination air valves shall be installed at the locations shown on the drawings.
- G. A metallic tape or wire shall be installed in the same trench with all non-metallic pipe (PVC) in order that the pipe may be located with electronic metal detection equipment. The tape or wire shall be attached to the top of the pipe. Wire shall be T.W. 12-gauge solid copper conforming to specifications for annealed copper, ASTM B-3 and underwriters Laboratories Thermoplastic Insulated Wire Standard No. 83, latest revision. Wire shall be Simplex BW3001, or equal. Pipe detector tape shall be two (2) inches wide minimum metalized tape. Tape shall be Griffolyn Company, Inc., Terratape 2" D or equal. Wire and/or Tape shall be secured to pipe at intervals of 20 feet.

3.4 Pipe Protection:

- A. Sewer pipe which, when completed, will have less than three (3) feet of cover, shall be provided with concrete protection and shall be constructed of ductile iron pipe.
- B. Where foundation conditions are not satisfactory, as determined by the Engineer, sewer pipe shall be either laid on a concrete cradle, sand backfill, foundation material, and/or constructed of ductile iron pipe as shown on the plans or as directed by the Engineer.

3.5 Testing of Gravity Sewers and Manholes:

A. General:

1. The approval and acceptance of gravity sewer lines and manholes shall be based on final testing. The Contractor must provide a 72-hour notice prior to final testing to the City Engineer. A representative from the Engineer and/or Owner must be present to witness final testing procedures. Tests performed in the absence of the Engineer's and/or Owner's representatives shall be considered invalid and shall be repeated by the Contractor.
2. Final testing of gravity lines shall only be performed after all work adjacent to and over the pipeline has been completed. Trench backfilling, grading, roadway sub-grade, concrete work, other utility installation, and any other superimposed loads shall be completed and in place prior to final testing.

3. Prior to any testing and final inspection, all gravity lines shall be cleaned of debris and flushed clean with water as necessary by the Contractor. Debris and flush water shall be contained at a lower manhole and removed from the line. Debris and flush water shall not be allowed to enter live existing sanitary sewers. Contractor shall be responsible for collection and proper disposal of debris and flush water.
4. All apparatus and equipment required for testing shall be furnished by the Contractor.
5. Contractor shall provide the Engineer and Owner with copies of all field notes and documentation obtained during final testing.

B. Scope:

1. All gravity sewers shall be tested by one or more of the following methods as directed by the City Engineer:
 - a. Direct Visual Inspection by the Engineer
 - b. Exfiltration of water
 - c. Infiltration of water
 - d. Exfiltration of air under pressure (Low Pressure Air Testing)
 - e. Video Inspection.
2. In addition to the above testing requirements, all PVC gravity sewers shall pass mandrel testing to verify roundness and proper installation.
3. All manholes shall be vacuum tested.

C. Direct Visual Inspection by the Engineer

1. The Engineer and/or his Representative shall visually inspect all gravity sewer pipe installed to verify alignment and ensure the pipe is free from obstructions and debris. Each segment of sewer shall be "flushed" using sunlight and mirrors. When the full diameter of the pipe is visible between adjacent manholes, the segment of pipe is deemed properly aligned and free of sags and debris.
2. If segment of pipe fails visual inspection, the pipe shall be cleaned and/or replaced and re-tested by the Contractor.

D. Exfiltration of Water

1. The section of sewer to be tested shall be sealed by inserting inflatable rubber bags or plugs in the pipes or by other means approved by the Engineer. Water shall then be introduced into a manhole until the pipeline section is completely filled. The Contractor shall fill the pipe to the required test level prior to the time of exfiltration testing to permit normal absorption into the pipe walls if concrete or concrete lined ductile iron pipe is being tested. Throughout the test period of two (2) hours minimum, the water level in the upper manhole shall be maintained at least 18-inches above the crown of the upper end of the pipe or at least 18-inches above the groundwater table, whichever is greater. The length of pipe tested shall be limited such that the pressure on the centerline of the lower pipe end tested does not exceed six (6) feet water column.
2. Exfiltration of water shall not exceed 100-gallons per mile of sewer per inch of inside diameter per 24-hours in any section of the completed work. In no case shall the exfiltration of water exceed 2500 gallons per mile per 24 hours. All observed leaks shall be corrected by the Contractor even though exfiltration is within the allowable limits.
3. The Engineer may direct the Contractor to test selected sections of the sewer in the following manner: after the selected sections of the sewer are laid in the trench and the joints completed but before any backfill is placed, the Contractor shall install suitable bulkheads or stoppers in each end of the sewer and fill the sewer with water. The sewer shall be filled through one length of sewer pipe installed vertically at a wye or at the end of the pipe being tested. Water shall be maintained in the line approximately to the top of the fill pipe until the Engineer can inspect the section of sewer being tested. Any leaks in the sewer system being tested shall be repaired by the Contractor. The total amount of sewer thus tested shall not exceed five percent (5%) of the total length of sewer constructed. Should the results of any of these tests indicate leakage, the Engineer may direct the Contractor to change the methods of construction to reduce the leakage on the remaining part of the work.

E. Infiltration of Water:

1. The section of sewer to be tested shall have been trench backfilled and the test conducted by inducing infiltration conditions by jetting the sewer trench for a sufficient length of time to insure that the water level in the trench is a minimum of eighteen(18) inches over the crown of the sewer pipe. The test must be performed before existing sewers are connected and before sewage load is allowed in the sewers.
2. Infiltration of ground water or other leakage into the sewer (including manholes) shall not exceed 100 gallons per mile of sewer per inch of inside diameter of the sewer per 24 hours in any section of the completed work, and in no case shall it exceed 2500 gallons per mile per 24 hours.
3. Infiltration flow shall be measured in wet weather by a 90-degree "V-notch" weir with free discharge or other means acceptable to the Engineer. These weirs shall be furnished, installed, and removed by the Contractor.

4. Any leaks into the sewer that can be located shall be repaired or corrected by the Contractor as directed by the Engineer regardless of infiltration test results.

F. Exfiltration of Air Under Pressure (Low Pressure Air Testing):

1. Scope

- a. This recommended practice defines the proper procedures for acceptance testing of installed gravity sewer pipe, using low-pressure air, to provide assurance that the pipe, as installed, is free from significant leaks. Included are requirements for equipment accuracy, safety precautions, line preparation, test method, and minimum holding times. This recommended practice does not cover the testing of manholes. All new pipe shall be low-pressure air tested to insure the integrity of the pipe and joints
- b. Only lines tested after backfilling to final grade will be considered for acceptability. However, this test may also be used by the installer as a presumptive test to determine the condition of the line prior to backfilling. At no time will more than four manhole to manhole reaches of pipe be installed before air testing is performed.
- c. Low Pressure Air Testing shall be conducted in accordance with ASTM C828, C924, F1417 and UBPPA UNI-B-6.

2. Responsibilities:

- a. Responsibility of the Contractor: Unless otherwise specified, the Contractor shall furnish all the necessary equipment and be responsible for conducting all low-pressure air tests. In addition, the Contractor is responsible for any necessary repair work on sections that do not pass the test. No sealant shall be used in any newly installed sewer without the prior approval of the Engineer. Proper structural repair work will be required by the Engineer or the Owner.
- b. Responsibility of the Engineer: The Engineer and/or a qualified inspector shall witness all low-pressure air tests and verify the accuracy and acceptability of the equipment utilized. The engineer should inform the Contractor regarding acceptable methods of repair in the event one or more sections fail to pass the low-pressure air test. The Engineer should also report to the Owner regarding the acceptability of the Contractor's work.
- c. Responsibility of the Owner: The Owner shall make a final decision as to the acceptability of the Contractor's work based upon the Engineer's recommendation.
- d. Regulatory Agencies: Regulatory Agencies in the State, Federal, and/or local level may be legally entitled to witness any air testing and/or review the results. The Owner or his Engineer should check to see that the low-pressure air test specified for his installation is at least as stringent as those which may be required by such regulatory bodies.

3. Equipment

- a. Air testing shall be performed by the Contractor using equipment manufactured by Cherne Industries, Inc., or approved equal. Equipment used shall meet the following minimum requirements.
- b. Pneumatic plugs shall resist internal testing pressures without requiring external bracing or blocking. However, the Contractor should internally restrain or externally brace the plugs to the manhole wall as an added safety precaution throughout the test. No one shall be allowed in the manhole adjoining a line being tested so long as pressure is maintained in the line.
- c. Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be inspected.
- d. To facilitate test verification by inspecting Engineer, all air used shall pass through a single, aboveground control panel.
- e. The aboveground air control equipment shall include a shut-off valve, pressure regulating valve, pressure relief valve, input pressure gauge, and a continuous monitoring pressure gauge having a pressure range from 0 to at least 10 psi.
- f. Three individual hoses shall be used for the following connections:
 1. from control panel to pneumatic plugs for inflation.
 2. from control panel to sealed line for introducing the low pressure air.
 3. from sealed line to control panel for continually monitoring the air pressure rise in the sealed line.

4. Line Preparation

- a. During sewer construction, all service laterals, stubs, and fittings into the sewer test section shall be properly capped or plugged so as not to allow for air loss that could cause an erroneous air test result.
- b. A wetted interior pipe surface is desirable and will produce more consistent test results. Where practical, clean the line with cleaning balls, manufactured by Cherne Industries Incorporated or equal, prior to testing, to wet the pipe surface and eliminate debris.

5. Test Procedure

- a. All pneumatic plugs shall be seal tested before being used in the actual test installation. One length of pipe shall be laid on the ground and sealed at both ends with the pneumatic plugs to be checked. Air shall be introduced into the plugs to the manufacturer's recommended inflation pressure. The sealed pipe shall be pressurized to 9 PSIG. The plugs shall hold against this pressure without bracing and without movement of the plugs out of the pipe.

- b. After a manhole to manhole reach of the pipe has been backfilled and cleaned, and the pneumatic plugs are checked by the above procedure, the plugs shall be placed in the line at each manhole and inflated to manufacturer's recommended inflation pressure. When plugs are being placed, the pipe adjacent to the manhole shall be visually inspected to detect any evidence of shear in the pipe due to differential settlement between the pipe and the manhole.
- c. Low pressure air shall be slowly introduced into this sealed line until the internal air pressure reaches 4.0 PSIG greater than the average back pressure of any groundwater above the pipe, but not greater than 9.0 PSIG. If groundwater is present, refer to the following Paragraph 6. Determination of Groundwater Elevation and Air Pressure Adjustment, of Section 3.5.F in this Specification.
- d. After a constant pressure of 4.0 PSIG (greater than the average groundwater back pressure) is reached, the air supply shall be throttled to maintain the internal pressure for at least 2 minutes.
- e. When the pressure has stabilized at 4.0 PSIG, the air hose from the control panel to air supply shall be shut off or disconnected. The continuous monitoring pressure gauge shall then be observed while the pressure is decreased to no less than 3.5 PSIG. At a reading of 3.5 PSIG, or any convenient observed pressure reading between 3.5 PSIG and 4.0 PSIG, timing for the test may begin.
- f. The portion of line being tested shall be termed "Acceptable" if the allocated line pressure decreases less than one PSI in the time shown for the given diameters and lengths in the following table. Consult the City Engineer for test lengths greater than those provided.

MINIMUM SPECIFIED TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP

PIPE DIA (INCHES)	SPECIFICATION TIME FOR LENGTH SHOWN (MIN:SEC)							
	100 FT	150 FT	200 FT	250 FT	300 FT	350 FT	400 FT	450 FT
8	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33

- g. If there has been no leakage (0 PSIG drop) after one hour of testing, the test section shall be accepted and the test complete. If there is any pressure drop, the complete test shall be run to determine whether or not the test section is acceptable.
- h. If the pressure drops 1.0 PSIG before the appropriate time shown in the table has elapsed, the air loss rate shall be considered excessive and the section of pipe has failed the test.

2. Equipment systems used to perform mandrel tests shall be specifically designed for the pipe material being tested. Mandrels that do not specifically state the size and type of piping for which it is applicable shall not be allowed.
3. Deflection Test:
 - a. The deflection test shall consist of testing PVC gravity sewer pipe for proper installation by the method outlined (see ASTM D3034). The testing shall be accomplished prior to final acceptance, but at least 30 days after the pipe has been backfilled completely to permit stabilization of the soil-pipe envelope.
 - b. After the pipeline has been installed and backfill materials have been compacted to their required standard densities, the mandrel shall be pulled by hand through the pipeline with a suitable rope or cable that is connected to an eyebolt at one end of the gauge. A similar rope or cable shall be attached to the eyebolt at the opposite end of the mandrel and tension shall be applied to it. This will insure that the mandrel maintains its correct position during testing and also to remove the mandrel if it should become lodged in an excessively deflected pipeline. Winching or other mechanical means of forcing the mandrel through the pipeline is unacceptable. Pipeline deflection testing shall have a deflection not exceeding 5% of the base inside pipe diameter as established by ASTM Standards D3034 and F679.
 - c. Permanent record of all testing with locations where excessive pipeline deflections occur shall be kept by the Contractor and forwarded to the Engineer after completion of testing on each line.
 - d. The Contractor shall immediately correct or replace all sections of pipe which deflect more than 5%.
 - e. All material and labor required for testing and/or replacement of pipelines shall be furnished by the Contractor.
 - f. Pipelines requiring correction and/or replacement shall be retested after an additional 30 day backfill stabilization period.
- I. Manhole Vacuum Testing:
 1. Vacuum tests shall be conducted on newly constructed manholes. Preliminary manhole testing shall take place following construction after all connections are made, and before backfilling. Test results derived from this test will allow time for necessary repairs to be completed before further construction proceeds and hinders such repairs. Final tests must be performed after the manhole has been backfilled.
 2. Equipment:
 - a. Manhole vacuum tester assembly and vacuum pumps shall be manufactured by Cherne Industries, Inc., or approved equal.

- b. Pneumatic plugs shall be manufactured by Cherne Industries, Inc. or approved equal. These plugs shall have a sealing length equal to or greater than the diameter of the connecting pipe to be sealed.
3. Procedures:
- a. Plug all manhole entrances and exits other than the manhole top access using suitably sized pneumatic or mechanical pipeline plugs and follow all manufacturer's recommendations and warnings for proper and safe installation of such plugs. Plugs should be inserted a minimum of 6" beyond manhole wall. Make sure such plugs are properly rated for the pressures required for the test. The standard test of 10" Hg. (mercury) is equivalent to approximately 5 PSIG (0.3 bar) backpressure. Unless such plugs are mechanically restrained, it is recommended that the plugs are used with a minimum of two times (2x) safety factor or a minimum of 10 PSIG (0.7 bar) backpressure usage rating.

CAUTION: BRACE INVERTS IF LINES ENTERING THE MANHOLE HAVE NOT BEEN BACKFILLED TO PREVENT PIPE FROM BEING DISLODGED AND PULLED INTO THE MANHOLE.

- b. Any other openings such as lifting holes shall be sealed with an approved non-shrink grout.
- c. Install the vacuum tester head assembly at the top of the manhole. Adjust the cross brace to insure that the inflatable sealing element inflates and seals against the straight top section of the manhole or the ring assembly, if possible. (If using a "plate" style manhole tester, position the plate on the manhole ring assembly).
- d. Attach the vacuum pump assembly to the proper connection on the test head assembly. Make sure the vacuum inlet/outlet valve is in the closed position.
- e. Following safety precautions and manufacturer's instructions, inflate sealing element to the recommended maximum inflation pressure.
CAUTION: DO NOT OVER INFLATE.
- f. Start the vacuum pump and allow pre-set RPM to stabilize.
- g. Open the inlet/outlet ball valve and evacuate the manhole to 10" Hg. (approximately negative 5 PSIG, 0.3 bar).

CAUTION: DO NOT PRESSURIZE MANHOLE! THIS MAY RESULT IN MANHOLE DAMAGE AND/OR RESULT IN MANHOLE TEST HEAD DISLODGING FROM MANHOLE INLET!

- h. Close vacuum inlet/outlet ball valve and monitor vacuum for specified test period (see table). If vacuum does not drop in excess of 1" Hg., manhole is considered acceptable and the manhole passes the test. If manhole fails the test, Contractor shall complete necessary repairs and repeat test procedures until satisfactory results are obtained.

Minimum Test Times for Various Manhole Diameters

depth – feet	Manhole diameter – inches			
	48	60	72	96
8	20 sec	26 sec	33 sec	38
10	25 sec	33 sec	41 sec	48
12	30 sec	39 sec	49 sec	57
14	35 sec	46 sec	57 sec	67
16	40 sec	52 sec	67 sec	76
18	45 sec	59 sec	73 sec	86
20	50 sec	65 sec	81 sec	95
+ 2 ft incr.	+5 sec	+6.5 sec	+8.0 sec	+9.5 sec

(The values listed above are based upon ASTM Specification C1244 “Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test”.)

- 4. Repeat the above test procedure after backfilling manhole for final acceptance test.
- 5. All manholes that fail the test or have visible leaks, even if they pass the test, shall be repaired or replaced by the Contractor until the manholes pass the test, to the complete satisfaction of the City Engineer. Manholes that have any visible leaks will not be accepted.

3.6 Testing of Force Mains

A. General:

- 1. This Section shall cover testing of sanitary sewer force mains for pipe sizes of four inches (4”) in diameter and larger for flushing, hydrostatic pressure and leakage. Testing shall be accomplished so that all portions of the system are flushed and tested according to these requirements. These requirements are for both Ductile Iron and Polyvinyl Chloride (PVC) Pipe. The Contractor shall furnish test equipment, labor, materials, and water for all tests. All test equipment shall be approved by, and meet the requirements of, the City Engineer for the City of Tuscaloosa.
- 2. The Contractor must provide a 24-hour notice prior to final testing to the City Engineer.
- 3. All apparatus and equipment required for testing shall be furnished by the Contractor.
- 4. Contractor shall provide the Engineer and Owner with copies of all field notes, documentation, and recording charts obtained during final testing.

B. Flushing:

1. Prior to beginning the pressure test, the line shall be flushed to remove all dirt and debris trapped in the line.
2. All valves shall be partially opened and closed during the flushing process.
3. All lines shall be flushed with a velocity of at least two and one-half feet per second (2.5 fps).
4. The Contractor is responsible for the proper disposal of all flushed water.

C. Testing:

1. Before applying the specified test pressure, all entrained air shall be expelled completely from the section pipe under test. Air shall be bled from the highest elevations in the line. If permanent air vents are not located at the high points in the test section, corporation cocks meeting the approval of the City Engineer shall be installed at such points so that air may be expelled as the line is filled with water. At the conclusion of the pressure test, the corporation cocks shall be removed and tightly plugged, or left in place at the direction of the City Engineer.
2. All exposed pipe, fittings, and joints shall be examined carefully during the test. Any damaged or defective pipe or fittings or any visible or audible leaks, discovered during or following the pressure test shall be repaired or replaced, regardless of the pressure test results, with sound material by the Contractor. The test shall be repeated until the results are satisfactory to the City Engineer.
3. The Test Pressure shall be the Working Pressure of the line as defined below, but in no case less than one hundred pounds per square inch (100 psi).
 - a. The Working Pressure shall be defined as one and one-half (1.5) times the shut-off head of the system pump or as defined by the City Engineer.
4. Leakage shall be defined as the quantity of water that must be supplied into the section of pipe being tested to maintain pressure within ± 5 psi of the specified test pressure after the pipe has been filled with water and the air has been expelled. Leakage **shall not** be measured by a drop in pressure in a test section over a period of time.
5. Upon complete removal of all air entrapped in the line, the line shall again be filled with water and pressurized to the required test pressure. The line shall be allowed to stabilize at the test pressure for a minimum of four (4) hours before conducting the pressure test.
6. Duration of the test shall be two (2) hours for uncovered pipe and six (6) hours for covered pipe. The test pressure shall not vary by more than plus or minus five pounds per square inch (± 5 psi) during the duration of the test. The specified test pressure shall be applied by means of a pump connected to the pipe.

7. A recording pressure gauge approved by the Engineer shall be installed and pressure fluctuations recorded for the duration of the test. For each test, copies of all test charts and records shall be furnished to the Engineer.

D. Acceptance:

1. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified, the failure shall be located and repaired using approved materials and acceptable construction practices until the leakage is within specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.
2. Maximum allowable leakage in a test period shall not exceed:

$$L = \frac{SD(P^{1/2})}{133,200}$$

where: L = allowable leakage in gallons per hour
S = length of pipe tested in feet
D = nominal diameter of pipe in inches
P = average test pressure during the leakage test in pounds per square inch, gauge (psig)

3.7 Clean-Up and Grassing:

- A. After the ditch lines have been sufficiently compacted, all excess material shall be removed from the job site by the Contractor.
- B. Any trees or undergrowth shall also be removed by the Contractor.
- C. All disturbed areas shall have topsoil replaced equal to that before construction began. If necessary, the Contractor shall provide topsoil.

END OF SECTION 02722

SECTION 02729 - THRUST RESTRAINT

PART 1 - GENERAL

1.1 Work Included:

- A. All pressure pipe 2-inches and over in diameter shall be provided with adequate thrust restraints. Thrust restraints, consisting of concrete thrust blocks and/or mechanical restraining rod attachment shall be furnished at all hydrants, valves, fittings, plugs, and all pipe bends 11-1/4-degrees or greater.
- B. Concrete used for thrust backing shall be 3000 psi min in 28-days. Concrete thrust blocks shall be poured against undisturbed earth having sufficient bearing strength to support the thrust load.
- C. Tie rods and clamps shall be installed where shown on the drawings and as needed. Tie rods and clamps shall be of an approved design and shall be protected against corrosion by a field coat of bituminastic coating hand applied before and after installation.
- D. Thrust blocking shall comply with the charts outlined in the standard details and adjusted for pressures or soil bearing strengths that differ from those used in the chart.

1.2 Payment:

- A. No separate payment shall be made for thrust restraint. Costs shall be included in the price of the piping.

END OF SECTION 02729

SECTION 02736

SANITARY SEWER REHABILITATION, CURED-IN-PLACE LINER

PART I GENERAL

1.1 Section Includes:

- A. General
- B. Preparation
- C. Installation Procedure
- D. Sealing Pipe in Manhole
- E. Reinstatement of Service Laterals
- F. Inspection
- G. Testing
- H. Cleanup
- I. Material Testing of Cured-in-Place Pipe Products
- J. Warranty

1.2 Related Sections:

- A. Section 01025 - Measurement and Payment
- B. Section 02700 - Wastewater Flow Control
- C. Section 02730 - Sanitary Sewer Cleaning and Inspection
- D. Section 02731 - Sanitary Sewer System Condition Inspection By Television and/or Sonar
- E. Section 02733 - Point Repairs to Sanitary Sewers
- F. Section 02737 - Sanitary Sewer Service Lateral Reconnection and Repair

1.3 References:

- A. ASTM F-1216-93 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
- B. ASTM F-1216-93 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP).

1.4 Submittals:

- A. The Contractor shall submit Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
- B. The Contractor shall submit certified copies of test reports of factory tests required by the applicable standards and this Section.
- C. The Contractor shall submit Manufacturer's installation instructions and procedures and insertion runs.
- D. The Contractor shall submit procedures and materials for service reinstatement including time and duration of sewer service unavailability.
- E. The Contractor shall submit liner sizing and wall thickness calculation data.

1.5 Delivery, Storage, and Handling

- A. The Contractor shall be responsible for delivery, storage, and handling of products.
- B. Products shall be kept safe from damage. Damaged products shall be removed from the job site promptly. Damaged products shall be replaced with undamaged products.

1.6 Measurement and Payment

- A. Measurement shall be by linear foot of installed pipe liner.
- B. Payment shall be at the Contract unit price bid. Unit price shall include full compensation for furnishing of pipe liner, light cleaning, installation, television inspection before and after liner installation, and for all labor, tools, equipment, and incidentals necessary to complete the liner installation.
- C. Payment for heavy cleaning, when approved by the Engineer, shall be per linear foot.

- D. Reinstatement of service laterals shall be paid in accordance with unit price bid in the Bid Proposal.
- E. Remote trimming of protruding service laterals shall be paid in accordance with unit price bid in the Bid Proposal.
- F. In the event of a liner collapse or material defects that cannot be repaired, the line shall be replaced with ductile iron pipe, in accordance with Section 02600 - Ductile Iron Pipe and Fittings, at no additional cost to the Owner. The Owner will pay only the cost of the original liner based on the unit price bid. Incidental items such as pavement, aggregate backfill, or sod needed to fully complete the replacement of the sewer line shall be the responsibility of the Contractor.

PART II PRODUCTS

2.1 General:

- A. Cured-in-Place Liner material shall be Insituform, Cure-Line, or InLiner. No other material shall be allowed.
- B. The finished pipe liner in place shall be chemically resistant to and shall withstand internal exposure to domestic wastewater having a pH range of 5 to 11 and temperature of 150°F.
- C. All cured-in-place lining products shall comply with ASTM F-1216-93 or ASTM F-1743-96, including appendices. The installer shall warrant and hold harmless the Owner and the engineer against all claims for patent infringement and any loss thereof.
- D. The flexible tube shall be fabricated to a size that, when installed, shall fit the internal circumference of the existing sewer (99.75% minimum). Allowance shall be made for circumferential stretching during insertion so that the final cured product is snug against the wall of the host pipe. The flexible tube shall consist of one or more layers of flexible needled felt or an equivalent nonwoven material, capable of carrying resin and withstanding installation pressures and curing temperature. The material shall be able to stretch to fit irregular pipe sections and negotiate bends. The outside layer of the uninverted tube shall be coated with a material that is compatible with the resin system used. The coating shall be an integral part of the tube.
- E. The minimum length shall be that deemed necessary by the Contractor to span the distance from the inlet to the outlet of the respective manholes unless specified otherwise. The Contractor shall verify the length in the field prior to impregnation.
- F. The Contractor shall furnish a general purpose unsaturated polyester or vinyl ester resin and catalyst system compatible with the reconstruction installation process that provides cured physical strengths specified in this section.

G. Cured pipe shall conform to the following minimum structural properties:

<u>Property</u>	<u>Test Method</u>	<u>Results</u>
Flexible Strength	ASTM D-790	4,500 psi
Flexural Modulus of Elasticity	ASTM D-790	250,000 psi
Tensile Strength	ASTM D-638	3,000 psi (pressure pipes only)

H. Minimum thickness requirements shall be based on external hydrostatic pressure and pipe inside diameter as shown on the following table. All designs are based on fully deteriorated pipe.

Minimum Thickness Required Based on External Hydrostatic Pressure						
Existing Pipe I.D. (inches)	Design Thickness in inches for pipe subjected to groundwater depths and flexural modulus of 250,000 psi					
	0 to 8' Depths	>8' to 12' Depths	>12' to 16' Depths	>16' to 20' Depths	>20' to 24' Depths	>24' to 28' Depths
6	0.236	0.236	0.236	0.236	0.236	0.236
8	0.236	0.236	0.236	0.236	0.236	0.236
10	0.236	0.236	0.236	0.236	0.236	0.236
12	0.236	0.236	0.236	0.255	0.273	0.288
15	0.236	0.251	0.277	0.311	0.334	0.353
24	0.363	0.406	0.448	0.485	0.530	0.577
30	0.429	0.479	0.545	0.614	0.670	0.722
36	0.528	0.605	0.671	0.729	0.812	0.858

PART III EXECUTION

3.1 General:

- A. All activities shall be performed in accordance with the Manufacturer's recommendations and regulations established by OSHA. Particular attention shall be drawn to those safety requirements involving work with scaffolding and entering confined spaces.
- B. The Contractor shall provide traffic control in accordance with the requirements of Section 02800 - Traffic Control.

- C. It is the Contractor's responsibility to notify, in writing, any property owner having a sewer service connection on the sewer being relined that such work is being performed. Notification shall be done 48 hours prior to performing relining work. The Contractor shall be solely responsible for any damage to private service lines or backups caused by relining operations. The Contractor shall provide hotel accommodations for any residents whose wastewater backs up into their home as a result of the Contractor's work or if use of their sewer service lines is limited or prohibited due to the Contractor's operations. Hotel accommodations shall be provided for as long as required to return the resident's home to its original condition.
- D. The Contractor shall defend, indemnify, and hold harmless the Owner and employees, the Engineer, and the Owner's consultants from and against any and all claims, suits, actions, damaged loss, liability, or costs of any nature or description (including, without limitation, reasonable attorneys' fees) arising from or in any way attributable to or connected with the work performed by the Contractor.

3.2 Preparation:

- A. The Contractor shall clean and inspect the existing sewer in conformance with Section 02730 - Sanitary Sewer Cleaning and Inspection.
- B. The Contractor shall perform all repairs indicated on the Plans, for the sewer section scheduled for relining, in accordance with requirements of Section 02733 - Point Repairs to Sanitary Sewers. If during pre-television inspection, the Contractor identifies sections requiring point repairs but not identified on the plans, he shall request Engineer's approval prior to performing those point repairs.
- C. If during pre-television inspection, the Contractor identifies dropped joints or line swags, he shall notify the Engineer. The Engineer will determine whether point repairs are need prior to lining sewer sections with dropped joints or line swags. The Contractor shall not perform point repairs without prior approval from the Engineer. The Contractor shall not install cured-in-place liner at sewer sections having dropped joints or line swags without prior approval from the Engineer.
- D. Conditions that may prevent proper installation shall be noted and corrected by the Contractor. Such conditions shall be brought to the attention of the Engineer.
- E. The Contractor shall provide for the diversion of wastewater entering or passing through the pipe in conformance with Section 02700 - Wastewater Flow Control.
- F. All service connections shall be noted and brought to the attention of the Engineer.
- G. The Contractor shall notify the local fire department and water board and obtain approval and water meter, if required, before using fire hydrants.

- H. The Contractor shall designate a location where the reconstruction tube will be vacuum impregnated prior to installation. The Contractor shall allow the Engineer to inspect the materials and “wet out” procedure. A catalyst system compatible with the resin and reconstruction tube shall be used. Sufficient excess resin will be provided to ensure a mechanical bond with the host pipe after curing.

3.3 Installation Procedure:

- A. The Contractor shall install the pipe liner in accordance with the Manufacturer’ specifications and as approved by the Engineer.
- B. The wet out reconstruction tube shall be inserted through an existing manhole or other approved access by means of an inversion process and the application of a hydrostatic head sufficient to fully extend it to the next designated manhole or termination point. The reconstruction tube shall be inserted into the vertical inversion *standpipe with the impermeable plastic membrane side out*. At the lower end of the inversion standpipe, the reconstruction tube shall be turned inside out and attached to the standpipe so that a leak-proof seal is created. The inversion head will be adjusted to be of sufficient height to cause the impregnated tube to invert from manhole to manhole and hold the tube tight to the pipe wall, produce dimples at side connections, and flared ends at the manholes. The use of a lubricant is recommended. Care shall be taken during the elevated curing temperature so as not to overstress the felt fiber.
- C. After inversion is completed, the Contractor shall supply a suitable heat source and water recirculation equipment. The equipment shall be capable of delivering hot water throughout the section by means of a prestrung hose to uniformly raise the water temperature above the temperature required to effect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.
- D. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Another such gauge shall be placed between the impregnated reconstruction tube and the pipe invert at the remote manhole to determine the temperatures during cure. Water temperature in the line during the cure period shall be recommended by the resin manufacturer.
- E. Initial cure shall be deemed to be completed when inspection of the exposed portions of cured pipe appear to be hard and competent and the remote temperature sensor indicates that the temperature is of a magnitude to realize the exotherm. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the cured-in-place inversion process, during which time the recirculation of water and cycling of the heat exchange to maintain the temperature continues.

- F. The Contractor shall cool the hardened pipe to a temperature below 100°F before relieving the static head in the inversion standpipe. Cool-down may be accomplished by the introduction of cold water into the inversion standpipe to replace water being drained from a small hole made in the downstream end. Care shall be taken in the release of the static head so that a vacuum will not be developed that could damage the newly installed pipe. The discharge water temperature shall not exceed the level allowed by state or local standards.
- G. The finished pipe shall be continuous over the entire length of an inversion run and be as free as commercially practical from visual defects, such as foreign inclusions, dry spots, pinholes, and delamination. It shall also meet the leakage requirements or pressure test specified below.
- H. If the liner fails to make a tight seal due to a broken or misaligned pipe, at the manhole wall, or any other reason, the Contractor shall apply a seal at that point. The seal shall be of a resin mixture compatible with the pipe.

3.4 Sealing Pipe in Manhole:

- A. If the installed pipe fails to make a tight seal in the manhole, the Contractor shall apply a sealant at that point by pressure injection or other means to ensure a watertight seal. The sealant shall be of a resin mixture compatible with that used in the inversion process. The repair shall be rechecked after 48 hours to ensure that the seal is holding. If the seal does not hold, the Contractor shall continue to work until a seal is made and there are no leaks. The Contractor shall seal the pipe in the manhole at no additional cost to the Owner.

3.5 Reinstatement of Service Laterals:

- A. After the pipe has been cured-in-place, the Contractor shall reinstate the existing service connections. This shall be done from the interior of the pipe without excavation of the pavement areas and in the case of no man-entry pipes, from the interior of the pipe by means of a 360° television camera and cutting device that reestablishes at least 95 to 100% of the flow capacity of the service connection. The Contractor shall brush smooth all internal cuts to facilitate service lateral rehabilitation.
- B. Only personnel experienced in the operation of cutting devices used for reinstatement of service laterals shall be allowed to operate such equipment.
- C. The Engineer reserves the right to require reinstatement of service connections by excavation when a remote cut damages the pipe. Reinstatement of service connections by excavation shall be performed in accordance with the requirements of Section 02737 - Sanitary Sewer Service Lateral Reconnection and Repair.

3.6 Inspection:

- A. After the completion of the lining process and reinstatement of appropriate service connections, the installation shall be television inspected in accordance with Section 02742 - Testing for Acceptance of Sanitary Sewers. All service entrances shall be accounted for. No infiltration shall be apparent. The finished pipe shall be continuous over the entire length of the installation and be free of dry spots, lifts, and delaminations. If the pipe is not acceptable to the Engineer, remedies shall be accomplished at the Contractor's expense and to the Engineer's satisfaction.
- B. If defects are identified by television inspection, the Engineer may require the Contractor to perform an air test in accordance with requirements of Section 02732 - Sanitary Sewerage System.
- C. The Contractor shall perform television inspection one year after the installation of the liner and submit the television videotapes to the Engineer for review. Special attention shall be given to service lateral connections. If the television inspection reveals deficiencies not acceptable to the Engineer, remedies shall be accomplished at the Contractor's expense and to the Engineer's satisfaction. Failure to perform television inspection one year after liner installation shall be considered to be a denial of warranty and the product's approval for use shall become subject to reevaluation.

3.7 Testing:

- A. After the installation procedures have been performed and prior to reinstatement of service connections, the Contractor shall perform a hydrostatic test on the sewer line to determine if it is watertight. The test shall be performed using the existing hydrostatic head provided by the inversion standpipe. The test time shall be 5 minutes during which time no makeup water shall be added to the standpipe. If at the end of the test period no water loss is observed in the standpipe, the watertightness of the cured-in-place pipe shall be considered satisfactory.
- B. For installation, two liner samples shall be required; a section of cured pipe cut from the installation at the intermediate or terminal manhole and which has been inserted through a like diameter pipe held in place by a suitable heat sink (such as sandbags); and a sample fabricated from material taken from the tube and the resin/catalyst system used and cured in a clamped mold placed in the downtube. Each sample shall be large enough to provide a minimum of three specimens.
- C. The initial tangent flexural modulus of elasticity and flexural stress shall be measured in accordance with ASTM D-790 and shall meet the requirements of this section.
- D. Pipe failing to meet these requirements is subject to rejection and replacement at the Contractor's expense.
- E. Upon acceptance of the installation work and testing, the Contractor shall reinstate service laterals in the project area affected by his operations.

- F. After the work is complete, the Contractor shall provide the Engineer with a videotape showing both the before and after conditions, including the reinstated sewer connections.

3.8 Cleanup:

- A. After the installation work has been completed and all testing acceptable, the Contractor shall cleanup the entire project area. All excess material and debris not incorporated into the permanent installation shall be disposed of by the Contractor. The work area shall be left in a condition equal to or better than prior condition. Disturbed grassed areas shall be seeded or sod placed as directed by the Engineer at no additional cost to the Owner. Refer to Section 02924 - Site Restoration.

3.9 Material Testing of Cured-in-Place Pipe Products:

- A. Five percent (5%) of all cured-in-place pipe products installed shall be randomly tested to determine if lining materials meet minimum requirements specified in this section. Testing shall be performed by an independent testing laboratory, under contract to the County, in accordance with applicable ASTM Standards.
- B. The Contractor will be required to provide samples as determined by the Laboratory Administrator or the Engineer. If destructive testing is required, the Contractor will repair the test section in accordance with Manufacturer's recommendations and at no cost to the County.
- C. The Contractor shall insure that a safe environment has been provided for entry into access areas for sample acquisition. However, the Contractor shall not be responsible for ensuring that safe entry, exit, and rescue requirements are met. That responsibility shall rest with the testing laboratory.
- D. In cases of dispute, the Contractor may request re-testing by the County's independent testing labor, but at the Contractor's expense.

3.10 Warranty:

- A. All liner installation will be warranted to be free from defects in materials and workmanship for a period of five (5) years from the date of rehabilitation. Should a defect occur during this five (5) year period that is attributable to the liner installation or materials, then this defect shall be repaired at no additional cost to the Owner.

END OF SECTION 02736

SECTION 02920 - TEMPORARY SEEDING AND MULCHING

PART 1 - GENERAL

1.1 Section Includes:

- A. This specification covers the site preparation, furnishing and applying agricultural limestone, fertilizer, seed, and mulch, labor and equipment necessary for seeding unimproved areas encountered during construction.

1.2 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction

1.3 Unit Prices:

- A. Seeding and mulching shall be paid for by one of the following methods:
 - 1. Square yard
 - 2. Acre
- B. The Contractor shall refer to the Bid Schedule for the appropriate unit of payment.
- C. All methods of payment shall include preparing the area for seeding, including but not limited to furnishing and applying agricultural limestone, fertilizer, seeding and mulching, water as required, and all labor and equipment necessary for a complete application and maintenance.

1.4 Performance Requirements:

- A. The acceptance of designated seeded areas will be based on verification of a satisfactory stand of grass in the season for each seed species required by the mix designated for use. If a satisfactory stand of grass is not established, the area shall be re-seeded without additional cost to the Owner. Such re-seeding shall be repeated as many times as necessary to establish a satisfactory stand of grass.
- B. A satisfactory stand is defined as a cover of healthy, living plants, after true leaves are formed, of the seed species required by the mix designated for use in which gaps larger than five (5) inches square do not occur.

1.5 Maintenance:

- A. The Contractor shall maintain the seeded area until final acceptance of the work.
- B. All costs associated with application of water during this construction and maintenance period shall be the responsibility of the Contractor.

PART 2 - PRODUCTS

2.1 Materials:

- A. **Seed:** All seed shall meet the requirements of these specifications and comply with the current Seed Law, Act No. 424, General Acts 1963, and rules and regulations promulgated thereunder and any revision of the Act. They shall be tested within nine months prior to use in accordance with the latest edition of Rules for Seed Testing, approved by the Association of Official Seed Analysis. The information on the seed tag of each bag of seed will be inspected and reviewed by the Engineer prior to planting and as requested. A representative sample of seed will be furnished for testing to determine the correctness of labeling. The purity and germination of hard seed shall not be less than the percentage tabulated below:

TYPE	PURITY	GERMINATION AND HARD SEED
Kentucky 31 Tall Fescue	98%	85%
Hulled Common Bermuda	97%	85%
Abruzzi Rye	98%	80%
Pensacola Bahaigrass	90%	85%

No seed shall contain more than 1% weed seed. Limitations of noxious weed seeds will be as specified by rules and regulations for administration of the current State Seed Law.

- B. **Agricultural Limestone:** The limestone shall have a neutralizing value of 90% calcium carbonate or better and meet the following gradation requirements:

Sieve Size #10, 90% by weight passing.
 Sieve Size #60, 50% by weight passing.

- C. **Fertilizer:** The fertilizer shall be a commercial grade, complying with the current State Fertilizer Laws. Fertilizer shall be of a commonly accepted analysis and conform to the following table:

PERCENT BY WEIGHT

TYPE	NITROGEN	PHOSPHORUS	POTASH
15-0-15	15		15
13-13-13	13	13	13
10-10-10	10	10	10
8-8-8	8	8	8

0-14-14	0	14	14
4-12-12	4	12	12
4-16-8	4	16	8
Cottonseed Meal	6.56		
Super Phosphate		18.0	
Ammonium Nitrate	33.5		
Ammonium Sulphate	20.5		
Nitrate of Soda	16.0		
Muriate of Potash			60.0

If the fertilizer is furnished from bulk storage, the Contractor shall furnish the supplier certification of analysis and weight. A representative sample of the fertilizer shall be furnished for chemical analysis at the discretion of the Engineer.

- D. Mulch materials shall be wheat, oat, barley, or rye straw or tame hay. The materials shall be air dried and shall not be spoiled or rotted to the extent that plant stems are caked together. Mulch material containing noxious weed seeds will not be acceptable. The Contractor shall provide a method satisfactory to the Engineer for determining weight of mulch furnished.
- E. Water shall be potable and free of substances that are harmful to the growth of plantings.
- F. Hydroseeding and mulching shall be Conowed Fibers 2500, or approved equal.

2.2 Equipment:

- A. Spreaders shall be mechanically operated or hand operated, capable of providing a uniform application rate over the area to be covered. Broadcast spreading by hand will not be allowed.

2.3 Seeding Mixtures:

- A. Seeding mixtures shall be as specified by the Supplementary Conditions. Seeding mixtures shall be classed according to the time of year when seeding will take place.
- B. If no seeding mixtures are specified by the Supplementary Conditions, the following mixtures and application rates shall apply:

SEED	APPLICATION RATE/ACRE
Kentucky 31 Tall Fescue	40 Pounds
Hulled Common Bermuda Grass	8 Pounds
Pensacola Bahiagrass	30 Pounds

Abruzzi Rye	30 Pounds
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PART 3 - EXECUTION

3.1 Preparation:

- A. The Contractor shall dress the area to be seeded to a reasonably smooth surface, sloped to drain, and tie with surrounding contours, sidewalks, drives, etc.
- B. The Contractor shall break all lumps, clods, and crusty surfaces by tillage, discing or other methods approved by the Engineer. All boulders, stumps, roots and other particles that would interfere with a mowing operation shall be removed.

3.2 Application:

- A. Fertilizer shall be spread uniformly in sufficient quantity to provide at least 120 pounds of nitrogen, 120 pounds of available phosphoric acid, and 120 pounds of total potash per acre as computed from the nominal contents of fertilizing ingredients.
- B. Agricultural lime shall be uniformly and evenly applied at a rate of 4,000 pounds per acre.
- C. The fertilizer and lime shall be thoroughly mixed into the soil by discing, tilling or other methods approved by the Engineer.
- D. The Contractor shall take precautionary measures when applying fertilizer and lime around buildings, sidewalks and drives.
- E. Seed shall be uniformly and evenly spread over the area at rates specified in the supplemental conditions or in Paragraph 2.03.B of this Specification.
- F. Mulch shall be applied at the rate of 1-1/2 tons per acre. Mulching shall be done within three days after seeding.

3.3 Cleaning:

- A. The Contractor shall clean drives, buildings, sidewalks and other areas of all construction debris and equipment, including seed, fertilizer, lime, mulch, etc.

END OF SECTION 02920

SECTION 03500 – SLURRY FILL

PART 1 - GENERAL

1.1 Work Included:

- A. This section covers the materials and procedures used in slurry filling abandoned pipelines with a lightweight, pumpable cementitious mix.

1.2 Related Work:

- A. Section 2945 Cast-In-Place Concrete
- B. Section 2250 Trenching, Backfill, & Compaction

1.3 References:

- A. ASTM C33- Concrete Aggregate
- B. ASTM C94- Ready-Mixed Concrete
- C. ASTM C150- Portland Cement
- D. ASTM C260-Air Entraining Admixtures for Concrete

1.4 Submittals

- A. Contractor shall submit for review and approval all materials and procedures to be used in slurry filling of abandoned lines.

PART 2 - PRODUCTS

2.1 Concrete Materials

- A. Select and proportion ingredients to obtain compressive strength of 50 - 150 psi at 28 days in accordance with ASTM D4832.
- B. Materials:
 - 1. Cement: ASTM C150, Type I or II (70-200 lb/cu. Yd.)
 - 2. Aggregate: ASTM C33, Size 7 (2000 – 3000 lb/cu. Yd.)
 - 3. Fly Ash: ASTM C618 (250-400 lb/cu. Yd.)
 - 4. Water: Clean, potable, containing less than 500 ppm of chlorides, (600-800 lb/cu. Yd.)
 - 5. Air: (0-70%)

PART 3 – EXECUTION

- 3.1 Do not place concrete in temperatures less than 40 degrees F without Engineer's approval.

- 3.2 Pipes to be abandoned shall be closed with an approved plug with reaction blocking as approved by the Engineer.
- 3.3 Pipes, once closed, shall be filled with the slurry fill to the satisfaction of the Owner's representative.
- 3.4 Pipes to be filled that connect to active structures shall be plugged with brick and mortar plugs and braced.
- 3.5 The slurry fill shall be discharged directly form the mixer truck into the space to be filled. Care is to be taken to prevent pipe from floating. Formed walls or other bulkheads shall be constructed to withstand hydrostatic pressure exerted by the plastic slurry fill. All necessary means to confine the material within a designated space shall be provided.
- 3.6 Curing of the slurry fill is not required.
- 3.7 Final grade operations may continue 24 hours after completion of fill operation.

END OF SECTION 03500

SECTION 09901 - PAINTING AND STRIPING

PART 1 - GENERAL

1.1 Work Included:

- A. This section covers all temporary and permanent painting and striping of the parking areas, roadways, and pedestrian crosswalks.

1.2 Reference Specifications:

- A. All materials, equipment, application methods, cleaning and installation shall be in accordance with Alabama Department of Transportation Standard Specifications, Latest Edition, Sections 701, 856, and 857, except as modified herein.

1.3 Application:

- A. Prepare surface in accordance with ALDOT 701.
- B. Rate of application shall not exceed 80 square feet per gallon.
- D. Temporary painting shall be done on all areas including striping, pedestrian walkways and parking within the roadways immediately after completion of the asphalt placement and after utility installations that eliminate substantial portions of the existing striping. Permanent painting and thermoplastic striping of the roadways and parking lot shall be done after the asphalt has cured for 30 days.

END OF SECTION 09901

SECTION 11200 – TEMPORARY SEWER BYPASS PUMP STATION

PART 1 - GENERAL

1.1 Scope:

- A. The Contractor is required to furnish all materials, labor, equipment, power and maintenance, etc. to implement a temporary pumping system for the purpose of diverting the existing sewer flow around the work area for the duration of the project.
- B. The design, installation, and operation of the temporary bypass pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction as supplied by the contractor.

1.4 Submittals:

- A. The Contractor shall submit, in accordance with Section 01300 of these specifications, product data including detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding handling existing wastewater flows. This plan must be specific and complete, including such items as schedules, locations, elevations, equipment capacities, materials, and all other incidental items necessary and/or required to ensure proper protection of the facilities, including protection of the access and bypass pumping location from damage due to the discharge flows, and compliance with the requirements and permit conditions specified in these Contract Documents. No construction shall begin until all provisions and requirements have been reviewed by the Owner and the Owner's Representative.
- B. The plan shall include, but not be limited to, details as follows:
 - 1. Pump staging areas
 - 2. Sewer plugging method and types of plugs
 - 3. Size and location of wetwell
 - 4. Number, size, material, location, and method of installation of suction and discharge piping
 - 5. Bypass pump sizes, capacity, number of each size to be on-site and power requirements
 - 6. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted)
 - 7. Standby power generator size, location (if diesel driven pumps are not used)
 - 8. Method of noise control for each pump/generator
 - 9. Any temporary pipe supports and anchoring requirements
 - 10. Schedule for installation of and maintenance of bypass pumping lines.

PART 2 - PRODUCTS

2.1 Equipment:

- A. All pumps shall be fully automatic self-priming units. The pumps may be electric or diesel powered.
- B. The Contractor shall provide the necessary stop/start controls for each pump.
- C. The Contractor shall include one stand-by pump of each size to be maintained on site. Backup pumps shall be online, isolated from the primary system by a valve.
- D. It is recommended that the pump be contained inside a temporary portable berm to contain any fuel or sewage that may spill during the normal course of operation.

2.2 System Description:

- A. Bypass pumping systems shall have sufficient capacity to pump a peak flow or 700 gallons per minute. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the sewer section to be replaced. Bypass pumping systems will be required to operate 24 hours per day.
- B. The Contractor shall have adequate standby equipment available and ready of immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing location, ready for use in the event of primary pump failure.
- C. Bypass pumping system shall be capable of bypassing the flow around the work area and be sized to handle any amount of flow up to full available peak flow as defined above.

2.3 Performance Requirements:

- A. It is essential to the operation of the existing system being bypassed that no interruptions in the flow occur through duration of the project. To this end, the Contractor shall provide, maintain, and operate all temporary facilities such as plugs, pumping equipment, conduits, all necessary power, and all other labor and equipment necessary to intercept the incoming flow before it reaches the point where it would interfere with the work, carry it past the work area and return it to the existing system downstream of the work.

- B. The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirement of all codes and regulatory agencies having jurisdiction.
- C. The Contractor shall divert the flow around the work area in a manner that will not cause damage to, or surcharging of customers system and will protect public and private property from damage and flooding.
- D. The Contractor shall protect water resources, wetlands, and other natural resources.

PART 3 - EXECUTION

3.1 Precautions:

- A. The Contractor shall locate bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations for the Owner and/or Owner's Representative. All costs associated with relocating utilities and obtaining all approvals shall be paid by the Contractor.
- B. During all bypass Pumping operations the Contract shall protect each customer's system as applicable from damage inflicted by any equipment. The Contractor shall be responsible for all physical damage to the Customers system caused by human or mechanical failure.

3.2 Installation and Removal:

- A. The Contractor shall remove manhole sections or make connections to the existing sanitary sewer system and construct the temporary pumping structures as necessary to complete required work. The Contractor shall obtain approval for bypass pumping locations from the Owner's Representative prior to installation of temporary bypass pump station.
- B. Plugging or blocking of flows shall incorporate a primary or secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- C. When working inside manhole or wetwell, the Contractor shall exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible, or oxygen-deficient atmospheres, and confined spaces.

- D. When the bypass pipeline crosses local streets and private driveways, the Contractor must place the bypass pipelines in trenches and cover with temporary pavement. Upon completion of the bypass pumping operations, and after receipt of written permission from the Owner, the Contractor shall remove all the piping, restore all property to pre-construction condition and restore all pavement.

3.3 Field Quality Control and Maintenance:

- A. The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to the actual operation. The Owner's Representative shall be given 24 hours notice prior to testing.
- B. The Contractor shall inspect bypass pumping system on a continuous basis to ensure the system is working correctly.
- C. The Contractor shall ensure the temporary pumping station is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.

END OF SECTION 11200

SECTION 15060 - BACKFLOW PREVENTION

PART 1 - GENERAL

1.1 Section Includes:

- A. This Section of Specifications covers the material and installation requirements for backflow prevention devices.

1.2 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction
- B. Section 02600 - Ductile Iron Pipe and Fittings
- C. Section 15082 - Water Service Relocation

1.3 References:

- A. AWWA C506 AWWA Standards for Backflow Prevention Devices. Reduced Pressure Principle and Double Check Valve Types.
- B. ANSI/ASSE Spec. No. 1024

1.4 Submittals:

- A. The Contractor shall submit, in accordance with Section 01300 of these specifications, product data including catalog cuts, test reports, manufacturer's installation instructions and the manufacturer's certificate of compliance with AWWA C506.

1.5 Quality Assurance:

- A. Backflow prevention devices shall be tested by a laboratory recognized as having expertise in testing backflow prevention devices as required in Section 1.3 of AWWA C506 Specifications. The laboratory shall be acceptable to the Owner.

1.6 Delivery, Storage and Handling:

- A. The manufacturer shall prepare each backflow prevention device for shipment so that no damage will occur during shipment.
- B. All backflow preventers shall be complete in every respect and completely drained with all openings closed prior to shipment.
- C. Upon receipt, the Contractor shall thoroughly examine backflow preventers for damage during shipment and store them in a clean, dry and safe area.

PART 2 - PRODUCTS

2.1 Materials:

- A. Because of the threat of electrolysis, when differing metals are used, insulation and/or electrolytically similar metals shall be used throughout the construction.
- B. Residential dual check valve preventers:
 - 1. Residential dual check valve preventers shall be bronze bodied, with two acetyl resin plastic check modules, BUNA "N" Seals, stainless steel springs, and "O" ring union seals. The dual check valve preventers shall be Watts No. 7 or an approved equal. All residential dual check valve preventers shall be 3/4 inch or larger.
- C. Commercial Double Check Valve and Reduced Pressure Zone Backflow Preventers:
 - 1. Valve bodies, covers, spools and spacers shall be ASTM B61, Bronze, or ASTM A126, Class B, Gray Iron.
 - 2. Clapper and Poppett Facing Rings shall be molded synthetic rubber with a shore durometer hardness of 35 to 45.
 - 3. Relief Valve Facing Rings shall be molded synthetic rubber with a shore durometer hardness of 60 to 70.
 - 4. Swing Pin and Guide Stems shall be ASTM B139, Grade A, C or D Phosphor Bronze or ASTM A 276, Type 304, Stainless Steel.
 - 5. Springs shall be ASTM A313 Steel or ASTM B159 Phosphor Bronze.
 - 6. Diaphragms shall be synthetic rubber with a cotton or rayon insert conforming to Federal Specification HHP-151B.
 - 7. Seat Rings and Valve Seats shall be ASTM B61 Bronze or ASTM A276, Type 304, Stainless Steel.

2.2 Manufactured Unit:

- A. Backflow Preventers shall be manufactured as a unit capable of operating at a supply pressure of 150 psi and a temperature of 140-degrees F.
- B. Residential dual check valve backflow preventers shall meet or exceed ANSI/ASSE Standard 1024.

- C. Double check valve and reduced pressure zone backflow preventers shall meet or exceed AWWA C506 Specification.

2.3 Fabrication:

- A. All foundry and machine work shall be first class, free of injurious defects and conform to the manufacturer's tolerances.
- B. Flange joints shall be faced true and machined at right angles to their respective axes. Threaded joints shall be concentric and accurately cut free of burrs.
- C. All joints shall be tested as watertight when subjected to the design pressure.

PART 3 - EXECUTION

3.1 Examination:

- A. The Contractor shall examine all backflow preventers for damage prior to installation.

3.2 Installation:

- A. All backflow preventers shall be installed on the consumer side of the meter.
- B. Small residential backflow preventers shall be installed in the water meter box.
- C. Backflow preventers greater than 2" in diameter, shall be installed as shown on the Drawings.
- D. All backflow preventers shall be installed with no leakage around any joint.
- E. Backflow preventers greater than 2" in diameter shall have blocking castings under them so that their weight is not supported by the adjacent piping.

END OF SECTION 15060

SECTION 15082 – WATER SERVICE RELOCATION

PART 1 - GENERAL

1.1 Section Includes:

- A. This Section of Specifications covers materials and installation requirements for the relocation of a service line from an existing water main to a proposed water main and/or relocating an existing water meter assembly.

1.2 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction
- B. Section 02660 - Water System
- C. Section 015090 – Valve Box and Vaults

1.3 References:

- A. AWWA C800 AWWA Standard for Underground Service Lines, Valves and Fittings.
- B. ANSI B.1.1 American National Standard for Unified Inch Screw Threads.
- C. ANSI B.1.20.3 Dry Seal Pipe Threads.
- D. ASTM B88 ASTM Standard for Seamless Copper Water Tube.
- E. ASTM B584 ASTM Standard for Copper Alloy Sand Castings for General Applications.

1.4 Submittals:

- A. The Contractor shall submit in accordance with Section 01300 the following items:
 - 1. Product data including catalog cuts and manufacturing data.
 - 2. Test reports as outlined in Section 3 of AWWA C800.
 - 3. Manufacturer's Affidavit of Compliance with AWWA C800.

1.5 Quality Assurance:

- A. The Contractor shall comply with all local, state and federal codes, requirements and regulations.

- B. Prior to beginning the work specified in this section, the Contractor shall schedule a coordination meeting with the water system Owner to review the installation procedures for the water service connections.

1.6 Delivery, Storage and Handling:

- A. The manufacturer's name or trademark shall be cast on the bodies of all valves and fittings.
- B. The Contractor shall thoroughly inspect all valves, fittings and service lines for damage and defects prior to and again after installation.
- C. The Contractor shall store all service lines, valves and fittings in a clean, dry area and protect same from freezing and other damages.

PART 2 - PRODUCTS

2.1 Materials:

- A. Corporation Stops
 - 1. All components of the corporation stops shall be manufactured of certified ingot, conforming to AWWA C-800.
 - 2. Seals, threads, and packing shall be of materials recommended by the manufacturer that are compatible with the valve.
 - 3. The stem and retaining nut shall be so designed that failure from over-tightening of the nut results in thread stripping rather than stem fracture.
 - 4. Corporation stops shall be of a 300 psi rating.
 - 5. Corporation stops shall have compression nut with gripper ring and gasket providing a watertight seal by compressing of gasket around tubing and compressing the gripper ring providing high pull out resistance.
 - 6. Compression nuts requiring a split type clamp with screw or bolt will not be accepted.
 - 7. Corporation Stops shall be ball valve type.
 - 8. **ALL CORPORATION STOPS TO BE FULL PORT OPENING.**

B. Curb Stops

1. All components of the curb stops shall be manufactured of certified ingot, conforming to AWWA C-800.
2. Seals, threads, and packing shall be of materials recommended by the manufacturer that are compatible with the valve.
3. Curb Valves shall be of the closed bottom design and sealed against external leakage at the top and port by utilizing non-adjustable resilient seals. Shut off shall be affected by a resilient pressure-actuated seal placed in the key or plug as to completely enclose the inlet port flow way in the closed position.
4. All curb valves shall have the open/closed positions controlled by check lugs which are integral parts of the key and the body.
5. Curb stops shall be of a 300 psi rating.
6. Curb stops shall have compression nut with gripper ring and gasket providing a watertight seal by compressing of gasket around tubing and compressing the gripper ring providing high pull out resistance.
7. Compression nuts requiring a split type clamp with screw or bolt will not be accepted.
8. Valves for the respective installation(s) must have the following laying lengths to facilitate change-outs at a minimum of cost and time:

a.	FIP x FIP VALVES	SIZE	LENGTH (IN.)
		3/4"	3.21" ± 0.0625
		1"	3.96" ± 0.0625
b.	COMPRESSION X FIP	SIZE	LENGTH (IN.)
		3/4"	3.84" ± 0.0625
		1"	4.35" ± 0.0625

9. Curb Stops shall be ball valve type with Lock Wing.
10. ALL CURB STOPS TO BE FULL PORT OPENING.
(3/4" X 3/4" X 3/4") AND (1" X 1" X 1")

C. Fittings

1. Valve and Fitting Castings shall be made from Copper Alloy No. C83600 in accordance with ASTM B62 or ASTM B584.
2. Seals, threads, and packing shall be of materials recommended by the manufacturer that are compatible with the valve or fitting
3. Fittings shall be suitable for use with water 100 degrees F and 150 psig minimum.

D. Water Service Line

1. All service lines shall be Type "K" soft copper, continuous in one piece, from the water main to the water meter.
2. Where relocation of an existing water service line is required, any existing services **NOT** constructed of Type "K" soft copper shall be replaced from the new water main to the existing water meter.

E. Water Meters and Meter boxes

1. Existing water meters shall **NOT** be replaced. Contractor shall take care to protect the meter during construction to prevent damage.
2. Existing meter boxes shall be replaced with new 13"x20"x12" boxes, manufactured by NDS No. 5 1500 or approved equal and relocated as shown on the drawings.

2.2 Fabrication:

- A. All service line valves and fittings shall conform to AWWA C800 and shall be manufactured to be first class in every respect.
- B. Valves and fittings shall be free of metal chips, filings and excess lubricants.
- C. Castings shall be clear and sound without defects.

PART 3 - EXECUTION

A.1 Installation:

- A. Service lines shall run in the shortest and straightest possible course from the water main installation to the water meter location.

- B. All water services installed on PVC mains shall have a double strap service saddle installed on the PVC water main to house the corporation stop.
- C. Water services installed on ductile iron mains may be tapped directly and the corporation stop installed directly to the ductile iron water main.
- D. Locations of all corporation stops for water services shall be physically located from at least two different locations of permanently fixed structures such as fire hydrants, power poles, etc. and indicated on the record drawings.

END OF SECTION 15082

SECTION 15105 – RESILIENT SEATED GATE VALVES

PART 1 - GENERAL

1.1 Summary:

- A. This section covers materials, installation and performance criteria for resilient seated gate valves to be used in water and sewer service.

1.2 Related Sections:

- A. Section 2250 - Trenching, Backfill and Compaction
- B. Section 02660 - Water System
- C. Section 15090 - Valve Boxes and Vaults

1.3 Unit Prices:

- A. Resilient Seated Gate Valves shall be paid for per each, if a bid item is denoted in the Bid Schedule. If a specific bid item is not denoted in the Bid Schedule, payment for resilient seated gate valves shall be included in the stated lump sum bid amount. Payment, in either case, shall be based on a complete, installed and operable valve with valve box and concrete support considered incidental to the installation of gate valves. This payment shall include compensation for all appurtenances, materials, labor, etc. necessary to complete the work.

1.4 References:

- A. AWWA C509 American Water Works Standards for Resilient Seated Gate Valves for Water Supply Service.
- B. AWWA C515 American Water Works Standards for Reduced-Wall Resilient Seated Gate Valves for Water Supply Service.
- C. AWWA C550 American Water Works Standards for Protective Epoxy Interior Coatings for Valves and Hydrants.
- D. AWWA C600 American Water Works Association Standard for Installation of Ductile-Iron Water Main and their appurtenances.

1.5 Submittals:

- A. The contractor shall furnish detail assembly drawings, specifications, catalog data and dimensions, and 5 sets of operating instructions for all gate valves.

1.6 Quality Assurance:

- A. The contractor shall supply to the engineer an affidavit from the manufacturer that all gate valves 2-inches and larger conform to AWWA C509 or AWWA C515 and that all tests specified therein have been performed and all test requirements have been met.

- B. The contractor shall supply to the Engineer an affidavit of compliance from the manufacturer that all gate valves smaller than 2-inches conform to Federal Specification WW-V-54 and have a pressure rating of 200 psi minimum.

1.7 Delivery, Storage and Handling:

A. Packing and Shipping:

- 1. Markings shall be cast on the bonnet or body of each valve conforming to AWWA C509 or AWWA C515.
- 2. Valves shall be packaged for shipment to avoid damage during shipping and handling. All gate valves shall be completely drained and closed prior to shipment.

B. Acceptance at Site:

- 1. Gate valves shall be thoroughly checked at the site prior to unloading. Any valves found defective or damaged during shipment will be rejected.
- 2. The contractor shall provide adequate lifting equipment to unload large valves. In no case should valves be dropped.
- 3. Chains, hoists or other lifting devices should not be fastened around bypasses, yokes, gearing, motors, stems or handwheels. Valves shall not be lifted by the stem.

C. Storage and Protection:

- 1. Valves should be stored in a closed position and protected from rain, dirt and debris by covering or storing indoors. In freezing weather the contractor shall take steps to assure valves do not freeze.
- 2. Rubber gaskets for joints shall be stored in a cool, dry place out of direct sunlight. Avoid contact between petroleum based substances and rubber gaskets.
- 3. Gate valves shall be stored such that the resilient coating on the interior of each valve is not exposed to direct sunlight for extended periods of time. In addition, each valve shall be stored to avoid exposing the epoxy interior coating to nicks and abrasions.

1.8 Scheduling:

- A. The contractor shall schedule deliveries of gate valves to assure the proper materials are on hand prior to the installation of the work.

PART 2 - PRODUCTS

2.1 Approved Manufacturers:

- A. American Darling Valve Company.
- B. Clow.
- C. Mueller.
- D. M & H

2.2 Equipment:

A. Gate valves 4-inches through 12-inches:

1. Gate valves shall conform to AWWA C509 or AWWA C515.
2. Gate valves shall be iron-bodied, resilient wedge unless otherwise noted.
3. Operating nuts shall be 2-inch in size and operate counter clockwise to open the valve.
4. Gate valves shall be mechanical joint if buried and flange joint if located inside or attached to structures. Retainer glands shall be used with mechanical joints unless otherwise specified.
5. Valves shall be non-rising stem type, unless specifically denoted otherwise.
6. The interior coating shall be fusion bonded epoxy conforming to AWWA C550.
7. The iron valve body shall be hydrostatically tested to 500 psig and the completed valve shall be bubble tight to 250 psig.

B. Gate Valves 2-inch and smaller:

1. Gate valves shall be bronze, Stockham B103, or equal.
2. Gate valves shall conform to Federal Specification WW-V-54, Class 150.
3. Gate valves to have non-rising stem - inside screw type solid wedge disc.
4. Gate valve body, bonnet and disc to be bronze, meeting ASTM Specifications B-62.
5. Packing nut and stuffing box to be bronze, meeting ASTM Specifications B-584.
6. Packing gland to be brass.
7. Handwheel to be malleable iron, meeting ASTM Specifications A-197.
8. Handwheel nut to be steel.
9. Full port opening - disc to recess completely into bonnet.
10. Packing to be non-asbestos Kevlar with Teflon.

C. Gate Valves 14-inch through 48-inch:

1. In general, resilient seated gate valves, 14-inch through 48-inch shall conform to the requirements for resilient seated gate valves 4-inches through 12-inches except for the requirements denoted below:
 - a. Unless denoted otherwise the operating stem shall be horizontal.
 - b. The operating nut shall operate a fully enclosed gear drive to operate the valve stem and open and close the valve.
 - c. Gears shall be smooth running, accurately cut and made from ASTM A26 Grade U-60-30 steel.
 - d. Gear ratios shall conform to Table 7 of AWWA C500.
 - e. Fully enclosed gear cases designed for underground use shall be provided.
 - f. The iron body shall be hydrostatically tested to 400 psig and the completed valve assembly shall be bubble tight at 200 psig.

2. Bypasses shall be provided for all valves 24-inches and larger.
 - a. Bypass sizing shall conform to Table 8 of AWWA C500.
 - b. Valves used for bypasses shall be non-rising stem gate valves of the same size as specified in Table 8 above.
 - c. Valves used for bypass shall conform to these specifications.
 - d. Piping used in bypasses shall be ductile-iron, mechanical joint conforming to Section 02600, Ductile Iron Pipe and Fittings.

2.3 Fabrication:

- A. Valves shall be fabricated and assembled to be well fitted and to operate smoothly.
- B. Parts shall be designed and manufactured to be interchangeable between manufacturers of the same type and size.
- C. Castings shall be sound and free from defects.

2.4 Source Quality Control:

- A. Each gate valve shall be subjected to an operation test and hydrostatic test at the place of manufacture.
- B. The contractor shall supply to the Engineer an affidavit of compliance as specified in 1.06.A and B of these specifications.
- C. Operation and hydrostatic testing shall conform to applicable section of AWWA C509 or AWWA C515.

PART 3 - EXECUTION

3.1 Examination:

- A. Prior to the installation of the gate valve, the valve should be examined and inspected for compliance with these specifications and proper operation.
- B. Valves that fail to comply with these specifications or operate properly shall be removed from the jobsite without compensation.
- C. All gate valves shall be operated through one complete cycle by the Contractor in the presence of the Engineer to verify proper operation.

3.2 Preparation:

- A. Prior to installation of the valve, the contractor shall prepare the area for valve installation by supporting the associated piping to align the valve.
- B. The contractor shall determine that proper materials are on hand for a complete valve installation.

- C. The contractor shall review the manufacturer's installation instructions to ascertain that no unusual installation procedures are required. Should the contractor find any unusual procedures, he shall promptly report them to the Engineer.

3.3 Installation:

- A. All gate valves installed underground shall be installed in a closed position.
- B. Gate valves shall be installed on a firm footing and temporarily supported until a permanent support can be poured. Pipe ends should be supported to minimize bending to the valve end connections.
- C. A valve box or vault shall be installed around all gate valves. The contractor shall refer to the drawings for any special vaults to be constructed. If no special vault is specified a valve box shall be installed.
- D. Valve boxes and vaults shall be installed to avoid traffic and other surface loading being transmitted to the valve.
- E. Valve boxes shall be centered over the operating nut with the top flush with the surrounding finished elevations.
- F. Large valves installed with bypasses shall have a second valve box installed, centered over the smaller bypass valve operating nut.
- G. Valves installed in deep trenches with the operating nut located six feet below the finished surface shall have stem risers provided for operation with a six-foot key.
- H. Gate valves installed above ground shall be supported to avoid excessive stress and bending to the valve end connections.

3.4 Field Quality Control:

- A. After installation, but prior to pressure testing, all bolts shall be checked with a torque wrench for proper torque.
- B. Gate valves shall be left uncovered during hydrostatic testing to check for leaks unless test pressures are great enough to cause unstable conditions at the valve.
- C. Gate valves shall not be tested at pressures greater than twice the rated working pressure of the valve.

3.5 Records:

- A. The contractor shall sufficiently mark all gate valve locations and record the size, make, date of installation, and number of turns necessary to open. The contractor shall furnish the Engineer with 3 copies of such records.

3.6 Protection:

- A. The contractor shall protect all gate valves from damage until final acceptance of the work.

END OF SECTION 15105

SECTION 15300 - FIRE HYDRANTS

PART 1 - GENERAL

1.1 Section Includes:

- A. This specification covers material and installation specifications for fire hydrants and related accessories.

1.2 Related Sections:

- A. Section 02250 - Trenching, Backfill and Compaction
- B. Section 02600 - Ductile Iron Pipe and Fittings
- C. Section 02660 - Water System
- D. Section 15105 - Resilient Seated Gate Valves
- E. Section 15090 - Valve Boxes and Vaults

1.3 Unit Prices:

- A. Payment for fire hydrants shall be as per the bid schedule.

1.4 References:

- A. AWWA C502, AWWA Standard for Dry Barrel Fire Hydrants.
- B. AWWA C600, AWWA Standard for Installation of Ductile-Iron Water Mains and Appurtenances.

1.5 Submittals:

- A. The Contractor shall submit to the Engineer in accordance with Section 01300 of these specifications the following items:
 - 1. Design data showing the loss of head and how this test was conducted.
 - 2. Test reports of the mechanical test and hydrostatic test as defined in Section 5 of AWWA C502.
 - 3. Product Data.
 - 4. Manufacturer's Affidavit of Compliance According to Section 5.4 of AWWA C502.
- B. The manufacturing process and testing shall be open to and subject to inspection and observation by the Owner's representative.

1.6 Delivery, Storage and Handling:

- A. Hydrants shall be complete with all required accessories when shipped. The manufacturer shall prepare hydrants so that they will not be damaged during shipment. Hydrants shall be completely drained and closed prior to shipment.

- B. The Contractor shall use extreme care when unloading hydrants. Hydrants shall be inspected prior to unloading and checked for damage during shipment. Any hydrant damaged during this unloading or shipping process shall be rejected and removed from the job.
- C. The Contractor shall provide a dry, suitable area for storage of hydrants. Hydrants shall be protected from freezing and other damages during storage.

PART 2 - PRODUCTS

2.1 Manufacturers:

- A. American Cast Iron Pipe Company
- B. Mulleur Company
- C. U.S. Pipe Company
- D. M & H Valve Company
- E. Others as approved by the Engineer

2.2 Manufactured Units:

- A. All fire hydrants shall consist of a hydrant, gate valve, ductile iron spools and associated accessories and be considered as a unit.
 - 1. Hydrant:
 - a. Fire hydrants shall conform to AWWA C502.
 - b. Fire hydrants shall have a working pressure of 175 psi and be tested at 300 psi.
 - c. Fire hydrants shall have a 4-1/2inch valve opening.
 - d. Fire hydrants shall be equipped with two 2-1/2-inch hose nozzles (thread MOZ 6A NS) and one 4-1/2-inch pumper nozzle (thread NOZ 6A 4-556).
 - e. Fire hydrants shall open counter clockwise and be equipped with a 1-1/2-inch bronze pentagonal operating nut.
 - f. Fire hydrants shall be equipped with a 6-inch mechanical joint or flange joint shoe complete with gland and rubber gaskets.
 - g. Fire hydrants shall be equipped with a break away safety flange, brass safety stem coupling and brass safety sleeve.
 - h. Fire hydrants shall be equipped with double drain valves and double drain openings, "O" ring seals, bronze seat ring with compression type main valve, an oil filled reservoir and a positive stop stem.
 - i. Nozzle caps shall be provided with non-kinking chains.

- j. All fire hydrants shall be manufactured in the United States.
 - 2. Gate Valves shall comply with Section 15050 of these specifications.
 - 3. Ductile iron spools shall comply with Section 02600 of these specifications.
- 2.3 Painting:
- A. Fire hydrant interiors shall be painted to conform with AWWA C502.
 - B. Fire hydrant exteriors shall be painted to conform with AWWA C502 and in addition shall be painted with red enamel.
- 2.4 Manufacturer's Test:
- A. Fire hydrants shall be subjected to the mechanical test and hydrostatic tests as outlined in Section 5 of AWWA C502.
 - B. Copies of these tests shall be furnished to the Engineer.

PART 3 - EXECUTION

- 3.1 Examination:
- A. All fire hydrants shall be inspected prior to installation for direction of opening, operating nut dimensions, tightness of all bolts, cleanliness of inlet and all defects or damage during shipping and handling.
 - B. Defective hydrants shall be removed from the jobsite.
- 3.2 Installation:
- A. Fire hydrants shall be installed as shown on the plans or directed by the Engineer.
 - B. All hydrants shall be installed plumb with the 4-1/2 inch pumper nozzle facing the street or alley.
 - C. Fire hydrants where placed behind curbing shall be set back a sufficient distance to avoid car bumpers as the cars pull to the curb. Fire hydrants shall be placed 2-feet from side walks and parkways to provide safety for pedestrians.
 - D. Hydrants shall be set with the breakaway flange not less than 2-inches or more than 6-inches above finished grade.
 - E. Fire hydrants shall be connected to a supply line 6-inches in diameter or larger.
 - F. Fire hydrants shall be installed with a gate valve and box located a sufficient distance away from the hydrant to allow for hydrant maintenance.

- G. A drainage pit 2-feet x 2-feet x 2-feet shall be excavated below the hydrant and filled with coarse graded stone or gravel to 6-inches above the hydrant opening. The drainage pit shall not be connected to or be near any sewer.
- H. All hydrants shall be carefully and thoroughly backfilled.

3.3 Cleaning and Protection:

- A. The Contractor shall clean the area of any construction debris, excess backfill and other items.
- B. The Contractor shall carefully check hydrant for proper operation in the presence of the Engineer.
- C. The Contractor shall maintain hydrants from damage until final acceptance of the work.

END OF SECTION 15300

SECTION 20000 - SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 General:

- A. The Technical Specifications, Special Conditions, and Supplemental Conditions, etc., are requirements set forth to define the Project and work associated with it. The Contractor is still responsible for notes on the Construction Plans/Drawings which call attention to additional requirements or conditions. The fact that these requirements or conditions are not called out in the Specifications does not relieve the Contractor of his/her responsibility for these requirements or conditions.

1.2 Traffic Control Plan:

- A. The Construction Plans have traffic control plans and details. This information is for the Contractor's use to understand the general traffic control phasing needs of this Project. It still remains the Contractor's responsibility when implementing his/her traffic control plan that the MUTCD, Latest Edition, is followed. Proper traffic control shall be required at all times specifically during The University of Alabama football season. Any fines and/or damages incurred by the Contractor for failure to properly maintain traffic control plan/devices shall be paid for by the Contractor at no expense to the Owner.
- B. Private Utility Companies:
 - 1. During the construction of this Project, the Contractor is responsible for the traffic control needs of all private utility company personnel. Some of the private utility relocations will require closure of the road and/or block the private utility company personnel are working on. It is the Contractor's sole responsibility to coordinate with the private utility company's work schedules so the proper traffic control needs can be in-place.

1.3 Storm Water Management and Erosion Control Plan:

- A. As noted in the Technical Specifications and on the Construction Plans, the Contractor is responsible for obtaining a Storm Water Permit (NPDES) from the Alabama Department of Environmental Management (ADEM) for this Project in his/her name. During construction, the Contractor shall also be responsible for all monitoring, inspections, etc. as set forth in the Permit.
- B. Erosion control plans and details have been provided in the Construction Plans to assist and guide the Contractor, but these do not alleviate the Contractor of using whatever means necessary to maintain the project site during construction.

- C. Any fines incurred due to failure to meet the Storm Water Permit requirements shall be paid for by the Contractor as the permit shall be in his/her name.
 - D. The City of Tuscaloosa reserves the right to issue a stop work order if erosion control is not being implemented and monitored daily. There shall be no claims against days lost due to a work stoppage, as the Contractor's own inaction and negligence led to this action. Warnings shall be issued prior to and in advance to hopefully avoid this final action. It is not in the City's interest or their desire to potentially stop work, but they must act to protect from legal action by special interest groups and/or governing bodies.
- 1.4 U.S. Postal Service and Mail Services:
- A. The Contractor shall provide access to the existing commercial and residential buildings for the Postal Service throughout the project, including but not limited to Contractor personnel assisting with mail delivery. There shall be no additional payment for this coordination and/or work.
- 1.5 Commercial and Residential Driveways:
- A. The Contractor shall maintain by whatever means necessary access to all commercial and residential driveways at all times during construction. All property owners shall be notified 48 hours in advance of any temporary closure of a drive.
- 1.6 Existing Landscaping and Fencing:
- A. During construction, any existing landscaping and fencing damaged or removed shall be replaced with like materials as approved by the Engineer. This work shall be considered incidental to the Contract.

END OF SECTION 20000