Spanish Fort Fire – Rescue

P.O. Box 7025 ♦ Spanish Fort, AL 36577
Non Emergency / Business 251.626.8876 ♦ Facsimile 251.626.3473
www.spanishfortfire.org

Station 1
7580 Spanish Fort Blvd
Spanish Fort, AL 36527

Station 2
10628 U.S. Hwy 31
Spanish Fort, AL 36527

Roger R. Few
Fire Chief

November 5, 2018

The Spanish Fort Fire Rescue Department, Inc. is seeking competitive pricing bids for the following item(s):

Site clearing, Earth Moving and Asphalt Paving

Please visit our website at www.spanishfortfire.org, and then click the "VENDORS" section on the main front page to download the project specification sheets. It is the intent of the purchaser to make an immediate purchase of these items. Please return you responses to:

Spanish Fort Fire Rescue
Attn: Chief Roger Few
7580 Spanish Fort Blvd
Spanish Fort, AL 36527

Bid responses should be clearly marked "D'Olive Road Development" with the date and time of the opening and returned no later than **4:00 p.m. CST on Tuesday, November 20th 2018**. Bids will be opened and publicly read aloud at Fire Station 1, located at 7580 Spanish Fort Blvd, Spanish Fort, AL at **4:15 p.m. on Tuesday, November 20th, 2018**.

The Spanish Fort Fire Rescue Department, Inc. reserves the right to reject any and all bids. The department further reserves the right to purchase a product deemed by the department to best meet the specifications and in the best interest of the department, price notwithstanding

Spanish Fort Fire Department
D'Olive Road Development

Project Specifications

7-10-2018

SECTION 010000 - GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 CONTRACT FORMS

Contract forms to be used between the Owner and the successful bidder will be The American Institute of Architects Document A 101 - Standard Form of Agreement Between Owner and Contractor, 2018 Edition, as modified by addendum, and Document A 201 - General Conditions of the Contract for Construction, 2018 Edition, as modified by addendum (hereinafter in these specifications referred to, including addenda, as "AIA Documents A101-2018 and A201-2018"), copies of which are available for inspection by the contractors and subcontractors at the office of the Architect, and at the office of the Owner. AIA Documents A101-2018 and A201-2018 shall form a part of these specifications, which documents are hereby specifically made a part of these specifications and the Contract Documents with the same force and effect as though set forth in full. These specifications shall be supplementary and in addition to, and not in derogation or limitation of, the terms and provisions required of the contractor pursuant to AIA Documents A101-2018 and A201-2018. In the event of conflict within parts of AIA Documents A101-2018 and A201-2018, between parts of AIA Documents A101-2018 and A201-2018 and these specifications, or between parts of these specifications and applicable standards, codes, and ordinances, the contractor shall, at its expense (i) comply with the broader, more burdensome and/or stringent provisions, or (ii) provide the better quality or greater quantity of work, either or both in accordance with the Architect's interpretation. Submission of a proposal shall be deemed an acknowledgment that AIA Documents A101-2018 and A201-2018 have been examined, read and accepted as a part of these specifications and the Contract Documents.

1.2 CONTRACT AND BONDS

The Owner will furnish the required number of contract forms, completed except for signatures. If the contractor is a corporation, the exact name of the corporation should be used, followed by "Incorporated," "Inc.," or "Corp.", as appropriate, followed by the name of the State of incorporation. If the contractor is an individual, then that individual's full name followed by "d/b/a" and name of construction firm, if applicable, should be used. If the contractor is a partnership, the name of the partnership and the name of each partner should be provided. Make sure that the name and exact arrangement thereof is the same on the contracts and on the bond forms.

Contractor shall furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder, in form and content satisfactory to the Owner in the Owner's sole judgment. The Performance Bond and Labor and Material Bond forms shall be written by a surety properly licensed in Alabama with an A.M. Best rating of A or better and shall remain in effect for a period not less than two (2) years following the date of Substantial Completion or the time required to resolve any items of incomplete or defective Work and the payment of any disputed amounts, whichever is longer. The Performance Bond and Labor and Material Bond shall each be in an amount equal to100% of the Contract Sum and all subsequent increases. Every bond shall display the Surety Bond Number and include signed and dated powers of attorney. A rider shall be attached to each bond providing that the Surety agrees that it consents to and waives notice of any addition, alteration, omission, change, or other modification of the Contract Documents and that any such addition, alteration, omission, change, or other modification of the Contract Documents shall not release the Surety of its obligations hereunder.

1.3 CERTIFICATES OF INSURANCE

Contractor shall furnish three (3) certified copies of all policies required of contractor, in form and content acceptable to the Owner in limits as stated in General Conditions in these specifications. Certificates of Insurance shall include a statement certifying that the Owner will be given thirty (30) days prior written notice before material alteration, cancellation, non-renewal, or expiration of the coverage contained in such policy or evidenced by such certified copy or Certificate of Insurance and that such policies are primary to any insurance maintained by the Owner and shall not be reduced, limited or affected in any manner by the existence of any other insurance maintained by the Owner. All liability policies shall be written on an occurrence basis, shall name the Owner as an additional insured and shall waive subrogation in favor of the Owner. In addition, the worker's compensation policy shall contain a waiver of subrogation in favor of the Owner. Contractor shall be responsible for any and all deductibles under required insurance policies. Any deductibles under required policies shall not exceed $5,000.00.

When all of the above documents are completed, and the Owner/Contractor contract has been signed by the contractor, send or deliver all said documents to the Architect:

Forrest Daniell & Associates, P.C.
8007 American Way
Daphne, Alabama 36526

who will deliver said documents to the Owner for review and, upon approval by the Owner and execution by the Owner of the contract, will issue a notice to proceed.

1.4 BUILDERS RISK INSURANCE

The Owner will at its expense obtain a Builders Risk Insurance Policy. The contractor shall at its expense make its own arrangements for any insurance it may require on construction equipment or other items not covered by said builders risk policy, including but not limited to, such items any tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring, and other such items that may be on the site and the capital value of which is not included in the Work. Upon request of the contractor, the Owner will make available a copy of said builders risk policy for review and inspection and the contractor shall be responsible for obtaining any additional insurance it may require.

1.5 EXAMINATION OF THE SITE

All bidders are expected to visit the site of the work to ascertain existing conditions, grades, etc. Failure to do so will in no way relieve the successful bidder from the necessity of furnishing all materials and equipment and performing all Work required for the completion of the Contract in conformity with these specifications. Special attention shall be paid by the Contractor to existing grades and grading to be accomplished by the intent of the plans and specifications.

1.6 PLANS AND SPECIFICATIONS

These plans and specifications are complementary and what is called for in either is binding as though shown in both, and decisions as to the proper interpretation of the drawings and specifications shall be left with the Architect.

Figures shall govern scale dimensions and larger scale drawings govern those of smaller scale. In case of difference or direct conflict between drawings and specifications, the specifications shall govern.

Should a bidder find discrepancies or omissions in the plans or specifications, or should he be in doubt as to their meaning, he should at once notify the Architect, who will issue a written instruction to all bidders. Neither Owner nor Architect will be responsible for oral instructions. Any bulletins or addenda issued during the time of bidding are to be covered in the proposal. In closing a contract, they will become a part thereof.

1.7 SALES TAXES

All applicable sales taxes as required by State or municipal laws must be paid by the contractor, and any applicable municipal taxes, licenses, or fees shall be paid by the contractor.

1.8 BUILDING PERMIT

All required building permits and other permits and governmental fees, licenses and inspections necessary or required by the municipality or other governing agencies for proper execution and completion of the Work shall be obtained and paid for by the contractor.

1.9 RETAINAGE

A ten percent (10%) retainage will be withheld by the Owner as set forth in the Contract Documents.

1.10 INSURANCE REQUIREMENTS

The contractor will be required to effect and maintain during the life of the Contract the following minimum requirements for insurance. No work shall be commenced under this Contract until he has obtained all the insurance required and such insurance has been approved by the Owner, nor shall the contractor allow any sub-contractor to commence work on his sub-contract until the insurance required of the sub-contractor has been so obtained and approved.

All insurance policies shall be issued by insurance companies properly licensed in the State of Florida with an A.M. Best rating of A or better. The contractor shall furnish appropriate certificates of insurance to the Owner in form and content satisfactory to the Owner as proof that the following is being carried:

(a) Workmen's Compensation Insurance: The contractor shall procure and shall maintain during the life of this Contract Workmen's Compensation insurance in accordance with State law, and employer's liability insurance in the amount not less than $1,000,000.00, for all of his employees to be engaged in work on the project under this Contract, and in case of any such work sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance.

(b) Contractor's Commercial General Liability and Property Damage Insurance: The contractor shall procure and shall maintain during the life of this Contract Contractor's Commercial General Liability and Property Damage Insurance in an amount not less than $1,000,000.00 each occurrence for bodily injury and property damage liability combined, with a $2,000,000.00 general aggregate. Coverage shall include products/completed operations, personal and advertising injury, and contractual liability.

(c) Automobile Insurance: The contractor shall procure and maintain an automobile liability policy for all owned, non-owned and hired automobiles with minimum limits of liability of $1,000,000.00 each accident, combined single limits of liability for bodily injury and property damage liability.

(d) Subcontractor's Public Liability and Property Damage Insurance: The contractor shall require and ensure that each of his sub-contractors to procure and to maintain during the life of his subcontract, subcontractor's General Commercial Liability and Property Damage Insurance of the type specified in subparagraph (b) hereof, in amounts similar to general contractor above, unless above contractor's insurance specifically covers sub-contractors by express inclusion.

(e) The Contract will be required to contain a "hold harmless" clause wherein the contractor indemnifies the Owner and Architect against all claims resulting from acts of the contractor, any of the subcontractors, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and appropriate clauses or additions shall be inserted in the above liability and property damage policies providing coverage for said obligations.

(f) Umbrella Policy: The contractor shall carry an umbrella liability policy in the amount of $2,000,000.00 each occurrence and $2,000,000.00 in the aggregate.

1.11 TESTING

All testing required in the project specifications is to be paid by the Contractor, and included in the construction bid. Special inspections required by code will be paid by the Contractor.

1.12 PROJECT SIGN

A project sign will be required, consisting of a 4' x 8' plywood mounted on (2) 4x4 posts. Exact verbiage and layout to be selected to be supplied to contractor prior to construction.

1.13 ENVIRONMENTAL PERMIT

The Environmental Permit will be submitted by the civil engineer. The contractor shall be responsible for pulling the Environmental permit and for providing any monitoring and reporting required by the permit.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 010000

SECTION 311000 – SITE CLEARING

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:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Removing above- and below-grade site improvements.
6. Disconnecting, capping or sealing, and abandoning site utilities in place.
7. Temporary erosion- and sedimentation-control measures.

B. Related Sections:

1. Division 01 Section "Temporary Facilities and Controls" for temporary utility services, construction and support facilities, security and protection facilities**,** and temporary erosion- and sedimentation-control measures.
2. Division 01 Section "Execution" for field engineering and surveying.
3. Division 02 Section "Structure Demolition" for demolition of buildings, structures, and site improvements.
4. Division 02 Section "Selective Structure Demolition" for partial demolition of buildings or structures.

1.3 DEFINITIONS

A. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

B. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.

C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow.

D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow. Its appearance is

generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches (50 mm) in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.

E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.

F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated.

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

A. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.

1. Use sufficiently detailed photographs or videotape.
2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.

B. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 QUALITY ASSURANCE

A. Preinstallation Conference: Conduct conference at Project site.

1.7 PROJECT CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property until directed by Architect.

C. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.

D. Utility Locator Service: Notify each utility owner for area where Project is located before site clearing.

E. Do not commence site clearing operations until temporary erosion- and sedimentation-control measures are in place.

F. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. 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.

G. Do not direct vehicle or equipment exhaust towards protection zones.

H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

I. Soil Stripping, Handling, and Stockpiling: Perform only when the topsoil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Division 31 Section "Earth Moving."

1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Locate and clearly identify trees, shrubs, and other vegetation to remain.

C. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.

B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

A. General: Protect trees and plants remaining on-site according to requirements in Division 01 Section "Temporary Tree and Plant Protection."

B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.

3.4 EXISTING UTILITIES

A. Owner will arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.

1. Verify that utilities have been disconnected and capped before proceeding with site clearing.

B. Locate, identify, disconnect, and seal or cap utilities indicated to be removed.

1. Arrange with utility companies to shut off indicated utilities.
2. Owner will arrange to shut off indicated utilities when requested by Contractor.

C. Locate, identify, and disconnect utilities indicated to be abandoned in place.

D. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Architect not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Architect's written permission.

E. Excavate for and remove underground utilities indicated to be removed.

3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.

1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
2. Grind down stumps and remove roots, obstructions, and debris to a depth of **18 inches** below exposed subgrade.
3. Use only hand methods for grubbing within protection zones.
4. Chip removed tree branches and dispose of off-site.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil **to** depth indicated on Drawings in a manner to prevent intermingling with underlying subsoil or other waste materials.

1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects more than 2 inches (50 mm) in diameter; trash, debris, weeds, roots, and other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

1. Limit height of topsoil stockpiles to 72 inches (1800 mm).
2. Do not stockpile topsoil within protection zones.

3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.
4. Stockpile surplus topsoil to allow for respreading deeper topsoil.

3.7 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.

1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

B. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials and transport them to recycling facilities. Do not interfere with other Project work.

END OF SECTION 311000

SECTION 312000-EARTH MOVING

(ALDOT SECTION 210.02)

Description.
The work under this Section shall cover the excavation, hauling, disposal, or compaction of all material not being removed under some other item which is encountered within the limits of the work and is necessary for all construction in accordance with these specifications and in reasonably close conformity with the lines, grades, thickness, and typical cross sections shown on the plans or established by the Engineer. All excavation covered in this section will be classified as "Unclassified Excavation", "Muck Excavation", "Channel Excavation", or "Borrow Excavation", as described in this Section.

Attention is directed to the fact that the roadbed must be treated by one of the methods specified in Section 230, 231 or 232 before the placement of an overlying subbase, base, or paving structure will be permitted.

Materials.
(a) GENERAL.
All excavation within the right of way or easement limits will be known as Roadway and Drainage Excavation and will be classified as "Unclassified Excavation", "Muck Excavation" or "Channel Excavation". Excavation outside of the right of way or easement limits will be classified as "Borrow Excavation."

(b) ROADWAY AND DRAINAGE EXCAVATION.
Soils data indicated on the plans is for estimating purposes only and the Department does not guarantee the accuracy thereof. Material designated for removal under embankment areas will be reclassified according to its condition at the time of removal.

1. UNCLASSIFIED EXCAVATION.
Unclassified Excavation shall consist of the excavation of all materials of whatever character encountered in the work, except Channel Excavation or Muck Excavation when such items are included as separate pay items in the plans or proposal.

2. CHANNEL EXCAVATION.
Channel Excavation shall consist of the excavation, removal, and disposition as noted or directed of all material necessary to provide inlet and outlet ditches or channels for drainage structures in accordance with plan details. However, unless specifically designated by plan details, such excavation will be classified as Unclassified Excavation.

3. MUCK EXCAVATION.
Material unsuitable for immediate reuse due to organic content, saturated to the extent it is somewhat fluid, and must be moved by dragline, dredge, or other similar type equipment which operates outside the area being excavated, will be classified as muck. Unless explicitly authorized otherwise by the Engineer, before material is classified by

the Engineer as muck, the Contractor will be required to demonstrate that the material cannot be removed by conventional methods and equipment normally used in the unclassified excavation operation. Conventional equipment includes all types of scrapers and dozers. If no item for Muck Excavation is provided in the plans or proposal, such excavation will be classified as Unclassified Excavation and payment will be made as outlined in Item 210.10(a)1.

(c) BORROW EXCAVATION.
Prior approval of all borrow sources must be given; however, this does not relieve the Contractor from the full responsibility for the quality and quantity of the material used. Materials for borrow shall be in accordance with the following:

1. EMBANKMENT.
Materials furnished for embankments above water and below subgrade shall be any stable material which can be compacted to the specified density.

2. IMPROVED ROADBED.
Materials furnished for the improved roadbed shall be any stable material meeting the requirements of Soil Classification A-1, A-2, A-3, or A-4, as determined by AASHTO M 145, within the following limitations.
a. Materials in the A-1 or A-3 Classification will not require consideration of a CBR value.
b. Materials in the A-2 or A-4 Classification shall have a CBR value of not less than 10.
c. Materials of the cherty or float gravel type which have a maximum of 50% passing the Number 8 {2.36 mm} sieve, 100% passing the 4 inch {100 mm} sieve, and CBR value of at least 25 will not be required to conform to the Soil Classification noted above.
d. Industrial waste, a residue from a manufacturing operation, may be used provided the material is taken from "cold" piles which are approved by the Materials and Tests Engineer and the material is broken down by roadway operations or pit operations or crushing methods to allow approximately 100 percent passing the 4 inch {100 mm} sieve. However, isolated oversize particles up to a maximum diameter of 1 inch {25 mm} less than the thickness of the compacted layer may be used, provided such does not exceed 10 percent of the weight {mass} based on 1 square yard {1 m^2}, 6 inches {150 mm} deep. The weight {mass} of 1 square yard {1 m^2} will be calculated on the weight {mass} per cubic foot {cubic meter} of the material. This material shall have a unit weight {mass} of not less than 100 pounds per cubic foot {1600 kg/m^3}, dry as determined by AASHTO T 99, Method "A" or "C", and conform to the following Composition Table:

Composition Sieve	% Passing By Weight {Mass}
4" {100 mm}	100
Liquid Limit (L.L.)	25 Max.
Plasticity Index (P.I.)	6 Max.
CBR	12 Min.

Material meeting this specification will not be required to conform to any Soil Classification noted above.

3. UNDERWATER BACKFILL MATERIAL.
Material for underwater backfill shall be selected sandy material of an A-3 Classification or an approved A-1 or A-2 material of which not more than 15 percent passes the Number 200 {75 μm} sieve. A rocky material that will form a firm foundation when deposited under water may also be acceptable.

4. UNDERWATER EMBANKMENT MATERIALS.
Material for underwater embankment shall be secured from quarries designated on the plans or from other approved sources, producing equally satisfactory material. The material shall consist of 1/2 cubic yard {0.5 m^3}, and smaller, size stone taken from approved natural rock formations. The material shall be free from earth or other foreign material consisting of predominantly larger size stones. Material to be used for choking or blanketing the surface of the underwater embankment shall be of sandy or fragmentary nature, such as stone spalls or screenings, float gravel, or gravel. Material that will slake or become plastic in water shall not be used as choking material or in the blanket course. NOTE: Certain materials within the roadway excavation limits may be authorized for use as improved roadbed material, underwater backfill, or underwater embankment; however, such authorization shall be in accordance with the provisions of Article 106.08.

Construction Requirements.
(a) GENERAL.
Prior to beginning excavation and embankment operations in any area, all necessary clearing and grubbing of the area shall have been performed in accordance with the provisions of Section 201, Clearing and Grubbing.
The excavation and embankment for the work shall be constructed and maintained so as to properly drain and have reasonably smooth and uniform surfaces. The final subgrade elevation and section of both cuts and fills shall be in reasonably close conformity to that specified by the plans or directed (i.e. plus or minus 1 inch {25 mm} from the designated grade and slope elevations). No material shall be wasted without permission of the Engineer. Excavation operations shall be so conducted that material outside of the limits of the slopes will not be disturbed.
Special attention is directed to the requirements of Section 665 and Sections 651 through 659 pertaining to the establishment of temporary and permanent erosion control work.
Choice of equipment to perform the work shall be that of the Contractor. The type and number of units shall be such as to perform the excavation and embankment operations in conformity with these specifications and secure the density specified. Supplemental equipment shall be furnished as necessary to keep the work properly shaped.
When the Contractor's excavation operations encounter artifacts of historical or archeological significance, the operations shall be temporarily discontinued. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation, unless otherwise provided, will be considered and paid for as extra work.

(b) ROADWAY EXCAVATION.
1. GENERAL.

All intersecting roads, approaches, entrances, and driveways shall be graded and completed concurrently with the roadway grading and shall be kept passable at all times. During the grading operation, the area being graded shall be maintained reasonably smooth and well drained. Material used as directed by the Engineer for temporary surface to permit public use of the project will be paid for at the contract unit price of the materials so used. The Contractor shall maintain this temporary surface.
Cuts may be widened and the slopes varied as directed during construction, according to the stability of the material encountered and the need for embankment material; however, benching of backslopes in order to obtain material will not be permitted unless authorized in writing. If widening of a cut is necessary after the backslope is completed, a width sufficient to accommodate normal grading equipment will be allowed. Unauthorized excavation beyond the slope stakes will not be paid for.
Old roadways within the Right of Way shall be obliterated as directed. Roadway obliteration will be paid for as Unclassified Excavation, unless otherwise designated on the plans.

2. REMOVAL OF TOPSOIL.
Topsoil within the construction limits shall be removed in the areas and to the depth as directed by the Engineer. Topsoil may include sod, but not tall vegetation or other debris, and shall be kept free from subsoil. It shall be stockpiled in approved locations with each stockpile not less than 4 feet {1.2 m} high, and containing not less than 200 hundred cubic yards {150 m^3}. Each stockpile shall be shaped as necessary to permit accurate cross sections. The work of removal and stockpiling oftopsoil will be paid for as Unclassified Excavation.

3. SELECTIVE GRADING.
Certain designated zones or portions of cuts which afford the more suitable soils for roadbed construction shall be reserved as directed for use in forming the upper graded earth layer or layers for embankments or cuts, for backfilling, and for other purposes. Should it become necessary to stockpile selected material for use below the subgrade elevation of the same cut, it may be stockpiled nearby so that the excavated material can be measured for payment for the rehandling.

4. UNDERCUTTING.
Where the plans provide for an improved roadbed, all cuts shall be undercut and embankments graded to the elevation necessary for the placement of the improved roadbed. The surface of these undercut areas shall be further undercut if determined necessary for the removal of soft or yielding areas, then properly shaped to drain, backfilled with suitable material, and uniformly compacted to the density specified for embankment just prior to placing the improved roadbed layers. At all grade points, undercutting as directed will be required a minimum of 25 feet {8 m} into a cut. These undercut areas later shall be backfilled with suitable material and compacted.
Rock or other impervious material encountered in cuts shall be undercut to a depth of 2 feet {600 mm} below subgrade elevation where improved type roadbed is specified on the plans, and 1 foot {300 mm} below subgrade elevation elsewhere. All depressions in those

undercut sections shall be cleaned out, provisions made for drainage, backfilled and compacted with selected materials approved by the Engineer.
Undercutting as described above will be measured and paid for as Unclassified Excavation.

5. EXCAVATION AND BACKFILL OF MUCK.
Excavation and backfill of muck areas shall be performed in a manner, acceptable to the Engineer, that will not permit the entrapment of muck within the backfill. The backfilling of the excavated area shall follow immediately behind the excavation so that any soft material that is pushed ahead of the backfill can be removed. After muck removal, the Contractor shall allow the Engineer adequate time to take all elevations and measurements necessary for determining the volume removed.
Normally, the material used to backfill the excavated muck areas will be selected Unclassified Excavation or Borrow Excavation, Item 210-A or 210-D, as shown on the plans or directed by the Engineer.
When directed in writing by the Engineer, the material used to backfill the excavated muck areas will be Borrow Excavation (Underwater Backfill or Underwater Embankment), Item 210-E or 210-F, meeting the requirements of Subarticle 210.02(c).
Backfill material placed in water shall be so deposited that its weight {mass} will displace and force any remaining muck outward and ahead of the backfill, and prevent trapping of muck pockets. Back-pressure from displaced muck against the toe of the advancing backfill shall be relieved promptly by excavating the displaced muck as fast as it accumulates. Dikes ordered constructed within the right of way limits for controlling the muck will be paid for as Unclassified Excavation.
In addition to the requirements of Article 210.05 for disposal areas, where directed, dikes shall be built (without extra compensation) to keep the deposited muck within the limits of the designated areas and as soon as the surface condition of the deposited material will permit, the Contractor shall remove all visible stumps, roots, logs, and other debris from the waste pile and shall dispose of them as specified in Subarticle 201.03(e) without extra compensation. Before acceptance of the work, all parts of the waste pile shall be drained and dressed to a pleasing and reasonably uniform surface and any necessary erosion control work performed, all as directed by the Engineer.

6. EXCAVATION OF ROCK.
Unless otherwise shown on the plans, the Contractor shall use the presplitting technique to split the face of the rock cut in a relatively smooth plane along the designated backslope, prior to shooting the interior portion of the cut. Presplitting shall be accomplished by drilling holes at intervals of approximately 1.5 feet {500 mm} to 3 feet {1 m} to the proper depth along the designated slope, loading and stemming such holes with an appropriate light charge of explosive and detonating all holes simultaneously. The Contractor will not be required to presplit on slopes flatter than one to one. In the event the cut is too deep for the presplitting to be done in one operation, an 18 inch {450 mm} offset will be allowed for the subsequent presplitting operations after the initial presplitting and interior blasting.
Any material outside the designated side slopes that has been loosened or shattered by blasting shall be removed to provide a reasonably smooth and uniform slope. No rock shall project more than 1 foot {300 mm} inside the designated slope. Payment will be made for

overbreakage and necessary backfill material for a distance not to exceed 1 foot {300 mm} outside the designated slopes or 1 foot {300 mm} below the designated elevation for undercutting; however, where presplitting is required, no overbreakage on side slopes will be paid.
All overbreakage in excess of the noted limits shall be removed and necessary backfill performed by the Contractor without additional compensation.
When authorized in writing, rock from roadway excavation may be used under other sections of the Specifications. In such event, payment will be made under the appropriate Section for which the rock is so used, and as provided in Section 106 for the replacement of materials for use in the embankment.
All rock that is not required for other construction shall be placed in embankment, insofar as possible, in accordance with the provisions for embankments. Large rock or boulders that cannot be used in embankment shall be disposed of by the Contractor.

7. BENCHING.
In cuts where unstable soil conditions occur, the plans may designate or the Engineer may direct the use of benching. The benching shall be accomplished by suitable drilling and blasting equipment when so directed. This benching will be measured and paid for as Unclassified Excavation.
Benching may also be ordered to provide a more stable foundation for heavy embankment. Benching shall be accomplished by excavating horizontally along the hillside down to or into rock or other suitable undisturbed foundation material, forming a series of stepped benches. Each bench shall be in excavation for its entire width. The benches generally shall parallel contour lines. They shall be constructed at least 10 feet {3 m} wide and may be required to be wider for better support of embankment. Benching of embankment will be measured and paid for as Unclassified Excavation only if it is required to be loaded onto equipment and hauled to another location.

(c) BORROW EXCAVATION.
Possible borrow sources may be shown on the plans, and the Contractor has the option of using such or other sources as provided by Subarticle 106.01(d); however, when sources are not shown or designated, the Contractor shall provide such as specified by Subarticle 106.01(d). Materials furnished shall conform to the appropriate specifications under any condition.
All stumps, logs, brush, roots, and other debris resulting from clearing and grubbing work in borrow pits shall be removed and disposed of as specified in Subarticle 201.03(e). No separate payment will be allowed for this operation. Material unsuitable for use in the work shall be disposed of in a satisfactory manner and the amount of such deducted or eliminated from quantities measured for pay purposes.
All borrow areas shall be bladed and left in such shape as to permit accurate measurements after excavating has been completed. The Contractor shall notify the Engineer in sufficient time before beginning excavation so that the necessary cross sections may be taken. The finished borrow areas shall be left in a condition satisfactory to the Engineer and the property owner. Attention is directed to Subarticle 106.01(b) for conditions governing local pit operations.
The selection of areas of the source for use and sequence of excavation shall be as directed

by the Engineer in order that material of the best available gradation and soil characteristics may be secured.

(d) EMBANKMENT.
1. GENERAL.
Only suitable, approved materials shall be used in the work. The Engineer shall be the sole judge of the suitability of materials and may require such selection of materials as may be necessary to insure a satisfactory embankment. Sandy or rocky materials available shall be used to the extent practical across wet areas to form a floor for supporting the required embankment.
After Clearing and Grubbing of the embankment areas is complete, all cavities and irregularities shall be enlarged to permit use of compaction equipment, backfilling and compacted as required. Foundation preparation shall consist of the work required to provide a stable foundation for the embankment. This may consist of undercutting and backfilling, flooring sufficient to support equipment, or other work as may be directed. Foundation preparation and compaction will be as directed by the Engineer.
Where embankment is to be placed on old concrete pavements or pavements having concrete bases, the treatment of the old concrete shall be as specified on the plans. Where embankment is to be placed on any other type of roadway pavement or surface, the existing pavement or surface shall be scarified to the extent necessary to provide ample bond between old and new material.

2. EMBANKMENT FORMATION.
Rocks, broken concrete, or other solid materials shall not be placed in embankment areas where piling is to be placed or driven.
Roadway embankment of earth material shall be placed in reasonably uniform layers not exceeding 8 inches {200 mm} (loose measurement) and, insofar as practical, the full width of the embankment section. Each layer shall be compacted as specified before the next overlying layer is placed. Care shall be taken during the compaction operations so that uniform density is obtained.
When the excavated material consists predominantly of rock fragments of such size that the material cannot be placed in layers of the thickness prescribed without crushing, pulverizing, or further breaking down of the pieces resulting from excavation methods, such material may be placed in the embankment as directed in layers not exceeding 2 feet {600 mm} in thickness. Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments or earth. These type lifts shall not be constructed above an elevation of two feet {600 mm} below the finished subgrade. The balance of the embankment shall be composed of suitable material (no material larger than 4 inches {100 mm}) smoothed and placed in layers not exceeding 8 inches {200mm} in loose thickness and compacted as specified for embankments.
Placing of large stones, up to two-thirds the remaining embankment height at the point of placement, will be allowed provided they are spaced so as to permit free access of proper equipment to compact the intervening fill in normal layers. Other large stones may be placed on fill slopes as directed.
When new embankment is to be placed against existing embankments, or when

embankment is built one-half width at a time and slopes are steeper than 4:1 {1:4} when measured at right angles to the embankment, the old embankment shall be continuously benched and the new work brought up in layers. Benching shall be of sufficient width to permit operations of placing and compacting equipment, but in no case less than 6 feet {2 m}. Material thus cut out shall be recompacted along with the new embankment material at the Contractor's expense.
Underwater backfill and underwater embankment shall be deposited in one layer for the full width of the embankment, or as directed, to the elevation designated on the plans or directed. In the formation of underwater embankment, the rock shall be fully choked with a blanket of approved choking material before placement of the remaining embankment.
Embankment over, under, and around structures (pipes, culverts, arches, bridges and like), except pipes and arches 48 inches {1200 mm} or less in diameter, shall be selected embankment material placed and compacted or tamped as noted herein in a manner and by methods that will avoid unbalanced loading, cause movement, or place undue strain on any structure. Attention is directed to Section 530 for pipes and arches 48 inches {1200 mm} or less in diameter. The Contractor shall be solely responsible for protecting the structures and any damage to any part of a structure due to not providing proper protection shall be cause for ordering its replacement without additional compensation.

3. EMBANKMENT COMPACTION.
Layers of embankment shall be compacted as specified in Subarticle 306.03(b). Strict moisture control will not be required; however, it will be the Contractor's responsibility to maintain the moisture content necessary to satisfactorily compact the material. Compaction in a semi-dry condition will not be permitted.
Where improved roadbed design is specified, the layers up to the bottom of the improved roadbed shall be compacted as noted above and finished true to required line, grade, and cross section. The improved roadbed layers shall then be constructed as provided in Article 230.03.
Where improved roadbed design is not specified, the embankment layers shall be continued up to subgrade elevation with the same compaction requirement as noted herein. Just before placing a subbase or other material on this graded earth roadbed, the top 6 inches {150 mm} shall be reconstructed as provided in Subarticle 230.03(c) of these specifications.
No compaction or density test will be required for underwater embankment or underwater backfill.

Use of Materials.
All suitable materials removed from the Roadway Excavation shall be used, insofar as practicable, in the formation of the embankment, roadbed, base layers, shoulders, slopes, bedding, and backfill for culverts, and for such other purposes and places as directed. Suitable materials shall be defined as those suitable for any of the above listed uses.
No excavated material shall be wasted unless permitted in writing by the Engineer but shall be used uniformly to widen embankments, to adjust grades, to flatten slopes, or shall be deposited in such places and for such other purposes as may be directed. Such material shall be handled as follows:

Suitable Material.
Suitable material shall be used at the time of excavation for any of the purposes outlined herein in this Article. It is not intended to stockpile suitable material unless ordered in writing by the Engineer. Payment for second handling will be made only when reused from stockpiles previously ordered by the Engineer.

Unsuitable Material.
Unsuitable material that cannot be used at the time of excavation may, at the option of the Contractor, be temporarily stockpiled within the right-of-way, or the Contractor may make written request for disposal as waste in an approved area on or off the right-of-way. Payment for the second handling of stockpiled unsuitable material will be made only when ordered in writing for use by the Engineer for a specific pay item. The remainder of the stockpiled material may be used to widen embankments, flatten slopes, etc. as allowed by the Engineer, with no payment for the second handling, or shall otherwise be disposed of off the right-of-way with no payment for the second handling.
No payment will be made for the second handling of unsuitable material deposited outside the construction limits at the time of excavation and later spread onto a fill slope, etc. by use of a dozer or similar equipment.
Channel Excavation shall be used to fill old channels, in the construction of embankments, the flattening of slopes, or shall be disposed of as approved by the Engineer. If permitted by the Engineer, waste channel excavation may be spread in uniform layers, neatly leveled, shaped, and grassed with sufficient openings provided to permit surface drainage of adjacent lands; however, in no case will waste material piles be permitted to remain within 10 feet {3 m} of the edge of any ditch, channel, or cut. No payment will be made for any necessary rehandling of Channel Excavation material unless ordered for use by the Engineer from stockpiles for a specific pay item.

Disposal Areas for Surplus Material.
If no disposal areas are shown on the plans, the Contractor shall provide at his own expense disposal areas and submit along with the permission of the property owner a plan for treatment of the area which is acceptable to the Engineer. Said plan shall provide for dressing, grassing, or other treatment to avoid unsightly appearance and not create a public nuisance or incur future maintenance problems.
Disposal areas will not, in general, require clearing and grubbing or compaction of the waste pile; however, if clearing and grubbing or compaction is required, such will be designated by plan details or in the proposal.
Reference is made to Item (f) of paragraph 3 of Article 107.13 concerning handling of waste material and treatment of areas.

Finishing and Dressing.
All the completed work shall be dressed and maintained substantially to the lines, grades, and cross sections shown on the plans or as directed by the Engineer. Slopes shall be shaped, rounded, finished, or trimmed in a neat workmanlike manner to conform to the slope lines shown on the plans or as modified by the Engineer. Care shall be exercised that no material be loosened beyond the required slopes.

Compensation for all such finishing and dressing shall be included in the contract unit prices and no direct payment will be made for this work.

Erosion Control.
The Contractor shall incorporate into the work all permanent erosion control features provided in the contract at the earliest practical date. In addition, temporary erosion control features may be ordered by the Engineer to facilitate protection until the permanent control features can be installed.
Particular attention is directed to Section 665 and Article 107.21 of these Specifications.

Method of Measurement.
(a) GENERAL.
Measurement for all accepted Excavation, except for Borrow Excavation for Underwater Embankment, will be either by the cubic yard {cubic meter} of the material in its original position computed from cross sections by the average end area method or per ton {metric ton} as specified by the unit measure of the pay item.
Measurement for Borrow Excavation for Underwater Embankment will be either by the ton {metric ton} or by the cubic yard {cubic meter}, loose volume, of the material in the hauling vehicle at the point of use as specified by the unit measure of the pay item.
Embankment will not be measured for payment. All of the operations required for embankment formation described herein shall be considered necessary work incidental to and for which compensation is included in the contract unit prices for the pay items of the materials composing the embankment.
Muck excavation as described in Subarticle 210.03(b) will require the use of the following modified cross section and average end area method. The volume will be measured between theoretical vertical side slopes, a station or substation at a time, immediately after ompletion of muck excavation and before backfill is placed. No measurement or allowance will be made for necessary excavation of material for sloughing, subsidence, flattening sides, slumps, or rehandling materials or for shaping and dressing disposal areas. The sloughing, subsidence, flattening, or slump of side slopes in muck will not be classed as slides.

(b) MEASUREMENT LIMITATIONS.
Measurement of pay quantities will not include any excavated material used for purposes other than those designated except as provided under Article 106.08. Where material has been excavated beyond the designated slope line and wasted, the unauthorized wasted material will be measured and deducted from the excavation quantities. Any material excavated prior to the staking out and cross sectioning of the borrow sources by the Engineer, or in excess of that ordered for the work, will not be included in the quantity measured for payment. If the Contractor places more borrow than is necessary, thereby causing a waste of excavation, the amount of such waste will be deducted from the borrow excavation as measured in the borrow source. When a borrow area is adjacent to the right of way, the dividing line between unclassified excavation and borrow excavation shall be either a vertical plane through the right of way line or the proposed backslope as shown on the plans, whichever is most economically advantageous to the State.

Basis of Payment.
(a) UNIT PRICE COVERAGE.
1. ROADWAY AND DRAINAGE EXCAVATION.
The accepted volume of Unclassified Excavation - Item No. 210-A, Channel Excavation - Item 210-B, and Muck Excavation - Item No. 210-C, when provided in the plans or proposal, measured as provided above, will be paid for at the contract unit prices bid for these items which shall be payment in full for: excavation; disposal of surplus and unsuitable materials (see Articles 210.04 and 210.05); hauling; formation and compaction of embankment; preparation and completion of subgrade and shoulders except when this work is included in other pay items; the completion of all cuts, embankments, and channel excavation to conform to the lines, grades, and cross section indicated on the plans or otherwise directed; and the completion of the roadway together with its appurtenances of intersecting roads, streets, driveways, approaches, temporary drainage facilities, and other related incidental work for which the proposal contains no contract unit prices. The said contract unit prices for the excavation item shall be payment in full for all equipment, tools, labor, and incidentals necessary to complete the work.
If no contract items for Channel Excavation and/or Muck Excavation are provided, such work will be paid for as Unclassified Excavation. Exceptions to the above will be made in the event of the following:

a. If a backslope already completed and dressed is destroyed by a slide, or if the Engineer orders additional material taken from a completed and dressed backslope, any redressing required will be paid for as provided in Article 104.03.

b. If a slide occurs after completion of the subgrade to line and grade or during subsequent work in the immediate area and is of such nature and extent that the Engineer, in order to avoid damage to the previous work, directs its removal, and such requires equipment other than equipment normal to the project, an adjustment in price may be made. However, in no case shall such increase exceed 25 percent of the unclassified excavation contract unit price.

c. If no item for Muck Excavation is provided in the plans or proposal, such excavation will be classified as Unclassified Excavation and payment will be made at two times the unit bid price for Unclassified Excavation.

2. BORROW EXCAVATION.
The accepted volume of Borrow material designated under Items 210-D, 210-E and 210-F, measured as noted above, will be paid for at the contract unit price bid for the items, which shall be payment in full for the royalty and other expenses incidental to procurement, construction and maintenance of haul roads, clearing and grubbing, stripping, excavating, loading, hauling, source moves, dumping, spreading, and also for formation and compaction of embankment, trimming slopes, disposing of surplus materials, preparation and completion of subgrade, shoulders, and intersecting roadways and furnishing of all equipment, labor and incidentals necessary to complete the work. This pay item also includes any necessary work as may be required by the Engineer or Owner in the final dressing of the pit, including grassing or other landscape work.

(b) BLANK.
(c) PAYMENT WILL BE MADE UNDER ITEM NO.:
210-A Unclassified Excavation - per cubic yard {cubic meter}
210-B Channel Excavation - per cubic yard {cubic meter}
210-C Muck Excavation - per cubic yard {cubic meter}
210-D Borrow Excavation - per cubic yard {cubic meter}
210-E Borrow Excavation(Underwater *) - per cubic yard {cubic meter}
210-F Borrow Excavation(Underwater *) - per ton {metric ton}
* Specify either Backfill or Embankment.

SECTION 321216-ASPHALT PAVING

(ALDOT SECTIONS 230, 301, 821, 825, 401, 804, 429, 306.03, 410.04, 856, 701, 702)

ROADBED PROCESSING

All roadbeds on this project shall be constructed in accordance with Alabama State Highway Department Standard Specifications for Highway Construction, as amended, Section 230. Paragraphs pertaining to payment are excluded.

The Unit Price Bid per square yard for this item shall include all costs incidental to processing, compacting and testing the existing roadbed material as herein specified and as shown on the Plans. No direct payment will be made for roadbed processing where an improved subgrade or sub-base has been constructed.

SAND CLAY / CRUSHED AGGREGATE BASE

This work shall be performed in strict accordance with the Plan requirements, and the Alabama State Highway Department Standard Specifications for Highway Construction as amended, Sections 301 Soil, Soil Aggregate, and Aggregate Base and Subbases and 821 Granular Soil Materials, Type B, for road mixed, sand/clay base, and 825 Crushed Aggregate Base Material, Type B for crushed aggregate base. Paragraphs pertaining to payment are excluded. Payment shall be included in the Unit Price Bid for each square yard of base course accepted, in place.

No base material shall be placed until the prepared roadbed is satisfactory as to grade, cross sections, and density as determined and approved by the Engineer. The base shall be compacted to the required density by use of an effective combination of compaction equipment that will ensure required density for the full depth of the layer.

Measurement and payment shall be by the square yard measured and accepted in place. Payment shall be for one square yard of base accepted in place, and shall include all costs of all materials, labor, equipment and incidentals required to furnish and install the base.

PRIME COAT

This work shall be performed in strict accordance with the requirements of the Alabama State Highway Department Standard Specifications for Highway Construction, as amended, Section 401 Bituminous Surface Treatments, Treatment Type A, Prime Coat. Paragraphs pertaining to payment are excluded.

The work shall include all labor, equipment, and materials to: (1) Clean the existing surface. (2) Apply the prime coat to the base. (3) If the surface will be used by vehicular traffic, then spread the necessary amount of approved, clean coarse sand over the tack to prevent its picking up under traffic. All work to be in accordance with Plans, Cross-Sections, and Contract Documents. The prime coat shall be distributed evenly over the surface at a rate of twenty-five hundredths (0.25) gallons per square yard.

The Engineer's approval of the composition, density, thickness, elevation, and smoothness of the base shall be secured prior to the application of the prime coat.

The Engineer shall be supplied certification from the Manufacturer that all materials used for prime coat meet the requirements of Alabama State Highway Department Standard Specifications for Highway Construction, as amended, Section 804 Bituminous Materials, Cutback or Emulsified Asphalt.

Payment shall be included in the Unit Price Bid for each square yard accepted, in place, and shall include all costs of all materials, labor, equipment and incidentals required to apply the prime coat.

BITUMINOUS CONCRETE WEARING SURFACE

This work shall be performed in strict accordance with the requirements of the Alabama State Highway Department Standard Specifications for Highway Construction, as amended, Section 429 Bituminous Concrete Wearing Surface, Section 429.02, Mix 2. Paragraphs pertaining to payment are excluded.

The Engineer's approval of the condition of the base shall be secured prior to the laying of the surface course.

The bituminous concrete wearing surface shall be laid with an approved mechanical spreader in two layers with a minimum weight of 110 pounds per square yard on the upper layer and 165 ponds per square yard on the lower layer, all in accordance with Plans, and Contract Documents. Compaction and testing thereof shall be in accordance with the Alabama State Highway Standard Specifications for Highway Construction, Section 410.04 Density Requirement and 306.03 Density for Bituminous Pavement Layers.

The Engineer shall be supplied certification from the Manufacturer that all hot bituminous plant mix used meets the requirements of Alabama State Highway Department Standard Specifications for Highway Construction, as amended, Section 429 Materials.

PAVEMENT MARKINGS

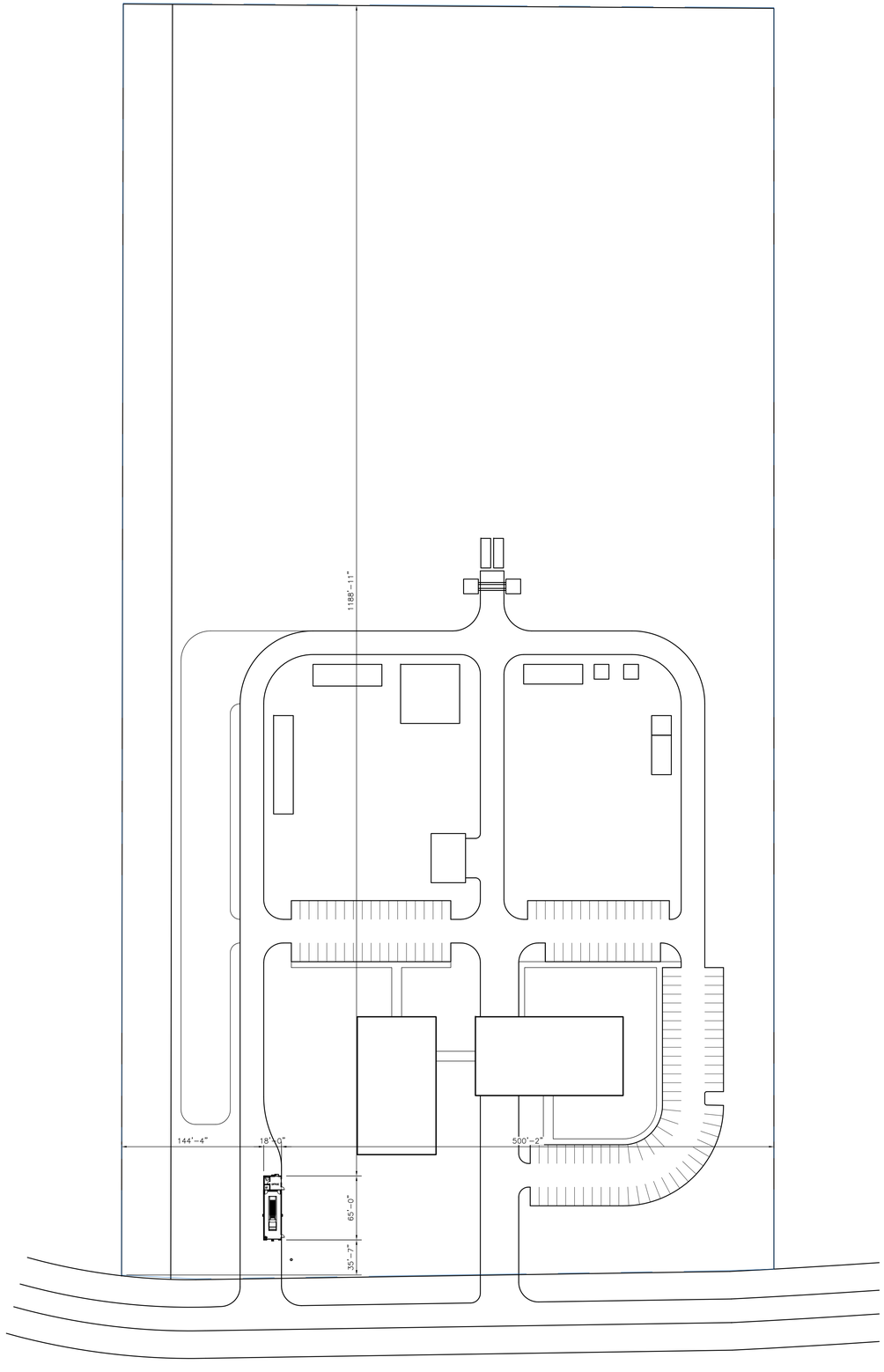
This item shall include the placement of pavement markings in the accordance with layout shown in the plans. All paint used shall be white or blue (for handicap spaces), and conform the requirements of Alabama State Highway Department Standard Specifications for Highway Construction as amended, Section 856.02. All paint shall be permanent traffic paint. Placement of traffic stripes and pavement markings shall be in accordance with Alabama State Highway Department Standard Specifications for Highway Construction as amended, Sections 701.03 and 702.03.

MASTER PLAN NOTES

THE MASTER PLAN SHOWN HERE IS A CONCEPTUAL DESIGN ONLY, AND IS NOT INTENDED FOR SITE PLAN APPROVAL.

MASTER PLAN SCHEDULE

THE SCHEDULE FOR FUTURE BUILDINGS SHOWN ON THIS MASTER PLAN WOULD BE CONSTRUCTED IN 1½ TO 2 YEARS AT THE EARLIEST. THE TIME SCHEDULE MAY RUN LONGER DUE TO FUNDING AVAILABILITY.



1 SP101 MASTER SITE PLAN

1/64"=1'-0"

Sheet Index

SP101	Master Site Plan
SP102	Phase I Site Plan
A101	Floor Plan and Exterior Elevations
V1.0	Survey
C100	Erosion and Sedimentation Control Plan
C200	Grading and Drainage Plan

Spanish Fort Fire Department
D'Olive Road Development
Spanish Fort, Alabama

FORREST DANIELL & Associates, P.C.

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REVISIONS

1	PLANNING REQ. 8-9-18
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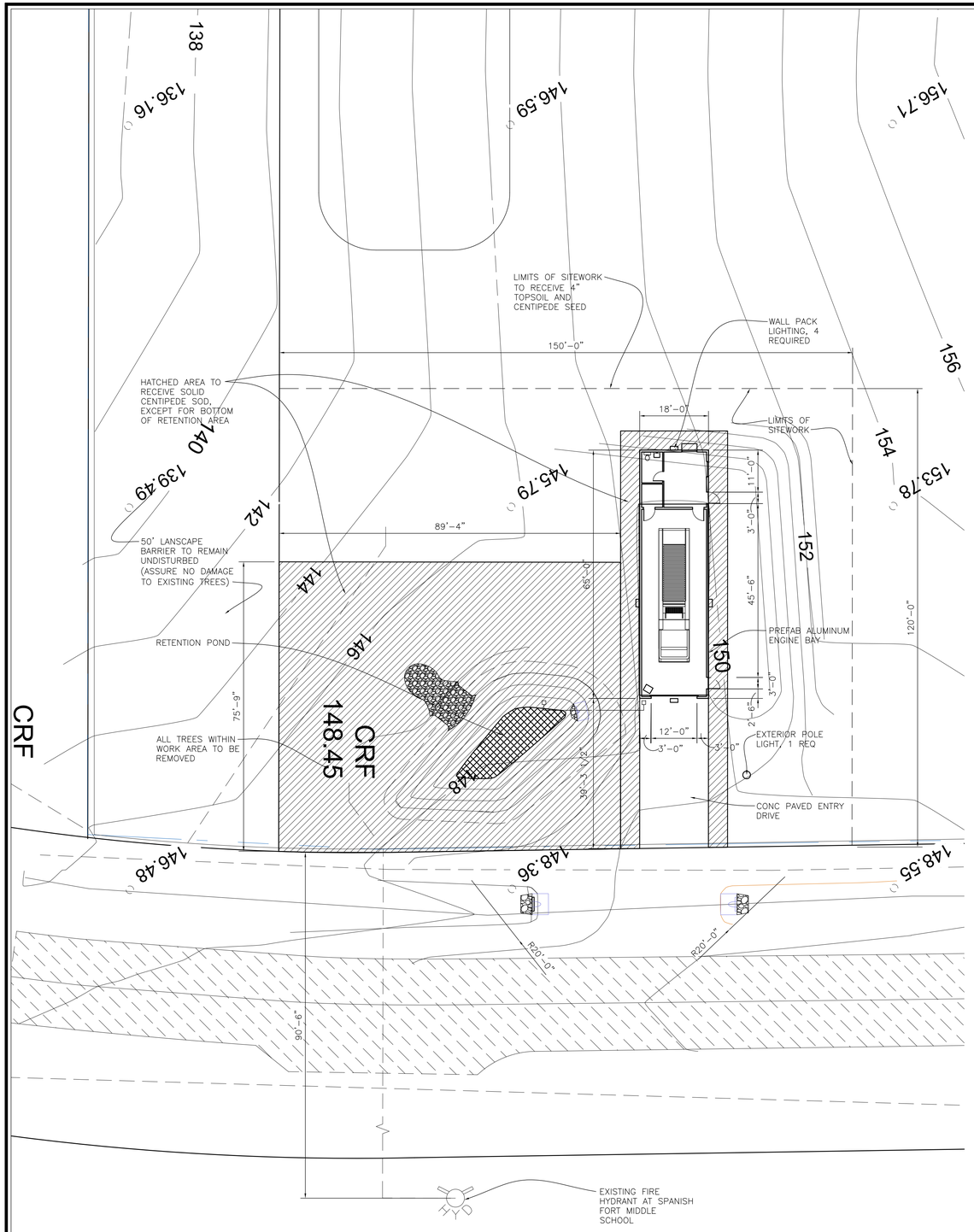
STATE OF ALABAMA
JEFFREY A. JORDAN
NO. 5434
7/10/2018
LICENSED ARCHITECT

JOB #:

DATE: 7/10/18

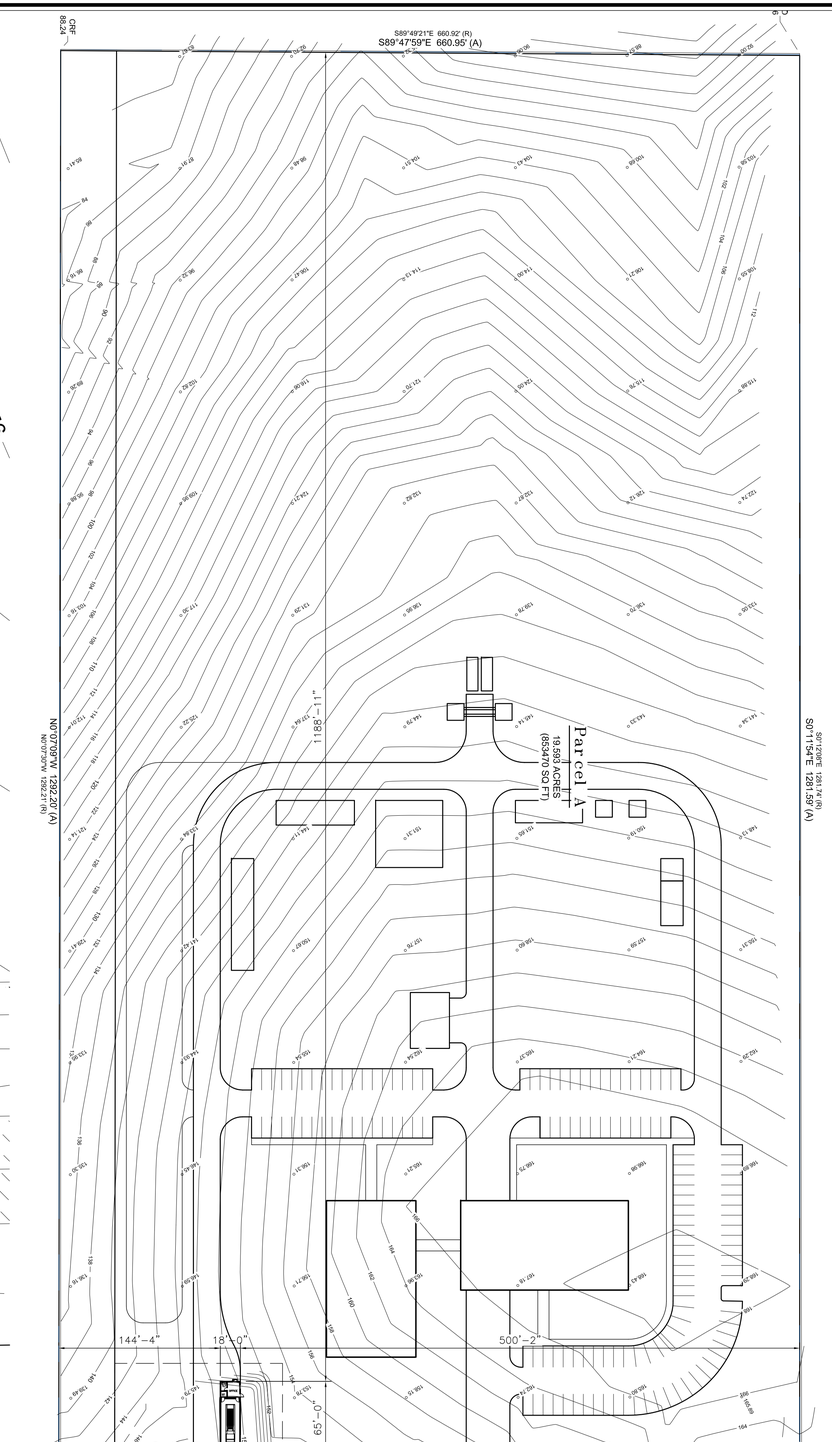
SP101

SITE PLAN



2 SP102 PHASE I SITE PLAN AND LANDSCAPE PLAN – TEMPORARY ENGINE BAY

1/16"=1'-0"



1 SP102 PHASE I SITE PLAN – TEMPORARY ENGINE BAY

1/64"=1'-0"

SITE DATA

CURRENT PROPERTY ZONING: B-2

FRONT SETBACK: 20'

SIDE SETBACKS: 0'

REAR SETBACK: 0'

WEST SIDE LANDSCAPE BUFFER: 50'

TOTAL ACREAGE OF PROPERTY: 19.6 ACRES

TOTAL DENSITY OF PHASE I DEVELOPMENT: 2.1%

ADJACENT PROPERTY OWNERS:
WEST: ZULLY LIZARDO
NORTH: FIGURE 8 (HIGHLANDS) LLC
EAST: FIGURE 8 (HIGHLANDS) LLC
SOUTH: BALDWIN COUNTY SCHOOL BOARD (ACROSS STREET)

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REVISIONS
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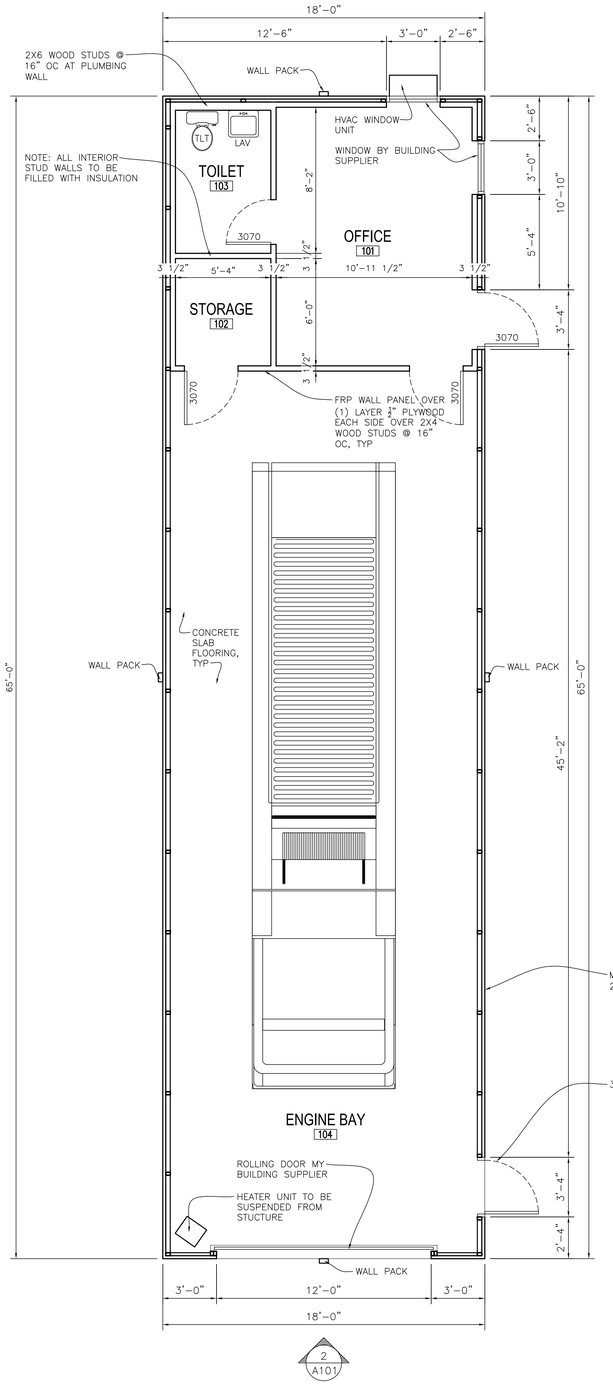
STATE OF ALABAMA
JEFFREY A. JORDAN
No. 5434
7/10/2018
LICENSED ARCHITECT

JOB #:
DATE: 7/10/18

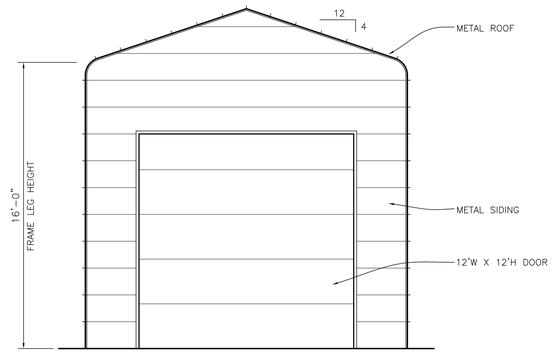
SP102
PHASE I SITE PLAN



TEMPORARY ENGINE BAY FLOOR PLAN

1 / A101

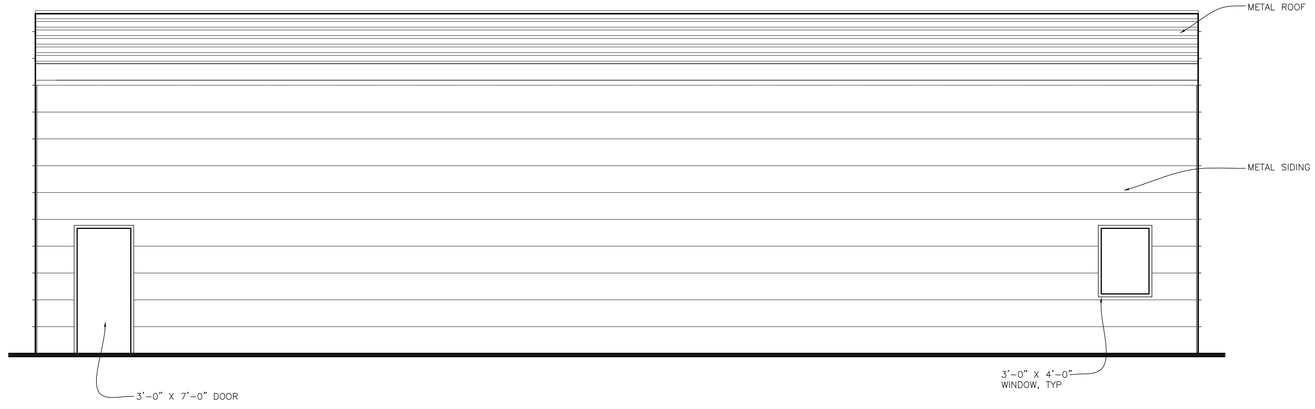
1/4"=1'-0"



TEMPORARY ENGINE BAY FRONT ELEVATION

2 / A101

1/4"=1'-0"



TEMPORARY ENGINE BAY SIDE ELEVATION

3 / A101

1/4"=1'-0"

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STATE OF ALABAMA
JEFFREY A. JORDAN
No. 5434
7/10/2018
LICENSED ARCHITECT

JOB #:

DATE: 7/10/18

A101

FLOOR PLAN
EXTERIOR ELEVATIONS

VICINITY MAP

LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- CENTERLINE
- EASEMENT
- W — WATER LINE
- SAN — SANITARY SEWER
- FM — SANITARY FORCEMAIN
- OHW — OVERHEAD WIRES
- WOOD PRIVACY FENCE
- STORM DRAIN
- 45' — EX. INDEX CONTOUR
- 44' — EX. INTERMEDIATE CONTOUR
- 10.00 EX. SPOT ELEVATION
- (A) ACTUAL BEARINGS AND DISTANCES
- (R) BEARINGS AND DISTANCE OF RECORD
- (P) INFORMATION PER PLAT
- POWER POLE
- FIRE HYDRANT
- BENCHMARK
- IPF IRON PIPE FOUND
- CRF CAPPED REBAR FOUND
- CRS CAPPED REBAR SET
- ASPHALT

0 50 100 Feet

SCALE: 1" = 50'

PARCEL #-05-32-01-11-0-000-001.000
FIGURE 8 (HIGHLANDS) LLC
(INSTRUMENT NO. 1253608)

S0°12'08"E 1281.74' (R)
S0°11'54"E 1281.59' (A)

P.O.B.
NE CORNER, SECTION
10-T4S-R2E
IPF 2" CAPPED
98.06

E. LINE OF SECTION 10

Jimmy Faulkner Dr.

L=44.57, R=960.00 Δ=2°39'36"
CB=N87° 58' 05"E CL=44.56 (A)
L=44.62, R=960.00 Δ=2°39'48" (R)

CRF 161.74

CRF 161.98

+1.066

Parcel A
19.593 ACRES
(853470 SQ FT)

PARCEL #05-32-02-10-0-000-001.001
CITY OF SPANISH FORT ALABAMA
(INSTRUMENT NO. 1536786)

PARCEL #-05-32-03-0-000-007.000
FIGURE 8 (HIGHLANDS) LLC
(INSTRUMENT NO. 1253608)

S89°49'21"E 660.92' (R)
S89°47'59"E 660.95' (A)

N. RIGHT-OF-WAY LINE
S88°54'42"W 542.61' (A)
"S88°54'47"W 542.53' (R)

℄ D'OLIVE ROAD
APPARENT 80' PUBLIC R/W

OHW

L=75.78, R=610.00 Δ=7°07'03"
CB=S87° 17' 06"E CL=75.73 (A)
L=75.73, R=610.00 Δ=7°06'47" (R)

EAST 234.08' NORTH 19.10'

CRF 148.45

CRF 146.05

CRF 88.24

N0°07'09"W 1292.20' (A)
N0°07'30"W 1292.21' (R)

PARCEL #-05-32-02-10-0-000-001.000
ZULLY LIZARDO
(INSTRUMENT NO. 1402214)

PROPERTY DESCRIPTION:

BEGINNING AT THE NORTHEAST CORNER OF SECTION 10, TOWNSHIP 4 SOUTH, RANGE 2 EAST, BALDWIN COUNTY, ALABAMA; THENCE RUN S00°12'08"E, ALONG THE EAST LINE OF SAID SECTION 10, 1281.71 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF D'OLIVE ROAD, SAID POINT LOCATED ON A CURVE CONVEXING TO THE SOUTH, HAVING A RADIUS OF 960.00 FEET AND A DELTA ANGLE OF 02°£39'47"; THENCE RUN SOUTHWESTWARDLY, ALONG SAID CURVE AND NORTH RIGHT-OF-WAY LINE, AN ARC LENGTH OF 44.62 FEET (CHORD BEARS S87°51'42"W, 44.62 FEET) TO THE P.T. THEREOF; THENCE RUN S88°£54'47"W, ALONG SAID NORTH RIGHT-OF-WAY LINE, 542.53 FEET TO THE P.C. OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 610.00 FEET AND A DELTA ANGLE OF 07°06'46"; THENCE RUN NORTHWESTWARDLY, ALONG SAID CURVE AND NORTH RIGHT-OF-WAY LINE, AN ARC LENGTH OF 75.73 FEET (CHORD BEARS N87°19'43"W, 75.68 FEET) TO A POINT; THENCE RUN N00°07'30"W, 1292.21 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 10; THENCE RUN S89°49'21"E, ALONG SAID NORTH SECTION LINE, 660.91 FEET TO THE POINT OF BEGINNING, CONTAINING 19.59 ACRES.

SURVEY NOTES:

1. TYPE OF SURVEY: BOUNDARY & TOPOGRAPHICAL (SPECIFIC PURPOSE/DESIGN) SURVEY
2. THIS PROPERTY MAY BE SUBJECT TO BUILDING SETBACKS AND OTHER RESTRICTIONS BY GOVERNING BODY.
3. THIS SURVEY DOES NOT INCLUDE THE IDENTIFICATION OR LOCATION OF WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS.
4. BY GRAPHIC PLOTTING ONLY, THE SURVEYED PROPERTY IS LOCATED IN ZONE "X" (UNSHADED) AS PER F.I.R.M. MAP NO. 01003C0530L, DATED 7/17/2007.
5. THE BEARINGS & ELEVATIONS SHOWN HEREON ARE ESTABLISHED BY GPS OBSERVATION, BEARINGS REFERENCED TO AL WEST ZONE SPC.
6. 02-09-2012 TICKET No. 181712347 - ALABAMA ONE-CALL (811) WAS CONTACTED TO PROVIDE UNDERGROUND LOCATIONS PRIOR TO THE FIELD SURVEY, THE LINES INDICATED HEREON EXHIBIT ALL SUB-TERRAINIAN INFORMATION AVAILABLE TO THIS FIRM AT THE TIME OF THE FIELD SURVEY. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY LINES PRESENT, THEREFORE THIS INFORMATION SHOULD BE FIELD VERIFIED BEFORE CONSTRUCTION.

SURVEYOR'S CERTIFICATION:

I, MATTHEW C. ROBERTS, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF ALABAMA, HEREBY STATE THAT ALL PARTS OF THIS SURVEY AND DRAWING HAVE BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR SURVEYING IN THE STATE OF ALABAMA TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF, AND THE SURVEY SHOWN HEREON IS A PLAT OF THE PREVIOUSLY DESCRIBED PROPERTY.

MATTHEW C. ROBERTS, PLS
ALABAMA REG. NO. 30355

7/24/18
DATE

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY	APPROVED BY
B	07/23/18	COMPLETED SURVEY FOR DESIGN	THK	MCR	MCR
A	06/20/18	ISSUED FOR REVIEW	–	–	–

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SEAL

ALABAMA LICENSED 30355 PROFESSIONAL LAND SURVEYOR MATTHEW C. ROBERTS

THIS DRAWING IS THE PROPERTY OF GULF STATES ENGINEERING, INC. IT IS LOANED AND IS TO BE RETURNED UPON REQUEST. THE DESIGN AND IDEAS SHOWN HEREON ARE AS INSTRUMENTS OF SERVICE AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION FROM GULF STATES ENGINEERING, INC.

SPANISH FORT FIRE STATION

SPANISH FORT, ALABAMA

BOUNDARY & TOPOGRAPHICAL SURVEY

DRAWN:	CHECKED:	APPROVED:
THK	MCR	MCR

DATE: 06/20/18 SCALE: 1" = 50'

DRAWING NUMBER: AS18044 V1.0 REVISION: B

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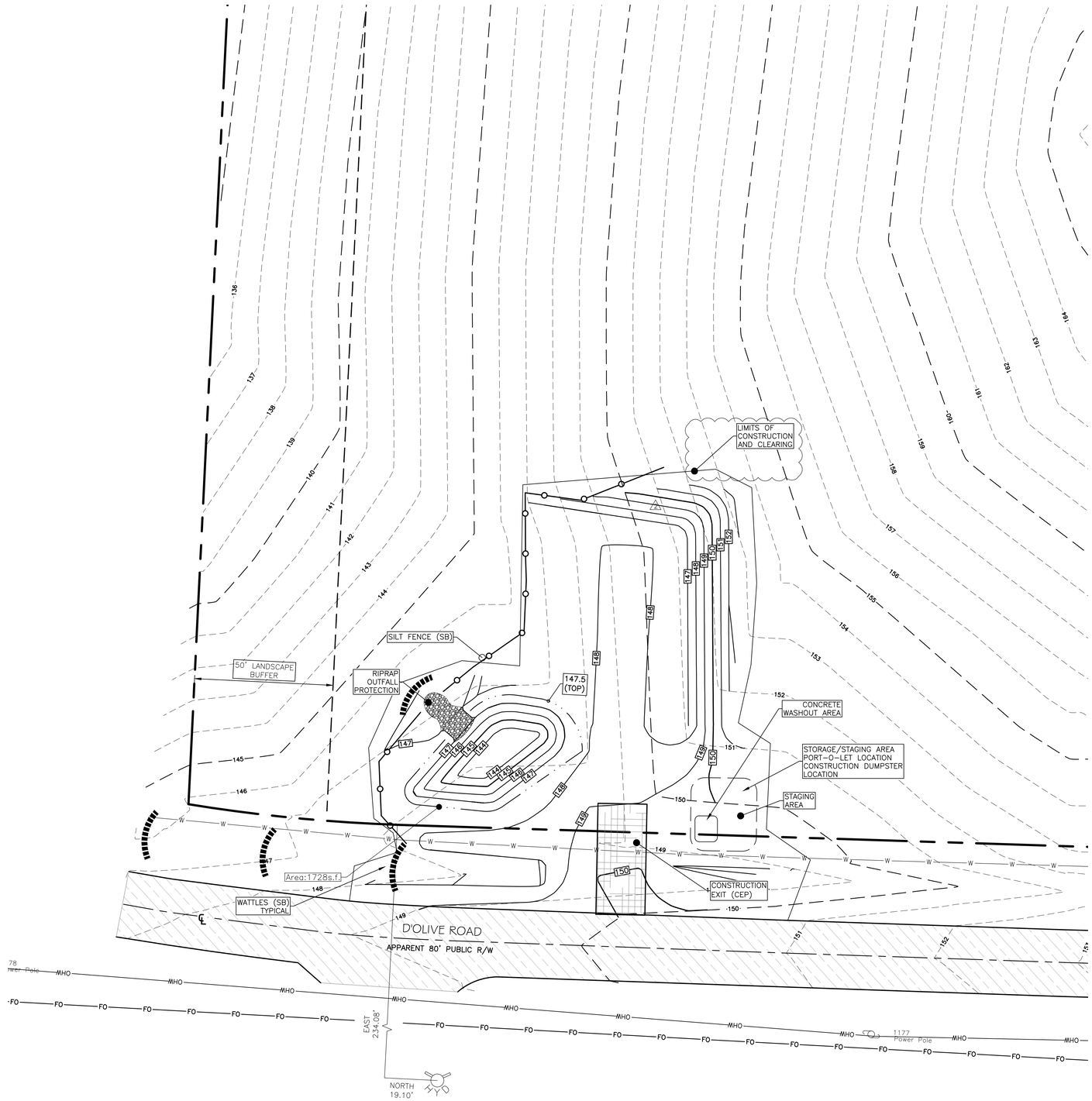

SCALE: 1" = 20'

EROSION CONTROL LEGEND:

- SILT FENCE (SB)
- WATTLE(S) (ST)
- ROCK FILTER DAM (RD)
- CONSTRUCTION EXIT (CEP)
- INLET PROTECTION (FIP)
- 215 EX. INDEX CONTOUR
- 214 EX. INTERMEDIATE CONTOUR

EROSION CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHOWN ARE CONSIDERED TO BE THE MINIMUM ACCEPTABLE MEASURES. THE CONTRACTOR SHALL UTILIZE "BEST MANAGEMENT PRACTICES" AS NECESSARY TO PREVENT SEDIMENT LADEN STORMWATER RUNOFF OR ERODED MATERIALS FROM LEAVING THE CONSTRUCTION SITE. THE CONTRACTOR SHALL MAINTAIN AND REPAIR EROSION CONTROL MEASURES AFTER EACH RAINFALL EVENT AND INSPECT THEM TWICE WEEKLY IN THE EVENT OF NO RAINFALL. BEST MANAGEMENT PRACTICES (BMPS) ARE DEFINED AS: SCHEDULES OF ACTIVITIES, PROHIBITIONS OF PRACTICES, MAINTENANCE PROCEDURES, AND OTHER MANAGEMENT PRACTICES TO PREVENT OR REDUCE THE POLLUTION OF WATERS OF THE UNITED STATES. BMPS ALSO INCLUDE TREATMENT REQUIREMENTS, OPERATING PROCEDURES, AND PRACTICES TO CONTROL SITE RUNOFF, SPILLAGE OR LEAKS, SLUDGE OR WASTE DISPOSAL, OR DRAINAGE FROM RAW MATERIAL STORAGE. WITH REGARD TO CONSTRUCTION THESE MAY INCLUDE STRUCTURAL DEVICES OR NONSTRUCTURAL PRACTICES THAT ARE DESIGNED TO PREVENT POLLUTANTS FROM ENTERING WATER OR TO DIRECT THE FLOW OF WATER.
2. TYPE "A" SILT FENCE SHALL BE USED IN AREAS WHERE INDICATED OR AS DIRECTED BY THE ENGINEER.
3. SILT FENCES ARE TEMPORARY SEDIMENT CONTROL ITEMS THAT SHALL BE ERECTED OPPOSITE ERODIBLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
4. SILT FENCES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION OPERATION. SILT FENCES SHALL BE CLEANED, SILT REMOVED, AND REPAIRED AS NECESSARY AS PART OF REQUIRED BMP MAINTENANCE.
5. AFTER THE CONSTRUCTION AREA IS STABILIZED BY PAVING OR A FIRM STAND OF GRASS AND EROSION ACTIVITY CURTAILED, SILT FENCES SHALL BE REMOVED.
6. STORM DRAIN INLETS SHALL BE PROTECTED FROM SEDIMENT ENTRY WITH SEDIMENT BARRIERS LIKE FABRIC DROP INLET PROTECTION OR WATTLES UNTIL THE SITE IS STABILIZED BY PAVING OR A FIRM STAND OF GRASS IS OBTAINED.
7. CONTRACTOR IS REQUIRED TO STABILIZE DISTURBED AREAS WITH TEMPORARY GRASS OR SOIL STABILIZER IF AREAS WILL REMAIN DISTURBED FOR 14 DAYS OR LONGER.
8. THE CONTRACTOR IS HEREBY DIRECTED TO PROVIDE SEDIMENT RUNOFF PROTECTION WHERE NECESSARY TO PREVENT SILT LADEN RUNOFF FROM ENTERING THE STREAMS NEAR THE PROPOSED PROJECT.
9. GRASS GROUND COVER SHALL BE MAINTAINED UPON COMPLETION OF CONSTRUCTION.
10. THE EROSION AND SEDIMENT CONTROL ITEMS SHOWN ON THE PLANS ARE PROVIDED AS A STARTING POINT FOR A COMPREHENSIVE SEDIMENT AND EROSION CONTROL PLAN TO BE IMPLEMENTED THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL BE PREPARED TO ANTICIPATE AND ADJUST BEST MANAGEMENT PRACTICES AS NECESSARY THROUGHOUT CONSTRUCTION TO RESTRICT THE AMOUNT OF SILT LADEN RUNOFF LEAVING THE PROJECT.
11. SEDIMENT & EROSION CONTROL ITEMS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE FOLLOWING HANDBOOKS:
    A.) ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS.
    B.) EPA STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES.
    C.) EPA GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NON-POINT POLLUTION IN COASTAL WATERS.
    D.) AASHTO GUIDELINES FOR EROSION AND SEDIMENT CONTROL IN HIGHWAY CONSTRUCTION.
12. NO AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION AND CLEARING SHALL BE CLEARED OR DISTURBED. NO TREES TO BE REMOVED BEYOND THE LIMITS OF CONSTRUCTION AND CLEARING LINE.

LAND DISTURBANCE:

12,004 SQUARE FEET (0.275 ACRES) MORE OR LESS

PRELIMINARY

Spanish Fort Fire Department
D'Olive Road Development
Spanish Fort, Alabama

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Architecture & Planning
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Daphne, AL 36526
251.625.6490 ph.
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www.fdaniell.com

REVISIONS
1 ADJUST SITE
2 08/09/18 ADD LIMITS OF CONSTRUCTION
3 10/10/18 REVISE BUILDING FOR OFFICE
4
5
6
7

ALABAMA LICENSED No. 25741 PROFESSIONAL 10/12/18 ENGINEER STEPHANIE A. GROVES

JOB #:
DATE: 7/10/18

C100

EROSION AND SEDIMENTATION CONTROL PLAN

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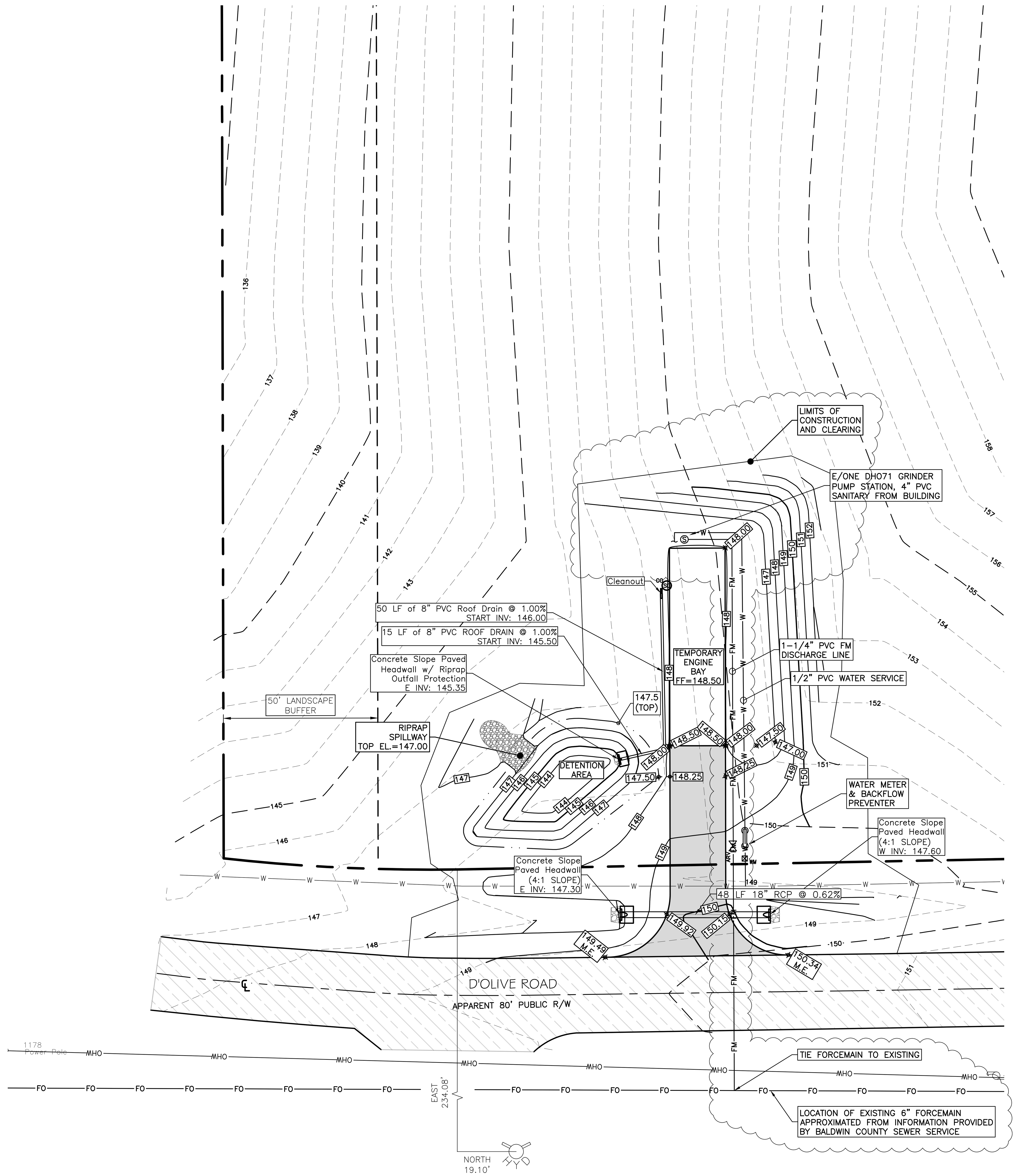
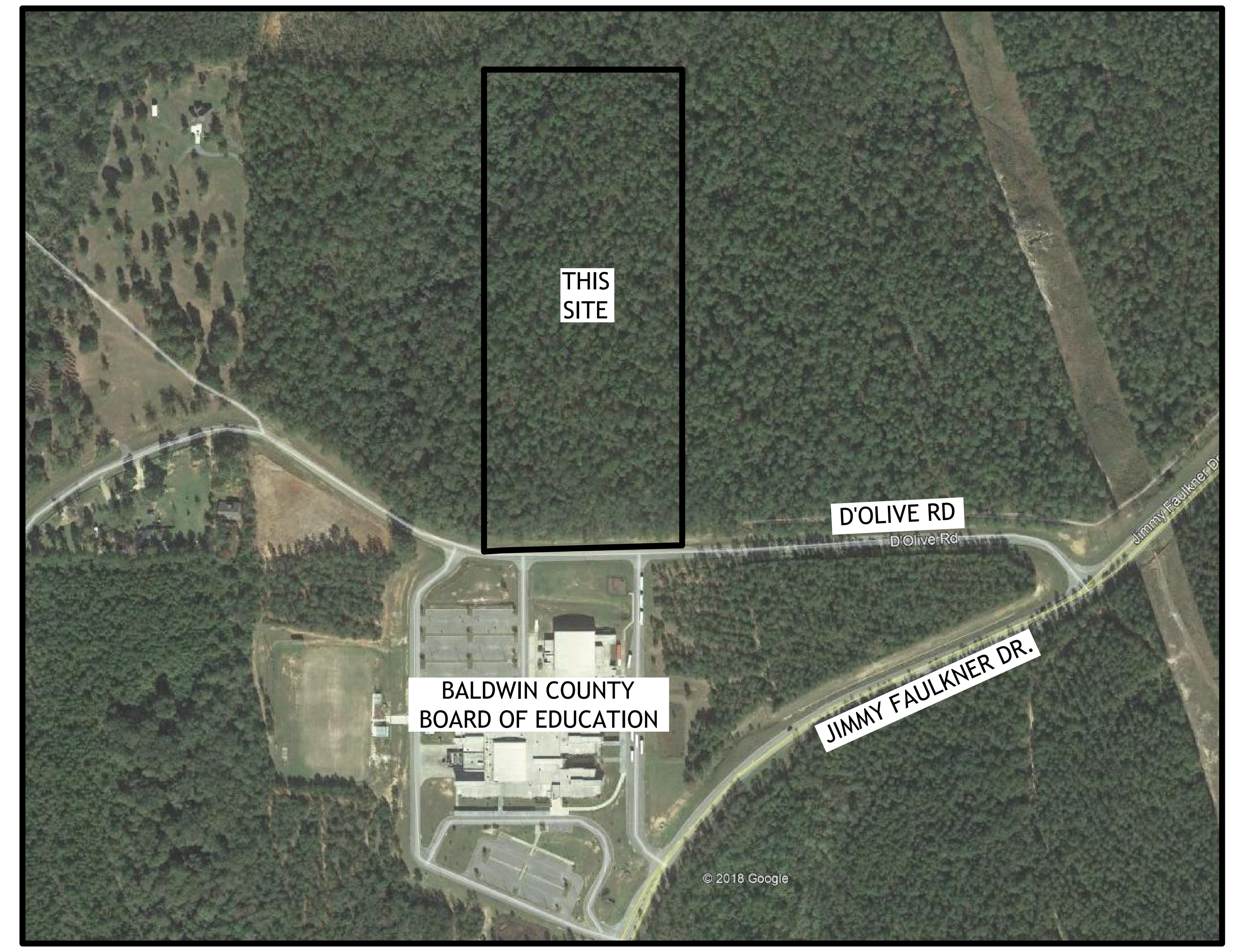


SCALE: 1" = 20'



VICINITY MAP

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PROVIDE TO THE PROJECT ENGINEER "AS-BUILT" RECORD DRAWINGS FOR VERIFICATION AND APPROVAL ONE WEEK PRIOR TO REQUESTING A FINAL INSPECTION.
2. THE CONTRACTOR SHALL CONTROL STORMWATER DURING ALL PHASES OF CONSTRUCTION AND TAKE ADEQUATE MEASURES TO PREVENT SEDIMENT WASH OVER THE EXISTING PARKING AREAS OR BUILDUP IN THE EXISTING PROTECTED DRAINAGE FEATURES.
3. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, TOPO OF OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING, ETC.
4. ALL ASPECTS OF THE STORMWATER/DRAINAGE COMPONENTS AND/OR TRANSPORTATION COMPONENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
5. DISTURBED AREAS NOT SHOWN TO BE SODDED OR PAVED SHALL BE SEEDED, MULCHED & FERTILIZED.
6. NO AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION AND CLEARING SHALL BE CLEARED OR DISTURBED. NO TREES TO BE REMOVED BEYOND THE LIMITS OF CONSTRUCTION AND CLEARING LINE.

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ALABAMA LICENSED No. 25741 PROFESSIONAL ENGINEER STEPHANIE A. GROVES 10/12/18

JOB #:
DATE: 7/10/18

C200

GRADING AND DRAINAGE PLAN