

ORDINANCE NUMBER 3175

AN ORDINANCE ACCEPTING A BID FOR ALTADENA VALLEY PARK IMPROVEMENTS, PHASE III AND AUTHORIZING THE EXECUTION AND DELIVERY OF THE CONSTRUCTION CONTRACT DOCUMENTS BY AND BETWEEN THE CITY OF VESTAVIA HILLS, ALABAMA, AS “OWNER,” AND FORESTRY ENVIRONMENTAL SERVICES, INC., AS “CONTRACTOR.”

THIS ORDINANCE NUMBER 3175 is considered, approved, enacted and adopted by the City Council of the City of Vestavia Hills, Alabama on this the 24th day of April, 2023.

WITNESSETH THESE RECITALS:

WHEREAS, on January 11, 2023 at 10:00 a.m., the City of Vestavia Hills, Alabama publicly read aloud bids submitted for Altadena Valley Park Improvements, Phase I for the City of Vestavia Hills (“the Project”); and

WHEREAS, two bids were received and read; and

WHEREAS, a copy of the bid tabulation is attached hereto, marked as Exhibit A and is incorporated into this Ordinance Number 3175 by reference as though set out fully herein;

WHEREAS, the City’s consultant, Engineering Design Group, LLC (“EDG”) submitted a letter dated March 21, 2023 recommending acceptance of the bid package submitted by Forestry Environmental Services, Inc. (“FES”) as value engineered pursuant to the attached contract and opinion of the City Attorney, a copy of which is marked as Exhibit B and is attached to and incorporated into this Ordinance Number 3175 for a budget estimated at \$700,000; and

WHEREAS, the Bid Specifications included, but are not limited to, the following contract documents prepared by the City and to be signed by the City of Vestavia Hills, Alabama, as “Owner,” and the lowest responsible bidder as “Contractor”:

- A. Contract AIA Document A101-2017.
- B. General Conditions AIA Document A201-2017.
- C. Performance Bond AIA Document A312-2010.
- D. Payment Bond AIA Document A312-2010.
- E. First Addendum to Contract and General Conditions; and

WHEREAS, the Mayor and City Council feel it is in the best public interest to follow the recommendation of the Consultant and accept said bid as detailed above and to authorize the execution and delivery of the contract documents.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF VESTAVIA HILLS, ALABAMA, AS FOLLOWS:

1. The bid submitted by FES, as value engineered and detailed in Exhibit B is attached and recommended by the City Manager and the Design Consultant is hereby accepted; and

2. The Mayor and City Manager are hereby authorized to execute and deliver any and all documents necessary to contract with Duncan and Thompson Construction, including specifically, but not limited to the following contract documents:

- A. Contract AIA Document A101-2017.
- B. General Conditions AIA Document A201-2017.
- C. Performance Bond AIA Document A312-2010.
- D. Payment Bond AIA Document A312-2010.
- E. First Addendum to Contract and General Conditions; and

3. Funding for said renovation project shall be expensed to the City's Community Spaces Budget; and

4. If any part, section or subdivision of this ordinance shall be held unconstitutional or invalid for any reason, such holding shall not be construed to invalidate or impair the remainder of this ordinance which shall continue in full force and effect notwithstanding such holding.


5. This ordinance shall become effective upon its approval, adoption, enactment and publication by posting as set forth in Title 11-45-8(b), *Code of Alabama, 1975*.

DONE, ORDERED, APPROVED and ADOPTED this the 24th day of April, 2023.

CITY OF VESTAVIA HILLS, ALABAMA

By Ashley C. Curry
Ashley C. Curry
Mayor

ATTESTED BY:




Rebecca Leavings
City Clerk

CERTIFICATION:

I, Rebecca Leavings, as City Clerk of the City of Vestavia Hills, Alabama, hereby certify that the above and foregoing copy of 1 (one) Ordinance #3175 is a true and correct copy of such Ordinance that was duly adopted by the City Council of the City of Vestavia Hills on the 24th day of April, 2023 as same appears in the official records of said City.

Posted at Vestavia Hills Municipal Center, Vestavia Hills New Merkle House, Vestavia Hills Civic Center and Vestavia Hills Library in the Forest this the 24th day of April, 2023.



Rebecca Leavings
City Clerk



**CITY OF VESTAVIA HILLS
PARKS & RECREATION
INTER-DEPARTMENT MEMO**

April 24, 2023

To: Jeff Downes, City Manager

Cc:

From: Jamie Lee

RE: Public Hearing - Ordinance Number 3175 - An Ordinance accepting a bid for improvements at Altadena Valley Park and authorizing the Mayor and City Manager to execute and deliver agreements needed

Background:

An Ordinance accepting a bid for improvements to Altadena Valley Park and authorizing the Mayor and the City Manager to execute and deliver all documents needed to begin Phase One of the project. On January 11, 2023, the city accepted bids from two different companies for Phase One of improvements to Altadena Valley Park. The work includes earthwork in preparation for a parking lot, improved gravel and asphalt walkways, as well as landscaping consistent with the vision of the overall project. While the bids were acceptable, the financial impact to the city was greater than expected. Therefore, after discussion with the city attorney, Mr. Patrick Boone, Engineering Design Group and Renta Landscape Architecture were charged with working with the apparent low bidder, Forestry Environmental Services, Inc., to reduce the cost of Phase One while avoiding the necessity of having to "re-bid" the project.

Recommendation:

Pursuant to the subject's bid opening on January 11th, 2023, Engineering Design Group, LLC (EDG) recommends the city accept the bid of the apparent low bidder, Forestry Environmental Services, Inc.(FES). EDG, along with Renta Landscape Architecture, have worked close with FES to reduce the overall scope of the project from it's original proposal. The overall bid cost is approximately \$700,000.

Fiscal Impact:

The Community Spaces Fund will be used to finance this project.

Attachments:

1. Ordinance 3175
2. L-JL-Recommendation for Award of Contract
3. bid tab letter size
4. PH Boone Legal Opinion to City Manager March 31 2023
5. 2022-01-09 Bid Documents - Altadena Valley Park Phase 1-Rev 2



March 21, 2023

City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, Alabama 35216

Attn: Jamie Lee, Director of Parks and Leisure Services

Re: Altadena Park-Phase 1-Recommendation of Award of Contract

Dear Jamie,

Pursuant to the subject project's bid opening on January 11th, 2023, Engineering Design Group, LLC (EDG) recommends awarding the contract to the apparent low-bidder, Forestry Environmental Services, Inc. (FES)

EDG has coordinated with FES between the time of bid opening and today, and they are fully prepared to execute a contract with the City so that work can begin.

Respectfully submitted,
Engineering Design Group, LLC

A handwritten signature in blue ink, appearing to read "Ethan Fisher", is written over a solid horizontal line.

Ethan Fisher, P.E., AL License No. 39922



Item No.	Item	Forestry Environmental Services, Inc.		Clements Dean Building Company, LLC		total	unit price	total	unit price	total	unit price	total
		unit price	total	unit price	total							
1	Gravel and Asphalt Walkways	EA	3.38	1,994.06	1.14	634.98	634.98	634.98	-	-	-	-
2	Telephone Pedestrial	EA	3,780.00	-	193.28	193.28	193.28	-	-	-	-	-
3	Existing Fencing	EA	3.78	147.42	18.18	709.02	709.02	-	-	-	-	-
4	Unclassified Earthwork	EA	146,351.48	-	278,862.21	278,862.21	278,862.21	-	-	-	-	-
5	Undercutting	EA	34.15	3,415.00	64.51	6,451.00	6,451.00	-	-	-	-	-
6	Temporary Construction Fencing	EA	13.67	7,040.05	11.29	5,814.35	5,814.35	-	-	-	-	-
7	Tree Save Fencing	EA	5.55	4,480.00	3.88	3,104.00	3,104.00	-	-	-	-	-
8	Asphalt Paving	EA	46.15	141,449.75	42.37	129,864.05	129,864.05	-	-	-	-	-
9	Concrete Sidewalk, 4" Thick	EA	69.44	125,393.84	69.61	87,778.21	87,778.21	-	-	-	-	-
10	Concrete Stairs	EA	724.06	4,344.36	1,099.90	6,059.40	6,059.40	-	-	-	-	-
11	Stair Handrail	EA	301.96	7,247.04	193.32	4,639.68	4,639.68	-	-	-	-	-
12	Temporary Gravel Path	EA	28.54	41,383.00	28.46	41,267.00	41,267.00	-	-	-	-	-
13	18" Curb and Gutter	EA	1.76	2,309.12	1.14	1,495.68	1,495.68	-	-	-	-	-
14	4" Wide Painted Traffic Markings	EA	34.00	1,161.00	19.57	2,570.76	2,570.76	-	-	-	-	-
15	24" Wide Thermoplastic Stop Bar	EA	254.33	13,223.16	143.79	7,477.08	7,477.08	-	-	-	-	-
16	Ramp Handrail	EA	1,392.43	2,784.86	940.83	1,881.66	1,881.66	-	-	-	-	-
17	ADA Accessible Ramp	EA	432.00	864.00	1,829.54	3,659.08	3,659.08	-	-	-	-	-
18	ADA Truncated Dome Warning Tread	EA	1,041.51	644.22	1,932.66	1,932.66	1,932.66	-	-	-	-	-
19	ADA Pole Mounted Signs	EA	407.16	407.16	644.19	644.19	644.19	-	-	-	-	-
20	R1-1 Stop Sign	EA	108.54	434.16	190.80	763.20	763.20	-	-	-	-	-
21	R8-3 "No Parking" Sign	EA	533.14	2,132.56	628.15	2,512.60	2,512.60	-	-	-	-	-
22	Type 3 Barricade	EA	219.62	1,756.96	207.76	1,662.08	1,662.08	-	-	-	-	-
23	18" RCP	EA	2,380.91	2,380.91	2,263.63	2,263.63	2,263.63	-	-	-	-	-
24	18" Precast Headwall	EA	101.25	9,922.50	211.38	20,715.24	20,715.24	-	-	-	-	-
25	24" RCP	EA	2,811.98	11,247.92	3,224.20	12,806.07	12,806.07	-	-	-	-	-
26	24" Precast Headwall	EA	5,437.69	5,437.69	6,896.07	6,896.07	6,896.07	-	-	-	-	-
27	Double Wing Inlet	EA	31.89	11,512.29	-0.01	14,450.83	14,450.83	-	-	-	-	-
28	1" Domestic Water Service Line	EA	1,620.00	1,620.00	1,288.34	1,288.34	1,288.34	-	-	-	-	-
29	1" Water Meter	EA	4,231.05	4,231.05	4,897.27	4,897.27	4,897.27	-	-	-	-	-
30	1" Backflow Preventer	EA	6,014.00	6,014.00	412.61	10,315.25	10,315.25	-	-	-	-	-
31	8" Ductile Iron Sewer Main	EA	667.30	6,996.56	1,495.63	15,479.77	15,479.77	-	-	-	-	-
32	Sanitary Sewer Manhole	EA	111.60	11,941.20	108.47	11,606.29	11,606.29	-	-	-	-	-
33	4" Ductile Iron Sanitary Sewer Lateral	EA	1,785.04	1,785.04	1,030.66	1,030.66	1,030.66	-	-	-	-	-
34	Sanitary Sewer Cleanout	EA	1,785.04	1,785.04	1,030.66	1,030.66	1,030.66	-	-	-	-	-
35	Traffic Related Sanitary Sewer Cleanout	EA	31.62	4,173.84	27.34	3,608.88	3,608.88	-	-	-	-	-
36	3" PVC Power Conduit	EA	274.60	1,922.20	327.61	2,293.27	2,293.27	-	-	-	-	-
37	Red Maple	EA	347.79	2,782.32	414.97	3,319.76	3,319.76	-	-	-	-	-
38	Redbud	EA	978.21	2,934.63	1,167.16	3,501.48	3,501.48	-	-	-	-	-
39	Tulip Poplar	EA	320.14	1,280.56	381.92	1,527.68	1,527.68	-	-	-	-	-
40	Sweet Bay Magnolia	EA	286.55	859.65	341.83	1,025.49	1,025.49	-	-	-	-	-
41	Prairie Crabapple	EA	1,531.55	10,729.85	1,828.88	12,802.16	12,802.16	-	-	-	-	-
42	White Chapped Tupelo	EA	365.59	1,827.95	426.16	2,180.80	2,180.80	-	-	-	-	-
43	Loblolly Pine	EA	16.01	496.31	19.10	592.10	592.10	-	-	-	-	-
44	Overcup Oak	EA	284.57	1,991.99	339.50	2,376.50	2,376.50	-	-	-	-	-
45	Overcup Oak	EA	284.57	853.71	339.47	1,018.41	1,018.41	-	-	-	-	-
46	Baldcypress	EA	444.65	889.30	530.42	1,060.84	1,060.84	-	-	-	-	-
47	Princeton Elm	EA	39.13	13,891.15	46.75	16,596.23	16,596.23	-	-	-	-	-
48	Kalidassope Abelia	EA	16.01	1,328.83	19.10	1,585.30	1,585.30	-	-	-	-	-
49	Gerbing Azalea	EA	37.35	2,016.90	44.37	2,406.78	2,406.78	-	-	-	-	-
50	Pearl Glam Beautyberry	EA	16.79	1,880.48	20.05	2,245.60	2,245.60	-	-	-	-	-
51	Franchet's Cotoneaster	EA	79.05	1,422.50	78.15	1,406.70	1,406.70	-	-	-	-	-
52	Little Lime Hydrangea	EA	28.30	2,562.20	69.37	3,061.08	3,061.08	-	-	-	-	-
53	Oakleaf Hydrangea	EA	16.01	512.32	19.10	611.20	611.20	-	-	-	-	-
54	Winterberry	EA	23.72	450.68	28.30	537.70	537.70	-	-	-	-	-
55	Bridal Wreath Spiraea	EA	33.60	873.60	40.09	1,042.34	1,042.34	-	-	-	-	-
56	Double File Yucca	EA	33.60	873.60	40.09	1,042.34	1,042.34	-	-	-	-	-
57	Slash Pine	EA	33.60	873.60	40.09	1,042.34	1,042.34	-	-	-	-	-

PATRICK H. BOONE
ATTORNEY AND COUNSELOR AT LAW
NEW SOUTH FEDERAL SAVINGS BUILDING, SUITE 705
215 RICHARD ARRINGTON, JR. BOULEVARD NORTH
BIRMINGHAM, ALABAMA 35203-3720
TELEPHONE (205) 324-2018
FACSIMILE (205) 324-2295

E-Mail: patrickboone@bellsouth.net

March 31, 2023

By Electronic Mail

City Manager Jeff Downes
Vestavia Hills Municipal Center
1032 Montgomery Highway
Vestavia Hills, Alabama 35216

In Re: Altadena Valley Park Phase I
Adjustment of Contract Price for Public Works Construction Project
When Bids Are Based Upon Unit Prices

Dear Mr. Downes:

Recently, the City of Vestavia Hills, Alabama ("City") advertised for sealed bids for work regarding improvement of Altadena Valley Park, a public park. The bid specifications invited bidders to submit unit prices for fixed quantities of seventy-five (75) different items that would constitute the work.

You have requested my written legal opinion regarding whether or not the City may legally reduce the contract price by purchasing less quantities of the 75 different items while keeping the unit prices for each said item at the bid price. The purpose of letter is to comply with your request.

It is my legal opinion that the City will not violate the Alabama Competitive Bid law if it purchases less quantities of work; provided, however, that the unit prices submitted by the lowest and most responsive bidder remain the same amounts. My opinion is supported by the facts and legal authorities cited below.

**I. SOME ALABAMA LAW REGARDING
COMPETITIVE BIDS FOR PUBLIC WORKS PROJECTS**

A. PUBLIC WORKS PROJECT DEFINED: Alabama law regarding the letting, execution and administration of public improvements contracts ("public works") by municipalities is set forth in Title 39, Chapters 1 through 5, of the *Code of Alabama, 1975*.

The Alabama Public Works Law regarding public works construction projects provides, among other things, that a public works project is the expenditure of public funds on real estate owned by a municipality or on a structure attached to that real estate. Section 39-2-1(6), *Code of Alabama, 1975*, defines "public works" as:

"(6) PUBLIC WORKS. The construction, installation, repair, renovation, or maintenance of public buildings, structures, sewers, waterworks, roads, curbs, gutters, side walls, bridges, docks, underpasses, and viaducts as well as any other improvement to be constructed, installed, repaired, renovated, or maintained on public property and 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."

B. REQUIREMENT TO BID PUBLIC WORKS PROJECT: Alabama law at Title 39-2-2(a), *Code of Alabama, 1975*, requires that this contract be awarded after inviting competitive bids and provides in pertinent part as follows:

"(a) Before entering into any contract for a public works involving an amount in excess of fifty thousand dollars (\$50,000), the awarding authority shall advertise for sealed bids. "

C. NO REQUIREMENT TO BID FOR PROJECT \$50,000.00 OR LESS: The scope of work constituting a "public works project" within the meaning of Act Number 97-225 enacted by the Legislature, effective April 22, 1997 and now codified as Title 39-2-2(b)(1), et seq., *Code of Alabama, 1975*, reads in pertinent part as follows:

"Public works projects involving expenditures of less than \$50,000.000 do not have to be bid."

D. EXPENDITURE OF PUBLIC FUNDS:

1. Every thing that a governmental body does must be done in the **best interest of the public.**
2. Government officials must act in **good faith** in executing the requirements of law:

E. SUPREME COURT OF ALABAMA:

1. *White v. McDaniel Ford Tractor Company, Inc.*, 287 Ala. 77 and 248 So.2d 121 (1971).
 - (a) Public officials exercise their **discretion** in competitive bid matters.
 - (b) Public officials must exercise **good faith**.

2. *Mobile Dodge, Inc. v. Mobile County*, 442 So.2d 56 (1983):

- (a) Public officials must act **reasonably**.
- (b) Public officials must act **rationaly**.
- (c) Public officials must exercise **good faith**.
- (d) Public officials must have **proper motives**.
- (e) Public officials cannot **abuse their discretion**.

F. **STATUTORY LAW REGARDING CHANGE ORDERS:** Change Orders are not provided for in (a) the Alabama Competitive Bid set forth in Title 41-16-50, et seq., *Code of Alabama, 1975*; or (b) the Public Works Law set forth in Title 39-2-1, *Code of Alabama, 1975*.

G. **ATTORNEY GENERAL FOR THE STATE OF ALABAMA:** Although change orders are not provided in the Competitive Bid Law or the Public Works Law, they have been allowed pursuant to guidelines articulated by the office of the Attorney General in the interpretation of the legislative intent in formulating the Competitive Bid Law.

On June 15, 1979, the Attorney General for the State of Alabama issued a written legal opinion to the State Building Commission listing guidelines, which provide criteria for approving change orders to existing public works contracts.

II. FACTS

- A. **PROPERTY:** Altadena Valley Park, a public park.
- B. **OWNER:** City of Vestavia Hills, Alabama.
- C. **PURPOSE OF PROJECT:** The purpose of the project is to construct parking facilities, landscaping and nature trails at Altadena Valley Park.
- D. **PUBLIC WORKS PROJECT:** The project is a public works project as defined by Title 39-2-1(6), *Code of Alabama, 1975*, because it is the improvement of public property which will be paid for with public funds.
- E. **DESCRIPTION OF PUBLIC WORKS PROJECT:** The project consists generally of: an access to Lakeland Trail, asphalt parking lot, storm water infrastructure, walking paths, and associated landscape plantings. Additionally, the project includes installation of utility service infrastructure to a new restroom/pavilion facility (by others).
- F. **BUDGET FOR PROJECT:** Seven Hundred Thousand Dollars (\$700,000.00).
- G. **ENGINEER:** Engineering Design Group, LLC.

H. THE CITY ADVERTISED FOR SEALED COMPETITIVE BIDS FOR THE PROJECT: The City advertised for sealed competitive bids for the project as required by Title 39-2-2(a), *Code of Alabama, 1975*, because the estimated cost amounted to more than Fifty Thousand Dollars (\$50,000.00).

I. INSTRUCTIONS TO BIDDER: Section 1(f) of the Instruction to Bidders reads,

“f. TYPE OF BID

The type of Bid for the Work specified in these Contract Documents will be a combination of lump sum and **unit price** (*emphasis added*) as set forth in the Bid. A single price based upon a combination of lump sum and **unit price** (*emphasis added*) shall be submitted as the base bid in the appropriate spaces set forth in the Bid. The total amount to be paid to the Contractor shall be the amount of the base bid as adjusted for **additions** (*emphasis added*) or **deletions** (*emphasis added*) resulting from Owner authorized changes in the Project and Owner selected deductive and additive alternates.”

J. BID SPECIFICATIONS: The Bid Schedule in the Bid Specifications requested bidders to submit unit prices on a fixed quantity of seventy-five (75) different items.

<u>“Item</u>	<u>Description</u>	<u>Quantity/Unit</u>	<u>Unit Price</u>	<u>Total Price”</u>
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K. CONSTRUCTION DOCUMENTS: The Bid Specifications contained copies of the Construction Documents, which consist of the following:

1. AIA Document A101-2017 Standard Form Agreement Between Owner and Contractor.
2. AIA Document A201-2017 General Conditions of the Contract for Construction.
3. AIA Document A312-2010 Payment Bond.
4. AIA Document A312-2010 Performance Bond.
5. First Addendum.

L. GENERAL CONDITIONS: The General Conditions of the Contract of Construction specifically provide as follows:

“§7.2 Change Orders

§7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.”

“§7.3 Construction Change Directives

§7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of **additions, deletions** (*emphasis added*), or other revisions, the Contract Sum and Contract Time being adjusted accordingly....

§7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 **Unit prices** (*emphasis added*) stated in the Contract Documents or subsequently agreed upon;”

M. FIRST ADDENDUM TO CONSTRUCTION CONTRACT: The First Addendum to the Construction Contract and General Conditions adds Section 7.2.2 to the General Conditions that reads as follows:

“Anything contained herein to the contrary notwithstanding, the guidelines, which provide criteria for approving change orders to an existing public works contract are set forth in an opinion issued to the Alabama State Building Commission on June 15, 1979 by the State of Alabama Attorney General. Contractor and Owner agree that said opinion sets forth the guidelines for determining whether or not a proposed change order is legally justified. The Owner, its Architect and legal advisor shall sign any and all change order justifications.”

N. AWARD OF THE CONTRACT: The Award of the Contract to be signed by the Contractors bidding on the project reads,

“The total amount paid to the Contractor shall be the amount of the Bid as adjusted for Owner selected **additives** (*emphasis added*) and **deductions** (*emphasis added*) and as adjusted for Owner authorized changes in the Project.”

O. BIDS WERE OPENED: Sealed bids were publicly opened on January 11, 2023 at Vestavia Hills Municipal Center.

P. TWO BIDS WERE SUBMITTED AND RECEIVED: The following two bids were submitted, received and opened:

- | | | |
|----|---------------------------------------|-----------------|
| 1. | Forestry Environmental Services, Inc. | \$1,068,255.24 |
| 2. | Clements Dean Building Company, Inc. | \$1,331,288.30. |

Q. LOWEST RESPONSIBLE BID: The City found and determined that the bid of \$1,068,255.24 by Forestry Environmental Services, Inc. is the lowest responsible bid.

R. OVER BUDGET: The lowest responsible bid exceeds the project budget by \$368,255.24.

S. VALUE ENGINEERING: The City wishes to “value engineer” the project by reducing the quantities of work while keeping unit prices at the same amounts in order to reduce the contract price to the original budget amount.

III. LEGAL ISSUE

May the City legally reduce the scope of the work of the project by purchasing less quantities of some of the seventy-five (75) different items in order to lower the total cost of the project to the estimated budget of approximately Seven Hundred Thousand Dollars (\$700,000.00) without violating the Alabama Competitive Bid Law?

IV. LEGAL OPINION

It is my legal opinion that the answer to the legal question is in the affirmative. To be more specific, it is my legal opinion that the City will in no way violate the Alabama Competitive Bid Law if it purchases less quantities of some of the 75 items; provided, however, the unit prices submitted in the lowest responsible bid are not changed.

V. BASIS FOR LEGAL OPINION

I base my legal opinion upon the following reasons:

- A.** The unit prices are the bid prices!
- B.** The City instructed all bidders to submit bids based upon unit prices. They did so. The unit prices remain at the same amount submitted by the bidders. Therefore, the bid amounts are not changed.

C. The Contract Documents provide specifically that the City, as Owner, may add to or delete items to the scope of the work—

General Conditions, §7.2.1

General Conditions, §7.3.1

General Conditions, §7.3.3.2

D. The Bid Documents included copies of the Contract Documents that made it crystal clear that:

1. the bids were to be based upon unit prices; and
2. that there would be additions or deletions to the scope of the work even though the unit prices remain the same.

E. The federal government encourages contractors to propose changes which decrease the cost of the work by sharing any savings through Value Engineering clauses. See Cibinic & Nash, *Administration of Government Contracts*, 409-26 (4th ed. 2006).

VI. OPTIONS

The City may exercise either one of the following options described below.

- A. Change Order pursuant to §7.2; or
- B. Construction Change Directives pursuant to §7.3.1 and §7.3.3.

VII. MY RECOMMENDATION

I recommend that the City and Forestry Environmental Services, Inc. execute and deliver a Construction Change Directive pursuant to the authority of §7.3.1 and §7.3.3.2 of the General Conditions to the Construction Contract. I have taken the liberty to prepare that document. A copy is attached to this legal opinion.

Please call me if you have any questions regarding any of the matters set forth in this legal opinion.

Sincerely,



Patrick H. Boone
Vestavia Hills City Attorney

PHB:gp

cc: City Clerk Rebecca Leavings (by e-mail),

STATE OF ALABAMA

JEFFERSON COUNTY

CONSTRUCTION CHANGE DIRECTIVE

WITNESSETH THIS CONSTRUCTION CHANGE DIRECTIVE, by and between the City of Vestavia Hills, Alabama, a municipal corporation, as "Owner" ("City"), and Forestry Environmental Services, Inc., as "Contractor", made and entered into on this the ____ day of April, 2023.

WITNESSETH THESE RECITALS:

WHEREAS, on January 11, 2023, Forestry Environmental Services, Inc., hereinafter referred to as "Contractor," submitted a sealed bid in the amount of One Million Sixty-eight Thousand Two Hundred Fifty-five and 24/100 Dollars (\$1,068,255.24), based upon unit prices to perform seventy-five (75) different items of work for improvement to Altadena Valley Park, a public park, owned and operated by the City of Vestavia Hills, Alabama ("City");

WHEREAS, the City found and determined that the bid submitted by Contractor is the lowest responsive sealed bid submitted for said public works project; and

WHEREAS, §7.3.1 and §7.3.3.2 of the General Conditions to the Construction Contract provide that the Owner and Contractor may enter into this Construction Change Directive; and

WHEREAS, the Owner and Contractor expressly agree that while the quantity of the work for the project will be reduced, the unit prices submitted in the Contractor's bid will remain the same; and

WHEREAS, the Owner and Contractor wish to execute and deliver this Construction Change Directive.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS: That the Owner and Contractor hereby mutually and expressly agree as follows:

1. **RECITALS:** The recitals set forth above are hereby incorporated into this Construction Change Directive by reference as though set out fully herein.

2. **SCOPE OF WORK:** The scope of the work shall be reduced all in accordance with the terms, provisions and conditions of those changes set forth in Exhibit 1, which is attached hereto and incorporated into this Construction Change Directive by reference as though set out herein.

3. **UNIT PRICES:** The unit prices set forth in the Bid dated January 11, 2023 shall remain unchanged.

4. **CONTRACT PRICE:** The contract price for the Construction Contract to be executed and delivered by the Owner and Contractor shall be in the amount of Dollars (\$ _____).

5. **RATIFICATION AND RECONFIRMATION:** Owner and Contractor hereby ratify and reconfirm the terms, provisions, limitations and conditions of the Contract Documents that are not modified or otherwise amended by this Construction Change Directive.

IN WITNESS WHEREOF, the Owner and Contractor have hereunto set their hands and seals all being done in duplicate originals with one (1) original being delivered to each party on the day first above written.

OWNER:
CITY OF VESTAVIA HILLS, ALABAMA
A Municipal Corporation

By _____
Ashley C. Curry
Its Mayor

By _____
Jeffrey D. Downes
Its City Manager

ATTESTED

By _____

CONTRACTOR:
FORESTRY ENVIRONMENTAL SERVICES, INC.

By _____
Its _____

ATTESTED

By _____

**STATE OF ALABAMA
JEFFERSON COUNTY**

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that Ashley C. Curry, whose name as Mayor of the City of Vestavia Hills, Alabama, a municipal corporation, is signed to the foregoing Construction Change Directive and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said City of Vestavia Hills, Alabama.

Given under my hand and official seal, this the _____ day of April, 2023.

Notary Public

My Commission Expires:

SEAL

**STATE OF ALABAMA
JEFFERSON COUNTY**

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that Jeffrey D. Downes, whose name as City Manager of the City of Vestavia Hills, Alabama, a municipal corporation, is signed to the foregoing Construction Change Directive and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said City of Vestavia Hills, Alabama.

Given under my hand and official seal, this the _____ day of April, 2023.

Notary Public

My Commission Expires:

SEAL

STATE OF ALABAMA
JEFFERSON COUNTY

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that _____ whose name as _____ of Forestry Environmental Services, Inc. is signed to the Construction Change Directive who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said Forestry Environmental Services, Inc.

Given under my hand and official seal, this the _____ day of April, 2023.

Notary Public

My Commission Expires:

SEAL

EXHIBIT 1

CONSTRUCTION CHANGE DIRECTIVE
REDUCTION IN QUANTITIES OF WORK

City and Contractor hereby agree that the scope of the work for the project described in the Construction Change Directive shall be reduced in the following manner and respective amounts as shown below.

<u>Item</u>	<u>Description</u>	<u>Quantity/Unit</u>	<u>Unit Price</u>	<u>Total Price</u>
--------------------	---------------------------	-----------------------------	--------------------------	---------------------------

BID SCHEDULE (04-04-2023)

Note: Bids SHALL NOT include sales tax. See Article 2 under the Instructions to Bidders.
Base Bid-Altadena Valley Park Phase 1

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
Items to be Demoad or Relocated					
1	Gravel and Asphalt Walkways	557.00	SY	\$ 3.58	\$ 1,994.06
2	Telephone Pedestal	1.00	EA	\$ 3,780.00	\$ 3,780.00
3	Existing Fencing	39.00	LF	\$ 3.78	\$ 147.42
Items to be Installed					
4	Unclassified Earthwork	1.00	LS	\$ 146,351.48	\$ 146,351.48
5	Undercutting	100	CY	\$ 34.15	\$ 3,415.00
6	Temporary Construction Fencing	515.00	LF	\$ 13.67	\$ 7,040.05
7	Tree Save Fencing	800.00	LF	\$ 5.55	\$ 4,440.00
8	Asphalt Paving	2,632.00	SY	\$ 46.15	\$ 121,466.80
9	Concrete Sidewalk, 4" Thick	219.75	SY	\$ 99.44	\$ 21,851.94
10	Concrete Stairs	6	LF	\$ 724.06	\$ 4,344.36
11	Stair Handrail	24	LF	\$ 301.96	\$ 7,247.04
12	Temporary Gravel Path	-	LF	\$ 32.70	\$ -
13	18" Curb and Gutter	1,232.00	LF	\$ 28.54	\$ 35,161.28
14	4" Wide Painted Traffic Markings	1,008.00	LF	\$ 1.76	\$ 1,774.08
15	24" Wide Thermoplastic Stop Bar	21.50	LF	\$ 54.00	\$ 1,161.00
16	Ramp Handrail	52.00	LF	\$ 254.33	\$ 13,225.16
17	ADA Accessible Ramp	1.00	EA	\$ 1,392.43	\$ 1,392.43
18	ADA Truncated Dome Warning Tread	1.00	EA	\$ 432.00	\$ 432.00
19	ADA Pole Mounted Signs	2.00	EA	\$ 347.17	\$ 694.34
20	R1-1 Stop Sign	1.00	EA	\$ 407.16	\$ 407.16
21	R8-3 "No Parking" Sign	4.00	EA	\$ 108.54	\$ 434.16
22	Type 3 Barricade	4.00	EA	\$ 533.14	\$ 2,132.56
23	18" RCP	8.00	LF	\$ 219.62	\$ 1,756.96
24	18" Precast Headwall	1.00	EA	\$ 2,580.91	\$ 2,580.91
25	24" RCP	89.00	LF	\$ 101.25	\$ 9,011.25
26	24" Precast Headwall	4.00	EA	\$ 2,811.98	\$ 11,247.92
27	Double Wing Inlet	1.00	EA	\$ 5,437.69	\$ 5,437.69
28	1" Domestic Water Service Line	361.00	LF	\$ 31.89	\$ 11,512.29
29	1" Water Meter	1.00	EA	\$ 1,620.00	\$ 1,620.00
30	1" Backflow Preventer	1.00	EA	\$ 4,231.05	\$ 4,231.05

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
31	8" Ductile Iron Sewer Main	25.00	LF	\$ 240.56	\$ 6,014.00
32	Sanitary Sewer Manhole	10.35	VF	\$ 667.30	\$ 6,906.56
33	4" Ductile Iron Sanitary Sewer Lateral	107.00	LF	\$ 111.60	\$ 11,941.20
34	Sanitary Sewer Cleanout	1.00	EA	\$ 1,785.04	\$ 1,785.04
35	Traffic Rated Sanitary Sewer Cleanout	1.00	EA	\$ 1,785.04	\$ 1,785.04
36	3" PVC Power Conduit	132.00	LF	\$ 31.62	\$ 4,173.84
37	Red Maple	7.00	EA	\$ 274.60	\$ 1,922.20
38	Redbud	8.00	EA	\$ 347.79	\$ 2,782.32
39	Tulip Poplar	3.00	EA	\$ 978.21	\$ 2,934.63
40	Sweet Bay Magnolia	4.00	EA	\$ 320.14	\$ 1,280.56
41	Prairie Crabapple	3.00	EA	\$ 286.55	\$ 859.65
42	White Chapel Tupelo	7.00	EA	\$ 1,531.55	\$ 10,720.85
43	Longleaf Pine	5.00	EA	\$ 365.59	\$ 1,827.95
44	Loblolly Pine	31.00	EA	\$ 16.01	\$ 496.31
45	Overcup Oak	7.00	EA	\$ 284.57	\$ 1,991.99
46	Baldcypress	3.00	EA	\$ 284.57	\$ 853.71
47	Princeton Elm	2.00	EA	\$ 444.65	\$ 889.30
48	Kaleidoscope Abelia	213.00	EA	\$ 39.13	\$ 8,334.69
49	Gerbing Azalea	83.00	EA	\$ 16.01	\$ 1,328.83
50	Pearl Glam Beautyberry	102.00	EA	\$ 37.35	\$ 3,809.70
51	Franchet's Cotoneaster	112.00	EA	\$ 16.79	\$ 1,880.48
52	Little Lime Hydrangea	34.00	EA	\$ 79.05	\$ 2,687.70
53	Oakleaf Hydrangea	44.00	EA	\$ 58.30	\$ 2,565.20
54	Winterberry	28.00	EA	\$ 29.65	\$ 830.20
55	Bridal Wreath Spirea	32.00	EA	\$ 16.01	\$ 512.32
56	Double File Viburnum	20.00	EA	\$ 23.72	\$ 474.40
57	Slash Pine	26	EA	\$ 33.60	\$ 873.60
58	Spruce Pine	26	EA	\$ 33.60	\$ 873.60
59	Red Oak	13	EA	\$ 33.60	\$ 436.80
60	Hickory	11	EA	\$ 33.60	\$ 369.60
61	Red Maple	11	EA	\$ 33.60	\$ 369.60
62	Purple Coneflower	-	EA	\$ 6.91	\$ -
63	Black Eyed Susan	-	EA	\$ 11.76	\$ -
64	Wildflower Mix # 137	1.00	LS	\$ 709.45	\$ 709.45
65	Wildflower Mix # 129	1.00	LS	\$ 464.40	\$ 464.40
66	Bermuda Grass (Sod)	41,992.00	SF	\$ 1.35	\$ 56,689.20
67	Bermuda Grass (Seed)	19,800.00	SF	\$ 0.65	\$ 12,870.00
68	Landscape Boulders	0.50	LS	\$ 36,484.72	\$ 18,242.36

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
69	Monument Sign	-	LS	\$ 38,232.00	\$ -
70	Erosion Control	1.00	LS	\$ 25,504.21	\$ 25,504.21
71	Traffic Control	1.00	LS	\$ 2,170.80	\$ 2,170.80
72	Mobilization (Not to Exceed 8% of Contract Amount)	1	LS	\$ 58,536.00	\$ 58,536.00
73	Insurance and Contract Bonding (Not to Exceed 3% of Contract Amount)	1.00	LS	\$ 10,702.80	\$ 10,702.80
74	Construction Stake-Out	1.00	LS	\$ 21,600.00	\$ 21,600.00
75	Add Alternate - Design Build Irrigation	-	LS	\$ 94,177.32	\$ -
				Total Bid	\$ 718,291.48

OWNER:
CITY OF VESTAVIA HILLS, ALABAMA
A Municipal Corporation

By _____
Ashley C. Curry
Its Mayor

By _____
Jeffrey D. Downes
Its City Manager

ATTESTED

By _____

CONTRACTOR:
FORESTRY ENVIRONMENTAL SERVICES, INC.

By _____
Its _____

ATTESTED

By _____

**Altadena Valley Park Phase 1
City of Vestavia Hills, Alabama**

Project Manual

Engineering Design Group, LLC Project No. COVH0016

**Owner: City of Vestavia Hills
Jeff Downes, City Manager
1032 Montgomery Highway
Vestavia Hills, Alabama 35216
Office of the Purchasing Agent (City Clerk)**

**Engineer: Engineering Design Group, LLC
120 Bishop Circle, Suite 300
Pelham, Alabama 35124
Ethan Fisher, PE**

December 14, 2022

Revised: January 09, 2023

Revised: April 04, 2023

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Advertisement for Bids

Sealed bids for Altadena Valley Park Phase 1 for the City of Vestavia Hills, Alabama will be received until **10:00 AM** local time on **January 11, 2023** at the office of the City Clerk in Vestavia Hills City Hall located at 1032 Montgomery Highway, Vestavia Hills, Alabama 35216 and at said time, bids will be publicly opened and read aloud in the Executive Conference Room, 1st floor, Vestavia Hills City Hall.

The project consists generally of: an access to Lakeland Trail, asphalt parking lot, storm water infrastructure, walking paths, and associated landscape plantings. Additionally, the project includes installation of utility service infrastructure to a new restroom/ pavilion facility (by others).

The Contract Documents and Plans may be examined at the City of Vestavia Hills Office of the City Clerk (205-978-0131) and at the office of Engineering Design Group, LLC at 120 Bishop Circle, Pelham, Alabama. Bid documents including full size hard-copy plans and specifications may be purchased from Engineering Design Group for a non-refundable fee of \$100.00. Digital (PDF) copies of the plans and bid documents may be obtained at no charge from Engineering Design Group-205-403-9158. For information concerning the proposed work, contact Mr. Wade Lowery (wade@edgalabama.com) or Mr. Ethan Fisher (fisher@edgalabama.com) at 205-403-9158.

All questions must be submitted in writing no later than **12:00 PM** local time on **January 6, 2023**. Responses to question will be distributed to all plan holders in the form of a project addendum.

A **mandatory** pre-bid meeting will be held on **January 4, 2023** at **10:00 AM** local time on site, intersection of Lakeland Trail and Altadena Lake Drive. All those submitting bids are required to attend.

All bidders are required to provide certification of compliance with the E-Verify program per Alabama Act 2012-491.

Rebecca Leavings
Purchasing Manager/City Clerk
City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, AL 35216

INSTRUCTIONS TO BIDDERS

1. BID REQUIREMENTS

a. SUBMISSION OF BIDS

Each bid should be addressed to the Purchasing Agent/City Clerk, City of Vestavia Hills, 1032 Montgomery Highway, Vestavia Hills, AL 35216 and submitted by the proposal deadline listed in the Advertisement for Bids. Each bid should contain the Bidder's name, address, and license number and expiration date, license classification of the Contractor bidding on the Project, and the following clearly written on the outside of the envelope:

SEALED BID- Altadena Valley Park Phase 1

Any bid envelope which contains a listing of more than one (1) Contractor in each license classification will not be accepted. Any bid received after the time and date specified shall not be considered.

b. PREPARATION OF BIDS

All Bids must be made on the required Bid form. All blank spaces for Bid prices must be filled in, in ink or typewritten, and the Bid form must be fully completed and executed when submitted. Two (2) copies of the Bid form are required.

c. ACCEPTANCE OF BIDS

The Owner may waive any informalities or minor defects or reject any and all Bids. Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof. No Bidder may withdraw a Bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder. A conditional or qualified Bid will not be accepted.

The City reserves the right to award the Project to the next highest ranked Bid should the Bidder ranked highest be unable to satisfy the requirement of and execute the Contract Documents within fifteen (15) calendar days of award date.

d. BIDDER'S UNDERSTANDING

Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid Schedule by examination of the site and a review of the Drawings and Specifications including Addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of Work or of the nature of the Work to be done.

The Owner shall provide to Bidders prior to Bidding, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to its Bid.

The Contract Documents and addendum contain the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Contractor or relieve the Contractor from fulfilling any of the conditions of the Contract and addendum.

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 in the Contract Documents.

Prospective Bidders shall contact Christopher Brady, P.E., City Engineer at 205-978-0236 or cbrady@vhal.org to schedule inspection trips to the project site.

The Engineer is Engineering Design Group, LLC. Questions for the Engineer should be directed to Mr. Ethan Fisher, P.E. at 205-403-9158 or fisher@edgalabama.com. All questions regarding the interpretations of the Contract Documents should be directed to Mr. Fisher.

e. BID SECURITY

Each Bid must be accompanied by a bid bond payable to the Owner for not less than five (5%) percent of the total amount of the Bid or more than fifty thousand dollars (\$50,000.00). As soon as the Bid prices have been tabulated, the Owner will return the Bid Security of all except the three (3) lowest responsible Bidders. When the Agreement is executed the Bid Security of the two (2) remaining unsuccessful Bidders will be returned. The Bid Security of the successful Bidder will be retained until the Payment Bond and Performance Bond, if applicable, have been executed and approved, after which it will be returned.

f. TYPE OF BID

The type of Bid for the Work specified in these Contract Documents will be a combination of lump sum and unit price as set forth in the Bid. A single price based

upon a combination of lump sum and unit price shall be submitted as the base bid in the appropriate spaces set forth in the Bid. The total amount to be paid to the Contractor shall be the amount of the base bid as adjusted for additions or deletions resulting from Owner authorized changes in the Project and Owner selected deductive and additive alternates.

Where the Bid requires the Bidder to submit prices for Owner selected deductive and additive alternates, the prices shall be submitted in the appropriate places as set forth in the Proposal. The Owner is not obligated to select any of the alternates so proposed.

g. RESTRICTION OF COMMUNICATION

From the issue date of this Bid until bidders are selected and notified by the City, bidders to this Bid are not allowed to communicate their proposal or discuss the Bid with the Mayor, any member of the City Council or City staff, except for submission of questions as instructed herein. If a respondent is found in violation of the provision, the City reserves the right to reject the respondent's submission.

2. SALES TAX

This Project is exempt from Sales Tax. Bidder's bid amounts are NOT to include Sales Tax on materials (tangible personal property) to be incorporated into the project. See "Accounting of Sales Tax" form at the end of this section (page 2-6).

Under Alabama Act 2013-205, Certificate of Exemption from Sales and Use Tax for Governmental Entities, the Contractor is responsible for obtaining a Certificate of Exemption from the Alabama Department of Revenue for purchases of materials and other tangible personal property made part of the Project. Any subcontractors purchasing materials or other tangible personal property made part of the Project will be responsible for obtaining a Certificate of Exemption. Copies of the Alabama Department of Revenue Tax Guidance and the Application for Sales and Use Tax Certificate of Exemption can be found in Exhibit 1 of these Contract Documents.

It is the Contractor's responsibility to comply with the law and the Department of Revenue regulations throughout the duration of the Project. Any delay in obtaining the Certificate(s) of Exemption due in whole or in part to the fault of the Contractor or subcontractor will not be cause for an extension of time for completion of the Project nor cause for an increase in price.

3. BUSINESS LICENSE

In the event the Bidder receives a notification of intent to award letter, the Bidder will be required to provide a City of Vestavia Hills business license within 15 days of receipt of notice of intent to award. If the Bidder does not currently hold City of Vestavia Hills business license, an application may be obtained from the City Building Safety Department or at

<https://vestaviahillsal.viewpointcloud.com/> . Failure to provide the required business license shall result in revocation of the notice of intent to award.

4. AWARD OF CONTRACT

a. BASIS OF AWARD

Work for this Project will be let under one (1) Contract to the lowest responsive, responsible bidder meeting the bidding requirements. The Owner reserves the following rights: (1) to reject all bids where the Owner deems rejection to be in its best interest; (2) to reject any bid that is not in compliance with the Contract Documents; (3) to waive any informalities and irregularities in said bids; and (4) to accept any combination of sub-totals within any schedule which is determined to be in the Owner's best interest; and (5) to postpone award of the Contract for a period of time, which, however shall not extend beyond sixty (60) days from the bid opening, unless extended by mutual agreement by the Owner and the lowest responsive, responsible Bidder.

b. DETERMINATION OF LOW BIDDER

Award will be made on the basis of the lowest actual bid amount, which is defined as the base bid less any deductions for "allowed" deductive alternates, plus any additions for "allowed" additive alternates listed in the Proposal and submitted by a responsive and responsible qualified Bidder.

c. QUALIFICATIONS OF BIDDER

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

The low Bidder shall supply the names and addresses of major material suppliers and Subcontractors when required to do so by the Owner.

5. EXECUTION OF THE CONTRACT

a. CONTRACT BONDS

A Performance Bond and Payment Bond in the amount of one-hundred (100%) percent of the Contract Amount with a corporate surety approved by the Owner, will be required for the faithful performance of the Contract and shall be due upon delivery of the signed contract.

Attorneys-in-fact who sign Bid Bond, or Performance bond and/or Payment Bond must file with each Bond a certified and effective dated copy of their power of attorney.

b. INSURANCE

Insurance requirements shall be as specified in Part 3, Section 21 of the Contract Documents, CONDITIONS OF THE CONTRACT. The successful Bidder shall file with the Owner at the time of delivery of the signed Contract, the insurer's certificate(s) of insurance for each insurance company providing insurance. All evidence of insurance shall be countersigned by a licensed agent residing and engaged in doing business in the State of Alabama. The insurer shall be licensed and authorized to conduct business in the State of Alabama. The City of Vestavia Hills shall be named as additional insured.

c. AGREEMENT

The successful Bidder will be required to execute the Agreement and obtain the Performance bond and insurance within fifteen (15) calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement, Bond Forms and evidence of insurance. In case of failure of the Bidder to execute the Agreement, the Owner may consider the Bidder in default, in which case the Bid Security accompanying the bid shall become the property of the Owner.

Upon receipt of acceptable Performance and Payment Bonds, Insurance and Agreement signed by the party to whom the Agreement was awarded, Owner shall sign the Agreement and return to such party an executed duplicate of the Agreement.

d. NOTICE TO PROCEED

A written Notice to proceed shall be issued upon execution of the Agreement by the Owner.

6. CONTRACT DOCUMENTS

a. FORMAT

The Contract Documents governing the Work proposed herein are divided into parts, divisions, and sections for convenient organization and reference. Generally, there has been no attempt to divide the Specifications Sections into Work performed by the various building trades, Work by separate Subcontractors, or Work required for separate facilities in the Project.

The separate Sections contained within these Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed Work.

b. OTHER

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout.

CITY OF VESTAVIA HILLS
Phase 1 of Altadena Park

EDG COVH0016

ACCOUNTING OF SALES TAX
ATTACHMENT TO BID

To: _____ (awarding authority) Date: _____

Name of Project: _____

SALES TAX ACCOUNTING

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

ESTIMATED SALES TAX AMOUNT: \$ _____

BASE BID: \$ _____

For Alternate No. 1 (...insert key word for alternate...) add, deduct \$ _____

Failure to provide an accounting of sales tax shall 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.

LEGAL NAME OF BIDDER: _____

Mailing Address: _____

*By (Legal Signature): _____ (Seal)

*Name (type or print): _____

*Title: _____

Telephone Number: _____

**If other than the individual proprietor, or an above named member of the Partnership, or the above named president, vice-president, or secretary of the Corporation, attach written authority to bind the Bidder. Any modification to a bid shall be over the initials of the person signing the bid, or of an authorized representative.*



AIA[®]

Document A101[™] – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the day of in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:

City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, AL 35216

and the Contractor:

(Name, legal status, address and other information)

for the following Project:

Altadena Valley Park Phase 1

The Architect:

Engineering Design Group, LLC
120 Bishop Circle
Pelham, AL 35124

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101[™]-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement.

AIA Document A201[™]-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:

(Check one of the following boxes.)

- The date of this Agreement.
- A date set forth in a notice to proceed issued by the Owner.
- Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

Init.

[] Not later than () calendar days from the date of commencement of the Work.

[X] By the following date: TBD Based on Procurement Period

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date
-----------------	-----------------------------

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price
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§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement.
(Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance
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§ 4.3 Allowances, if any, included in the Contract Sum:
(Identify each allowance.)

Item	Price
------	-------

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	See Unit Prices Attached Herein	Units and Limitations	Price per Unit (\$0.00)
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§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:
(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:
(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:
(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201–2017.

§ 5.1.9 Except with the Owner’s prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor’s responsibility to correct Work as provided in Article 12 of AIA Document A201–2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner’s final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect’s final Certificate for Payment, or as follows:

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

%

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201–2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.
(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

- Arbitration pursuant to Section 15.4 of AIA Document A201–2017
- Litigation in a court of competent jurisdiction
- Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner’s convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner’s convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner’s representative:

(Name, address, email address, and other information)

Christopher Brady, PE
City Engineer
cbrady@vhal.org
205-568-0952

§ 8.3 The Contractor’s representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™-2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201-2017, may be given in accordance with AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203-2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™-2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™-2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™-2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number	Title	Date
	Civil Engineering Plans for Altadena Valley Park Phase 1 by Engineering Design Group, LLC	

.6 Specifications

Section	Title	Date	Pages
	ALDOT 2018 Standard Specifications for Highway Construction		

.7 Addenda, if any:

Number	Date	Pages
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Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

.8 Other Exhibits:

(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

Init.

[] AIA Document E204™-2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

[] The Sustainability Plan:

Title	Date	Pages
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[] Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
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.9 Other documents, if any, listed below:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™-2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

CONTRACTOR (Signature)

(Printed name and title)

(Printed name and title)

BID SCHEDULE (04-04-2023)

Note: Bids SHALL NOT include sales tax. See Article 2 under the Instructions to Bidders.
Base Bid-Altadena Valley Park Phase 1

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
Items to be Demoeed or Relocated					
1	Gravel and Asphalt Walkways	557.00	SY	\$ 3.58	\$ 1,994.06
2	Telephone Pedestal	1.00	EA	\$ 3,780.00	\$ 3,780.00
3	Existing Fencing	39.00	LF	\$ 3.78	\$ 147.42
Items to be Installed					
4	Unclassified Earthwork	1.00	LS	\$ 146,351.48	\$ 146,351.48
5	Undercutting	100	CY	\$ 34.15	\$ 3,415.00
6	Temporary Construction Fencing	515.00	LF	\$ 13.67	\$ 7,040.05
7	Tree Save Fencing	800.00	LF	\$ 5.55	\$ 4,440.00
8	Asphalt Paving	2,632.00	SY	\$ 46.15	\$ 121,466.80
9	Concrete Sidewalk, 4" Thick	219.75	SY	\$ 99.44	\$ 21,851.94
10	Concrete Stairs	6	LF	\$ 724.06	\$ 4,344.36
11	Stair Handrail	24	LF	\$ 301.96	\$ 7,247.04
12	Temporary Gravel Path	-	LF	\$ 32.70	\$ -
13	18" Curb and Gutter	1,232.00	LF	\$ 28.54	\$ 35,161.28
14	4" Wide Painted Traffic Markings	1,008.00	LF	\$ 1.76	\$ 1,774.08
15	24" Wide Thermoplastic Stop Bar	21.50	LF	\$ 54.00	\$ 1,161.00
16	Ramp Handrail	52.00	LF	\$ 254.33	\$ 13,225.16
17	ADA Accessible Ramp	1.00	EA	\$ 1,392.43	\$ 1,392.43
18	ADA Truncated Dome Warning Tread	1.00	EA	\$ 432.00	\$ 432.00
19	ADA Pole Mounted Signs	2.00	EA	\$ 347.17	\$ 694.34
20	R1-1 Stop Sign	1.00	EA	\$ 407.16	\$ 407.16
21	R8-3 "No Parking" Sign	4.00	EA	\$ 108.54	\$ 434.16
22	Type 3 Barricade	4.00	EA	\$ 533.14	\$ 2,132.56
23	18" RCP	8.00	LF	\$ 219.62	\$ 1,756.96
24	18" Precast Headwall	1.00	EA	\$ 2,580.91	\$ 2,580.91
25	24" RCP	89.00	LF	\$ 101.25	\$ 9,011.25
26	24" Precast Headwall	4.00	EA	\$ 2,811.98	\$ 11,247.92
27	Double Wing Inlet	1.00	EA	\$ 5,437.69	\$ 5,437.69
28	1" Domestic Water Service Line	361.00	LF	\$ 31.89	\$ 11,512.29
29	1" Water Meter	1.00	EA	\$ 1,620.00	\$ 1,620.00
30	1" Backflow Preventer	1.00	EA	\$ 4,231.05	\$ 4,231.05

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
31	8" Ductile Iron Sewer Main	25.00	LF	\$ 240.56	\$ 6,014.00
32	Sanitary Sewer Manhole	10.35	VF	\$ 667.30	\$ 6,906.56
33	4" Ductile Iron Sanitary Sewer Lateral	107.00	LF	\$ 111.60	\$ 11,941.20
34	Sanitary Sewer Cleanout	1.00	EA	\$ 1,785.04	\$ 1,785.04
35	Traffic Rated Sanitary Sewer Cleanout	1.00	EA	\$ 1,785.04	\$ 1,785.04
36	3" PVC Power Conduit	132.00	LF	\$ 31.62	\$ 4,173.84
37	Red Maple	7.00	EA	\$ 274.60	\$ 1,922.20
38	Redbud	8.00	EA	\$ 347.79	\$ 2,782.32
39	Tulip Poplar	3.00	EA	\$ 978.21	\$ 2,934.63
40	Sweet Bay Magnolia	4.00	EA	\$ 320.14	\$ 1,280.56
41	Prairie Crabapple	3.00	EA	\$ 286.55	\$ 859.65
42	White Chapel Tupelo	7.00	EA	\$ 1,531.55	\$ 10,720.85
43	Longleaf Pine	5.00	EA	\$ 365.59	\$ 1,827.95
44	Loblolly Pine	31.00	EA	\$ 16.01	\$ 496.31
45	Overcup Oak	7.00	EA	\$ 284.57	\$ 1,991.99
46	Baldcypress	3.00	EA	\$ 284.57	\$ 853.71
47	Princeton Elm	2.00	EA	\$ 444.65	\$ 889.30
48	Kaleidoscope Abelia	213.00	EA	\$ 39.13	\$ 8,334.69
49	Gerbing Azalea	83.00	EA	\$ 16.01	\$ 1,328.83
50	Pearl Glam Beautyberry	102.00	EA	\$ 37.35	\$ 3,809.70
51	Franchet's Cotoneaster	112.00	EA	\$ 16.79	\$ 1,880.48
52	Little Lime Hydrangea	34.00	EA	\$ 79.05	\$ 2,687.70
53	Oakleaf Hydrangea	44.00	EA	\$ 58.30	\$ 2,565.20
54	Winterberry	28.00	EA	\$ 29.65	\$ 830.20
55	Bridal Wreath Spirea	32.00	EA	\$ 16.01	\$ 512.32
56	Double File Viburnum	20.00	EA	\$ 23.72	\$ 474.40
57	Slash Pine	26	EA	\$ 33.60	\$ 873.60
58	Spruce Pine	26	EA	\$ 33.60	\$ 873.60
59	Red Oak	13	EA	\$ 33.60	\$ 436.80
60	Hickory	11	EA	\$ 33.60	\$ 369.60
61	Red Maple	11	EA	\$ 33.60	\$ 369.60
62	Purple Coneflower	-	EA	\$ 6.91	\$ -
63	Black Eyed Susan	-	EA	\$ 11.76	\$ -
64	Wildflower Mix # 137	1.00	LS	\$ 709.45	\$ 709.45
65	Wildflower Mix # 129	1.00	LS	\$ 464.40	\$ 464.40
66	Bermuda Grass (Sod)	41,992.00	SF	\$ 1.35	\$ 56,689.20
67	Bermuda Grass (Seed)	19,800.00	SF	\$ 0.65	\$ 12,870.00
68	Landscape Boulders	0.50	LS	\$ 36,484.72	\$ 18,242.36

Item No.	Description	Quantity/ Unit		Unit Price	Total Price
69	Monument Sign	-	LS	\$ 38,232.00	\$ -
70	Erosion Control	1.00	LS	\$ 25,504.21	\$ 25,504.21
71	Traffic Control	1.00	LS	\$ 2,170.80	\$ 2,170.80
72	Mobilization (Not to Exceed 8% of Contract Amount)	1	LS	\$ 58,536.00	\$ 58,536.00
73	Insurance and Contract Bonding (Not to Exceed 3% of Contract Amount)	1.00	LS	\$ 10,702.80	\$ 10,702.80
74	Construction Stake-Out	1.00	LS	\$ 21,600.00	\$ 21,600.00
75	Add Alternate - Design Build Irrigation	-	LS	\$ 94,177.32	\$ -
				Total Bid	\$ 718,291.48

ITEMS TO BE DEMOED OR RELOCATED

Item No. 1 – GRAVEL AND ASPHALT WALKWAYS

Includes all labor, equipment and materials required to completely remove the existing gravel and asphalt walkways where in conflict with the proposed improvements, as defined by the plan documents. Haul-off of asphalt associated with this bid item shall be considered incidental to the work. Payment shall be based on the unit price per square yard (SY) of walkway removed.

Item No. 2 – TELEPHONE PEDESTAL

Includes all labor, equipment and materials required to relocate the existing telephone pedestal where in conflict with the proposed improvements, as defined by the plan documents. All work involving this work shall be coordinated with the utility provider. Payment shall be based on the unit price per each (EA) of pedestals relocated.

Item No. 3 – EXISTING FENCING

Includes all labor, equipment and materials required to completely remove the existing fencing where in conflict with the proposed improvements, as defined by the plan documents. Payment shall be based on the unit price per linear foot (LF) of fence removed.

ITEMS TO BE INSTALLED

Item No. 4 – UNCLASSIFIED EARTHWORK

Includes all hauling, placement, compaction, testing, and stabilization of all earthwork to bring site to final grade per the approved civil engineering plans. Topsoil to be used as re-spread within landscape areas should be reviewed and approved by Landscape Architect. The topsoil shall be amended per Landscape Architect direction and specifications. Contractor to refill borrow area with excess topsoil and re-seed and stabilized with maximum 3:1 slopes. If excess top soil remains, it is to be stockpiled in a location specified by the Owner. Contractor to install a temporary locking chain-link fence for the entire perimeter of the borrow area. Fence shall be locked during non-working hours. Fence shall remain in-place throughout construction. Payment shall be based on a Lump Sum (LS) of total earthwork.

Item No. 5 – UNDERCUTTING

Includes removal and disposal of undercut soils. Confirm onsite disposal location with Owner if applicable. Payment shall be based on cubic yard (CU YD) of soil undercut..

Item No. 6 - TEMPORARY CHAINLINK CONSTRUCTION FENCING

Includes all labor, equipment and materials required to completely install new 6' tall chain-link construction fencing as shown on drawings. Payment shall be based on the unit price per linear foot (LF) of fencing installed.

Item No. 7 – TREE SAVE FENCING

Includes all labor, equipment and materials required to completely install new tree save fencing as shown on drawings. Payment shall be based on the unit price per linear foot (LF) of tree save fencing installed.

Item No. 8 – ASPHALT PAVING

Includes all labor, equipment and materials required to completely install new asphalt paving, as shown on drawings. Payment shall be based on the unit price per linear foot (LF) of paving installed.

Item No. 9 – CONCRETE SIDEWALKS, 4" THICK, OCHRE COLOR

Includes all labor, equipment and materials required to completely install a new concrete sidewalk as shown on drawings including, but not limited to, excavation, rock removal and disposal, soil compaction, #57 stone compacted minimum 4" thick, Excavation is unclassified. All Work under this Pay Item to conform to the ALDOT Standard Specifications and Americans with Disabilities Act Standards for Accessible Design, latest edition and the City of Vestavia Hills Public Works Manual. Payment shall be based on the unit price per square yard (SY) of sidewalk installed.

Item No. 10 – CONCRETE STAIRS

Includes all labor, equipment and materials required to completely install three (3) sets of new concrete stairs with three (3) risers each and cheek walls as shown on drawings. Payment shall be based on the unit price per running linear foot (LF) of concrete stairs installed.

Item No. 11 – STAIR HANDRAIL

Includes all labor, equipment and materials required to completely install new handrail as shown on drawings. Payment shall be based on the unit price per running linear foot (LF) of handrail installed.

Item No. 12 – Temporary Gravel Path

Includes all labor, equipment and materials required to completely install a temporary gravel path as shown on the project drawings. Payment shall be based on the unit price per linear foot (LF) of temporary gravel path installed.

Item No. 13 – 18" CURB-AND-GUTTER

Includes all labor, equipment and materials required to completely install new curb and gutter as shown on the project drawings. Payment shall be based on the unit price per linear foot (LF) of curb and gutter installed. All work under this pay item to conform to the City of Vestavia Hills Public Works Manual.

Item No. 14 – 4" WIDE PAINTED TRAFFIC MARKINGS

Includes all labor, equipment and materials required to completely install 4" wide, white pavement markings as shown on drawings. Payment shall be based on the unit price per linear foot (LF) of painted traffic markings installed.

Item No. 15 – 24" WIDE THERMOPLASTIC STOP BAR

Includes all labor, equipment and materials required to completely remove existing asphalt or concrete, including saw-cutting, which interferes with new construction. Haul-off of concrete or asphalt associated with this bid item shall be considered incidental to the work. Payment shall be based on the unit price per square yard of removed material.

Item No. 16 – RAMP HANDRAIL

Includes all labor, equipment and materials required to completely install new handrail for extended ramp section as shown on drawings. Payment shall be based on the unit price per running linear foot (LF) of handrail installed.

Item No. 17 – ADA ACCESSIBLE RAMP

Includes all labor, equipment, and materials required to install a new inline ADA-compliant ramp as shown on drawings. All Work under this Pay Item to conform to the ALDOT Standard Specifications and Americans with Disabilities Act Standards for Accessible Design, latest edition. Payment shall be based on the unit price per each (EA) accessible ramp installed.

Item No. 18-ADA TRUNCATED DOME WARNING TREAD

Includes all labor, equipment, and materials required to install new truncated dome warning treads as shown on drawings. All Work under this Pay Item shall conform to the ALDOT Standard Specifications and Americans with Disabilities Act Standards for Accessible Design, latest edition. Payment shall be based on the unit price per each (EA) truncated dome warning tread installed.

Item No. 19 - ADA POLE MOUNTED SIGNS

Includes all labor, equipment, and materials required to install new pole mounted ADA signage as shown on drawings. All Work under this Pay Item shall conform to the ALDOT Standard Specifications and Americans with Disabilities Act Standards for Accessible Design, latest edition. Payment shall be based on the unit price per each (EA) pole mounted ADA signage installed.

Item No. 20 – R1-1 STOP SIGN

Includes all labor, equipment, and materials required to install a new pole mounted R1-1 Stop Sign as shown on drawings. Payment shall be based on the unit price per each (EA) pole mounted R1-1 Stop Sign installed.

Item No. 21 – R8-3 “No Parking” SIGN

Includes all labor, equipment, and materials required to install a new R8-3 “No Parking” Signs mounted to the Type 3 Barricades as shown on drawings. Payment shall be based on the unit price per each (EA) mounted R8-3 “No Parking” Sign installed.

Item No.22 – TYPE 3 BARRICADE

Includes all labor, equipment, and materials required to install a new Type 3 Barricades as shown on drawings. Payment shall be based on the unit price per each (EA) Type 3 Barricades installed.

Item Nos. 23 and 25– 18” and 24” RCP DRAINAGE PIPING

Includes all labor, equipment and materials required to completely install drainage piping, including but not limited to, labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on the linear foot (LF) of drainage pipe installed.

Item Nos. 24 and 26 – 18” and 24” PRECAST CONCRETE HEADWALLS

Includes all labor, equipment and materials required to completely install precast headwall end treatments, including but not limited to, labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on a unit price per each (EA) of headwalls installed.

Item No. 27 – DOUBLE WING INLET

Includes all labor, equipment and materials required to completely install a new double wing inlet including but not limited to, precast concrete box structures, inlet top, and access port lid, labor, materials, and replacement of small miscellaneous structures interfering with construction. All Work

under this Pay Item shall conform to the ALDOT Standard Specifications. Payment shall be based on a unit price per each (EA) of double wing inlet installed.

Item Nos. 28 – 30 – 1" DOMESTIC WATER SERVICE LINE, 1" METER, 1" BACK FLOW PREVENTER

Includes all labor, equipment and materials required to completely install a new domestic water service line, water meter and backflow preventer per the Birmingham Water Works Board's Standards and Specifications. Including but not limited to permitting and impact fees, labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on a unit price per linear foot (LF) of water service line and each (EA) of water meter and backflow preventer installed.

Item Nos. 31 and 32 – 8" DUCTILE IRON SEWER MAIN AND CONCRETE SANITARY SEWER MANHOLE

Includes all labor, equipment and materials required to completely install a new 8" ductile iron sewer main and concrete sanitary sewer manhole per Jefferson County Environmental Services' Standards and Specifications. Including but not limited to permitting and impact fees, labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on a unit price per linear foot (LF) of sanitary sewer main and vertical foot (VF) of concrete sanitary sewer manhole installed.

Item Nos. 33 - 35– 4" DUCTILE IRON SEWER SERVICE LATERAL AND SANITARY SEWER CLEANOUTS

Includes all labor, equipment and materials required to completely install a new 4" ductile iron sewer service lateral and sanitary sewer standard and traffic rated cleanouts per Jefferson County Environmental Services' Standards and Specifications. Including but not limited to permitting and impact fees, labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on a unit price per linear foot (LF) of sanitary sewer service lateral and each (EA) of sanitary sewer cleanouts installed.

Item Nos. 36 – 3" PVC POWER CONDUIT

Includes all labor, equipment and materials required to completely install a new 3" PVC power conduit per Alabama Power Company's Standards and Specifications. Including but not limited to labor, materials, and replacement of small miscellaneous structures interfering with construction. Payment shall be based on a unit price per linear foot (LF) of power conduit installed.

Item Nos. 37 - 67– PLANTINGS

Includes all labor, equipment and materials required to properly install specified plantings, including but not limited to trees, bushes, grasses, topsoil, mulching, fertilizer, etc. All plantings shall be installed per Renta Land Design's drawings and specifications. Payment shall be based on a unit price per each (EA) plant installed.

Item No. 68 –LANDSCAPE BOULDERS

Includes all labor, equipment and materials required to properly install specified boulders. All boulders shall be installed per Renta Land Design's drawings and specifications. Payment shall be based on a lump sum (LS) boulder installed.

Item No. 69 –MONUMENT SIGN

Includes all labor, equipment and materials required to properly install a new entrance monument sign per Renta Land Design's drawings and specifications. Payment shall be based on a lump sum (LS) monument sign installed.

Item No. 70-EROSION CONTROL

Includes all labor, equipment, inspections, and materials required per the drawings and applicable permit. Maintenance of all erosion control devices throughout construction until final stabilization shall be incidental to the work. Payment shall be based on a lump sum (LS) price.

Item No. 71-TRAFFIC CONTROL

Includes all labor, equipment and materials required to control traffic along East Street throughout construction. Traffic control devices shall be implemented per the current edition of the Manual on Uniform Traffic Control Devices (MUTCD). Payment shall be based on a lump sum (LS) price.

Item No. 72- MOBILIZATION (NOT TO EXCEED 8% OF CONTRACT AMOUNT)

The lump sum price bid for this item shall be compensation in full for mobilizing and demobilizing equipment, personnel, and materials and incidentals necessary to perform and complete the project. Payment shall be based on a lump sum (LS) price not to exceed eight (8%) percent of the total contract amount.

Item No. 73- INSURANCE AND CONTRACT BONDING (NOT TO EXCEED 3% OF CONTRACT AMOUNT)

The lump sum price bid for this item shall be compensation in full for obtaining the Performance and Payment Bonds required per the Contract terms. The lump sum (LS) price for this item shall not exceed three (3%) percent of the total contract amount.

Item No. 74-CONSTRUCTION STAKE-OUT

Includes all labor, equipment and materials required to establish survey control to construct the project. Payment shall be based on lump sum (LS) price.

Item No. 75- ADD ALTERNATE – DESIGN BUILD IRRIGATION

Includes all labor, equipment and materials required to completely design and install irrigation per alternate item shown on landscape drawings. Payment shall be based on a lump sum (LS) of irrigation designed and installed.

City of Vestavia Hills
Altadena Valley Park Phase 1

**Accounting of Sales Tax
Attachment to Proposal Form**

To: _____ (Awarding Authority) Date: _____

Name of Project: _____

Sales Tax Accounting

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

Base Bid: \$ _____ **Estimated Sales Tax: \$** _____

For Alternate No. 1 (.....) __Add, __Deduct \$ _____

Failure to provide an accounting of sales tax shall 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.

Legal Name of Bidder: _____

Mailing Address: _____

*By (Legal Signature) _____ (Seal)

*Name (type or print) _____

*Title _____

Telephone Number _____

**If other than the individual proprietor, or an above named member of the Partnership, or the above named president, vice-president, or secretary of the Corporation, attach written authority to bind the Bidder. Any modification to a bid shall be over the initials of the person signing the bid, or of an authorized representative.*

Notice to Proceed
Date: _____

Project: Altadena Valley Park Phase 1

Owner: City of Vestavia Hills

Bidder: _____

Bidder's Address: _____

You are notified that the Contract Times under the above Contract will commence to run on **INSERT DATE**. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is **INSERT DATE** and the date of readiness for final payment is _____ [(or) the number of days to achieve Substantial Completion is **180**, and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Contractor
Given by:

City of Vestavia Hills
Owner
Given by:

Authorized Signature

Authorized Signature

Title

Title

Date

Date

Bid Bond

BOND NO. _____

AMOUNT: \$ _____

STATE OF ALABAMA

KNOW ALL MEN BY THESE PRESENTS, that _____ hereinafter called PRINCIPAL, and _____ a corporation duly organized under the laws of the State of _____ having its principal place of business at _____ in the State of _____ and authorized to do business in the State of Alabama, as SURETY, are held and firmly bound unto City of Vestavia Hills Vestavia Hills, Alabama, as Owner, hereinafter called the OBLIGEE, in the sum of _____ DOLLARS (\$ _____), for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL is herewith submitting his or its Bid Proposal for the construction of the **Altadena Valley Park Phase 1**, said Bid Proposal, by reference thereto, being hereby made a part hereof.

NOW, THEREFORE, if the Bid Proposal submitted by the PRINCIPAL is accepted, and the Contract awarded to the PRINCIPAL, and if the PRINCIPAL shall execute the proposed Contract, shall provide all insurance required, and shall furnish such Performance Bond, and other bonds as required by the Contract Documents within the time fixed by the Documents, then this obligation shall be void. If the PRINCIPAL shall fail to execute the proposed Contract, provide all insurance required, and furnish these bonds, the SURETY hereby agrees to pay to the OBLIGEE the said sum as noted above.

Signed and sealed this ____ day of _____ 20__.

(SEAL)

PRINCIPAL

By _____
SURETY

By _____
Attorney-In-Fact

(Attach notarized copy of Power-of-Attorney evidencing authority of Attorney-in-fact to bind the Surety on the date of the execution of the bond.

CITY OF VESTAVIA HILLS

NEW VENDOR APPLICATION FORM



VENDOR INFORMATION

BUSINESS NAME as shown on Federal Tax Return		DATE SUBMITTED
DBA NAME if applicable / (doing business as)		TAX ID NUMBER FEIN OR SSN
CONTACT/TITLE	DESCRIPTION OF BUSINESS ACTIVITY	
VENDOR MAILING ADDRESS		
VENDOR PHYSICAL ADDRESS if different from address above		
PHONE	FAX	VENDOR EMAIL
PAYMENT TERMS:	PAYMENT TERMS ADDITIONAL INFORMATION:	
NET 10		

ORGANIZATION TYPE

<input checked="" type="radio"/> Corporation	<input type="radio"/> Individual / Sole Proprietor	<input type="radio"/> Joint Venture
<input type="radio"/> LLC	<input type="radio"/> Partnership / Limited Partnership	<input type="radio"/> Non-Profit

DEPARTMENT

<input type="radio"/> Building Safety	<input type="radio"/> City Clerk	<input type="radio"/> City Manager
<input type="radio"/> Finance	<input type="radio"/> Fire Department	<input type="radio"/> Municipal Court
<input type="radio"/> Parks & Recreation	<input type="radio"/> Planning & Zoning	<input type="radio"/> Police
<input type="radio"/> Public Library	<input type="radio"/> Public Works	<input checked="" type="radio"/> Other

DEPARTMENT HEAD SIGNATURE:	SENIOR REVENUE EXAMINER SIGNATURE:	FINANCE DIRECTOR SIGNATURE:

FINANCE DEPARTMENT USE ONLY	VENDOR NUMBER	DATE RECEIVED	BUSINESS LICENSE NUMBER

Completed W-9 form is required with vendor form. Submitted vendor forms missing a completed W-9 form will not be processed.

Certificate of compliance and E-Verify MOU (<http://immigration.alabama.gov/docs/Memorandum-of-Understanding.pdf>) is required for all applicable vendors.

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type.	See Specific Instructions on page 3.	<p>1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.</p>	
		<p>2 Business name/disregarded entity name, if different from above</p>	
		<p>3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.</p> <p> <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate </p> <p> <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ </p> <p>Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</p> <p> <input type="checkbox"/> Other (see instructions) ▶ _____ </p>	<p>4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):</p> <p>Exempt payee code (if any) _____</p> <p>Exemption from FATCA reporting code (if any) _____</p> <p><small>(Applies to accounts maintained outside the U.S.)</small></p>
		<p>5 Address (number, street, and apt. or suite no.) See instructions.</p>	<p>Requester's name and address (optional)</p>
		<p>6 City, state, and ZIP code</p>	
		<p>7 List account number(s) here (optional)</p>	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number											
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or											
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Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ _____	Date ▶ _____
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-DIV (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.

You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions.

You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/IdentityTheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Notice

Altadena Valley Park Phase 1

In an effort to improve services to the citizens of The City of Vestavia Hills, the City will begin construction of Phase 1 of Altadena Valley Park located on Lakeland Trail on _____, 2022. The park will be located south of the intersection of Lakeland Trail and Altadena Lake Drive. The park will include an access road and a 69 space asphalt parking lot, and the associated landscaping and nature trails.

It is anticipated that construction of the project will take **180 days** to complete.

The City appreciates your cooperation as we strive to continually improve our facilities. Should you have any questions, please contact Christopher Brady or Lori Beth Kearley at 205-978-0150.

Sincerely,
The City of Vestavia Hills, AL

Christopher Brady, P.E.
City Engineer

AGREEMENT

THIS AGREEMENT, made and entered into on the ____ day of _____, 20____, by and between _____ Contractor and **City of Vestavia Hills**, Owner: for the following project: **Altadena Valley Park Phase 1 including access and parking area, utility installation to a gathering pavilion with restroom (by others), landscaping, and nature trails.**

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the Owner as follows:

1. That the Contractor shall furnish all the materials and perform all the work for the Project entitled **Altadena Valley Park Phase 1** in a manner and form as provided by the following enumerated Drawings, Specifications, and Documents, which are attached hereto and made a part hereof, as if fully contained herein:
Part 1 – Bidding Requirements
Part 2 – Contract Forms
Part 3 – General Conditions of the Contract
Part 4 – Specifications
Part 5 – Drawings
Part 6 – Addenda ..., ...,

(The foregoing are collectively referred to as the "Contract Documents").

2. That the Contractor shall commence the Work to be performed under this Agreement within seven (7) days from the Agreement start date specified in the Owner's Notice to Proceed, shall substantially complete the Work in all respects within **180 days** from the date specified in the Owner's Notice to Proceed.
3. It is mutually agreed between the parties hereto that time is of the essence, and in the event the Work is not substantially completed within the time herein specified it is agreed that the Contractor shall pay liquidated damages in the amount of \$500.00 per day for each calendar day of delay to the Owner until the Work is substantially completed, as determined by the project engineer. The Contractor agrees that the amount of liquidated damages fairly and accurately represents the actual damages which the Owner will have sustained per day by reason of the Contractor's failure to substantially complete the Work within the time specified herein. Liquidated damages is not a penalty but is instead intended to compensate the Owner for costs incurred as a result of the Contractor's delay. The Contractor further agrees that this is a bargained for and essential provision of the agreement and that the Contractor freely and voluntarily submitted a bid for the Work.

4. That the Owner hereby agrees to pay to the Contractor for the faithful performance of this Agreement, subject to additions and deductions as provided by in the Contract Documents in lawful money of the United States, the amount of: _____ Dollars (\$ _____) based on the lump sum amounts contained herein
5. That upon submission by the Contractor of evidence satisfactory to the Owner that Notice of Completion requirements have been met including proof of publication of notice of completion, and that all payrolls, material bills, and other costs incurred by the Contractor in connection with the construction of the Work have been paid in full, final payment of account of this Agreement shall be made within thirty (30) days after the completion by the Contractor of all Work covered by tis Agreement and the acceptance of such Work by the Owner.
6. That the Work competed herein shall be covered by a warranty as provided by the Performance Bond and as provided in the Contract Documents, effective for a period beginning upon the date of final completion and ending one (1) year thereafter.
7. It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Surety Bonds hereto attached for its faithful performance and payment, the Owner shall deem the Surety of Sureties upon such bond to be unsatisfactory or if, for any reason such bond ceases to be adequate to cover the performance of the Work, the Contractor shall, at its expense, within five (5) days from the receipt of notice from the Owner 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 Owner. 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 Owner, and if not furnished the Contractor may be terminated at the option of the Owner by giving ten (10) days written notice.
8. No payment for additional Work or extras will be made unless the same shall be duly authorized by appropriate action by the Owner in writing.
9. 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.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in four (4) counterparts, each of which shall without proof or accounting for the other counterpart be deemed an original Contract.

If Sole Proprietor or Partnership

Signature of Contractor

Title

If Corporation

(SEAL)

Name of Corporation

By _____

Secretary Title _____

NOTARY ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

Before me, the undersigned Notary Public in and for the above County and State, personally appeared _____, whose name as _____ for the above Contractor is signed above, and who, after being by me first duly sworn, acknowledged before me that he/she signs this Contract with full authority as the act of the Contractor.

Given under my hand and seal this ____ day of _____, 20 ____.

[Print Name]: _____

My Commission expires: _____

ATTEST:

City of Vestavia Hills

City Clerk

By _____
City Manager

NOTARY ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

Before me, the undersigned Notary Public in and for the above County and State, personally appeared _____, whose name as _____ for the above Contractor is signed above, and who, after being by me first duly sworn, acknowledged before me that he/she signs this Contract with full authority as the act of the Contractor.

Given under my hand and seal this _____ day of _____, 20 ____.

[Print Name]: _____

My Commission expires: _____



AIA[®] Document A312[™] – 2010

Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, AL 35216

CONSTRUCTION CONTRACT

Date:

Amount: \$

Description:

(Name and location)

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: None See Section 18

CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*

SURETY

Company: *(Corporate Seal)*

Signature: _____

Name and

Title:

Signature: _____

Name and

Title:

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

SURETY

Company: _____ (Corporate Seal)

Company: _____ (Corporate Seal)

Signature: _____

Signature: _____

Name and Title: _____

Name and Title: _____

Address: _____

Address: _____

Additions and Deletions Report for **AIA[®] Document A312[™] – 2010**

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 10:14:23 on 02/19/2013.

There are no differences.

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, Nadine Sisson, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 10:14:23 on 02/19/2013 under Order No. 5044494851_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Payment Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

 **AIA**[®] Document A312[™] – 2010

Performance Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

OWNER:
City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, AL 35216

CONSTRUCTION CONTRACT

Date:
Amount: \$
Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount: \$
Modifications to this Bond: None See Section 16

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*

SURETY
Company: *(Corporate Seal)*

Signature: _____
Name and Title:

Signature: _____
Name and Title:

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 **Balance of the Contract Price.** The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 **Construction Contract.** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 **Contractor Default.** Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 **Owner Default.** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 **Contract Documents.** All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

SURETY

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____

Additions and Deletions Report for **AIA[®] Document A312[™] – 2010**

This Additions and Deletions Report, as defined on page 1 of the associated document, reproduces below all text the author has added to the standard form AIA document in order to complete it, as well as any text the author may have added to or deleted from the original AIA text. Added text is shown underlined. Deleted text is indicated with a horizontal line through the original AIA text.

Note: This Additions and Deletions Report is provided for information purposes only and is not incorporated into or constitute any part of the associated AIA document. This Additions and Deletions Report and its associated document were generated simultaneously by AIA software at 10:17:28 on 02/19/2013.

There are no differences.

Certification of Document's Authenticity

AIA® Document D401™ – 2003

I, Nadine Sisson, hereby certify, to the best of my knowledge, information and belief, that I created the attached final document simultaneously with its associated Additions and Deletions Report and this certification at 10:17:28 on 02/19/2013 under Order No. 5044494851_1 from AIA Contract Documents software and that in preparing the attached final document I made no changes to the original text of AIA® Document A312™ – 2010, Performance Bond, as published by the AIA in its software, other than those additions and deletions shown in the associated Additions and Deletions Report.

(Signed)

(Title)

(Dated)

Immigration Status Verification

1.1 General

- A. Bidders are hereby reminded that they are required to comply with requirements of Alabama Immigration Law, Act 2011-535 (also referred to as the "Beason-Hammon Alabama Taxpayer and Citizen Protection Act," or H.B. 658), as amended by Act No. 2012-491, including in part and effective January 1, 2012, enrollment in the E-Verify Program of the United States Department of Homeland Security:
1. Contractor's signed "E-Verify Memorandum of Understanding" will be required to be attached to any Contract awarded.
 2. General Contractors and Subcontractors shall be enrolled in, participate in and maintain compliance for the duration of this contract, and as otherwise required by statute.
- B. The following statement shall and will be included in the Contract for Construction:
- "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 and 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."
- C. Additional information and guidance is available at the following websites:
1. E-Verify portal maintained by State of Alabama: <http://immigration.alabama.gov>
 2. Alabama Office of the Attorney General Website: <http://www.ago.alabama.gov/Page-Immigration>
 3. Alabama Building Commission: <http://www.bc.state.al.us/PDFs/Bulletins/GuidanceonAct2012-491-DatedMay-29-2012.pdf>
 4. US Department of Homeland Security, E-Verify: www.dhs.gov/E-Verify

State of _____

County of _____

CERTIFICATE OF COMPLIANCE WITH THE BEASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT (ACT 2011-535, as amended by ACT 2012-491)

Date: _____

RE Contract/Grant/Incentive (describe by number or subject):

_____ by and between

_____ (Contractor/Grantee) and

_____ (State Agency, Department or Public Entity)

The undersigned hereby certifies to the state of Alabama as follows:

1. The undersigned holds the position of _____ with the Contractor/Grantee named above, and is authorized to provide representations set out in this Certificate as the official and binding act of that entity, and has knowledge of the provisions of THE BEASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT (ACT 2011-535 of the Alabama Legislature, as amended by ACT 2012-491) which is described herein as "the Act."
2. Using the following definitions from Section 3 of the Act, select and initial either (a) or (b), below, to describe the Contractor/Grantee's business structure.

BUSINESS ENTITY. Any person or group of persons employing one or more persons performing or engaging in any activity, enterprise, profession, or occupation for gain, benefit, advantage, or livelihood, whether for profit or not for profit.

a. Self-employed individuals, business entities filing articles of incorporation, partnerships, limited partnerships, limited liability companies, foreign corporations, foreign limited partnerships, and foreign limited liability companies authorized to transact business in this state, business trusts, and any business entity that registers with the Secretary of State.

b. Any business entity that possesses a business license, permit, certificate, approval, registration, charter, or similar form of authorization issued by the state, any business entity that is exempt by law from obtaining such a business license, and any business entity that is operating unlawfully without a business license.

EMPLOYER. Any person, firm, corporation, partnership, joint stock association, agent, manager, representative, foreman, or other person having control or custody of any employment, place of employment, or of any employee, including any person or of any employee, including any person or entity employing any person for hire within the State of Alabama, including a public employer. This term shall not include the occupant of a household contracting with another person to perform casual domestic labor within the household.

____ (a) The Contractor/Grantee is a business entity or employer as those terms are defined in Section 3 of the Act.

____ (b) The Contractor/Grantee is not a business entity or employer as those terms are defined in Section 3 of the Act.

- 3. As of the date of this Certificate, the Contractor/Grantee does not knowingly employ and unauthorized alien within the State of Alabama and hereafter it will not knowingly employ, hire for employment, or continue to employ and unauthorized alien with in the State of Alabama;
- 4. The Contractor/Grantee is enrolled in E-Verify unless it is not eligible to enroll because of the rules of that program or other factors beyond its control.

Certified this _____ day of _____, 20 ____.

Name of Contractor/Grantee/Recipient

By: _____

Its _____

The above Certification was signed in my presence by the person whose name appears above, on this _____ day of _____, 20 ____.

WITNESS: _____

Printed Name of Witness

CERTIFICATION OF COMPLIANCE
WITH SECTION NINE OF ACT 2011-535

The undersigned officer of _____ (Company) certifies to the City of Vestavia Hills that the Company shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien and does attest to such by signature below.

Furthermore, the Company certifies that it has provided its E-Verify Company Profile Document to the City of Vestavia Hills. During the performance of any contract with the City, the Company shall participate in the E-Verify Program and shall verify every employee that is required to be verified according to the applicable rules and regulations.

_____ Print Company Name

_____ Signature of Company Officer

_____ Print Title of Company Officer

_____ Date

_____ State

_____ County

_____ E-Verify Employment Eligibility User
Identification Number

Businesses with more than one employee located in the State of Alabama are required to submit the E-Verify MOU.

Businesses with NO EMPLOYEES in the State of Alabama are only required to submit this Certificate of Compliance.

Businesses with only yourself as an employee are only required to submit this Certificate of Compliance.



Document A201™ – 2017

General Conditions of the Contract for Construction

for the following PROJECT:
Altadena Valley Park Phase 1

THE OWNER:

City of Vestavia Hills
1032 Montgomery Highway
Vestavia Hills, AL 35216

THE ARCHITECT:

Engineering Design Group, LLC
120 Bishop Circle
Pelham, AL 35124

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- 2 OWNER
- 3 CONTRACTOR
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- 5 SUBCONTRACTORS
- 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS
- 7 CHANGES IN THE WORK
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- 9 PAYMENTS AND COMPLETION
- 10 PROTECTION OF PERSONS AND PROPERTY
- 11 INSURANCE AND BONDS
- 12 UNCOVERING AND CORRECTION OF WORK
- 13 MISCELLANEOUS PROVISIONS
- 14 TERMINATION OR SUSPENSION OF THE CONTRACT
- 15 CLAIMS AND DISPUTES

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For guidance in modifying this document to include supplementary conditions, see AIA Document A503™, Guide for Supplementary Conditions.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™-2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set

forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately

suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

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§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not

have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will

similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the

Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;

- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;
- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor

change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot

be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

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§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

- § 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from
- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
 - .2 failure of the Work to comply with the requirements of the Contract Documents;
 - .3 terms of special warranties required by the Contract Documents; or
 - .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.1.8.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 **Notice of Cancellation or Expiration of Contractor's Required Insurance.** Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 **Failure to Purchase Required Property Insurance.** If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 **Notice of Cancellation or Expiration of Owner's Required Property Insurance.** Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to

the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance,

the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the

Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

STATE OF ALABAMA

JEFFERSON COUNTY

**FIRST ADDENDUM TO CONSTRUCTION CONTRACT AND
GENERAL CONDITIONS BY AND BETWEEN OWNER AND CONTRACTOR**

WITNESSETH THIS FIRST ADDENDUM TO CONSTRUCTION CONTRACT AND GENERAL CONDITIONS, by and between the City of Vestavia Hills, Alabama, a municipal corporation, as "Owner" ("City"), and _____, as "Contractor", made and entered into on this the ____ day of _____, 2022.

WITNESSETH THESE RECITALS:

WHEREAS, the City of Vestavia Hills, Alabama, a municipal corporation, as "Owner," and _____, as "Contractor," have executed and delivered a Construction Contract (being "AIA Document A101-2017") and General Conditions (being "AIA Document A201-2017") on this date; and

WHEREAS, the Owner and Contractor wish to amend the Construction Contract and General Conditions by the execution and delivery of this First Addendum.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS: That the Owner and Contractor hereby mutually and expressly amend the Construction Contract and General Conditions as set forth below.

Notwithstanding anything contained in the Construction Contract and General Conditions to the contrary, the Owner and Contractor agree to modify, add and/or delete the following terms, provisions, limitations and conditions to said Construction Contract and General Conditions:

A. PUBLIC WORKS PROJECT: The following language is hereby added to Article 2 on page 1 of the contract:

"The Owner and Contractor agree that the work described in Article 2 on page 1 of the contract is a public works project as defined by Title 39-2-1(6), *Code of Alabama, 1975*, and that the Public Works law of Alabama set forth in Title 39-1-1, et seq., *Code of Alabama, 1975*, applies to this contract."

B. PERFORMANCE BOND AND PAYMENT BOND: The following language is hereby added to Section 11.1.2 on page 30 of the General Conditions:

"1. Before commencing the work, Contractor shall execute and deliver a Performance Bond using AIA Document A312-2010, with penalty equal to one hundred percent (100%) of the amount of the contract price (\$_____).

(revised 01/12/2022)

2. Before commencing the work, Contractor shall execute and deliver a Payment Bond using AIA Document A312-2010 payable to the City of Vestavia Hills, Alabama executed in the amount of the contract price of (\$ _____) with the obligation that the Contractor shall promptly make all payments to persons supplying labor, materials or supplies for or in the prosecution of the work provided in the contract and for the payment for reasonable attorneys' fees incurred by successful claimants or plaintiffs in civil actions on the bond.

3. The Performance Bond and the Payment Bond referred to in sections 1 and 2 above shall be executed and delivered all in accordance with the requirements of the Alabama Public Works Law set forth at Title 39-1-1(a), *Code of Alabama, 1975.*"

C. **REQUIREMENT FOR ARCHITECT:** The following language is hereby added to Section 2.3.2 on page 11 of the General Conditions,

"The Architect shall be selected by the Owner all in accordance with Title 34-2-30 and Title 34-2-32(c), *Code of Alabama, 1975.*"

D. **REQUIREMENT FOR ENGINEERS:** The following language is hereby added as Section 2.3.7 on page 12 of the General Conditions,

"Any and all engineers selected by the Contractor, any subcontractor or the Owner shall be selected all in accordance with the requirements of Title 34-11-10, *Code of Alabama, 1975.*"

E. **REQUIREMENT OF LICENSED GENERAL CONTRACTOR:** The following language is hereby added to Section 3.1.1 on page 12 of the General Conditions as follows,

"The Contractor represents and warrants that it is properly licensed by the State of Alabama as required by Title 34-8-1(a), *Code of Alabama, 1975.*"

F. **LIMITS OF INSURANCE COVERAGES:** The following language is hereby added to Section 11.1.1 on page 30 of the General Conditions:

LIMITS OF INSURANCE COVERAGES: The insurance policy limits for the insurance coverages referred to in Article 11 of the General Conditions shall be as follows:

11.1.1. WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY COVERAGE:

1. Worker's Compensation coverage shall be provided in accordance with the statutory coverage required in Alabama. A group insurer must submit a certificate of authority from the Alabama Department of Industrial Relations approving the group insurance plan. A self-insurer must submit a certificate from the Alabama Department of Industrial Relations stating that the Contractor qualifies to pay its own workers' compensation claims.

2. Employer's Liability Insurance limits shall be at least:
 - (a) Bodily Injury by Accident--\$1,000,000 each accident
 - (b) Bodily Injury by Disease--\$1,000,000 each employee

11.1.1. COMMERCIAL GENERAL LIABILITY INSURANCE:

1. Commercial General Liability Insurance ("CGL"), written on an ISO Occurrence Form (current edition of ISO CG 00 01 as of the date of Advertisement of Bids) or equivalent, shall include but need not be limited to coverage for bodily injury and property damage arising from premises and operations liability, products and completed operations liability, blasting and explosion, collapse of structures, underground damage, personal injury liability and contractual liability. The Commercial General Liability Insurance shall provide at minimum the following limits:

<u>Coverage</u>	<u>Limit</u>
(a) General Aggregate	\$2,000,000 per Project
(b) Products, Completed Operations Aggregate	\$2,000,000 per Project
(c) Personal and Advertising Injury	\$1,000,000 per Occurrence
(d) Each Occurrence	\$1,000,000

2. Additional Requirements for Commercial General Liability Insurance:

(a) The policy shall name the City of Vestavia Hills, Alabama, as Owner, and its public officials and employees, and its agents, consultants and employees as additional insureds (the "Indemnitees"), and state that this coverage shall be primary insurance for the additional insureds. Evidence that Contractor's insurance is primary with respect to any coverages available to the Indemnitees shall be provided in the form of an endorsement to the Contractor's CGL policy. Evidence that the Indemnitees have been named as additional insureds shall be provided by endorsements equivalent to ISO CG 2010 or CG 2033 and CG 2037.

(b) The policy must include separate per project aggregate limits.

11.1.1. COMMERCIAL BUSINESS AUTOMOBILE LIABILITY INSURANCE:

1. Commercial Business Automobile Liability Insurance shall include coverage for bodily injury and property damage arising from the operation of any owned, non-owned or hired automobile. The Commercial Business Automobile Liability Insurance Policy shall provide not less than \$1,000,000 Combined Single Limits for each occurrence.

2. The policy shall name the Owner, City of Vestavia Hills, Alabama, its public officials and employees, and its agents, consultants and employees as additional insureds.

11.1.1. COMMERCIAL UMBRELLA LIABILITY INSURANCE:

1. Umbrella Liability Insurance shall provide coverage limits excess of the Commercial General Liability, Commercial Business Automobile Liability and the Employers' Liability coverage limits, on a follow-form basis, to satisfy the minimum limits set forth herein.

2. Minimum Combined Primary Commercial General Liability and Commercial/Excess Umbrella Limits of:

- (a) \$5,000,000 per Occurrence
- (b) \$5,000,000 Aggregate.

11.1.1. BUILDER'S RISK INSURANCE: The Builder's Risk Policy shall be provided by the Contractor.

11.1.1. SUBCONTRACTOR'S INSURANCE:

1. **Worker's Compensation and Employer's Liability Insurance:** The Contractor shall require each Subcontractor to obtain and maintain statutory Workers' Compensation Insurance and adequate Employer's Liability Insurance covering all employees working on the jobsite.

2. **Liability Insurance:** The Contractor shall require each Subcontractor to obtain and maintain adequate Commercial General Liability and Automobile Liability Insurance coverages equal to those of the Prime Contractor. Such coverages shall be in effect at all times that the Subcontractor is performing Work under the Contract.

3. **Enforcement Responsibility:** The Contractor shall have responsibility to enforce its Subcontractors' compliance with these or similar insurance requirements; however, the Contractor, shall, upon request, provide the Owner acceptable evidence of insurance for any Subcontractor.

11.1.1. TERMINATION OF OBLIGATION TO INSURE: Unless otherwise expressly provided in the Contract Documents, the obligation to insure as provided herein shall continue as follows:

1. **Products and Completed Operations.** The obligation to carry Products and Completed Operations coverage specified under subparagraph B(2) shall remain in effect for at least the time period established by applicable state law for bringing actions based on defective construction or design claims.

2. **All Other Insurance.** The obligation to carry their insurance coverages specified above shall remain in effect after the Date(s) of Substantial Completion until such time as all Work required by the Contract Documents is completed. Equal or similar insurance coverages shall remain in effect if, after completion of the Work, the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable returns to the Project to perform warranty or maintenance work pursuant to the terms of the Contract Documents.

11.1 The Contractor shall, at the Contractor's own expense, provide insurance coverage for materials stored off the site after written approval of the Owner at the value established in the approval, and also for portions of the work in transit until such materials are permanently attached to the Work.

The insurance required herein is not intended to cover machinery, tools or equipment owned or rented by the Contractor that are utilized in the performance of the Work but not incorporated into the permanent improvements. The Contractor shall, at the Contractor's own expense, provide insurance coverage for owned or rented machinery, tools or equipment.”

G. ADDITIONAL INSUREDS: Section 11.1.5 is hereby added on page 31 of the General Conditions, which shall read in words and figures as follows:

SECTION 11.1.5 ADDITIONAL INSUREDS: The Contractor shall cause all of the insurance policy coverages described in Article 11 of the General Conditions of the Construction Contract and hereinabove (except for the Worker's Compensation coverages) to include:

1. The City of Vestavia Hills, Alabama, a municipal corporation, and its elected public officials and employees, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations and/or performance of the work; and

2. The City of Vestavia Hills, Alabama, a municipal corporation, and its elected public officials and employees as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations and/or performance of the work; and

3. The insurance policy coverages shall state that these coverages shall be primary insurance for the additional insureds.

4. Contain no exclusions of the additional insureds relative to job accidents; and

5. The policies must be on an 'occurrence' basis."

H. SALES TAXES: Section 3.6 on page 14 of the General Conditions is hereby amended to read as follows:

"The Contractor and the Owner shall avoid the payment of sales, use and similar taxes by using the process outlined in Act Number 2013-205 now codified at Title 40-9-14.1, *Code of Alabama, 1975.*"

I. MATERIALMEN'S LIENS: Section 2.1.2 on page 11 of the General Conditions is hereby amended to read in words and figures as follows:

“Anything contained in the Contract and/or General Conditions to the contrary notwithstanding, including specifically but not limited to, Sections 2.12, 9.3.1, 9.3.3, 9.6.8, 9.10.2, 10.4 and 15.2.8, the Contractor and Owner specifically agree that claims for unpaid labor, materials or supplies for this public works project shall be resolved by the requirements and process set forth in Title 39-1-1(b), *Code of Alabama, 1975.*”

J. INDEPENDENT CONTRACTOR: Section 3.3.4 is hereby added to page 13 of the General Conditions and shall read as follows:

“The Contractor is an independent contractor for the purposes of this contract. Nothing contained in the contract shall be construed to mean that the Contractor is the servant, agent or employee of the City of Vestavia Hills, Alabama.”

K. CHANGE ORDERS: The following language is hereby added to the General Conditions on page 22 as Section 7.2.2:

“Anything contained herein to the contrary notwithstanding, the guidelines, which provide criteria for approving change orders to an existing public works contract are set forth in an opinion issued to the Alabama State Building Commission on June 15, 1979 by the State of Alabama Attorney General. Contractor and Owner agree that said opinion sets forth the guidelines for determining whether or not a proposed change order is legally justified. The Owner, its Architect and legal advisor shall sign any and all change order justifications.”

L. COMPLIANCE WITH ALL LAWS: The following section 3.7.4 is hereby added to the General Conditions on page 14 thereof:

“**GENERAL COMPLIANCE WITH ALL LAWS:** Contractor shall comply with the provisions of the labor law and all state, federal and local laws, statutes, codes, rules, regulations and ordinances that are applicable to the performance of this Contract Between City and Contractor, including specifically, but not limited to Ordinance Numbers 2769, 2770 and 2771 enacted by the City Council of the City of Vestavia Hills, Alabama on June 11, 2018.”

M. MUNICIPALITIES CANNOT INDEMNIFY AND HOLD HARMLESS THIRD PARTIES: Sections 10.3.3 and 10.3.6 on page 30 of the General Conditions are hereby deleted in their entireties.

N. **IMMIGRATION:** The following section 16.1 is hereby added to the General Conditions on page 39 thereof:

“IMMIGRATION: By signing this Contract, the contracting parties affirm, for the duration of the Contract, 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 Contract and shall be responsible for all damages resulting therefrom.”

O. **BOYCOTT LIMITATIONS:** The following section 16.2 is hereby added to the General Conditions on page 39 thereof:

“COMPLIANCE WITH TITLE 41-16-5, CODE OF ALABAMA, 1975, BOYCOTT LIMITATIONS: Act 2016-312 of the Alabama Legislature prohibits a governmental entity from entering into certain public contracts with a business entity unless the contract includes a representation that the business is not currently engaged in, and an agreement that the business will not engage in, the boycott of a person or an entity based upon the person or business doing business with a jurisdiction with which the state can enjoy open trade. The prohibition does not apply if a business offers to provide goods or services for at least 20 percent less than the lowest certifying business entity or to a contract with a value less than \$15,000.00. The Contractor represents and warrants that it is not currently engaged in, and will not engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which this state can enjoy open trade.”

P. **RETAINAGE:** The following language is added to Section 5.1.7.1 of the Construction Contract:

(1) “Retainage” is defined as the money earned and, therefore, belonging to the Contractor (subject to final settlement of the Contract) which has been retained by the Owner conditioned on final completion and acceptance of all Work required by the Contract Documents. Retainage shall not be relied upon by Contractor (or Surety) to cover or off-set unearned monies attributable to uncompleted or uncorrected Work.

(2) In making progress payments the Owner shall retain five percent of the estimated value of Work performed and the value of materials stored for the Work; but after retainage has been held upon fifty percent of the Contract Sum, no additional retainage will be withheld.

Q. MISCELLANEOUS: Article 18 entitled “Miscellaneous” is hereby added to the General Conditions:

“ARTICLE 18. MISCELLANEOUS:

(a) Non Waiver: The failure of the Owner to insist, in any one or more instances, upon a strict performance of any of the covenants of this contract, or to exercise any option herein contained, shall not be construed as a waiver, or a relinquishment for the future of such covenant or option, but the same shall continue and remain in full force and effect.

(b) Waiver of Modification: Any waiver, alteration or modification of any of the provisions of this agreement or cancellation or replacement of this agreement shall not be valid unless in writing and signed by the parties hereto. This agreement may be amended at any time by written agreement of the parties signatory hereto.

(c) Notices: Any and all notices required or permitted to be given under this agreement will be sufficient if furnished in writing and sent by Registered Mail to the parties’ last known address.

(d) Governing Law: This agreement shall be interpreted, construed and governed to the laws of the State of Alabama.

(e) Article and Section Headings: The article and section headings and captions contained herein are included for convenience only, and shall not be considered a part hereof or affect in any manner the construction or interpretation hereof.

(f) Construction of Terms: Any ambiguities of this contract shall be construed fairly and equitably regardless of the participation of either party in drafting this contract. The reference in terms to gender and number shall be modified as may be appropriate.

(f) Execution in Counterparts: The contract may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

(g) Binding Effect: The contract shall inure to the benefit of, and shall be binding upon Owner and Contractor and their heirs, successors and assigns.

(h) Severability: In the event any provision of this contract shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof.

(i) Entire Agreement: This written contract contains the entire agreement between the Owner and the Contractor.

R. CONTRACT DOCUMENTS: The following language is hereby added to Article 1 on page 2 of the Contract:

“The contract documents described above shall also include the following:

1. AIA Document A312-2010 Performance Bond.
2. AIA Document A312-2010 Payment Bond.
3. This First Addendum to the Contract and General Conditions.”

S. RATIFY CONTRACT AND GENERAL CONDITIONS: Article 17 is hereby added to the General Conditions to read in words and figures as follows:

“The Owner and Contractor hereby ratify and reconfirm the terms, provisions, limitations and conditions of the contract documents that were not modified or otherwise amended by this First Addendum to Construction Contract.”

IN WITNESS WHEREOF, the Owner and Contractor have hereunto set their hands and seals all being done in duplicate originals with one (1) original being delivered to each party on the day first above written.

OWNER:
CITY OF VESTAVIA HILLS, ALABAMA
A Municipal Corporation

By _____
Ashley C. Curry
Its Mayor

By _____
Jeffrey D. Downes
Its City Manager

ATTESTED

By _____

CONTRACTOR:

By _____
Its _____

ATTESTED

By _____

**STATE OF ALABAMA
JEFFERSON COUNTY**

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that _____ whose name as _____ of _____, is signed to the First Addendum to Construction Contract and General Conditions who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said _____.

Given under my hand and official seal, this the _____ day of _____, 2022.

Notary Public

My Commission Expires:

SEAL

**STATE OF ALABAMA
JEFFERSON COUNTY**

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that Ashley C. Curry, whose name as Mayor of the City of Vestavia Hills, Alabama, a municipal corporation, is signed to the foregoing First Addendum to Construction Contract and General Conditions and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said City of Vestavia Hills, Alabama.

Given under my hand and official seal, this the _____ day of _____, 2022.

Notary Public

My Commission Expires:

SEAL

**STATE OF ALABAMA
JEFFERSON COUNTY**

ACKNOWLEDGMENT

I, the undersigned authority, a Notary Public in and for said County, in said State, hereby certify that Jeffrey D. Downes, whose name as City Manager of the City of Vestavia Hills, Alabama, a municipal corporation, is signed to the foregoing First Addendum to Construction Contract and General Conditions and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said City of Vestavia Hills, Alabama.

Given under my hand and official seal, this the _____ day of _____, 2022.

Notary Public

My Commission Expires:

SEAL

SUPPLEMENTARY CONDITIONS

- 1.1 The purpose of this project is to construct parking facilities, landscaping, and nature trails at Altadena Valley Park.
- 1.2 Design mixes for concrete shall be submitted to the Engineer for approval.
- 1.3 All traffic control is the responsibility of the Contractor. While ALDOT standards are not required, a traffic control plan (TCP) must be submitted to and approved by the Engineer. The TCP must include, but may not be limited to flagmen, portable signage, and cones as needed. All TCP items are a subsidiary cost to the project.
- 1.4 It shall be the responsibility of the Contractor to restore any and all property damaged as a result of construction. Restoration of damages shall be to the satisfaction of the Engineer. Damaged items may include, but are not limited to: sod, landscaping, existing asphalt, irrigation systems, mailboxes, etc.
- 1.5 The Contractor shall maintain a free and clear access to the park outside of the proposed project area throughout duration of construction.
- 1.6 The Contractor shall ensure the work area is kept clean and free of debris. Mud and dirt shall be swept off the existing pavement on an as-needed basis.
- 1.7 The Contractor shall closely coordinate all work with businesses and residents that will be affected by the work. Coordination includes, but may not be limited to: 24-hours notification of work which may affect neighboring residences and/or businesses, 48-hours notification of any utility service interruption to any neighboring residences and/or businesses, etc.
- 1.8 The Contractor shall obtain all applicable licenses. The Contractor shall contact local agencies prior to bidding to determine the cost of required licenses.
- 1.9 The Contractor shall abide by all local, state, and federal laws applicable to the work associated with the project.
- 1.10 No work shall occur on Sunday without prior approval from the City of Vestavia Hills. The Contractor shall notify both parties 48 hours in advance of any work anticipated to occur on Sunday.
- 1.11 Staging of materials and equipment shall be contained within the city's property at all times. At no time shall construction equipment or materials block a residential or business driveway.
- 1.12 Contractor Programs and Conduct of Personnel:
 - A. The Contractor shall implement programs and make literature available to all construction and administration personnel to encourage making this project a safe place to work, including in part the following requirements: A project site free of any substance abuse, which does not allow any consumption of alcohol, and which does not allow any work to be performed while under the influence of any debilitating substance.
 - a. The Contractor and every Subcontractor shall have as part of their personnel, safety, substance abuse prevention, and/or quality programs, mandatory drug testing and pre-employment, post-accident, and at random during employees' tenure with their firms. Each such entity shall be prepared to provide non-confidential verification to the Owner that such testing is consistently on-going, upon Owner's request for same.
 - B. Programs shall be as acceptable to or recommended by one or more of the following:
 - a. Contractor's Underwriter for Worker's Compensation or liability insurance.
 - b. OSHA.
 - c. Associated General Contractors.
 - d. U.S. Department of Defense, Corps of Engineers, or Veterans Administration.

- C. Conduct of all personnel employed for the Work of this project shall be held to a high standard and shall not be offensive to others on or around the site, including in part, pedestrians, the public, the Owner, Owner's consultants, etc.
 - a. The Contractor and their employees shall limit any discussion of the Work of this project to the Owner's representative named in the front of this Project Manual, inspecting authorities with jurisdiction, and the Engineer; In no instance, shall this project be discussed with others, except as may otherwise be indicated herein.
 - D. The Contractor shall immediately dismiss and escort off the project site, any personnel who are obviously under the influence of alcohol or other debilitating substance, and any personnel exhibiting offensive behavior as described above or by law or by local statute or regulations of authorities having jurisdiction.
- 1.13 Contractor to perform grading work on the west side of the project first in an effort to restore as much functionality to the existing park as possible. Specifically the walking paths outline in the Landscape Architect's plan set.

END OF SECTION

Exhibit 1
Tax Exemption Information



ALABAMA DEPARTMENT OF REVENUE
SALES AND USE TAX DIVISION

P.O. Box 327710 • Montgomery, AL 36132-7710

Reset

ST. EXC-01
8/18

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		PROJECT OWNER'S FEIN (EXEMPT ENTITY)	
STREET ADDRESS OF PROJECT (CITY AND COUNTY INCLUDED)	CITY	ZIP	COUNTY

APPLICANT'S INFORMATION:

RELATION: (CHOOSE ONE)

Government Entity General Contractor Subcontractor

APPLICANT'S LEGAL NAME	FEIN			
DBA	CONSUMER'S USE TAX ACCOUNT NUMBER			
MAILING ADDRESS: STREET	CITY	STATE	ZIP	COUNTY
CONTACT PERSON	BUSINESS TELEPHONE NUMBER ()			
EMAIL ADDRESS:				

PROJECT START DATE (PROVIDED BY GENERAL CONTRACTOR)	PROJECT COMPLETION DATE (PROVIDED BY GENERAL CONTRACTOR)
ESTIMATED START DATE (FOR APPLICANT)	ESTIMATED COMPLETION DATE (FOR APPLICANT)
WILL THE APPLICANT HAVE ANY SUBCONTRACTORS ON THIS JOB? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please attach list.	NAME OF PARTY TO THE CONTRACT
JOB DESCRIPTION	

WILL ANY POLLUTION CONTROL EXEMPTION BE APPLICABLE? <input type="checkbox"/> Yes <input type="checkbox"/> No	ESTIMATED POLLUTION CONTROL COST \$	
TOTAL PROJECT BID AMOUNT (APPLICANT'S PORTION OF PROJECT) \$	LABOR COST (APPLICANT'S PORTION OF PROJECT) \$	MATERIAL COST (APPLICANT'S PORTION OF PROJECT) \$

REVENUE DEPARTMENT USE ONLY

PENDING DOCUMENTATION / INFORMATION:

GCL SBL Contract / NTP / LOI LOS Project Dates / Breakdown of Costs

Contact Dates: _____ Received Date: _____

Forwarded for Denial: _____

PROJECT NAME

PROJECT OWNER'S FEIN (EXEMPT ENTITY)

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.

NAME (PLEASE PRINT)

SIGNATURE

TITLE

DATE

REVENUE DEPARTMENT USE ONLY

PENDING OTHER:

Government Entity General Contractor Not on LOS

Contact Dates: _____ Received Date: _____

Forwarded for Denial: _____

Examiner's Remarks _____

Examiner _____ Date _____

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

NOTE: Exemption Certificates will be issued as of the project start date or the received date of the application. If, upon receipt of the application, the project has already commenced, the certificate will be issued as of the received date of the application. Any purchases made prior to the issuance of a certificate will not be exempt.

***** Please allow 10 to 14 business days for your application to be processed. *****

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, Letter of Intent, Notice of Award, and/or Notice to Proceed

General Contractor:

1. Signed Application
2. Copy of Executed/Signed Contract, Letter of Intent, Notice of Award, and/or Notice to Proceed
3. List of Subcontractors
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

Subcontractor:

1. Signed 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 Subcontractors (if any)

General contractors and subcontractors:

- Any additions and/or deletions to the list of subcontractors working on a project 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, number, or email listed below. Extension requests should be submitted no more than 30 days after expiration date.
- Subcontractor's Estimated Start Date should be the date they will begin working on the project and ordering materials instead of the General Contractor's Estimated Start Date for the project.

THERE IS A FILING REQUIREMENT IF YOUR APPLICATION IS APPROVED. The return will be filed through the Consumer's Use Tax account. Please see the following page for detailed instructions and general information regarding the reporting requirements.

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

Fax: (334) 353-7867

Email: STExemptionUnit@revenue.alabama.gov

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

General Information and Instructions Regarding the Reporting Requirements for Contractors Awarded an Exemption Certificate

A contractor's exemption certificate for a Government Entity project is needed in order to purchase materials tax exempt for the qualified project. Once the exemption certificate has been applied for and awarded, there is a monthly filing requirement to report the purchases that have been made for each exempt project. The Consumer's Use (CNU) tax account is used to report the tax-exempt purchases made with each certificate for each exempt project for each month.

The consumer's use tax return must be filed for each of the months covered by the exemption certificate. (For example, if the certificate's effective date is June 29, 2014 and the expected completion date is October 1, 2014, a consumer's use tax return must be filed for each of the following months: June, July, August, September, and October.) A return **MUST** be filed each month to report the monthly purchases. Therefore, all active exemption certificates must be included on the monthly report even if the monthly purchases for a specific project was \$0.

If a CNU tax account is not already open under the taxpayer/business name, one will automatically be assigned at the time the exemption certificate is generated. Electronic filing is required through the Department's online filing system, My Alabama Taxes (MAT). A letter containing the online filing information will be mailed to the address on file within a few days after the new CNU tax account has been assigned. This letter will contain all the information needed to create your online filing account in MAT. For questions relating to setting up the account on www.myalabamataxes.alabama.gov, please contact Business Registration at 334-242-1584 or the Sales Tax Division at 1-866-576-6531.

Once the MAT account is set up, please log in and file the monthly CNU tax return. There is a table located at the bottom left hand corner labeled "Contractor's Exemption for Government Construction Projects." All three fields in the table are required to be completed: exemption number, project number, and total amount of purchases for that specific project for the month. Additional projects may be added on the additional rows that appear as data is added; the table will allow the addition of more projects.

***Please do not use lines 1 through 9 of the return for reporting exempt project information. Leave these lines blank unless taxable purchases were made outside of the state of Alabama that need to be reported and tax remitted. (Lines 1 through 9 do not have anything to do with the exemption reporting requirements).

When the certificate expires (upon the project's completion) and the CNU tax account is no longer needed, please contact the Business Registration Unit at 334-242-1584 and close the CNU tax account. Please be advised that if there are multiple government entity projects open, the consumer's use tax account should remain open until the last project completion date. For example, if Project EXC00ABCD ends in June of 2014 but Project EXC00EFGH ends January of 2015, the CNU tax account must remain open until the end of January 2015. A return for Project EXC00EFGH must be filed all the way through January 2015.

If the applicant already has a CNU tax account and it is currently set up online, please use this account to report exempt project purchases through www.myalabamataxes.alabama.gov using the instructions provided above. The return may then be filed as usual.

***All Consumer's Use Tax returns are due on the 20th of the month following the month in which purchases were made (i.e., the return for the month of June is due July 20th, etc. There are 20 days to file the return before it is deemed late.)

***Any penalty waiver requests may be directed to the Sales and Use Tax Division at 1-866-576-6531. Only one waiver per 18 month period is allowed.

SECTION 02230 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cleaning site of debris, grass, trees, and other plant life in preparation for site or building earthwork.
 - 2. Protection of existing structures, trees, or vegetation indicated on the Construction Drawings to remain.
- B. Related Requirements:
 - 1. Section 02300 – Earthwork: Stripping and removal of topsoil.

1.2 ENVIRONMENTAL REQUIREMENTS

- A. Construct temporary erosion and sediment control systems as shown on Construction Drawings and as directed by to protect adjacent properties and water resources from erosion and sedimentation.
- B. Contractor shall not begin construction without "National Pollution Discharge Elimination System" (NPDES) permit governing discharge of storm water from site for entire construction period.
- C. Clearing and grubbing shall commence in the proper sequence only after appropriate initial BMP's are implemented.
- D. Contractor shall conduct storm water management practices in accordance with applicable NPDES permit and shall enforce action taken or imposed by Federal or State agencies, including cost of fines, construction delays, and remedial actions resulting from Contractor's failure to comply with provisions of NPDES permit.

1.3 PROJECT CONDITIONS

- A. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as reasonably practical.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.1 PREPARATION

- A. Identify existing plant life that is to remain and verify clearing limits are clearly tagged, identified, and marked in such manner as to ensure their protection throughout construction operations.

3.2 PROTECTION

- A. Locate, identify, and protect existing utilities that are to remain.
- B. Protect trees, plant growth, and features designated to remain as part of final landscaping.
- C. Conduct operations with minimum interference to public or private accesses and facilities. Maintain ingress and egress at all times and clean or sweep roadways daily as required. Dust control shall be provided with sprinkling systems or equipment provided by Contractor.

- D. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by a licensed land surveyor and replaced, as necessary, in kind.
- E. Provide traffic control as required, in accordance with the US Department of Transportation's "Manual on Uniform Traffic Control Devices" latest edition, and applicable Alabama Department of Transportation requirements.

3.3 EQUIPMENT

- A. Material shall be transported to and from the project site using well-maintained and operating vehicles. Transporting vehicles operating on site shall stay on designated haul roads and shall not endanger improvements by rutting, overloading, or pumping.

3.4 CLEARING

- A. Clear areas required for access to site and execution of work.
- B. Unless otherwise indicated on Construction Drawings, remove trees, shrubs, grass, other vegetation, improvements, or obstructions interfering with installation of new construction. Removal includes digging out stumps and roots. Depressions caused by clearing and grubbing operations shall be filled to subgrade elevation to avoid ponding of water. Satisfactory fill material shall be placed in accordance with Section 02300.
- C. Remove grass, trees, plant life, stumps, and other construction debris from site to dump site that is suitable for handling such material according to state laws and regulations.
- D. Cut heavy growths of grass from areas before stripping and topsoil removal and remove cuttings with remainder of cleared vegetative material.

END OF SECTION

SECTION 02300 - EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavation, filling, and backfilling for structures and pavements.
 - 2. Trenching and backfilling for utilities.
 - 3. Dewatering.

- B. Related Requirements:
 - 1. Section 02340 - Soil Stabilization.
 - 2. Section 02370 - Erosion Control and Sedimentation. Temporary and permanent erosion control.
 - 3. Section 02375 - Stone Protection. Rip-rap stone for slope protection.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.

- B. ASTM International (ASTM)
 - 1. ASTM D422 - Particle Size Analysis of Soil.
 - 2. ASTM D698 - Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN.m/m³)).
 - 3. ASTM D1557 - Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 Kn.m/m³)).
 - 4. ASTM D2487 - Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - 5. ASTM D2488 - Description and Identification of Soils (Visual-Manual Procedures).
 - 6. ASTM D4318 - Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
 - 7. ASTM D6938 - In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

- C. American Association of State Highway and Transportation Officials (AASHTO)
 - 1. AASHTO T 88 - Particle Size Analysis of Soils.

- D. Alabama Department of Transportation (ALDOT):
 - 1. Standard Specifications for Highway Construction.

- E. National Fire Protection Association (NFPA)
 - 1. NFPA 70 - National Electrical Code.

- F. American Water Works Association (AWWA)
 - 1. AWWA C200 - Standard for Steel Water Pipe - 6 In. (150 mm) and Larger.
 - 2. AWWA C206 - Field Welding Of Steel Water Pipe.

1.3 DEFINITIONS

- A. Satisfactory Materials: ASTM D2487 soil classification groups GW, GP, GM, SW, SP, SM, ML, CL, SC, GC, or a combination of these group symbols.
 - 1. Fill material shall further conform to the plasticity index and liquid limits (PI and LL) specified in Paragraph FILLING hereinafter.
 - 2. Satisfactory materials shall be free of rock or gravel larger than allowed for fill or backfill material as specified hereinafter or as shown on the drawings.

3. Satisfactory materials shall contain no debris, waste, frozen materials, vegetation, and other deleterious matter.
 4. The plasticity index (PI) and liquid limit (LL) of onsite satisfactory materials to be used as fill within 2 feet of finish subgrade shall not exceed 25 and 50 respectively. Soil shall be moisture conditioned to within 2 percentage points above or below the optimum moisture content as determined by ASTM D698.
 5. Offsite borrow materials may be used as structural fill provided they have a plasticity index (PI) not exceeding 20 and liquid limit (LL) not exceeding 45. Soil shall be moisture conditioned to within 2 percentage points above or below the optimum moisture content as determined by ASTM D698.
- B. Unsatisfactory Materials: Materials which do not comply with the requirements for satisfactory materials are unsatisfactory.
1. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory materials which contains root and other organic matter or frozen material. The qualified geotechnical engineering testing agency shall be notified of any contaminated materials.
 2. Soils having organic content in excess of 3.0 percent are unsuitable for use as structural fill or behind retaining walls. These high organic soils shall be removed from the site or placed in non-structural/landscape areas or fill areas deeper than 5 feet below finish subgrade.
 3. Alluvial soils are not suitable for re-use as structural fills or behind retaining walls. They shall be removed from the site or used in non-structural/landscape areas.
 4. Unsatisfactory materials also include satisfactory materials not maintained within 2 percent of optimum moisture content at time of compaction.

1.4 SUBMITTALS

- A. Submit 30-pound sample of each type of off-site fill material that is to be used at the site in airtight containers to the independent testing laboratory or submit gradation and certification of aggregate material that is to be used at the site to the independent testing laboratory for review.
- B. Submit name of each material supplier and specific type and source of each material. Change in source throughout project requires approval of Owner.
- C. Submit Dewatering Plans upon request by Owner.
- D. Shop drawings or details pertaining to excavating and filling are not required unless otherwise shown on the Drawings or if contrary procedures to Construction Documents are proposed.
- E. Shop drawings or details pertaining to site utilities are not required unless required by regulatory authorities or unless uses of materials, methods, equipment, or procedures that are contrary to The Drawings or Specifications are proposed. Do not perform work until Owner has accepted required shop drawings.
- F. Contact utility companies and determine if additional easements will be required to complete project. Provide written confirmation of the status of all easements to Owner at time of Preconstruction Conference or no later than 90 days prior to project possession date.

PART 2 - PRODUCTS

2.1 SOIL AND ROCK MATERIALS

- A. Fill and Backfill. Satisfactory materials excavated from the site.
- B. Imported Fill Material: Satisfactory material provided from offsite borrow areas when sufficient satisfactory materials are not available from required excavations.
- C. Trench Backfill in Non-paved areas: ASTM D2321 unless otherwise specified or shown on the drawings.

- D. Trench Backfill in Paved Areas: Full depth aggregate. Aggregate shall meet pipe manufacturer's requirements for the type of pipe material being installed.
- E. Building Subbase Material: Subbase for building and appurtenances slabs on ground be ALDOT 825 B material.
- F. Bedding: Aggregate Type as indicated on the plans or naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No.200 sieve.
- G. Drainage Fill: Washed, narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2- inch sieve and 0 to 5 percent passing a No.8 sieve.
- H. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and 0 to 5 percent passing a No.4 sieve.
- I. Topsoil: Topsoil shall consist of stripping material excavated from the site. Topsoil shall consist of surficial material with 3% or greater organic content by weight, found at varying depths on site. Reference The Report for additional details.

2.2 APPURTENANT MATERIALS

- A. Stabilization fabrics and geogrids: As specified in Section 02340.
- B. Filter and drainage fabrics: As specified in Section 02340.
- C. Trench Utility Locator Tape: Heavy duty 6" wide underground warning tape. Tape shall be made from polyethylene material, 3.5 mils thick, with a minimum tensile strength of 1,750 psi. Place the tape at one-half the minimum depth of cover for the utility line or a maximum of 3 feet, whichever is the less, but never above the top of subgrade. For non-ferrous pipe, provide detectable warning tape with metallic core encased in a protective jacket, detectable by metal detector when tape is buried up to 30 inches. Color of tape shall be determined by as follows:
 - 1. Natural Gas or Propane – Yellow.
 - 2. Electric – Red.
 - 3. Telephone – Orange.
 - 4. Water – Blue.
 - 5. Sanitary Sewer – Green.

2.3 EQUIPMENT

- A. Transport off-site materials to project using well-maintained and operating vehicles. Once on site, transporting vehicles shall stay on designated haul roads and shall at no time endanger improvements by rutting, overloading, or pumping.

2.4 SOURCE QUALITY CONTROL

- A. Laboratory testing of materials proposed for use in the project shall be by the Owners Construction Testing Laboratory at no cost to Contractor. The Contractor shall provide samples of material obtained off-site.
- B. Following additional tests shall be performed on each type of on-site or imported soil material used as compacted fill:
 - 1. Moisture and Density Relationship: ASTM D698.
 - 2. Atterberg Limits Tests: ASTM D4318
 - 3. Soil Particle Size Analysis: ASTM D422.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Identify required lines, levels, contours, datum, elevations, and grades necessary for construction as shown on the drawings.
- B. Notify utility companies to remove or relocate public utilities that are in conflict with proposed improvements.
- C. Protect plant life, lawns, fences, existing structures, sidewalks, paving, and curbs, to remain from excavating equipment and vehicular traffic.
- D. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by licensed land surveyor and replaced, as necessary, by same.
- E. Material encountered in grading operations that is unsatisfactory material or undesirable for backfilling, subgrade, or foundation purposes shall be disposed of onsite at a location that is acceptable to the Owner/Engineer.
- F. Prior to placing fill in low areas, such as previously existing creeks, ponds, lakes, or closed depressions perform following procedures:
 - 1. Drain water out by gravity with ditch having flow line lower than lowest elevation in low area. If drainage cannot be performed by gravity ditch, use adequate pump to obtain the same results.
 - 2. After drainage of low area is complete, remove muck, mud, debris, and other unsatisfactory material by using acceptable equipment and methods that will keep natural soils underlying low area dry and undisturbed.
 - 3. All muck, mud, and other materials removed from low areas shall be dried on-site by spreading in thin layers for observation. Material shall be inspected by qualified geotechnical engineering testing agency and, if found to be satisfactory for use as fill material, shall be incorporated into lowest elevation of site filling operation, but not under building subgrade or within 5'-0" of perimeter of building subgrade or paving. If, after observation, material is found to be unsatisfactory, it shall be removed from site.
 - 4. Remediate closed depressions (sinkholes) in accordance with Geotechnical requirements.
 - 5. Proofroll exposed subgrade prior to any fill being placed.
- G. Locate and identify utilities that have previously been installed and protect from damage.
- H. Locate and identify existing utilities that are to remain and protect from damage.
- I. Maintain in operating condition existing utilities, previously installed utilities, and drainage systems encountered in utility installation. Repair surface or subsurface improvements as required.
- J. Verify location, size, elevation, and other pertinent data required making connections to existing utilities and drainage systems.
- K. Over excavate and properly prepare areas of subgrade that are not capable of supporting proposed systems. Stabilize these areas by using acceptable geotextile fabrics or aggregate material placed and compacted as specified in Section 02340.

3.2 DEWATERING

- A. General:
 - 1. Dewatering activities shall conform to applicable provisions in 02370.
 - 2. Provide dewatering systems as required for excavations.
 - 3. Design and provide dewatering system using accepted and professional methods consistent with current industry practice to eliminate water entering the excavation under hydrostatic head from the bottom or sides. Design system to prevent differential hydrostatic head, which would result in

floating out soil particles in a manner, termed as a "quick" or "boiling" condition. System shall not be dependent solely upon sumps or pumping water from within the excavation where differential head would result in a quick condition, which would continue to worsen the integrity of the excavation's stability.

4. Provide dewatering system of sufficient size and capacity to prevent ground and surface water flow into the excavation and to allow Work to be installed in a dry condition.
5. Control, by acceptable means, all water regardless of source. Contractor shall be responsible for disposal of the water consistent with regulatory requirements.
6. Control groundwater in a manner that preserves strength of foundation soils, does not cause instability or raveling of excavation slopes, and does not result in damage to existing structures. Where necessary, lower water level in advance of excavation utilizing wells, wellpoints, jet educators, or similar positive methods. The water level as measured by piezometers shall be maintained a minimum of 3 feet below prevailing excavation level.
7. Commence dewatering prior to any appearance of water in excavation and continue until Work is complete to the extent that no damage results from hydrostatic pressure, flotation, or other causes.
8. Open pumping with sumps and ditches will be allowed provided it does not result in boils, loss of fines, softening of the ground, or instability of slopes.
9. Install wells or wellpoints, if required, with suitable screens and filters so that continuous pumping of fines does not occur. Arrange discharge to facilitate collection of samples by the Owner. During normal pumping and upon development of wells, levels of fine sand or silt in the discharge water shall not exceed 5 ppm. Install sand tester on discharge of each pump during testing to verify that levels are not exceeded.
10. Control grading around excavations to prevent surface water from flowing into excavation areas.
11. No additional payment will be made for any supplemental measures to control seepage, groundwater, or artesian head.

B. Design:

1. Designate and obtain the services of a qualified dewatering specialist to provide dewatering plan as may be necessary to complete the Work.
2. Contractor shall be responsible for the accuracy of the drawings, design data, and operational records required.
3. Contractor shall be responsible for the design, installation, operation, maintenance, and any failure of any component of the system.

C. Damages:

1. Contractor shall be responsible for and shall repair any damage to work in place, other contractor's equipment, utilities, residences, highways, roads, railroads, private and municipal well systems, adjacent structures, natural resources, habitat, existing wells, and the excavation. Contractor responsibility shall also include, damage to the bottom due to heave and including but not limited to, removal and pumping out of the excavated area that may result from Contractor's negligence, inadequate or improper design and operation of the dewatering system, and any mechanical or electrical failure of the dewatering system.
2. Remove subgrade materials rendered unsatisfactory by excessive wetting and replace with approved backfill material at no additional cost to the Owner.

D. Maintaining Excavation in Dewatering Condition:

1. Dewatering shall be a continuous operation. Interruptions due to power outages or any other reason will not be permitted.
2. Continuously maintain excavation in a dry condition with positive dewatering methods during preparation of subgrade, installation of pipe, and construction of structures until the critical period of construction or backfill is completed to prevent damage of subgrade support, piping, structure, side slopes, or adjacent facilities from flotation or other hydrostatic pressure imbalance.
3. Provide standby equipment on site, installed, wired, and available for immediate operation if required to maintain dewatering on a continuous basis in the event any part of the system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, perform such work as may be required to restore damaged structures and foundation soils at no additional cost to Owner.

4. System maintenance shall include but not be limited to 24-hour supervision by personnel skilled in the operation, maintenance, and replacement of system components and any other work required to maintain excavation in dewatered condition.
- E. System Removal: Upon completion of the work, remove dewatering equipment from the site, including related temporary electrical service.
- F. Wells shall be removed or cut off a minimum of 3 feet below final ground surface, capped, and abandoned in accordance with regulations by agencies having jurisdiction.

3.3 TOPSOIL EXCAVATION

- A. Cut heavy growths of grass from areas before stripping and remove cuttings with remainder of cleared vegetative material.
- B. Strip full depth of topsoil as directed in the field by Owner's qualified geotechnical engineering testing agency from areas that are to be filled, excavated, landscaped, or re-graded and stockpile topsoil to be reused. Construct storage piles to freely drain surface water. Cover storage piles as required to prevent windblown dust. Dispose of unsuitable topsoil as specified for waste material, unless otherwise specified by Owner. Dispose of excess topsoil onsite at a location that is acceptable to the Owner/Engineer.

3.4 GENERAL EXCAVATION

- A. Classification of Excavation: The Contractor shall assure himself by site investigation or other necessary means that he is familiar with the type, quantity, quality, and character of excavation work to be performed. Excavation shall be considered unclassified excavation. Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions
- B. When performing grading operations during periods of wet weather, provide adequate dewatering, drainage and ground water management to control moisture of soils.
- C. Shore, brace, and drain excavations as necessary to maintain excavation as safe, secure, and free of water at all times.
- D. Excavate building areas to line and grade as shown on the Drawings being careful not to over excavate beyond elevations needed for building subgrades.
- E. Place satisfactory excavated material into project fill areas.
- F. Unsatisfactory excavated material shall be disposed of onsite at a location that is acceptable to the Owner/Engineer.
- G. Perform excavation using capable, well-maintained equipment and methods acceptable to Owner and local governing agencies.

3.5 TRENCHING EXCAVATION FOR UTILITIES

- A. Contact local utility companies before excavation begins. Dig trench at proper width and depth for laying pipe, conduit, or cable. Cut trench banks vertical, if possible, and remove stones from bottom of trench as necessary to avoid point-bearing. Over-excavate wet or unstable soil, if encountered, from trench bottom as necessary to provide suitable base for continuous and uniform bedding. Replace over-excavation with satisfactory material and dispose of unsatisfactory material.
- B. Trench excavation sidewalls shall be sloped, shored, sheeted, braced, or otherwise supported by means of sufficient strength to protect workmen in accordance with applicable rules and regulations established for construction by the Department of Labor, Occupational Safety and Health Administration (OSHA), and

by local ordinances. Lateral travel distance to exit ladder or steps shall not be greater than 25 feet in trenches 4 feet or deeper.

- C. Perform trench excavation as indicated on the Drawings for specified depths. During excavation, stockpile materials suitable for backfilling in orderly manner far enough from bank of trench to avoid overloading, slides, or cave-ins.
- D. Remove excavated materials not required or not satisfactory as backfill or embankments and waste off-site or at on-site locations approved by the Owner and in accordance with governing regulations. Dispose of structures discovered during excavation.
- E. Prevent surface water from flowing into trenches or other excavations by temporary grading or other methods, as required. Remove accumulated water in trenches and other excavations as specified.
- F. Open cut excavation with trackhoe. Do not use clods for backfill.
- G. Accurately grade trench bottom to provide uniform bearing and support for each section of pipe on bedding material at every point along entire length except where necessary to excavate for bell holes, proper sealing of pipe joints, or other required connections. Dig bell holes and depressions for joints after trench bottom has been graded. Dig no deeper, longer, or wider than needed to make joint connection properly.
- H. Trench width below top of pipe shall not be less than 12 inches nor more than 18 inches wider than outside surface of pipe or conduit that is to be installed to designated elevations and grades. Other trench width for pipe, conduit, or cable shall be least practical width that will allow for proper compaction of trench backfill.
- I. Trench depth requirements measured from finished grade or paved surface shall meet the following requirements or applicable codes and ordinances, whichever is more stringent:
 - 1. Water Mains: 36 inches to top of pipe barrel or 6 inches below frost line, established by local building official, whichever is deeper.
 - 2. Sanitary Sewer: Elevations and grades as indicated on the drawings and as specified in Section 02535.
 - 3. Storm Sewer: Elevations and grades as indicated on the Drawings.
 - 4. Electrical Conduits: 48 inches minimum to top of conduit or as required by NEC 300-5, NEC 710-36 codes, or local utility company requirements, whichever is deeper.
 - 5. TV Conduits: 36 inches minimum to top of conduit or as required by local utility company, whichever is deeper.
 - 6. Telephone Conduits: 36 inches minimum to top of conduit, or as required by local utility company, whichever is deeper.
 - 7. Gas Mains and Service: 36 inches minimum to top of pipe, or as required by local utility company, whichever is deeper.

3.6 SUBGRADE PREPARATION

- A. Scarification and Compaction: Areas exposed by excavation or stripping and on which subgrade preparations are to be performed shall be scarified to minimum depth of 8 inches and compacted as specified hereinafter.
- B. Proofrolling: Subgrades shall be proofrolled to detect areas of insufficient compaction and soft pocket, or areas of excess yielding. Proofrolling shall be accomplished by making minimum of two complete passes with fully-loaded tandem-axle dump truck with a minimum weight of 20 tons, or approved equal, in each of two perpendicular directions. Limit vehicle speed to three mph. Areas of failure such as soft spots, unsatisfactory soils, and areas of excessive pumping or rutting shall be excavated and re-compacted as specified herein. Continual failure areas shall be stabilized in accordance with Section 02340 at no additional cost to Owner. Subgrade exposed longer than 48 hours or on which precipitation has occurred shall be re-proofrolled. Document proofrolling procedure, specific locations, deficiencies, and corrective measures for review by Owner or Owner's qualified geotechnical engineering testing agency upon request.

3.7 FILLING

- A. Fill areas to contours and elevations shown on the Drawings with materials deemed satisfactory.
- B. Place fills in continuous lifts specified herein.
- C. Fill within proposed building subgrade and paving subgrades shall not contain rock or stone greater than 3 inches in any dimension.
- D. Unless otherwise specified for rock fill, rock or stone less than 3-inches in largest dimension may be used in fill below structures, paving, and graded areas, up to 24 inches below surface of proposed subgrade or finish grade of graded areas when mixed with satisfactory material. Rock or stone less than 2 inches in largest dimension may be used in fill within the upper 24 inches of proposed subgrade or finish grade of graded areas when mixed with satisfactory material.
- E. Fill materials used in preparation of subgrade shall be placed in lifts or layers not to exceed 8 inches loose measure and compacted as specified hereinafter.
- F. Building area subgrade pad shall be that portion of site directly beneath and 5 feet beyond building and appurtenances, including limits of future building expansion areas as shown on the Drawings.

3.8 PIPE BEDDING

- A. Excavate trenches for pipe or conduit to 4 inches below bottom of pipe and to the width as specified herein. Place 4 inches of bedding material, compact in bottom of trench, and shape to conform to lower portion of pipe barrel.
- B. Place geotextile fabric as specified on the Drawings or required by Geotechnical Engineer to address specific site conditions and in accordance with Section 02340.

3.9 TRENCH BACKFILLING

- A. Materials used for trench backfill shall comply with requirements as specified herein.
- B. Backfill and compaction in non-paved areas shall be in accordance with fill and compaction requirements for ASTM D2321 unless otherwise shown on the drawings.
- C. In paved areas, backfill with full depth aggregate in accordance pipe manufacturer's requirements for the type of pipe material being installed.
- D. Do not backfill trenches until required tests are performed and utility systems comply with and are accepted by applicable governing authorities.
- E. Backfill trenches to contours and elevations shown on the Drawings.
- F. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

3.10 COMPACTION

- A. Compact as follows:

<u>Location</u>	<u>Maximum Laboratory Density - ASTM D698</u>
Subgrade & Fill below Structures	in cut areas, top 12 inches, 98% in fill areas, 98%
Subgrade below Pavement Area – Cut Areas	top 12 inches, 98%

- F. Cross slopes of any sidewalks shall not exceed 2% unless specifically indicated on Construction Documents.

3.14 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- D. Testing agency will test compaction of soils in place according to ASTM D 698, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 5,000 square feet or less building slab, but in no case fewer than three tests.
 - 2. Paved Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 5,000 square feet or less of pavement, but in no case fewer than three tests.
 - 3. Landscaped or Unimproved Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 20,000 square feet or less of area, with a maximum spacing of 200 feet.
 - 4. Foundation Wall Backfill: At each compacted backfill layer, at least one test for every 100 feet or less of wall length, but no fewer than two tests.
 - 5. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every 150 feet or less of trench length, but no fewer than two tests.
 - 6. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained. The cost of all retesting and corrective measures shall be borne by the Contractor.

END OF SECTION

SECTION 02340 - SOIL STABILIZATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavation, treatment, and backfilling of subgrade for hydrated lime or bridge lift stabilization.
 - 2. Geotextile fabric and geogrid for stabilization of subgrade.
- B. Related Requirements:
 - 1. Section 02300 - Earthwork

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. ASTM International (ASTM):
 - 1. ASTM C977 - Quicklime and Hydrated Lime for Soil Stabilization.
 - 2. ASTM D1633 - Compressive Strength of Molded Soil-Cement Cylinders.
- C. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. AASHTO M216 - Lime for Soil Stabilization.
- D. National Lime Association (NLA):
 - 1. NLA Bulletin 326 - Lime Stabilization Construction Manual.
- E. Alabama Department of Transportation (ALDOT):
 - 1. Standard Specifications for Highway Construction.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Do not install mixed materials in wind in excess of 10 mph or when temperature is below 40 degrees Fahrenheit.

1.4 SUBMITTALS

- A. Submit 30-pound sample of each material to be used at the site in airtight containers to the Construction Testing Laboratory (CTL) or submit gradation and certification of material that is to be used to the CTL for review.
- B. Submit name of each materials supplier and specific type and source of each material. Obtain approval of Owner prior to change in source.
- C. Submit mix designs, materials mix ratio, and laboratory test data to the Civil Engineering Consultant of Record 4 weeks prior to beginning stabilization activities. Certify materials and mix ratios will achieve the specified requirements as indicated in the Construction Documents or as specified by state and local agencies for soil stabilization if not stated in the Construction Documents.
- D. Submit approved mix designs, materials mix ratio, and laboratory test data to the Owner's geotechnical engineering testing agency) prior to commencing stabilization activities.

PART 2 PRODUCTS

1.5 MANUFACTURERS

- A. Provide products from one of the following manufacturers or approved alternate, as specified in the Materials paragraph below:
1. TenCate Geosynthetics North America (Mirafi), Pendergrass, GA., (706) 693-2226, www.tencate.com
 2. Hanes Geo Components (WEBTEC), Winston Salem, NC. (336) 747-1600, www.hanesgeo.com
 3. Tensar International Corp., Atlanta, GA. (888) 828-5126, www.tensarcorp.com
 4. Thrace-LINQ Inc., Summerville, SC (843) 873-5800, www.thracelinq.com
 5. DuPont (Typar). Summerville, SC (843) 832-6860, www.typargeo.com
 6. Synteen Technical Fabrics, Lancaster, SC (800) 796-8336, www.synteen.com

1.6 MATERIALS

- A. Soil Treatment Materials:
1. Hydrated Lime: ASTM C977 or AASHTO M216.
- B. Aggregate:
1. Coarse Aggregate: Crushed carbonate, crushed gravel, crushed air-cooled slag, granulated slag, a mixture of crushed and granulated slag, or other types of suitable material meeting the following gradation requirements:

Sieve Size	Percent Passing
2 inches	100
1 inch	70-100
3/4 inch	50-90
No. 4	30-60
No. 30	7-30
No. 200	0-5

2. Fine Aggregate: Sand – Natural river or bank sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter meeting the following gradation requirements:

Sieve Size	Percent Passing
No. 4	90-100
No. 50	7-40
No. 200	0-5

- C. Subsoil: Existing to be reused.
- D. Bridge Lift Material: Surge stone, granular fill, or shot rock fill.

1.7 ACCESSORIES

- A. Curing Seal: Asphalt Emulsion Primer.
- B. Geotextile Fabric for Stabilization: Provide one of the following or approved alternate:
1. Mirafi HP 370 or HP 570, by TenCate.
 2. Mirafi 140N, by TenCate
 3. SF40 or SF65, by DuPont.
 4. GTF-200 or 300, by Thrace-LINQ.
 5. TerraTex HD, by Hanes.
- C. Geogrid for Stabilization: Provide one of the following or approved alternate:
1. Biaxial Geogrid Type 1 (formerly BX 1100), by Tensar.
 2. Biaxial Geogrid Type 2 (formerly BX 1200), by Tensar.
 3. Mirafi BXG 11, by TenCate.
 4. Mirafi BXG 12, by TenCate.
 5. SF 11, by Synteen.
 6. SF 12, by Synteen

PART 3 EXECUTION

1.8 PREPARATION

- A. Obtain approval of mix design before proceeding with placement.
- B. Start stabilization only when weather and soil conditions are favorable for successful application of proposed material.
- C. Proofroll subgrade to identify areas in need of stabilization.

1.9 EQUIPMENT

- A. Perform operations using suitable, well maintained equipment capable of excavating subsoil, mixing and placing materials, wetting, consolidating, and compacting of material.

1.10 EXCAVATION

- A. Excavate subsoil to depth sufficient to accommodate soil stabilization.
- B. Remove lumped subsoil, boulders, and rock that interfere with achieving uniform subsoil conditions.
- C. Do not excavate within normal 45 degree bearing splay of any foundation.
- D. Notify Owner of unexpected subsurface conditions. Discontinue affected work in area until notified to resume work.
- E. Correct areas over-excavated in accordance with Section 02300.
- F. Remove excess excavated material from site.

1.11 GEOTEXTILE FABRIC AND/OR GEOGRID

- A. Place geotextile fabric and/or geogrid over subsoil surface, lap edges and ends in accordance with manufacturer's recommendations in those areas that are shown on Construction Drawings or in those areas that need additional stabilization prior to placement of base course. Bridge lift sections may require the use of geotextile fabric and/or geogrid for stabilization prior to placement of fill.
- B. Place geotextile fabric and/or geogrid in accordance with manufacturer's recommendations.

1.12 SOIL TREATMENT AND BACKFILLING

- A. Lime Stabilized Subgrade: As required after continual failure, treat prepared subgrade with hydrated lime in accordance with ALDOT specifications. Hydrated lime may be added at 3% to 5% by weight of the soil in order to improve the properties of the fine grained soils (silts and clays) as well as to reduce the moisture content of the soil to within the optimum range for compaction.
- B. Bridge Lifts: As required after continual failure, treat prepared subgrade by application of a bridge lift. Bridging over existing soils shall be acceptable only when approved in writing by the Owner. Place geotextile fabric or geogrid over existing soils to be bridged. The geotextile fabric or geogrid selected shall be appropriate for the bridge lift material being placed. Place bridge lift over geotextile fabric or geogrid. Surge stone and shot rock will be approved by the Owner's representative on a submittal basis. The Owner shall have sole discretion as to the acceptability of all submittals.
- C. Backfill and compaction of treated subsoil shall be in accordance with Sections 02300.
- D. Maintain optimum moisture of mixed materials to attain required stabilization and compaction.
- E. Finish subgrade surface in accordance with Section 02300.
- F. Remove surplus mix materials from site.

1.13 CURING

- A. Immediately following compaction of mix, seal top surface with curing seal.
- B. Do not permit traffic for 72 hours after sealing top surface.

1.14 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections. Owner T&I specified below shall not be considered a substitute for the Contractor's responsibility to perform similar routine, necessary, and customary testing and inspection of the methods and frequency suitable for the type of work involved.
- B. Unconfined compression tests on lime treated mixture shall be conducted in accordance with ASTM D1633. Mold three specimens for each mix design submitted by the Contractor to verify mix design meets the specified requirements. Cure each specimen at a constant moisture content and temperature for 28 days. Test for unconfined compressive strength and compare to the specified design strength. Perform test minimum of three weeks prior to proposed stabilization activities.
- C. Field Density: Field in-place density shall be determined as specified in Section 02300.

END OF SECTION

SECTION 02375 – STONE PROTECTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Rip-rap, bedding, and filter fabric for stone slope protection.
- B. Related Requirements:
 - 1. Section 02300 – Earthwork: Geotextile fabric

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Rip-Rap: Stone for rip-rap shall consist of field stone or rough unhewn quarry stone conforming to ALDOT Class 2 or 3 as indicated on the drawings. Stones shall be dense, resistant to action of air and water, and suitable for purpose intended.
- B. Bedding Stone: Quarried and crushed angular limestone, 6-inches in depth, and with the following gradation:

Sieve Designation	% By Weight Passing Square Mesh Sieves
3"	100
No. 4	20-65
No. 200	0-10

- C. Filter Fabric: Geotextile fabric shall be as specified in Section 02340 and as detailed on Construction Drawings.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Start stabilization only when weather and soil conditions are favorable for successful application of proposed material.
- B. Notify Construction Manager of unexpected subsurface conditions. Discontinue affected work in area until notified to resume work.
- C. Dress slopes and other areas to be protected to line and grade shown on Construction Drawings prior to placing of rip-rap. Undercut areas to receive rip-rap to elevation equal to final elevation less average diameter of stones before placing rip-rap.
- D. Correct areas over-excavated in accordance with Section 02300.
- E. Remove excess excavated material from site.

3.2 PLACEMENT

- A. Place rip-rap in areas where indicated on Construction Drawings.
- B. Install filter fabric and bedding stone prior to placement of rip-rap if so indicated on Construction Drawings.

- C. Place stones so that greater portion of weight is carried by earth and not by adjacent stones. Place stones in single layer with close joints. Upright areas of stone shall make angle of approximately 90 degrees with embankment slope. Place courses from bottom of embankment upward, with larger stones being placed in lower courses. Fill open joints with spalls. Embed stones in embankment as necessary to present uniform top surface such that variation between tops of adjacent stones shall not exceed 3 inches.

3.3 GEOTEXTILE FABRIC AND/OR GEOGRID

- A. Place geotextile fabric over subsoil surface, lap edges and ends in accordance with manufacturer's recommendations and as shown on the Drawings.

END OF SECTION

SECTION 02536 - MANHOLES, FRAMES, AND COVERS

PART 1 - GENERAL

1.1 SUMMARY

1.2 Section Includes:

1. Monolithic concrete, modular precast concrete, masonry, and precast polyethylene manhole assemblies.

1.3 Related Requirements:

1. Section 02300 - Earthwork. Excavation, backfill, and compaction
2. Section 02630 - Storm Drainage

1.4 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. ASTM International (ASTM):
 1. ASTM A48 - Gray Iron Castings.
 2. ASTM C55 - Concrete Building Brick.
 3. ASTM C94 - Ready Mixed Concrete.
 4. ASTM C478 - Precast Reinforced Concrete Manhole Sections.
 5. ASTM C990 - Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants
 6. ASTM D1248 - Polyethylene Plastics Molding and Extrusion Materials.
 7. ASTM D2412 - Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading.
- C. International Masonry Industry All-Weather Council (IMIAC):
 1. Recommended Practices and Guide Specification for Cold Weather Masonry Construction.
- D. Alabama Department of Transportation (ALDOT), Construction and Material Specifications.

1.5 SUBMITTALS

- A. Shop Drawings: Indicate reference to Construction Drawings of manhole locations, elevations, piping with sizes, locations, and elevations of penetrations.

PART 2 - PRODUCTS

2.1 MANHOLES

- A. Precast Concrete: Reinforced precast concrete barrel.
 1. Manhole Sections: ASTM C478.
 2. Joints and Joint Sealant: Joint between manhole barrel sections shall conform to ASTM C990 using preformed flexible joint sealant.
 3. Pipe Connection Sealant: Joint material between manhole barrel and adjoining pipe shall be as shown on the drawings.
 4. Construct manholes of precast concrete sections as required by Construction Drawings to size, shape, and depth indicated.
- B. Concrete Brick: ASTM C55, Grade N Type I-moisture controlled, normal weight, of same grade, type and weight as block units, nominal modular size of 3 5/8-inches x 7 5/8-inches x 2 1/4-inches.
- C. Mortar and Grout: Mortar for finishing and sealing shall be Class "C". Honeycombing less than 2-inches deep shall be repaired using Class "D" mortar.

- D. Brick Transition Reinforcement: Formed steel 8-gauge wire with galvanized finish.
- E. Configuration:
 - 1. Barrel Construction: Concentric with eccentric cone top section.
 - 2. Shape: Cylindrical or square.
 - 3. Clear Inside Dimensions: 48-inches diameter minimum or as required to accommodate specified pipe sizes and maintain structural integrity of barrel..
 - 4. Design Depth: As indicated on Construction Drawings.
 - 5. Clear Lid Opening: 22-inches minimum.
 - 6. Pipe Entry: Provide openings as indicated on Construction Drawings.
 - 7. Main and Lateral Pipes: Neatly cut off main and lateral pipes flush with inside of manhole or inlet where they enter structure walls. Point up irregularities and rough edges with nonshrinking grout.

2.2 COMPONENTS

- A. Lid and Frame:
 - 1. Manufacturer: One of the following or approved equal:
 - a. Bass & Hays Foundry.
 - b. Deeter Foundry, Inc.
 - c. East Jordan Iron Works.
 - d. Neenah Foundry.
 - e. U.S. Foundry & Manufacturing
 - 2. See Construction Drawings for lid and frame model numbers.
 - 3. ASTM A48, Class 30B minimum, heavy duty cast iron construction, machined flat bearing surface.
 - 4. Removable lid, closed or open as indicated on Construction Drawings, with sealing gasket.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify items specified by other Sections are properly sized and located.
- B. Verify that built-in items are in proper location and ready for roughing into work.
- C. Verify that the excavation for manholes is correct.

3.2 PREPARATION

- A. Coordinate placement of inlet and outlet pipe or duct sleeves as indicated on Construction Drawings.

3.3 PRECAST MANHOLE CONSTRUCTION

- A. Place gravel base pad to proper elevation and location. Compact gravel pad to 98% of the Standard Proctor Density per ASTM D698.
- B. Place manhole barrel plumb and level to correct elevations.
 - 1. After completion of gravel pad, lower first joint of manhole barrel into position, and set level and plumb on gravel base. Align and adjust to proper grade prior to placing and forming invert. Pour invert immediately after setting of first section of manhole barrel.
 - 2. Prior to setting subsequent manhole barrel sections, apply primer to tongue and groove ends and allow to set in accordance with manufacturer's recommendations. Place joint sealant on tongue end. Lower next section into position, and remove excess material from interior of structure. Add additional material on exterior of joint, if necessary, for completely watertight joint.
- C. Set cover frames and lids level without tipping, to correct elevations. Utilize pre-cast rings or brick and mortar to achieve final rim elevation. Maximum limit, 4 courses.

END OF SECTION

SECTION 02630 - STORM DRAINAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Storm sewer drainage piping, fittings, and accessories.
 2. Storm drainage structures.

1.2 Related Requirements:

1. Section 02300 – Earthwork: Excavation, trenching, backfill, and compaction.
2. Section 02536 - Manholes, Frames, and Covers.

1.3 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. American Association of State Highway and Transportation Officials (AASHTO):
1. AASHTO M 170 – Reinforced Concrete Culvert, Storm Drain and Sewer Pipe.
 2. AASHTO M 198 - Joints for Circular Sewer and Culvert Pipe Using Flexible Watertight Gaskets.
 3. AASHTO M 252 - Corrugated Polyethylene Drainage Tubing, 3 to 10 Inch Diameter.
 4. AASHTO M 294 - Corrugated Polyethylene Drainage Tubing, 12 to 60 Inch Diameter.
- C. ASTM International (ASTM):
1. ASTM A 185 - Steel welded Wire Fabric, Plain, for Concrete Reinforcement.
 2. ASTM A 615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
 3. ASTM A 746 - Ductile Iron Gravity Sewer Pipe.
 4. ASTM A 760 - Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains.
 5. ASTM A 796 - Structural Design of Corrugated Steel Pipe, Pipe-Arches, And Arches for Storm and Sanitary Sewers and Other Buried Applications.
 6. ASTM A 798 - Factory-Made Corrugated Steel Pipe for Sewers and Other Applications.
 7. ASTM A 929 - Steel Sheet, Metallic-Coated by The Hot-Dip Process for Corrugated Steel Pipe.
 8. ASTM C 76 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
 9. ASTM C 150 - Portland Cement.
 10. ASTM C 206 - Finished Hydrated Lime.
 11. ASTM C 443 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
 12. ASTM C 564 - Rubber Gasket for Cast Iron Soil Pipe and Fittings.
 13. ASTM C 990 - Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
 14. ASTM D 3034 - Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings.
 15. ASTM D 3212 - Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
 16. ASTM F 477 - Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
 17. ASTM F 949 - Poly (Vinyl Chloride)(PVC) Corrugated Sewer Pipe with Smooth Interior and Fittings.
 18. ASTM F 1417 - Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air.
 19. ASTM F 2306 - 12 to 60 Annular Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications.
- D. American Concrete Institute (ACI):
1. ACI 301 - Structural Concrete for Buildings.

1.4 SUBMITTALS

- A. Project Record Documents:
1. Accurately record actual locations of pipe runs, connections, catch basins, cleanouts, and invert elevations.
 2. Identify and describe unexpected variations to subsoil conditions and location of uncharted utilities.

1.5 PROJECT CONDITIONS

- A. Coordinate work with termination of storm sewer connection outside building including connection to municipal storm sewer system.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

- A. Pipe and joint materials specified below for storm drainage shall be allowed in all storm drainage applications indicated on the Construction Drawings unless otherwise noted.
- B. Reinforced Concrete Pipe (RCP): ASTM C 76, Class III unless noted otherwise on Drawings.
 - 1. Joint Material: Provide joints to the extent allowable in Part 3 Joints.
 - a. Rubber O-ring Gasket: AASHTO M 198, Type B or ASTM C 443.
 - 2. Head or End Wall Sections: ASTM C 76 or, for sections with toe wall, AASHTO M 170.
- C. Ductile Iron Pipe (DIP): ASTM A 746.
 - 1. Fittings: Cast iron, ASTM A 74.
 - 2. Joint Material: Rubber Gasket, ASTM C 564 for compression joints.
- D. High Density Polyethylene Pipe (HDPE): AASHTO M 252 Type S, M 294 Type S, or ASTM F 2306 smooth interior/annular exterior.
 - 1. Joint Material:
 - a. Rubber Gasket.
 - 1) ADS N-12 WT by Advanced Drainage Systems, Inc.
 - 2) ADS N-12 ST by Advanced Drainage Systems, Inc.
 - 3) BLUE SEAL by Hancor, Inc.
 - 4) Sure-Lok by Hancor, Inc.
 - b. Corrugated Coupling Bands.
 - 1) Hi-Q by Hancor, Inc.
 - 2) ADS N-12 by Advanced Drainage Systems, Inc.
 - c. PE Wrap.
- E. Polyvinyl Chloride (PVC) Pipe: ASTM D 3034, rated SDR 35, or ASTM F 949 for Profile Pipe, continually marked with manufacturer's name, pipe size, cell classification, SDR rating, and ASTM D3034 classification. Use only for diameters 12' and smaller.
 - 1. Pipe joints conforming to ASTM D 3212.
 - 2. Joint Material: Restrained Gasket, ASTM F 477.
- F. Spiral Rib Metal Pipe: ASTM A760 Type 1R or Type IIR. Coatings shall meet requirements of ASTM A 929 and shall be aluminized.
 - 1. Minimum pipe gauge shall be 16.. Standard corrugated steel pipe (CMP or CSP) shall not be substituted for Spiral Rib Metal Pipe.
 - 2. Acceptable manufacturers: Provide the following or approved equal:
 - a. Ultra Flo or Ultra Flo II by Contech, Inc.
 - b. Max Flow by Southeast Culvert, Inc.
 - c. Max Flow by St. Regis Culvert, Inc.
 - d. Max Flow by Thompson Culvert, Inc.
 - 3. Joint Material: Provide joints to the extent allowable in Part 3 Joints.
 - a. Semi-corrugated "Hugger" type bands and "O" ring gaskets.
 - 4. Semi-corrugated "Hugger" type bands.
- G. Subdrains: Perforated, PVC or flexible corrugated plastic pipe as specified herein of the size indicated on the drawings.

2.2 DRAINAGE STRUCTURES

- A. Manholes: Conform to Section 02536.

1. All drainage structure castings shall include the words "No Dumping – Drains to Waterway" or similar language. Exact language to be approved by the City of Moody.
- B. Grates and Frames: Provide in accordance with details shown on Drawings or equivalent by one of the acceptable manufacturers.
1. Acceptable Manufacturer offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Bass & Hays Foundry.
 - b. Deeter Foundry, Inc.
 - c. East Jordan Iron Works.
 - d. Neenah Foundry.
 - e. U.S. Foundry & Manufacturing.
 2. See Construction Drawings for frame and grate model numbers.
 3. Standard Grates and Frames: Heavy duty grates, with maximum slot width of 1-1/8".
 4. All drainage structure castings shall include the words "No Dumping – Drains to Waterway" or similar language. Exact language to be approved by the City of Moody.
- C. Cast-In-Place concrete for drainage structures including manholes, inlets, catch basins, collars, support blocks, headwalls and paved ditches shall conform to ACI 301.
1. Compressive Strength: 3500 psi at 28 days.
 2. Reinforcement: ASTM A 615, grade 60 deformed reinforcing bars, and ASTM A 185 for wire fabric.
- D. Cement Mortar used for paving inverts, filling lift holes, joints, patching and anchoring castings shall consist of one part Portland cement, type I, ASTM C 150, 1/4 part hydrated lime, ASTM C 206 and 2-1/2 parts clean, well-graded sand and water free of suspended matter, alkali, and containing no industrial or domestic waste.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that trench cut and excavation is ready to receive work and excavations, dimensions, and elevations are as indicated on Drawings.

3.2 PREPARATION

- A. Hand trim excavations to required elevations. Correct over-excavation with bedding material.
- B. Remove large stones or other hard matter that could damage piping or impede consistent backfilling or compaction.
- C. Protect benchmarks, property corners, and other survey monuments from damage or displacement. If marker needs to be removed it shall be referenced by licensed land surveyor and replaced, as necessary, by same.

3.3 INSTALLATION – PIPE

- A. Install pipe as shown on the drawings. Installation provisions herein shall apply to the extent as applicable to the pipe and joints allowed.
- B. Inspect pipe for defects and cracks before being lowered into the trench, piece by piece. Remove and replace defective, damaged or unsound pipe or pipe that has had its grade disturbed after laying. Protect open ends with a stopper to prevent earth or other material from entering the pipe during construction. Remove dirt, excess water, and other foreign materials from the interior of the pipe during the pipe laying progress.
- C. Excavate pipe trench and place bedding material in accordance with Section 02300.
- D. Install pipe in accordance with manufacturer's written recommendations.

- E. Spiral Rib Metal Pipe: Install as indicated on the drawings, as recommended by the manufacturer, and in accordance with ASTM A 798 and A 796 as they apply.
- F. HDPE Pipe: Install pipe in accordance with pipe manufacturer's installation Guidelines for Culvert Storm Drainage Applications and as indicated on the drawings.
- G. RCP: Install pipe in accordance with ASTM C1479 and ACPA's "Concrete Pipe Installation Manual."
- H. PVC Pipe: Install pipe in accordance with ASTM D2321 and ASTM F1668.
- I. DI Pipe: Install pipe in accordance with AWWA C600 or AWWA M41.
- J. Commence installation at the lowest point for each segment of the route. Lay RCP with the female or bell end upstream.
- K. Lay pipe to the required line and slope gradients with the necessary fittings, bends, manhole, risers and other appurtenances placed at the required location as noted on Drawings.
- L. Do not displace or damage pipe when compacting.
- M. Do not place pipe in water or when trench conditions are unsuitable for such work.
- N. Joints:
Construct joints as described herein and in accordance with manufacturer's installation instructions. Provide pipe joint type for silt-tight or watertight only.

3.4 INSTALLATION – MANHOLES, CATCH BASINS, INLETS, AND JUNCTION BOXES

- A. Construct drainage structures in accordance with details shown on Drawings and in accordance with Section 02536 as applicable.
- B. Precast Sections:
 - 1. Install precast section with bases in accordance with Section 02300 and 02536 or as shown on drawings.
 - 2. Align pipe openings to that of the pipe entering and leaving the manhole, etc. Properly Pipe with connections to manholes, etc. as shown on the drawings.
- C. Frames and Covers:
 - 1. Set frames and covers to the proper elevation. Firmly embed frames in mortar approximately 1 inch thick and align to fit the top section of the structure.
 - 2. Limit bricks set in mortar and used to adjust the frame to finished grade to no more than four courses.
 - 3. Adjustment rings used to make adjustments in grade shall be made with the initial ring embedded in mortar and the exterior of the rings parged with mortar not less than 1/2 inch thick. No adjustment made in this manner shall exceed 8 inches.
- D. Construct concrete cradles as needed when crossing over and under sewer pipe or utility lines. Concrete shall be 3000 psi mix with a minimum thickness of 6 inches.

3.5 SUBDRAINS

- A. Install subdrains in accordance with the details.

3.6 INSPECTION AND TESTING

- A. General:
 - 1. Clean, inspect, and test Storm sewer systems and culverts, upon completion or at such time as directed. The system or culvert shall have a true grade and line. Actual elevations shall be within 0.08 feet of the elevations given on the drawings.

2. After completion of the Work, or any part thereof, the job shall be tested to determine that it has been installed in accordance with the drawings and specifications. In general, the Work shall prove to be in good condition, installed in accordance with the drawings and specifications and ready for use.

B. Cleaning and Testing:

1. Visibly inspect and remove all debris and obstructions from storm pipe.

C. Alignment Test: After backfill has been placed and compacted to a depth not less than one foot above top of pipe, a visual inspection shall be made by flashing a light between manholes. Correct displacement or misalignment of invert.

END OF SECTION

SECTION 02765 (32 1723) - PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Painting and marking of pavements, curbs, guard posts, and light pole bases.

B. Related Requirements:

1. Section 01743 - Hazardous/Universal Waste Management and Disposal: Hazardous waste management and disposal related to removal of existing pavement markings.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. American Association of State Highway and Transportation (AASHTO):
1. AASHTO M247 - Glass Beads Used in Traffic Paints
 2. AASHTO M248 - Ready-Mixed White and Yellow Traffic Paints
- C. ASTM International (ASTM):
1. ASTM D4414 - Standard Practice for Measurement of Wet Film Thickness by Notched Gauges.
- D. Federal Specifications (FS):
1. FS A-A-2886 - Paint, Traffic, Solvent Based (supersedes FS TT-P-85 and FS TT-P-115, Type I)
 2. FS TT-B-1325 - Beads (Glass Spheres) Retro-Reflective
 3. FS TT-P-1952 - Paint, Traffic and Airfield Marking, Waterborne

1.3 PROJECT CONDITIONS

- A. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Paint shall be waterborne or solvent borne, colors as shown or specified herein. Pavement marking paints shall comply with applicable state and local laws enacted to ensure compliance with Federal Clean Air Standards. Paint materials shall conform to the restrictions of the local Air Pollution Control District.
- B. Waterborne Paint: Paints shall conform to FS TT-P-1952.
- C. Solvent Borne Paint: Paint shall conform to FS A-A-2886 or AASHTO M248. Paint shall be non-bleeding, quick-drying, and alkyd petroleum base paint suitable for traffic-bearing surface and be mixed in accordance with manufacturer's instructions before application for colors White, Yellow, Blue, and Red.
- D. Glass Beads: AASHTO M 247, Type 1 or FS TT-B-1325, Type 1, Gradation A.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine the work area and correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- A. Sweep and clean surface to eliminate loose material and dust.
- B. Where existing pavement markings are indicated on Construction Drawings to be removed or would interfere with adhesion of new paint, a motorized abrasive device shall be used to remove the markings. Equipment employed shall not damage existing paving or create surfaces hazardous to vehicle or pedestrian traffic. Within public rights-of-way, appropriate governing authority shall approve method of marking removal.
- C. New pavement surfaces shall be allowed to cure for not less than 30 days before application of marking materials.

3.3 CLEANING EXISTING PAVEMENT MARKINGS

- A. Remove existing pavement markings which are in good condition but interfere or conflict with the newly applied marking patterns. Deteriorated or obscured markings that are not misleading or confusing or do not interfere with the adhesion of the new marking material do not require removal. Conduct grinding, scraping, sandblasting or other operations in such a manner that the finished pavement surface is not damaged or left in a pattern that is misleading or confusing. Use dust collection system when pavement preparation includes grinding, scraping or sandblasting of existing pavement markings. Comply with the requirements of Section 01743 for management and disposal of hazardous wastes.

3.4 APPLICATION

- A. Apply two coats of same color of paint as specified below, at manufacturer's recommended rate, without addition of thinner, with maximum of 100 square feet per gallon or as required to provide a minimum wet film thickness of 15 mils and dry film thickness of 7 ½ mils per coat. Paint shall be applied for a total dry film thickness of 15 mils. Apply with mechanical equipment to produce uniform straight edges. At sidewalk curbs and crosswalks, use straightedge to ensure uniform, clean, and straight stripe.
- B. Install pavement markings according to manufacturer's recommended procedures for the specified material.
- C. Following items shall be painted with colors noted below:
 - 1. Pedestrian Crosswalks: White
 - 2. Exterior Sidewalk Curbs and Guard posts: Yellow
 - 3.
- D. Apply glass beads at pedestrian crosswalk striping and at lane striping and arrows at driveways connecting to public streets. Broadcast glass beads uniformly into wet markings at a rate of 6 lb/gal.

3.5 FIELD QUALITY CONTROL

- A. Field quality control shall be the responsibility of the Contractor in accordance with Section 01452. Field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements.

3.6 CLEANING

- A. Waste materials shall be removed at the end of each workday. Upon completion of the work, all containers and debris shall be removed from the site. Paint spots upon adjacent surfaces shall be carefully removed by approved procedures that will not damage the surfaces and the entire job left clean and acceptable.

END OF SECTION

SECTION 02770 – CURBS, SIDEWALKS AND SIDEWALKS

PART 1 - GENERAL

SUMMARY

- A. Section Includes:
 - 1. Portland cement concrete curbs, gutters, sidewalks and dumpster pads.
- B. Related Requirements:
 - 1. Section 02300 - Earthwork: Preparation of subgrades.

REFERENCES

- C. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- D. American Concrete Institute (ACI):
 - 1. ACI 305R - Hot Weather Concreting
 - 2. ACI 306R - Cold Weather Concreting
 - 3. ACI 306.1 - Cold Weather Concreting.
 - 4. ACI 308 - Curing Concrete
- E. ASTM International (ASTM):
 - 1. ASTM A185 - Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 - 2. ASTM A615 - Deformed and Plain Billet-Steel for Concrete Reinforcement.
 - 3. ASTM C31 - Making and Curing Concrete Test Specimens in the Field.
 - 4. ASTM C39 - Comprehensive Strength of Cylindrical Concrete Specimens.
 - 5. ASTM C42 - Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
 - 6. ASTM C94 - Ready-Mixed Concrete.
 - 7. ASTM C138 - Test Method for Unit Weight, Yield, and Air Content (Gravimetric) of Concrete.
 - 8. ASTM C143 - Slump of Hydraulic Cement Concrete.
 - 9. ASTM C231 - Air-Content of Freshly Mixed Concrete by the Pressure Method.
 - 10. ASTM C172 - Sampling Freshly Mixed Concrete.
 - 11. ASTM C173 - Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.
 - 12. ASTM C260 - Air-Entraining Admixtures for Concrete.
 - 13. ASTM C309 - Liquid Membrane-Forming Compounds for Curing Concrete.
 - 14. ASTM C618 - Fly Ash and Raw or Calcined Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete.
 - 15. ASTM C989 - Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.
 - 16. ASTM C1064 - Temperature of Freshly Mixed Portland Concrete Cement.
 - 17. ASTM D994 - Preformed Expansion Joint Filler for Concrete (Bituminous).
 - 18. ASTM D1190 - Concrete Joint Sealer, Hot Poured, Elastic Type.
 - 19. ASTM D1751 - Performed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
 - 20. ASTM D2628 - Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements.
- F. Federal Specifications (FS):
 - 1. FS HH-F-341 - Fillers, Expansion Joint: Bituminous (Asphalt & Tar)
- G. State Highway Department Standard Specifications

SUBMITTALS

- H. Mix Design:
 - 1. Submit three copies of each proposed mix.
 - 2. Submit separate mix design for concrete to be placed by pumping in addition to the mix design for concrete to be placed directly from the truck chute.

3. Submit mix design to the Civil Engineering Consultant of Record, the Owner's Construction Testing Laboratory, and the Owner's Assigned Concrete Sub-Consultant.
 4. Include applicable information shown on the Mix Design Submittal Form and the following:
 - a. Proportions of cementitious materials, fine and coarse aggregate, and water.
 - b. Water-cementitious material ratio, 28-day compressive design strength, slump, and air content.
 - c. Type of cement, fly ash, slag and aggregate.
 - d. Aggregate gradation.
 - e. Type and dosage of admixtures.
 - f. Special requirements for pumping.
 - g. Range of ambient temperature and humidity for which design is valid.
 - h. Special characteristics of mix which require precautions in mixing, placing, or finishing techniques to achieve finished product specified.
 - i. Materials and methods for curing concrete.
- I. Submit certified laboratory test data or manufacturer's certificates and data for the items listed below certifying that materials are in conformance requirements specified herein. Submit to the Engineering Consultant of Record and the Construction Testing Laboratory for review and approval and within 7 calendar days after receipt of Notice-to-Proceed.
1. Concrete mix design(s)
 2. Type and source of Portland cement, fly ash, and slag
 3. Aggregate gradations
 4. Preformed expansion joint filler
 5. Field molded/poured sealant
 6. Dowel bars
 7. Expansion sleeves
 8. Tie bars
 9. Reinforcing steel bars
 10. Welded wire fabric
 11. Air entraining admixtures
 12. Water-reducing, set-retarding and set-accelerating admixtures (if used)
- J. Test Reports: Submit field quality control test reports.

PROJECT CONDITIONS

- K. Maintain access for vehicular and pedestrian traffic as required for other construction activities. Utilize temporary striping, flagmen, barricades, warning signs, and warning lights as required.

PART 2 - PRODUCTS

MATERIALS

- A. Forms: Steel, wood, or other suitable material of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects. Use flexible spring steel forms or laminated boards to form radius bends as required. Forms shall be of depth equal to depth of curbing or sidewalk, and so designed as to permit secure fastening together at tops. Coat forms with non-staining type of coating that will not discolor or deface surface of concrete.
- B. Welded Wire Mesh: Welded plain cold-drawn steel wire fabric, ASTM A185. Furnish in flat sheets.
- C. Reinforcing Steel: Deformed steel bars, ASTM A615, Grade 60.
- D. Portland Cement: Shall conform to ASTM C150, Type I.
- E. Fly Ash: ASTM C618, Class C or F. Use only one type and source throughout project.
- F. Slag: ASTM C989, Grade 100 or 120. Use only one type and source throughout project.
- G. Exterior Pavement Joint Materials
1. Joint Back-up Material: Polyethylene foam, 100% closed cell.

2. Sealant:
 - a. Dow 888, by Dow Corning.
 - b. 301 NS by Pecora.
 - c. Spectrum 800 or 900 by Tremco.

- H. Aggregate: ASTM C33.

- I. Water: Clean and potable

- J. Dowel Bars: ASTM A615, grade 60, and plain steel bars.

- K. Air Entrainment: ASTM C260. .
 1. Air-Mix or AEA-92, by Euclid Chemical Corp.
 2. MB-VR MB-AE 90, or Micro-Air, by BASF.
 3. Daravair or Darex Series, by W.R. Grace.
 4. Equivalent approved products.

- L. Liquid Membrane Curing and Sealing Compound: ASTM C1315, Type I, Class A or B, 25% minimum solids content, clear non-yellowing with no styrene-butadiene.
 1. Water Based, VOC less than 350 g/l:
 - a. Super Aqua Cure, by Euclid Chemical Corp.
 - b. Kure 1315 by BASF.
 2. Solvent Based
 - a. Super Rez-Seal, by Euclid Chemical Corp.
 - b. Kure-N-Seal 30 by BASF.

- M. Dissipating Curing Compound: ASTM C309 Type 1, Class A or B.
 1. Solvent base, VOC less than 350 g/l: Cetri Vex EnvioCure 100 by Vexcon.

CONCRETE MIXING

- N. Mix concrete and deliver in accordance with ASTM C94. Design mix shall produce normal weight concrete consisting of Portland cement, supplementary cementitious materials, aggregates, admixtures and water to produce the following:
 1. Compressive Strength for curbs, gutters and sidewalks: 3,000 psi minimum at 28 days unless otherwise indicated on the Drawings.
 2. Compressive Strength for dumpster pads: 4,000 psi minimum 28 day compressive strength with a modulus of rupture of 630 psi.
 3. Slump Range: 2"-4" for hand placed concrete, 1-1/4" to 3" for machine placed (slipform) concrete.
 4. Air Entrainment: 5 to 8 percent.

- O. Supplementary Cementitious Materials (SCM):
 1. Concrete mix shall contain SCM at the amounts specified unless other amounts are approved by the Civil Engineer. Either fly ash or ground granulated blast furnace slag (GGBFS) may be used for the SCM but shall not be used together to form a ternary mix. Use of fly ash or GGBFS in the concrete mix is mandatory.
 2. Fly Ash: Substitute fly ash for Portland cement at 15% of the total cementitious content.
 - a. If used to mitigate potential aggregate reactivity, only Type F fly ash may be used and shall have the following maximum properties: 1.5% available alkali and 8.0% CaO. When a maximum of 25% replacement is used, up to 10.0% CaO is permitted.
 3. Ground Granulated Blast Furnace Slag (GGBFS): Substitute GGBFS for Portland cement at 20% of the total cementitious content.
 - a. If required to mitigate potential sulfate exposure or aggregate reactivity, up to 50% substitution of Portland cement is allowed.
 4. Maintain air-entrainment at specified levels.

PART 3 - EXECUTION

PREPARATION

- A. Begin paving work only after unsuitable areas have been corrected and are ready to receive paving.
- B. Remove loose material from compacted base material surface to produce firm, smooth surface immediately before placing concrete.

INSTALLATION

- C. Form Construction
 - 1. Set forms to required grades and lines, rigidly braced and secured.
 - 2. Install sufficient quantity of forms to allow continuance of work and so that forms remain in place minimum of 24 hours after concrete placement.
 - 3. Check completed formwork for grade and alignment to following tolerances:
 - a. Top of forms not more than 1/8-inch in 10'-0".
 - b. Vertical face on longitudinal axis, not more than 1/4-inch in 10'-0".
 - 4. Clean forms after each use and coat with form release agent as often as required to ensure separation from concrete without damage.
- D. Reinforcement: Fasten reinforcing bars or welded wire fabric (if required) accurately and securely in place with suitable supports and ties. Remove from reinforcement all dirt, oil, loose mill scale, rust, and other substances that will prevent proper bonding of the concrete to the reinforcement.
- E. Concrete Placement
 - 1. Concrete shall be mixed and placed when the air temperature in the shade and away from artificial heat is a minimum of 35 degrees F and rising. Hot and cold weather concreting shall be in accordance with ACI 305R (hot weather) and 306.1 and 306R (cold weather). Do not place concrete until base material and forms have been checked for line and grade. Moisten base material if required to provide uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until set at required finish elevation and alignment.
 - 2. Place concrete using methods that prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Consolidate with care to prevent dislocation of reinforcing, dowels, and joint devices.
 - 3. Deposit and spread concrete in continuous operation between transverse joints, as far as possible. If interrupted for more than 1/2 hour, place construction joint. Automatic machine may be used for curb and gutter placement. Machine placement shall be at required cross section, line, grade, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified herein.
- F. Joint Construction
 - 1. Contraction Joints: Construct concrete curb or combination concrete curb and gutter, where specified on Construction Drawings, in uniform sections of length specified on Construction Drawings. Form joints between sections either by steel templates, 1/8-inch in thickness, of length equal to width of curb and gutter, and with depth which will penetrate at least 2-inches below surface of curb and gutter; or with 3/4-inch thick performed expansion joint filler cut to exact cross section of curb and gutter; or by sawing to depth of at least 2-inches while concrete is between 4 and 24 hours old. If steel templates are used, they shall be left in place until concrete has set enough to hold its shape, but shall be removed while forms are still in place.
 - 2. Transverse Expansion Joints: Concrete curb, combination concrete curb and gutter, or concrete sidewalk shall have filler cut to exact cross section of curb, gutter, or sidewalk. Joints shall be similar to type of expansion joint used in adjacent pavement.
- G. Joint Fillers: Extend joint fillers full-width and depth of joint, and not less than 1/2-inch or more than 1-inch below finished surface where joint sealer is indicated. Furnish joint fillers in 1-piece lengths for full width being placed, wherever possible. Where more than 1 length is required, lace or clip joint filler sections together.
- H. Joint Sealants: Install in accordance with manufacturer's recommendations.

CONCRETE FINISHING

- I. After striking off and consolidating concrete, smooth surface by screeding and floating. Adjust floating to compact surface and produce uniform texture. After floating, test surface for trueness with 10'-0" straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide continuous smooth finish.
- J. Work edges of sidewalks, gutters, back top edge of curb, and formed joints with edging tool, rounding edge to 1/2-inch radius. Eliminate tool marks on concrete surface. After completion of floating and troweling, when excess moisture or surface sheen has disappeared, complete surface finishing, as follows:
 - 1. Broom finish by drawing fine-hair broom across surface perpendicular to flow of traffic. Repeat operation as necessary to produce fine line texture.
- K. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point up minor honeycombed areas. Remove and replace areas or sections with major defects as directed Owner.
- L. Check surface areas at intervals necessary to eliminate ponding areas. Remove and replace unacceptable work as directed by Owner.

CURING AND PROTECTION

- M. Protect and cure finished concrete paving using with curing compound or with acceptable moist-curing methods in accordance with "water-curing" section of ACI 308. Cure for a period not less than 7 days.
- N. Use solvent based curing compound when compound is applied below 40 F.

BACKFILL

- O. After concrete has set sufficiently, spaces on either side of concrete curb, combination concrete curb and gutter, concrete sidewalk or concrete dumpster pad shall be refilled to required elevation with suitable material compacted in accordance with Section 02300.

CLEANING AND PROTECTION

- P. Sweep concrete pavement and wash free of stains, discolorations, dirt, and other foreign material just prior to final inspection.
- Q. Protect concrete from damage until acceptance of work. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials.

FIELD QUALITY CONTROL

- R. Field quality control shall be the responsibility of the Contractor. Field quality control testing and inspection shall be at the discretion of the Contractor as necessary to assure compliance with Contract requirements.

END OF SECTION

SECTION 02890 (34 4113) - TRAFFIC SIGNS AND SIGNALS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Traffic control signs.
- B. Related Requirements:
 - 1. Section 09900 - Painting. Painting for painted posts where shown on the Drawings.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by the basic designation only.
- B. ASTM International (ASTM):
 - 1. ASTM A53 - Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - 2. ASTM C94 - Ready Mix Concrete
 - 3. ASTM D4956 - Retroreflective Sheeting for Traffic Control.
- C. US Department of Transportation, Federal Highway Administration:
 - 1. Manual on Uniform Traffic Control Devices (MUTCD).

PART 2 - PRODUCTS

2.1 SIGNS

- A. Conform to US Department of Transportation [MUTCD](#). Sign classification, type, size, and color shall be as shown on the drawings
- B. Retroreflectivity: Microprismatic type sheeting conforming to ASTM D 4956, Type VIII, IX, or XI.

2.2 POSTS

- A. Square Post: Square tubular steel sign post, galvanized, 12 ga, perforated full-length with 7/16 inch holes on four sides. Post size shall be as shown on the Drawings.
- B. Steel Pipe: ASTM A 53, Type E (electric-resistance welded) or Type S (seamless), Grade B, Schedule 40, size as shown on the Drawings.

2.3 CONCRETE

- A. Mix concrete and deliver in accordance with ASTM C 94.
- B. Design mix to produce normal weight concrete consisting of Portland cement, aggregate, water-reducing admixture, air-entraining admixture, and water to produce following:
 - 1. Compressive Strength: 3,500 psi, minimum at 28 days, unless otherwise indicated on the Drawings.
 - 2. Slump Range: 1 to 3-inches at time of placement
 - 3. Air Entrainment: 5 to 8 percent

PART 3 - EXECUTION

3.1 PREPARATION

- A. Field verify underground utilities prior to sign installation. Primary utilities of concern of shallow depths are lawn sprinkler systems, electric, telephone, fiber optic, cable and gas.

3.2 INSTALLATION

- A. Install signs as shown on the Drawings and in accordance with MUTCD and manufacturer's instructions.
- B. Install signs of the type and at locations shown on the Drawings.
- C. Install posts of the type as shown on the drawing.
- D. Where shown as painted, field paint steel pipe posts in accordance with Section 09900.

END OF SECTION

SECTION 01 5639 - TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.
- B. Related Requirements:
 - 1. Section 01 5000 "Temporary Facilities and Controls" for temporary site fencing.
 - 2. Section 31 1000 "Site Clearing" for removing existing trees and shrubs.

1.03 DEFINITIONS

- A. Caliper (DBH): Diameter breast height; diameter of a trunk as measured by a diameter tape at a height 54 inches above the ground line.
- B. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- C. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.04 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
 - 1. Include plans, elevations, sections, and locations of protection-zone fencing and signage, showing relation of equipment-movement routes and material storage locations with protection zones.
 - 2. Detail fabrication and assembly of protection-zone fencing and signage.
 - 3. Indicate extent of trenching by hand or with air spade within protection zones.
- C. Samples: For each type of the following:

1. Organic Mulch: 1-quart volume of organic mulch; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch.
 2. Protection-Zone Fencing: Assembled Samples of manufacturer's standard size made from full-size components.
 3. Protection-Zone Signage: Full-size Samples of each size and text, ready for installation.
- D. Tree Pruning Schedule: Written schedule detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
1. Species and size of tree.
 2. Location on site plan. Include unique identifier for each.
 3. Reason for pruning.
 4. Description of pruning to be performed.
 5. Description of maintenance following pruning.

1.05 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For arborist and tree service firm.
- B. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- C. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.
- D. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.
 1. Use sufficiently detailed photographs or video recordings.
 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.
- E. Quality-control program.

1.06 QUALITY ASSURANCE

- A. Arborist Qualifications: Certified Arborist-Municipal Specialist as certified by ISA.
- B. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed temporary tree and plant protection work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of the Work.
- C. Quality-Control Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work without damaging trees and plantings. Include dimensioned diagrams

for placement of protection zone fencing and signage, the arborist's and tree-service firm's responsibilities, instructions given to workers on the use and care of protection zones, and enforcement of requirements for protection zones.

1.07 FIELD CONDITIONS

- A. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Moving or parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- B. Do not direct vehicle or equipment exhaust toward protection zones.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Backfill Soil: Planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.
 - 1. Planting Soil: Planting soil as specified in Section 32 9113 "Soil Preparation."
- B. Organic Mulch: Free from deleterious materials and suitable as a top dressing for trees and shrubs, consisting of one of the following:
 - 1. Type: Shredded hardwood.
 - 2. Size Range: 3 inches maximum, 1/2 inch minimum.
 - 3. Color: Natural.
- C. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements. Previously used materials may be used when approved by Landscape Architect.
 - 1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch maximum opening in pattern and weighing a minimum of 0.4 lb/ft; remaining flexible from minus 60 to plus 200 deg F; inert to most chemicals and acids; minimum tensile yield

strength of 2000 psi and ultimate tensile strength of 2680 psi; secured with plastic bands or galvanized-steel or stainless-steel wire ties; and supported by tubular or T-shape galvanized-steel posts spaced not more than 96 inches apart.

- a. Height: 48 inches.
 - b. Color: High-visibility orange, nonfading.
- D. Protection-Zone Signage: Shop-fabricated, rigid plastic or metal sheet with attachment holes prepunched and reinforced; legibly printed with nonfading lettering and as follows:
1. Size and Text: As shown on Drawings.
 2. Lettering: 3-inch-high minimum, black characters on white background.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- B. Prepare written report, endorsed by arborist, listing conditions detrimental to tree and plant protection.

3.02 PREPARATION

- A. Locate and clearly identify trees, shrubs, and other vegetation to remain. Flag each tree trunk at 54 inches above the ground.
- B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- C. Tree-Protection Zones: Mulch areas inside tree-protection zones and other areas indicated. Do not exceed indicated thickness of mulch.
 1. Apply 2-inch uniform thickness of organic mulch unless otherwise indicated. Do not place mulch within 6 inches of tree trunks.

3.03 PROTECTION ZONES

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin in a manner that will prevent people from easily entering protected areas. Construct fencing so as not to obstruct safe passage or visibility at vehicle

intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.

- B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Landscape Architect. Install one sign spaced approximately every 35 feet (on protection-zone fencing, but no fewer than four signs with each facing a different direction).
- C. Maintain protection zones free of weeds and trash.
- D. Maintain protection-zone fencing and signage in good condition as acceptable to Landscape Architect and remove when construction operations are complete and equipment has been removed from the site.
 - 1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.
 - 2. Temporary access is permitted subject to preapproval in writing by arborist if a root buffer effective against soil compaction is constructed as directed by arborist. Maintain root buffer so long as access is permitted.

3.04 EXCAVATION

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 31 2000 "Earth Moving" unless otherwise indicated.
- B. Trenching within Protection Zones: Where utility trenches are required within protection zones, excavate under or around tree roots by hand or with air spade, or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots.
- C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches back from new construction and as required for root pruning.
- D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

3.05 ROOT PRUNING

- A. Prune tree roots that are affected by temporary and permanent construction. Prune roots as follows:

1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
2. Cut Ends: Do not paint cut root ends.
3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
4. Cover exposed roots with burlap and water regularly.
5. Backfill as soon as possible according to requirements in Section 312000 "Earth Moving."

3.06 CROWN PRUNING

- A. Prune branches that are affected by temporary and permanent construction. Prune branches as directed by arborist.
 1. Prune to remove only injured, broken, dying, or dead branches unless otherwise indicated. Do not prune for shape unless otherwise indicated.
 2. Do not remove or reduce living branches to compensate for root loss caused by damaging or cutting root system.
 3. Pruning Standards: Prune trees according to ANSI A300 (Part 1).
- B. Unless otherwise directed by arborist and acceptable to Landscape Architect, do not cut tree leaders.
- C. Cut branches with sharp pruning instruments; do not break or chop.
- D. Do not paint or apply sealants to wounds.
- E. Provide subsequent maintenance pruning during Contract period as recommended by arborist.
- F. Chip removed branches and dispose of off-site.

3.07 REGRADING

- A. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with backfill soil. Place backfill soil in a single uncompacted layer and hand grade to required finish elevations.

3.08 FIELD QUALITY CONTROL

- A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

3.09 REPAIR AND REPLACEMENT

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by Landscape Architect.
 - 1. Submit details of proposed pruning and repairs.
 - 2. Perform repairs of damaged trunks, branches, and roots within 24 hours according to arborist's written instructions.
 - 3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Landscape Architect.

- B. Trees: Remove and replace trees indicated to remain that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during construction operations that Landscape Architect determines are incapable of restoring to normal growth pattern.
 - 1. Large Trees: Provide one new tree of 6-inch caliper size for each tree being replaced that measures more than 6 inches in caliper size.
 - a. Species: As selected by Landscape Architect.
 - 2. Plant and maintain new trees as specified in Section 32 9300 "Plants."

- C. Excess Mulch: Rake mulched area within protection zones, being careful not to injure roots. Rake to loosen and remove mulch that exceeds a 3-inch uniform thickness to remain.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove excess excavated material, displaced trees, trash, and debris and legally dispose of them off Owner's property.

END OF SECTION 01 5639

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SECTION 32 9113 - SOIL PREPARATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes planting soils specified by composition of the mixes.
- B. Related Requirements:
 1. Section 31 1000 "Site Clearing" for topsoil stripping and stockpiling.
 2. Section 32 3300 "Site Furnishings" for placing planting soil in exterior unit planters.
 3. Section 32 9300 "Plants" for placing planting soil for plantings.

1.3 UNIT PRICES

- A. Work of this Section is affected by unit prices specified in Section 01 2200 "Unit Prices."

1.4 DEFINITIONS

- A. AAPFCO: Association of American Plant Food Control Officials.
- B. Backfill: The earth used to replace or the act of replacing earth in an excavation. This can be amended or unamended soil as indicated.
- C. CEC: Cation exchange capacity.
- D. Compost: The product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth.
- E. Imported Soil: Soil that is transported to Project site for use.
- F. Manufactured Soil: Soil produced by blending soils, sand, stabilized organic soil amendments, and other materials to produce planting soil.
- G. NAPT: North American Proficiency Testing Program. An SSSA program to assist soil-, plant-, and water-testing laboratories through interlaboratory sample exchanges and statistical evaluation of analytical data.
- H. Organic Matter: The total of organic materials in soil exclusive of undecayed plant and animal tissues, their partial decomposition products, and the soil biomass; also called "humus" or "soil organic matter."
- I. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified as specified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- J. RCRA Metals: Hazardous metals identified by the EPA under the Resource Conservation and Recovery Act.

- K. SSSA: Soil Science Society of America.
- L. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.
- M. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- N. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil"; but in disturbed areas such as urban environments, the surface soil can be subsoil.
- O. USCC: U.S. Composting Council.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 1. Include recommendations for application and use.
 2. Include test data substantiating that products comply with requirements.
 3. Include sieve analyses for aggregate materials.
 4. Material Certificates: For each type of imported soil and soil amendment and fertilizer before delivery to the site, according to the following:
 - a. Manufacturer's qualified testing agency's certified analysis of standard products.
 - b. Analysis of fertilizers, by a qualified testing agency, made according to AAPFCO methods for testing and labeling and according to AAPFCO's SUIP #25.
 - c. Analysis of nonstandard materials, by a qualified testing agency, made according to SSSA methods, where applicable.
- B. Samples: For each bulk-supplied material, 1-quart volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For each testing agency.
- B. Preconstruction Test Reports: For preconstruction soil analyses specified in "Preconstruction Testing" Article.
- C. Field quality-control reports.

1.7 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent, state-operated, or university-operated laboratory; experienced in soil science, soil testing, and plant nutrition; with the experience and capability to conduct the testing indicated; and that specializes in types of tests to be performed.

1.8 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction soil analyses on existing, on-site soil and imported soil.
 1. Notify Landscape Architect seven days in advance of the dates and times when laboratory samples will be taken.

- B. Preconstruction Soil Analyses: For each unamended soil type, perform testing on soil samples and furnish soil analysis and a written report containing soil-amendment and fertilizer recommendations by a qualified testing agency performing the testing according to "Soil-Sampling Requirements" and "Testing Requirements" articles.
 - 1. Have testing agency identify and label samples and test reports according to sample collection and labeling requirements.

1.9 SOIL-SAMPLING REQUIREMENTS

- A. General: Extract soil samples according to requirements in this article.
- B. Sample Collection and Labeling: Have samples taken and labeled by Contractor in presence of Landscape Architect under the direction of the testing agency.
 - 1. Number and Location of Samples: Minimum of three representative soil samples from varied locations in each half-block or median, where directed by Landscape Architect, for each soil to be used or amended for landscaping purposes.
 - 2. Procedures and Depth of Samples: According to USDA-NRCS's "Field Book for Describing and Sampling Soils."
 - 3. Division of Samples: Split each sample into two, equal parts. Send half to the testing agency and half to Owner for its records.
 - 4. Labeling: Label each sample with the date, location keyed to a site plan or other location system, visible soil condition, and sampling depth.

1.10 TESTING REQUIREMENTS

- A. General: Perform tests on soil samples according to requirements in this article.
- B. Physical Testing:
 - 1. Soil Texture: Soil-particle, size-distribution analysis by the following methods according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods":
 - 2. Sieving Method: Report sand-gradation percentages for very coarse, coarse, medium, fine, and very fine sand; and fragment-gradation (gravel) percentages for fine, medium, and coarse fragments; according to USDA sand and fragment sizes.
 - 3. Hydrometer Method: Report percentages of sand, silt, and clay.
 - 4. Total Porosity: Calculate using particle density and bulk density according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."
 - 5. Water Retention: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."
 - 6. Saturated Hydraulic Conductivity: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods"; at 85% compaction according to ASTM D698 (Standard Proctor).
- C. Chemical Testing:
 - 1. CEC: Analysis by sodium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."
 - 2. Clay Mineralogy: Analysis and estimated percentage of expandable clay minerals using CEC by ammonium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 1- Physical and Mineralogical Methods."
 - 3. Metals Hazardous to Human Health: Test for presence and quantities of RCRA metals including aluminum, arsenic, barium, copper, cadmium, chromium, cobalt, lead, lithium, and vanadium. If RCRA metals are present, include recommendations for corrective action.
 - 4. Phytotoxicity: Test for plant-available concentrations of phytotoxic minerals including aluminum, arsenic, barium, cadmium, chlorides, chromium, cobalt, copper, lead, lithium, mercury, nickel, selenium, silver, sodium, strontium, tin, titanium, vanadium, and zinc.

- D. Fertility Testing: Soil-fertility analysis according to standard laboratory protocol of SSSA NAPT SERA-6, including the following:
1. Percentage of organic matter.
 2. CEC, calcium percent of CEC, and magnesium percent of CEC.
 3. Soil reaction (acidity/alkalinity pH value).
 4. Buffered acidity or alkalinity.
 5. Nitrogen ppm.
 6. Phosphorous ppm.
 7. Potassium ppm.
 8. Manganese ppm.
 9. Manganese-availability ppm.
 10. Zinc ppm.
 11. Zinc availability ppm.
 12. Copper ppm.
 13. Sodium ppm and sodium absorption ratio.
 14. Soluble-salts ppm.
 15. Presence and quantities of problem materials including salts and metals cited in the Standard protocol. If such problem materials are present, provide additional recommendations for corrective action.
 16. Other deleterious materials, including their characteristics and content of each.
- E. Organic-Matter Content: Analysis using loss-by-ignition method according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."
- F. Recommendations: Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated to produce satisfactory planting soil suitable for healthy, viable plants indicated. Include, at a minimum, recommendations for nitrogen, phosphorous, and potassium fertilization, and for micronutrients.
1. Fertilizers and Soil Amendment Rates: State recommendations in weight per 1000 sq. ft. for 6-inch depth of soil.
 2. Soil Reaction: State the recommended liming rates for raising pH or sulfur for lowering pH according to the buffered acidity or buffered alkalinity in weight per 1000 sq. ft. for 6-inch depth of soil.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable.
- B. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
 3. Do not move or handle materials when they are wet or frozen.
 4. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

PART 2 - PRODUCTS

2.1 PLANTING SOILS SPECIFIED BY COMPOSITION

- A. General: Soil amendments, fertilizers, and rates of application specified in this article are guidelines that may need revision based on testing laboratory's recommendations after preconstruction soil analyses are performed.
- B. Planting-Soil Type "Planting Soil Fill": Imported, naturally formed soil from off-site sources and consisting of sandy loam, sandy loam, or loam soil according to USDA textures; and modified to produce viable planting soil.
 - 1. Sources: Take imported, unamended soil from sources that are naturally well-drained sites where topsoil occurs at least 4 inches deep, not from agricultural land, bogs, or marshes; and that do not contain undesirable organisms; disease-causing plant pathogens; or noxious weeds and invasive plants including, but not limited to, quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and brome grass.
 - 2. Existing topsoil removed from site may be blended with imported soil off-site.
 - 3. Additional Properties of Imported Soil before Amending: Soil reaction of pH 5.5 to 7 and minimum of 4 percent organic-matter content, friable, and with sufficient structure to give good tilth and aeration.
 - 4. Unacceptable Properties: Clean soil of the following:
 - a. Unacceptable Materials: Concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
 - b. Unsuitable Materials: Stones, roots, plants, sod, clay lumps, and pockets of coarse sand that exceed a combined maximum of 8 percent by dry weight of the imported soil.
 - c. Large Materials: Stones, clods, roots, clay lumps, and pockets of coarse sand exceeding 2 inches in any dimension.
 - 5. Amended Soil Composition: Blend imported, unamended soil with the soil amendments and fertilizers of the types and quantities indicated by testing results to produce planting soil.
- C. Planting-Soil Type "Container Planting Soil": Manufactured soil consisting of manufacturer's basic topsoil, blended in a manufacturing facility with sand, stabilized organic soil amendments, and other materials to produce viable planting soil.
 - 1. Additional Properties of Manufacturer's Basic Soil before Amending: Soil reaction of pH 5.5 to 7 and minimum of 2 percent organic-matter content, friable, and with sufficient structure to give good tilth and aeration.
 - 2. Unacceptable Properties: Manufactured soil shall not contain the following:
 - a. Unacceptable Materials: Concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
 - b. Unsuitable Materials: Stones, roots, plants, sod, clay lumps, and pockets of coarse sand that exceed a combined maximum of 5 percent by dry weight of the manufactured soil.
 - c. Large Materials: Stones, clods, roots, clay lumps, and pockets of coarse sand exceeding 1-1/2 inches in any dimension.

2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 - 1. Class: T, with a minimum of 99 percent passing through a No. 8 sieve and a minimum of 75 percent passing through a No. 60 sieve.

2. Form: Provide lime in form of ground limestone as recommended in soil analysis results.
- B. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent elemental sulfur, with a minimum of 99 percent passing through a No. 6 sieve and a maximum of 10 percent passing through a No. 40 sieve.
 - C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
 - D. Perlite: Horticultural perlite, soil amendment grade.
 - E. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through a No. 50 sieve.
 - F. Sand: Clean, washed, natural or manufactured, free of toxic materials, and according to ASTM C33/C33M.

2.3 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter produced by composting feedstock, and bearing USCC's "Seal of Testing Assurance," and as follows:
 1. Feedstock: Limited to leaves..
 2. Reaction: pH of 5.5 to 8.
 3. Soluble-Salt Concentration: Less than 4 dS/m.
 4. Moisture Content: 35 to 55 percent by weight.
 5. Organic-Matter Content: 50 to 60 percent of dry weight.
 6. Particle Size: Minimum of 98 percent passing through a 2-inch sieve.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture with 100 percent passing through a 1/2-inch sieve, a pH of 3.4 to 4.8, and a soluble-salt content measured by electrical conductivity of maximum 5 dS/m.
- C. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture with 100 percent passing through a 1/2-inch sieve, a pH of 6 to 7.5, a soluble-salt content measured by electrical conductivity of maximum 5 dS/m, having a water-absorbing capacity of 1100 to 2000 percent, and containing no sand.
- D. Wood Derivatives: Shredded and composted, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.
 1. Partially Decomposed Wood Derivatives: In lieu of shredded and composted wood derivatives, mix shredded and partially decomposed wood derivatives with ammonium nitrate at a minimum rate of 0.15 lb/cu. ft. of loose sawdust or ground bark, or with ammonium sulfate at a minimum rate of 0.25 lb/cu. ft. of loose sawdust or ground bark.
- E. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris, and material harmful to plant growth.

2.4 FERTILIZERS

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.

- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.

PART 3 - EXECUTION

3.1 GENERAL

- 1. Place planting soil and fertilizers according to requirements in other Specification Sections.
- 2. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in planting soil.
- 3. Proceed with placement only after unsatisfactory conditions have been corrected.

3.2 PREPARATION OF UNAMENDED, ON-SITE SOIL BEFORE AMENDING

- A. Excavation: Excavate soil from designated area(s) to a depth as shown in the Drawings and stockpile until amended.
- B. Unacceptable Materials: Clean soil of concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.
- C. Unsuitable Materials: Clean soil to contain a maximum of 8 percent by dry weight of stones, roots, plants, sod, clay lumps, and pockets of coarse sand.

3.3 PLACING AND MIXING PLANTING SOIL OVER EXPOSED SUBGRADE

- A. General: Apply and mix unamended soil with amendments on-site to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.
- B. Subgrade Preparation: Till subgrade to a minimum depth of 6 inches Remove stones larger than 2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Apply, add soil amendments, and mix approximately half the thickness of unamended soil over prepared, loosened subgrade according to "Mixing" Paragraph below. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.
- C. Mixing: Spread unamended soil to total depth indicated on Drawings, but not less than required to meet finish grades after mixing with amendments and natural settlement. Do not spread if soil or subgrade is frozen, muddy, or excessively wet.
 - 1. Amendments: Apply soil amendments, except compost, and fertilizer, if required, evenly on surface, and thoroughly blend them with unamended soil to produce planting soil.
 - a. Mix lime and/or sulfur with dry soil before mixing fertilizer.
 - b. Mix fertilizer with planting soil no more than seven days before planting.
 - 2. Lifts: Apply and mix unamended soil and amendments in lifts not exceeding 8 inches in loose depth for material compacted by compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- D. Compaction: Compact each blended lift of planting soil to 75 to 82 percent of maximum Standard Proctor density according to ASTM D698 and tested in-place.

- E. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.4 APPLYING COMPOST TO SURFACE OF PLANTING SOIL

- A. Application: Apply compost component of planting-soil mix to surface of in-place planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.
- B. Finish Grading: Grade surface to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.5 PROTECTION

- A. Protection Zone: Identify protection zones according to Section 01 5639 "Temporary Tree and Plant Protection."
- B. Protect areas of in-place soil from additional compaction, disturbance, and contamination. Prohibit the following practices within these areas except as required to perform planting operations:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Vehicle traffic.
 - 4. Foot traffic.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
- C. If planting soil or subgrade is over-compacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Landscape Architect and replace contaminated planting soil with new planting soil.

3.6 CLEANING

- A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.
- B. Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash, and debris and legally dispose of them off Owner's property unless otherwise indicated.
 - 1. Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

END OF SECTION

SECTION 32 9200 - LAWNS AND GRASSES

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. Section Includes:
 - 1. Seeding.
 - 2. Sodding.
 - 3. Erosion-control material(s).
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing" for topsoil stripping and stockpiling.
 - 2. Division 31 Section "Earthwork" for excavation, filling and backfilling, and rough grading.
 - 3. Division 32 Section "Plants" for border edgings.
 - 4. Division 33 Section "Subdrainage" for subsurface drainage.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.
- E. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- C. Certification of each seed mixture for turfgrass sod, identifying source, including name and telephone number of supplier.
- D. Qualification Data: For qualified landscape Installer.
- E. Product Certificates: For fertilizers, from manufacturer.
- F. Material Test Reports: For existing surface soil and imported topsoil.

- G. Planting Schedule: Indicating anticipated planting dates for each type of planting.
- H. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of lawns during a calendar year. Submit before expiration of required initial maintenance periods.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment, and experienced on landscape work with budgets of \$200,000.00 or more. Submit a letter stating such experience.
 - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress. Retain subparagraph below if retaining "Maintenance Service" Article.
 - 2. Maintenance Proximity: Not more than two hours' normal travel time from Installer's place of business to Project site.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
 - 1. Report suitability of topsoil for lawn growth. State-recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.
- D. Preinstallation Conference: Conduct conference at job site.

1.6 WORKMANSHIP

- A. Workmanship
 - 1. Install all plant materials neatly.
 - 2. Make minor adjustments to layout as may be required and requested by Landscape Architect at no additional cost to the Owner.
 - 3. Coordinate delivery of all plant material with time of installation to prevent any plant material from being stockpiled on site longer than 24 hours.
 - 4. Deliver materials in such manner as to not damage or decrease the health and vigor of the plant materials. Store materials away from detrimental elements. Coordinate with General Contractor to secure a safe staging area.
 - 5. Handle, load, unload, and transport materials carefully to avoid damage.
 - 6. Maintain and protect plant materials as necessary to insure health and vigor.
- B. The following codes and standards shall be observed:
 - 1. The Alabama Department of Transportation (ALDOT) Standard Specifications for Highway Construction, current edition.
 - 2. State and Federal laws, including for disease and pest control.
 - 3. Requirements of authorities having jurisdiction.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.

- B. Sod: Harvest, deliver, store, and handle sod according to requirements in TPI's "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding." Deliver sod in time for planting within 24 hours of harvesting. Protect sod from breakage and drying.

1.8 PROJECT CONDITIONS

- A. Planting Restrictions: Plant during the following period. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.
 - 1. Fall/September- Spring/April
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

1.9 MAINTENANCE SERVICE

- A. Initial Lawn Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
 - 1. Seeded Lawns: 30 days from date of Substantial Completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.
 - 2. Sodded Lawns: 30 days from date of Substantial Completion.
- B. Continuing Maintenance Proposal: From Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.
 - 1. During guaranteed period, Contractor shall make periodic inspections of the project to satisfy himself that maintenance by the Owner is adequate.
 - 2. Any methods or products which he deems not normal or detrimental to good plant growth shall be reported to the Owner in writing.
 - 3. Failure to inspect and report shall be interpreted as approval and the Contractor shall be held responsible for any and all replacements.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species: State-certified seed of grass species, as follows:
- C. Seed Species: Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 (1/2) percent weed seed:
 - 1. Full Sun: Bermudagrass (*Cynodon dactylon*), cultivar as indicated on drawings.

2.2 TURFGRASS SOD

- A. Turfgrass Sod: Approved, complying with TPI's "Specifications for Turfgrass Sod Materials" in its "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.

- B. Turfgrass Species: Bermudagrass (Cynodon dactylon) Tifway 419 or as indicated on drawings.

2.3 TOPSOIL

- A. Topsoil shall be fertile, friable, sandy loam and a natural surface soil obtained from well areas reviewed by Landscape Architect and possessing characteristics of representative soils in the project vicinity that produce heavy growths of crops, grass, or other vegetation.
- B. Topsoil shall be free of subsoil, brush, organic litter, or objectionable weeds, clay, clots, stumps, stones, roots or other material harmful to plant growths or hindrance to planting or maintenance operations. Should regenerative materials be present in the soil, Contractor shall eradicate and remove such growth, both surface and root, which may appear in the imported material within one year following acceptance of the work
- C. Topsoil shall not be handled in a frozen muddy condition. The acidity range shall be between 5.0 and 7.0 inclusive. The mechanical analysis of the soil shall be as follows:

Sieve Size	Percent Passing
1 inch mesh	99 - 100 percent
1/4 inch mesh	97 - 99 percent
No. 100 mesh	40 - 60 percent
No. 200 mesh	20 - 40 percent

2.4 PLANTING SOIL MIXTURE

- A. Provide soil mix amended as per laboratory recommendations. Basic planting soil mix consists of:
 1. 50% topsoil (as described Above)
 2. 50% prepared additives (by volume as follows)
 3. 3 parts humus (forest peat) or "Nature's Helper" by Klum (or approved equal)
 4. 1 part sterilized cow manure, commercial fertilizer and lime as recommended in soil analysis

2.5 BIORETENTION

- A. Provide Soil mix using the three components listed below that will meet the ASTM standards as follows:
 1. Sandy Clay Loam with a 10-15% clay content
 2. *Percentages of sand and clay may vary to meet testing requirements
 3. 65-75% Sand
 4. 25% Silt
 5. 0-10% Organic Matter
 6. Air Filled Porosity: 10% - 15% by volume
 7. Permeability (Hydraulic Conductivity) (ASTMD2434 or D5084): Minimum 1-2" per Hour
- B. Filter Fabric for Bioretention:
 1. Mirascape by Mirafi
 2. Weight= 3.5oz per sqyd
 3. Supplier: Sunshine Supplies, Inc: Gary Norwood, 205.674.5656

- C. PVC for Bioretention:
 - 1. 4" Perforated Rigid PVC Pipe, Class 160 Pipe
 - a. PVC Pipe is to be continuously marked with manufacturer's identification, type, class, and size and installed with these markings on the top of the pipe.
- D. Stone for Bioretention
 - 1. #57 Stone.

2.6 PLANTING ACCESSORIES

- A. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application.

2.7 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshold straw of wheat, rye, oats, or barley.
 - 1. Shredded Mulch: Class A hay or straw mulch for seeding per AHD Section 860.03.
- B. Peat Mulch: Peat moss; natural, shredded, or granulated, fine texture, with pH range of 4 to 6 and water-absorbing capacity of 1100 to 2000%.
- C. Fiber Mulch: Biodegradable dyed-wood cellulose-fiber mulch, nontoxic, free of plant growth-or germination-inhibitors, with maximum moisture content of 15% and a pH range of 4.5 to 6.5.
- D. Asphalt Emulsion Tackifier: Asphalt emulsion, ASTM D 977, Grade SS-1, nontoxic and free of plant growth-or germination-inhibitors.
- E. Non-asphalt Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application, nontoxic and free of plant growth-or germination-inhibitors.

2.8 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.
- B. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd. (0.5 kg/sq. m), with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches (150 mm) long.
- C. Erosion-Control Mats: Cellular, non-biodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface. Include manufacturer's recommended anchorage system for slope conditions.
- D. Products: Subject to compliance with requirements, following or equal.
 - 1. Invisible Structures, Inc.; Slopetame
 - 2. Presto Products Company; Geoweb.
 - 3. Tenax Corporation - USA; Tenweb.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 LAYOUT OF GRASS AREAS & BEDS

- A. Before commencing planting operations, location of grass areas & beds and outlines of areas to be planted shall be marked out on the ground, by the Contractor for approval by the Landscape Architect. Contact the Landscape Architect a minimum of 72 hours in advance of the anticipated review of the layout.

3.3 TIME AND PLANTING

- A. Planting operations shall be during favorable weather in which conditions are neither extremely cold or hot nor to point that the risk of loss is too great. The Contractor shall inform the Landscape Architect of high risks due to weather. No plant shall take place if the air temperature is below 45 degrees, or if the ground is frozen or muddy.

3.4 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, and shrubs, plantings from damage caused by planting operations.
- B. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
- C. Protect grade stakes set by others until directed to remove them.
- D. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.5 LAWN PREPARATION

- A. Limit lawn subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Grade will be brought to a level of 4" below finished grade by the General Contractor. The landscape contractor will spread 6" of topsoil, fine grading all lawn areas to finish grade. All areas shall have smooth and continual grade between the existing and fixed controls such as walks and curbs. Roll, scarify, rake and level as necessary to obtain true, even and firm lawn surfaces. All finished grades shall meet approval of the Landscape Architect before sodded or seeding operations begin.
 - 1. Apply fertilizer directly to subgrade before loosening.
 - 2. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - b. Mix lime with dry soil before mixing fertilizer.
 - 3. Spread planting soil mix to a depth of 6" but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

- a. Spread approximately 1/2 the thickness of planting soil mix over loosened subgrade. Mix thoroughly into top 6 inches of subgrade. Spread remainder of planting soil mix.
 - b. Reduce elevation of planting soil to allow for soil thickness of sod.
- C. Unchanged Subgrades: If lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface-soil stripping operations, prepare surface soil as follows:
- 1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
 - 2. Loosen surface soil to a depth of at least 4 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 4 inches of soil. Till soil to a homogeneous mixture of fine texture. Apply fertilizer directly to surface soil before loosening.
 - 3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
 - 4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- E. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Before planting, restore areas if eroded or otherwise disturbed after finish grading.

3.6 PREPARATION FOR EROSION-CONTROL MATERIALS

- A. Prepare area as specified in drawings.
- B. For erosion-control mats, install planting mix in two lifts, with second lift equal to thickness of erosion-control mats. Install erosion-control mat and fasten as recommended by material manufacturer.
- C. Fill cells of erosion-control mat with planting mix and compact before planting.
- D. For erosion-control blanket or mesh, install from top of slope, working downward, and as recommended by material manufacturer for site conditions. Fasten as recommended by material manufacturer.
- E. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.7 AREAS TO RECEIVE SEED

- A. The Contractor will provide 6" topsoil and grade to finish grade all areas to receive seed, which will include all disturbed areas not receiving sod. The Landscape Contractor will be responsible for fine grading. This is to include debris removal and any grading required to bring the finished topsoil grade to the proper level for applying seed.
- B. Thoroughly till existing soil to a minimum depth of 4" by running tilling device two directions at right angles over the entire surface to be hydroseeded. Fine grade to achieve uniformity and drainage.

- C. Apply lime uniformly with a mechanical spreader to the entire area to be hydroseeded at the rate determined from the soil test.
- D. Work soil to a uniform grade so that all areas have positive drainage away from drives, buildings and landscaped areas.
- E. Remove all trash and stones exceeding 1" in diameter from area to a depth of 2' prior to hydroseeding.
- F. Protect seeded slopes exceeding 4:1 with erosion-control blankets installed and stapled per manufacturer's recommendations.
- G. Protect seeded slopes exceeding 6:1 with jute or coir-fiber erosion-control mesh installed and stapled per manufacturer's recommendations.
- H. Protect seeded areas with slopes less than 6:1 against erosion by spreading straw mulch. Spread uniformly at 2 tons per acre to form a continuous 1-1/2" blanket.
- I. Anchor straw mulch by spraying with asphalt-emulsion tackifier at rate of 10 to 13 gal. per 1000 sq ft.
- J. Protect seeded areas against heat and drying winds by applying peat mulch within 24 hours after seeding. Soak and scatter uniformly to 3/16" thick and roll to smooth surface.

3.8 SEEDING REQUIREMENTS

- A. Seeding operations will be required to have a satisfactory stand of grass before acceptance. A satisfactory stand is defined as a cover of living grass of specified species, after true leaves are formed in which no gaps larger than five (5) inches square occur. Areas determined by the Landscape Architect to be solid rock will be exempt from this requirement.

3.9 SEEDING OPERATIONS

- A. Hydraulic equipment for the application of seed mulch and seed shall be equipped with a power driven agitator which will keep the mixture uniform during applications. The equipment shall have sufficient force and capacity to apply a uniform application of the mixture to the seed limits. Caution shall be exercised adjacent to non-grassed areas to prevent over spray onto plant beds or paved areas.
- B. Hydroseed mixture shall consist of:
 1. 30 lbs. Hydroseed mulch/1000 square feet or per manufacturers recommendations.
 2. Seed mix: Hulled common Bermuda at a rate of 2 lbs./1000 square feet, Fescue at a rate of 6 lbs./1000 square feet. The following pertains to work performed during the winter months. Seed with rye after September 1st and before April 1st and return to site after April 1st Bermuda. Rye seed mix is 8lbs./1000 square feet. Fescue seed mix is 6lbs./1000 square feet
 3. Seed shall not be sown when winds exceed 10 miles per hour or at any time the ground is not in a suitable condition for seeding.
 4. Inoculated seed shall be added to the hydroseed mix only immediately prior to hydroseeding operations.
 5. Landscape maintenance during construction is to continue prior to acceptance of the project.
 6. Use non-toxic green dying agent when hydroseeding, at manufacturers suggested rate.

3.10 REMOVAL OF EXISTING GRASS

- A. The Landscape Contractor is to remove existing grass and weeds from all areas for planting and resodding as designated on the plans. The existing stands are to be removed to a maximum depth of 1" so as to not disturb existing tree roots where present in those areas.
- B. Aerate with a tined tiller to break up the upper 3" lightly not to damage tree roots. Pick up solids for discarding and cut cleanly any roots damaged.
- C. Spread a light layer of topsoil not more than 1" in depth over the aerated area and fine grade to meet acceptance by the Landscape Architect. Apply fertilizer and lime to these areas as specified previously under "Areas to receive Sod" or "Preparation of Planting Beds" whichever the case may be.

3.11 SODDING

- A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if air temperature is below 45 degrees, or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
 - 1. Lay sod across angle of slopes exceeding 1:3.
 - 2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.
- C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches (38 mm) below sod.

3.12 LAWN MAINTENANCE

- A. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and mulch to produce a uniformly smooth lawn. Provide materials and installation the same as those used in the original installation.
 - 1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
- B. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist.
 - 1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
 - 2. Water lawn with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.
- C. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height.

1. Mow grass to a height of 2 inches.
- D. Lawn Postfertilization: Apply fertilizer after initial mowing and when grass is dry, as per manufacturer's standards.

3.13 SATISFACTORY LAWNS

- A. Lawn installations shall meet the following criteria as determined by Architect:
1. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches (125 by 125 mm).
- B. Use specified materials to reestablish lawns that do not comply with requirements and continue maintenance until lawns are satisfactory.

3.14 CLEANUP AND PROTECTION

- A. Promptly remove soil and debris, created by lawn work, from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.
- C. Keep all planting areas neat, weeded and uniformly mulch on a continuous basis. Clean up adjacent walks and pavement where lettered as a result of maintenance operations, on a continuous basis.
- D. The 30 day maintenance period following Substantial Completion will be considered a lump sum item to be addressed as an item included in the contract.
- E. Remove nondegradable erosion-control measures after grass establishment period.

3.15 ACCEPTANCE AND GUARANTEE

- A. Substantial Completion:
1. Submit written requests for inspection for Substantial Completion to the Landscape Architect at least three calendar days prior to anticipated date of inspection and testing.
 2. Substantial Completion cannot be granted and at the same time no further applications for payment shall be for more than 85% of the Contract until there has been a walk - thru for planting at which time a "punch list" will be written consisting of items to be addressed and corrected by the Contractor immediately. Depending on the extent of work on the "punch list", the Landscape Architect will determine the job to be "substantially complete" or pending the completion of the "punch list".
 3. Submit Record Drawings and Maintenance manuals to the Landscape Architect with written request for inspection.
 4. Review the "punch list" work jointly with the Owner and Landscape Architect for Substantial Completion of the total (contract) work. (See "General Conditions" Article No. 9).
 5. Upon completion of repairs and replacements found necessary at the time of review, the Owner and Landscape Architect will confirm the date of Substantial Completion and issue the written notice of Substantial Completion if all items on the punch list have been

completed. If necessary, another punch list will be written to itemize and deficiencies still existing and will be attached to the written notice of substantial completion. The contractor shall complete all "punch list" items if possible within 30 days while continuing maintenance.

6. The date of Substantial Completion will constitute the beginning date of the One - Year Guarantee. This date also constitutes the beginning of warranty responsibilities and acceptance by the Owner and Landscape Architect.

3.16 GUARANTEE

- A. All work, products, equipment and materials for one year, beginning at the Date of Substantial Completion as per the written notice of Substantial Completion.
- B. Make good any damage, loss, destruction or failure. Repairs and replacements shall be done promptly and at no additional cost to the Owner.
- C. Repair damage to grass, and other work as necessary.
- D. If the replacement is not acceptable during or at the end of the Guarantee Period, the Owner may elect either subsequent replacement or credit. Replacement products shall have a similar one year guarantee from the time of replacement.
- E. Guarantee applies to all unacceptable conditions or losses with exception of those due to acts of nature, vandalism or Owner neglect, as determined by Landscape Architect. Act of Nature include, but may not be limited to, high winds of hurricane or tornado force, sleet, hail, freezing rain, plants washed away in a 50 year or greater rain storm in the first month of installation, and extreme cold (as determined by Landscape Architect). Contractor agrees to replace losses due to Acts of Nature at 15% less than original contract price for the damaged Work.

END OF SECTION

SECTION 32 9300 - PLANTS

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. Section Includes:
 - 1. Trees.
 - 2. Shrubs.
 - 3. Ground cover.
 - 4. Plants.
 - 5. Tree stabilization.
 - 6. Edgings.
- B. Related Sections:
 - 1. Division 31 Section "Site Clearing" for protection of existing trees and plantings, topsoil stripping and stockpiling, and site clearing.
 - 2. Division 31 Section "Earthwork" for excavation, filling, and rough grading and for subsurface aggregate drainage and drainage backfill materials.
 - 3. Division 32 Section "Lawns and Grasses" for lawn and meadow planting.
 - 4. Division 33 Section "Subdrainage" for below-grade drainage of landscaped areas, paved areas, and wall perimeters.

1.3 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
- B. Balled and Burlapped Stock: Exterior plants dug with firm, natural balls of earth in which they are grown, with ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of tree or shrub required; wrapped, tied, rigidly supported, and drum laced as recommended by ANSI Z60.1.
- C. Balled and Potted Stock: Exterior plants dug with firm, natural balls of earth in which they are grown and placed, unbroken, in a container. Ball size is not less than diameter and depth recommended by ANSI Z60.1 for type and size of exterior plant required.
- D. Bare-Root Stock: Exterior plants with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed, and with not less than minimum root spread according to ANSI Z60.1 for type and size of exterior plant required.
- E. Clump: Where three or more young trees were planted in a group and have grown together as a single tree having three or more main stems or trunks.
- F. Container-Grown Stock: Healthy, vigorous, well-rooted exterior plants grown in a container with well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root

mass during shipping and be sized according to ANSI Z60.1 for type and size of exterior plant required.\

- G. Fabric Bag-Grown Stock: Healthy, vigorous, well-rooted exterior plants established and grown in-ground in a porous fabric bag with well-established root system reaching sides of fabric bag. Fabric bag size is not less than diameter, depth, and volume required by ANSI Z60.1 for type and size of exterior plant.
- H. Finish Grade: Elevation of finished surface of planting soil.
- I. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- J. Multi-Stem: Where three or more main stems arise from the ground from a single root crown or at a point right above the root crown.
- K. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- L. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill, before placing planting soil.
- M. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.4 SUBMITTALS

- A. Product Submittals:
 - 1. Product Data: For each type of product indicated.
 - 2. Samples for Verification: For each of the following:
 - 3. Edging materials and accessories, of manufacturer's standard size, to verify color selected.
 - 4. Qualification Data: For qualified landscape Installer.
 - 5. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:
 - 6. Manufacturer's certified analysis for standard products.
 - 7. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
 - 8. Material Test Reports: For existing surface soil and imported topsoil.
 - 9. Planting Schedule: Indicating anticipated planting dates for exterior plants.
- B. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of exterior plants during a calendar year. Submit before expiration of required maintenance periods.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of exterior plants, and experienced on landscape work with budgets of \$100,000.00 or more. Submit a letter stating such experience.
- B. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.

- C. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
 - 1. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; cation exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
 - 2. Report suitability of topsoil for plant growth. State-recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory topsoil.
- D. Provide quality, size, genus, species, and variety of exterior plants indicated, complying with applicable requirements in ANSI Z60.1, "American Standard for Nursery Stock."
- E. Tree and Shrub Measurements: Measure according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150 mm) above the ground for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above the ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip.
- F. Observation: Landscape Architect may observe trees and shrubs either at place of growth or at site before planting for compliance with requirements for genus, species, variety, size, and quality. Landscape Architect retains right to observe trees and shrubs further for size and condition of balls and root systems, insects, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
- G. Notify Landscape Architect of sources of planting materials seven days in advance of delivery to site.
- H. The following codes and standards shall be observed:
 - 1. The Alabama Department of Transportation (ALDOT) Standard Specifications for Highway Construction, current edition.
 - 2. State and Federal laws, including for disease and insect control.
 - 3. Requirements of authorities having jurisdiction.

1.6 WORKMANSHIP

- A. Install all plant materials neatly.
- B. Make minor adjustments to layout as may be required and requested by Landscape Architect at no additional cost to the Owner.
- C. Coordinate delivery of all plant material with time of installation to prevent any plant material from being stockpiled on site longer than 24 hours.
- D. Deliver materials in such manner as to not damage or decrease the health and vigor of the plant materials. Store materials away from detrimental elements. Coordinate with General Contractor to secure a safe staging area.
- E. Handle, load, unload, and transport materials carefully to avoid damage.
- F. Maintain and protect plant materials as necessary to insure health and vigor

1.7 DELIVERY, STORAGE, AND HANDLING

Deliver exterior plants freshly dug.

- A. Immediately after digging up bare-root stock, pack root system in wet straw, hay, or other suitable material to keep root system moist until planting.
- B. Do not prune trees and shrubs before delivery except as approved by Landscape Architect.
- C. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage.
 - 1. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape.
 - 2. Provide protective covering of exterior plants during delivery.
 - 3. Do not drop exterior plants during delivery and handling.
 - 4. Handle planting stock by root ball.
- D. Deliver exterior plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set exterior plants and trees in shade, protect from weather and mechanical damage, and keep roots moist.
 - 1. Heel-in bare-root stock. Soak roots that are in dry condition in water for two hours. Reject dried-out plants.
 - 2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 - 3. Do not remove container-grown stock from containers before time of planting.
 - 4. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.8 PROJECT CONDITIONS.

- A. Planting Restrictions: Plant during the following period. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
- B. October / Fall to March / Spring
- C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed according to manufacturer's written instructions and warranty requirements.
- D. Coordination with Lawns: Plant trees and shrubs after finish grades are established and before planting lawns, unless otherwise acceptable to Landscape Architect.
- E. When planting trees and shrubs after lawns, protect lawn areas and promptly repair damage caused by planting operations.

1.9 WARRANTY

- A. Special Warranty: Installer's standard form in which Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, abuse by Owner, or incidents that are beyond Contractor's control.
 - b. Structural failures including plantings falling or blowing over.

- c. Faulty operation of tree stabilization, edgings, tree grates.
- d. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

- B. Warranty Periods from Date of Substantial Completion:
 - 1. Trees and Shrubs: One year.
 - 2. Ground Cover and Perennials: One Year.
 - 3. Include the following remedial actions as a minimum:
 - 4. Remove dead exterior plants immediately. Replace immediately unless required to plant in the succeeding planting season.
 - 5. Replace exterior plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
 - 6. A limit of one replacement of each exterior plant will be required except for losses or replacements due to failure to comply with requirements
 - 7. Provide extended warranty for replaced plant materials; warranty period equal to original warranty period.

1.10 CONTRACTOR'S PERIODIC INSPECTION

- A. During guarantee period, Contractor shall make periodic inspections of the project to satisfy himself that maintenance by the Owner is adequate.
- B. Any methods or products which he deems not normal or detrimental to good plant growth shall be reported to the Owner in writing.
- C. Failure to inspect and report shall be interpreted as approval and the Contractor shall be held responsible for any and all replacements.

1.11 MAINTENANCE SERVICE

- A. Initial Maintenance Service for Trees and Shrubs: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below.
 - 1. Maintenance Period: 30 days from date of Substantial Completion.
- B. Initial Maintenance Service for Ground Cover and Plants: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below.
 - 1. Maintenance Period: 30 days from date of Substantial Completion.

PART 2 - PRODUCTS

1.1 TREES

- A. All large deciduous shade trees and ornamental trees are to be field grown from rooted cuttings true to variety and not grafted material. No grafted material will be accepted for the initial installation or as guarantee replacement material.
- B. Balled and burlapped plant materials are to be wrapped with organic wrapping burlap only. Synthetic material will not be accepted. Remove all nursery loading straps once plant material is placed in the pit.

1.2 ORDERS FOR PLANT MATERIALS

- A. Submit to Landscape Architect within 30 days from date of contract is awarded to General contractor confirmed orders for material from approved growers (listed on plant schedule). Contractor is responsible for payment of deposits required by approved growers.
- B. Alternate Growers - Alternate growers will be considered by the Landscape Architect only if submitted prior to bidding. The Landscape Architect will select and tag 100% of plant materials from acceptable alternate growers. The contractor will be responsible for all expenses related to tagging trips to alternate growers including usual fees charged by the Landscape Architect. The Contractor should anticipate \$800.00 per day charge. The Contractor shall arrange for and provide transportation for the Landscape Architect. Contractor shall provide the Landscape Architect a minimum of three weeks advance notice. Contractor shall limit tagging trips to no more than two at a maximum of two days each. All tagging trips will be completed within 45 days from date contract is awarded to General Contractor.
- C. Contractor will submit confirmed orders from acceptable alternate growers within ten days of tagging by the Landscape Architect. Contractor is responsible for payment of deposits required by acceptable alternate growers.

1.3 FERTILIZER

- A. Fertilizer for all trees, plants and ground covers shall be Milorganite, or organic equal, delivered to the site in unopened containers.
- B. Fertilize all areas according to the manufacturer's recommended rates in accordance with the monthly maintenance guideline herein.
- C. Cultivate and water beds or pits thoroughly after application.
- D. Adjust fertilizer in accordance with interim soil test reports

1.4 MAINTENANCE PERIOD

- A. Summary:
 - 1. Begin maintenance at commencement of Work of this Section and continue until Substantial Completion, as part of Work of this Section.
 - 2. Continue maintenance for a Maintenance Period of thirty days after date of Substantial Completion.
 - 3. Provide labor, materials, equipment and means for proper maintenance of all materials and workmanship.
- B. Submit a written report and conduct joint inspection with Landscape Architect of maintenance program and procedures, at inspection for Substantial Completion.
- C. Maintain all plants in a growing, well formed, healthy condition by watering, fertilizing, pruning, weeding, spraying, wrapping, straightening, replacement or by other necessary maintenance operations.
- D. Watering:
 - 1. Advise Landscape Architect immediately in writing of recommended alterations due to weather or other conditions.
 - 2. Water landscaped areas not covered by automatic watering system as frequently as necessary to maintain proper moisture level, using the following schedule as a guide:
 - a. Twice a month during March, April, May.

- b. Once a month during June, July, August, September.
 - c. No watering from October through February, except in drought conditions.
- E. Fertilizing: Apply four (4) times a year to trees, shrubs, ground cover, and sod as per manufacturer's recommended application rate.
 - F. Replace annual plantings seasonally, or according to schedule in Drawings. Blooming plants shall be replaced as necessary throughout specified Maintenance Period to maintain blooming condition.
 - G. Remove dead wood as it becomes evident. Remove living portions of plants only at the direction of Landscape Architect.
 - H. Apply approved anti-desiccant to all evergreen trees during last two weeks in October (except pines).
 - I. Weed and pest control:
 - 1. For each spraying combine approved insecticide and fungicide to provide maximum protection for all plant materials. Three sprays annually; in March, May, and August.
 - 2. Two applications (Spring and Fall) of chemical pre-emergent spray, approved. Two applications (during growing season) of chemical contact spray (Round-Up, by Monsanto, or approved equal). Two days per month (every two weeks) manual weeding (by hand) during the period from March 1 through September 30; remove all visible weeds.
 - J. Fill in areas where soil subsides due to settling or other processes. Replace mulch lost due to subsidence.
 - K. Keep planting areas neat and uniformly mulched to specified depth on a continuous basis. In addition to replacing and re-spreading mulch as necessitated during the maintenance period, completely replenish mulch in all planting areas one time during the last month of the one-year Guarantee Period, or as Directed by the Landscape Architect.
 - L. Maintain plants in their stable upright position and at the proper grade by straightening and tightening staking and guying apparatus and as approved by the Landscape Architect.
 - M. Ground dolomitic limestone not less than 85% total carbonates and magnesium, ground so that 50% passes 100-mesh sieve and 90% 20-mesh sieve.

1.5 PLANT MATERIALS

- A. All plants shall conform to or surpass minimum quality standards as defined by the American Association of Nurserymen (AAN), current edition of American Standard for Nursery Stock, published by the AAN, Inc. and in addition, shall conform to sizes and descriptions in the plant list.

1.6 CERTIFICATES OF INSPECTION FOR PLANT MATERIAL

- A. All necessary inspection certificates shall be supplied to the Landscape Architect's representative for each shipment of plant material, as required by law. Certificates showing source of origin shall be filed with Landscape Architect prior to acceptance of the material.

1.7 INSPECTION

- A. All plant materials shall be subject to inspection and approval. The Landscape Architect reserves the right to reject any and all plants which fail to meet this specification at any point during the installation of the job. All rejected materials shall be promptly removed from the site by the Contractor at no additional cost to the owner.

1.8 QUALITY AND SIZE

- A. All plant materials furnished shall be well branched, proportioned width to height, of normal habit, sound, healthy and vigorous in growth. The minimum acceptable sizes of plants shall be measured before pruning with branches in normal position and shall conform to measurements specified. Plants used where symmetry is required shall be matched as closely as possible. Plants shall meet all requirements as listed in the plant list.

1.9 SOURCE OF PLANTS

- A. Plants shall be field nursery, container grown or collected material subject to the requirements of the Specifications.

1.10 FIELD TAGGED PLANTS

- A. All trees (except Pines) are to be located by the Contractor at one of the nurseries listed on the drawings or equal as approved by the Landscape Architect. The Contractor should anticipate accompanying the Landscape Architect on the tagging trips but is not required to do so. Nurseries of equal quality must be approved prior to bidding.

1.11 INSECT, PESTS AND PLANT DISEASES

- A. All plants shall be of healthy stock, free from disease, insects, eggs, larvae, and parasites of an objectionable or damaging nature.

1.12 SUBSTITUTIONS

- A. Substitution from the specified list will be accepted only when satisfactory evidence in writing is submitted to the Landscape Architect, showing that the plant specified is not available. Requests for approval of substitute material shall include common and botanical names and size of plant material.
- B. Only those substitutions of at least equivalent size and having the essential characteristics similar to the originally specified material will be approved.
- C. Acceptance or rejection of substitute plant material will be issued in writing by the Landscape Architect.

1.13 TOPSOIL

- A. Topsoil shall be fertile, friable, sandy loam and a natural surface soil obtained from well areas reviewed by Landscape Architect and possessing characteristics of representative soils in the project vicinity that produce heavy growths of crops, grass, or other vegetation.
- B. Topsoil shall be free of subsoil, brush, organic litter, or objectionable weeds, clay, clots, stumps, stones, roots or other material harmful to plant growths or hindrance to planting or maintenance operations. Should regenerative materials be present in the soil, Contractor shall eradicate and

remove such growth, both surface and root, which may appear in the imported material within one year following acceptance of the work.

- C. Topsoil shall not be handled in a frozen muddy condition. The acidity range shall be between 5.0 and 7.0 inclusive. The mechanical analysis of the soil shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing</u>
1 inch mesh	99 – 100 percent
1/4 inch mesh	97 - 99 percent
No. 100 mesh	40 - 60 percent
No. 200 mesh	20 - 40 percent

- D. Topsoil shall be spread by the Landscape Contractor in all beds. The Landscape Contractor will be responsible for fine grading. Topsoil, regardless of the source, shall meet all requirements of the paragraph above.
- E. Topsoil depth to be 6", or as indicated in the Drawings.
- F. Stockpiled material that does not meet the requirements may, at the option of the contractor, be improved by screening and the addition of organic matter and chemical admixtures.

1.14 PLANTING SOIL MIXTURE

- A. Provide soil mix amended as per laboratory recommendations. Basic planting soil mix consists of:
- 50% topsoil (as described Above)
 - 50% prepared additives (by volume as follows)
 - 3 parts humus, forest peat, or "Nature's Helper" by Klum
 - 1 part sterilized cow manure, commercial fertilizer, and lime as recommended in soil analysis
- B. The components shall be thoroughly mixed to uniform consistency by hand or machine methods.

1.15 MULCH

- A. Pine straw mulch shall be clean, fresh, free of noxious weed, seed, fire ants, Japanese beetles, and/or fringed beetles. On slopes, pine straw mulch shall be used.
- B. Organic Mulch: Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs.
- C. In addition to organic mulches, mineral or inorganic-stone mulches may be required. Some repetition of general descriptions occurs in this article and in "Organic Soil Amendments" Article. Indicate function and location of each material to suit Project.

1.16 MISCELLANEOUS PRODUCTS

- A. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.

PART 3 - EXECUTION

1.1 EXAMINATION

- A. Examine areas to receive exterior plants for compliance with requirements and conditions affecting installation and performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

1.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, and lawns and existing exterior plants from damage caused by planting operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- C. Retain one of first two paragraphs below if locations of trees and shrubs or other plantings are not shown. Retain layout requirements in first paragraph for large projects or if inspection and approval by Landscape Architect is required.
- D. Before commencing planting operations, location of major plants and outlines of areas to be planted shall be marked out on the ground, by the Contractor for approval by the Landscape Architect. Contact the Landscape Architect a minimum of 72 hours in advance of the anticipated review of the layout.
- E. Lay out exterior plants at locations directed by Landscape Architect. Stake locations of individual trees and shrubs and outline areas for multiple plantings.
- F. Retain first paragraph below if trunk-wrap tape is required to be applied at nursery. Coordinate with "Tree and Shrub Planting" Article. Revise to another form of tree protection if required.
- G. Planting operations shall be during favorable weather in which conditions are neither extremely cold or hot not to point that the risk of loss is too great. No planting shall take place when the air temperature is below 45 degrees, or when the ground is frozen or muddy. The Contractor shall inform the Landscape Architect of high risks due to weather.
- H. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
- I. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

1.3 TREE TRANSPORTATION

- A. The Contractor shall be responsible not only for the safe transportation of the plants to the site but also their condition upon arrival. Trees with abrasions of the bark, sun scalds, fresh cuts, or breaks of limbs which have not completely callused will be rejected. Trees which have been damaged during transit will be replaced by the Contractor at no additional cost. All plant unit costs will reflect all above listed specifications.

1.4 TREE TAGS

- A. All plants accepted at the nursery by the Landscape Architect shall be tagged with serialized self locking tags. Trees delivered to the site without these tags or with broken tags will be

rejected. The tags shall remain on the trees until the Contractor has been given instructions by the Landscape Architect for removal.

1.5 PLANTING BED ESTABLISHMENT

- A. Grade will be brought to the level of the finished - rough grade by the General Contractor. The Landscape Contractor will be responsible for spreading of topsoil fine grading work. This is to include debris removal and any grading required to bring the landscaping finished grade to the proper level for planting trees, shrubs and ground covers. Contractor shall grade for proper drainage.

1.6 DRAINAGE TEST

- A. Test excavated plant pits to determine if sufficient drainage is present for proper plant survival.
- B. Tree pits shall be filled with water. If percolation is less than 100% within a period of twelve hours, drill a 12" auger to a depth of 4' below the bottom of the pit. Retest the pit. In case drainage is still unsatisfactory, notify the Landscape Architect in writing of the condition before planting the trees. Contractor is fully responsible for the warranty of the trees. If the tree is on a slope provide a trench filled with stone and a 4" drain pipe to the point of nearest relief
- C. Drainage Test for Plants and Ground Covers shall be spot tested to insure proper percolation.

1.7 PLANTING

- A. All transplanted material is to be replanted the same day it is dug or properly heeled in and watered regularly to insure life.
- B. Circular plant pits with vertical sides shall be dug by hand or machine methods for planting and transplanting of trees and shrubs.
- C. Shrub pit diameter shall be a minimum of one foot greater than the spread of the root mass.
- D. Balled and container plants shall be placed firmly upon scarified subgrade and backfilled with planting soil mixture. Remove all wire, cords, and burlap from the top of root ball. Hand tamp carefully around and under ball to fill all voids. Water during back filling. Form saucer from planting soil mixture in order to retain water.
- E. Gently loosen outer roots of container grown plants to encourage outward growth.
- F. Fertilizer shall be thoroughly mixed and soaked into the top 2" of soil for all plant pits.
- G. Fill the area between the pits, if the individual pits are arranged in a group, to the required grade with pine bark mulch 3" deep. Plant beds shall be neatly edged and kept free of weeds until the work is accepted.
- H. Groundcover beds shall be scarified by hand or machine method to minimum depth of 8". Four inches of pine bark additive and 20 pounds per 1000 square feet of Milorganite fertilizer, or organic equal, shall be uniformly incorporated into the soil to the full 8" of minimum depth.

1.8 TREE AND SHRUB PRUNING

- A. Prune, thin, and shape trees and shrubs according to standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise indicated by Landscape Architect,

do not cut tree leaders; remove only injured or dead branches from flowering trees. Prune shrubs to retain natural character.

1.9 CLEANING AND PROTECTION

- A. During planting, keep adjacent paving and construction clean and work area in an orderly condition. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.
- C. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
- D. Secure equipment and material on site to prevent theft before, during, or following installation, until the Substantial Completion.
- E. After installation and before Substantial Completion, remove nursery stakes, tie tape, wire, burlap, and other debris from plant material, planting areas, and the Project site.
 - 1. When directed by Landscape Architect, remove nursery tags and labels from plant material.
- F. At the time of Substantial Completion, verify that watering devices are in good working order and leave them in place. Replace improperly functioning devices.

1.10 MAINTENANCE PERIOD

- A. Summary:
 - 1. Begin maintenance at commencement of Work of this Section and continue until Substantial Completion, as part of Work of this Section.
 - 2. Continue maintenance for a Maintenance Period of thirty days after date of Substantial Completion.
 - 3. Provide labor, materials, equipment and means for proper maintenance of all materials and workmanship.
- B. Submit a written report and conduct joint inspection with Landscape Architect of maintenance program and procedures, at inspection for Substantial Completion.
- C. Maintain all plants in a growing, well formed, healthy condition by watering, fertilizing, pruning, weeding, spraying, wrapping, straightening, replacement or by other necessary maintenance operations.
- D. Watering:
 - 1. Advise Landscape Architect immediately in writing of recommended alterations due to weather or other conditions.
 - 2. Water landscaped areas not covered by automatic watering system as frequently as necessary to maintain proper moisture level, using the following schedule as a guide:
 - a. Twice a month during March, April, May.
 - b. Once a month during June, July, August, September.
 - c. No watering from October through February, except in drought conditions.

- E. Fertilizing: Apply four (4) times a year to trees, shrubs, ground cover, and sod as per manufacturer's recommended application rate.
- F. Replace annual plantings seasonally, or according to schedule in Drawings. Blooming plants shall be replaced as necessary throughout specified Maintenance Period to maintain blooming condition.
- G. Remove dead wood as it becomes evident. Remove living portions of plants only at the direction of Landscape Architect.
- H. Apply approved anti-desiccant to all evergreen trees during last two weeks in October (except pines).
- I. Weed and pest control:
 - 1. For each spraying combine approved insecticide and fungicide to provide maximum protection for all plant materials. Three sprays annually; in March, May, and August.
 - 2. Two applications (Spring and Fall) of chemical pre-emergent spray, approved. Two applications (during growing season) of chemical contact spray (Round-Up, by Monsanto, or approved)
- J. Fill in areas where soil subsides due to settling or other processes. Replace mulch lost due to subsidence.
- K. Keep planting areas neat and uniformly mulched to specified depth on a continuous basis. In addition to replacing and re-spreading mulch as necessitated during the maintenance period, completely replenish mulch in all planting areas one time during the last month of the one-year Guarantee Period, or as Directed by the Landscape Architect.
- L. Maintain plants in their stable upright position and at the proper grade by straightening and tightening staking and guying apparatus and as approved by the Landscape Architect.

1.11 ACCEPTANCE

- A. Submit written requests for inspection for Substantial Completion to the Landscape Architect at least three calendar days prior to anticipated date of inspection and testing.
- B. Submit Record Drawings and Maintenance manuals to the Landscape Architect with written request for inspection.
- C. Review the "punch list" work jointly with the Owner and Landscape Architect for Substantial Completion of the Work.
- D. Upon completion of repairs and replacements found necessary at the time of review, the Owner and Landscape Architect will confirm the date of Substantial Completion and issue the written notice of Substantial Completion if all items on the punch list have been completed. If necessary, another punch list will be written to itemize and deficiencies still existing and will be attached to the written notice of substantial completion. The contractor shall complete all "punch list" items if possible within 30 days while continuing maintenance.

1.12 WARRANTY

- A. Make good any damage, loss, destruction or failure. Repairs and replacements shall be done and at no additional cost to the Owner.
- B. Repair damage to grade, plants, and other work as necessary.

- C. If the replacement is not acceptable during or at the end of the Guarantee Period, the Owner may elect either subsequent replacement or credit. Replacement products shall have a warranty period as specified above dating from the time of replacement.

- D. Warranty applies to all unacceptable conditions or losses with exception of those due to Acts of Nature, vandalism or Owner neglect, as determined by Landscape Architect.
 - 1. Acts of Nature include, but may not be limited to, high winds of hurricane or tornado force; sleet, hail, or freezing rain; plants washed away in a 50-year or greater rain storm in the first month of installation; and sudden extreme cold, subject to the judgment of the Landscape Architect.
 - 2. Contractor agrees to replace losses due to Acts of Nature at the original contract price, reduced by 15%, for the damaged portions of the Work.

END OF SECTION 32 9300