PROJECT MANUAL

GLEN ADDIE COMMUNITY CENTER SLOPE STABILIZATION
ANNISTON, ALABAMA

MBA Engineers, Inc.
300 20th Street N., Suite 100
Birmingham, AL 35203
Phone 205-323-6385
Fax 205-324-0698

Engineer's Job No. C2123.01

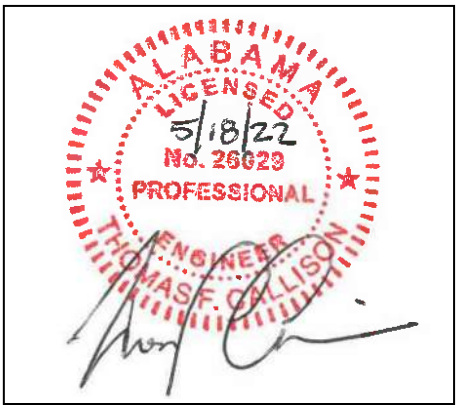
Thomas F. Callison, P.E.
MBA Engineers, Inc.

DOCUMENT 000020

SEALS PAGE: CIVIL

1.1 DESIGN PROFESSIONAL OF RECORD

CIVIL ENGINEER MBA ENGINEERS, INC
Tom Callison



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ADVERTISEMENT FOR BIDS

Sealed proposals will be received by The City of Anniston, at their office at 4309 McClellan Boulevard, Anniston, Alabama 36206, until 10:00 AM, CDT Tuesday, May 31, 2022 for

PROJECT: Glen Addie Community Center Slope Stabilization
LOCATION: Anniston, Alabama
CITY OF ANNISTON

at which time and place they will be publicly opened and read. General Contractor's License number and type must be on the envelope.

A cashier's check or bid bond payable to City of Anniston, in an amount not less than five (5) percent of the amount of the bid, but in no event more than $10,000.00, must accompany the bidder's proposal. Performance and Payment Bonds and evidence of insurance required in the bid documents will be required at the signing of the Contract.

Drawings and specifications may be examined at the office of the Engineer after May 19, 2022

Name of Engineer: MBA Engineers, Inc.
Name of Contact: Tom Callison, P.E.; Vicki Owens
Address: 300 20th Street North, Suite 100, Birmingham, Alabama 35203
Phone Number: (205) 323-6385; Fax Number: (205) 324-0698

General Contractor Bidders may obtain sets of drawings and specifications electronically through the Engineer. PDF copies of the plans and project manual may also be available upon request to the Engineer. Addenda and other bidding information will be issued via email only to holders of drawings and specifications distributed by the Engineer electronically. Release of the Bid Documents to the bidder does not imply acceptance of the bidder's qualifications by the Owner or Engineer.

Bids must be submitted on proposal forms furnished by the Engineer or copies thereof. All bidders bidding in amounts exceeding that established by the State Licensing Board for General Contractors must be licensed under the provisions of Title 34, Chapter 8, Code of Alabama 1975, and must show evidence of license before bidding or bid will not be received or considered by the Engineer; the bidder shall show such evidence by clearly displaying his or her license number on the outside of the sealed envelope in which the proposal is delivered. The Owner reserves the right to reject any or all proposals and to waive technical errors if, in the Owner's judgment, the best interest of the Owner will thereby be promoted.

Nonresident bidders must accompany any written Bid Documents with a written opinion of an attorney at law licensed to practice law in such nonresident bidder's state or domicile, as to the preferences, if any or none, granted by the law of that state to its own business entities whose principal places of business are in that state in the letting of any or all public contracts.

Engineer's Contact Information:
For inquiries regarding the Construction Documents, drawing distribution, administrative requirements, or deposits, contact MBA: Tom Callison– tcallison@mbasei.com; Mark Ohlman– mohlman@mbasei.com; Vicki Owens– vowens@mbasei.com (205)-323-6385

A Pre-Bid Conference will be held at the City of Anniston City Hall located at 4309 McClellan Boulevard, Anniston, Alabama 36206 at 10:00 AM, CDT Tuesday, May 24, 2022. **Attendance by the General Contractor Bidders is optional.**

Awarding Authority:
City of Anniston
Steven Folks, City Manager

Engineer:
MBA Engineers, Inc.
Tom Callison, P.E.

The *Birmingham News* publication dates:

1. **5/15/2022**
2. **5/22/2022**
3. **5/29/2022**

INSTRUCTIONS TO BIDDERS

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1. BID DOCUMENTS:

The Bid Documents consist of the Advertisement for Bids, these Instructions to Bidders, any supplements to these Instructions to Bidders, the Proposal Form and the Accounting of Sales Tax, and the proposed Contract Documents. The proposed Contract Documents consist of the Construction Contract, the Performance Bond and Payment Bond, the Conditions of the Contract (General, Supplemental, and other Conditions), Drawings, Specifications and all addenda issued prior to execution of the Construction Contract. Bid Documents may be obtained or examined as set forth in the Advertisement for Bids.

2. GENERAL CONTRACTOR'S STATE LICENSING REQUIREMENTS:

When the amount bid for a contract exceeds $50,000, the bidder must be licensed by the State Licensing Board for General Contractors and must show the Architect evidence of license before bidding or the bid will not be received by the Architect or considered by the Awarding Authority. A bid exceeding the bid limit stipulated in the bidder's license, or which is for work outside of the type or types of work stipulated in the bidder's license, will not be considered. In case of a joint venture of two or more contractors, the amount of the bid shall be within the maximum bid limitation as set by the State Licensing Board for General Contractors of the combined limitations of the partners to the joint venture.

3. QUALIFICATIONS of BIDDERS and PREQUALIFICATION PROCEDURES:

a. Any special qualifications required of general contractors, subcontractors, material suppliers, or fabricators are set forth in the Bid Documents.

b. The Awarding Authority may have elected to prequalify bidders. Parties interested in bidding for this contract are directed to the Advertisement for Bids and Supplemental Instructions to Bidders to determine whether bidders must be prequalified and how they may obtain copies of the Awarding Authority's published prequalification procedures and criteria.

c. Release of Bid Documents by the Architect to a prospective bidder will not constitute any determination by the Awarding Authority or Architect that the bidder has been found to be qualified, prequalified, or responsible.

4. PREFERENCE to RESIDENT CONTRACTORS:
(If this project is federally funded in whole or in part, this Article shall not apply.)

a. In awarding the Contract, preference will be given to Alabama resident contractors and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded the Contract only on the same basis as the nonresident bidder's state awards contracts to Alabama contractors bidding under similar circumstances.

b. A nonresident bidder is a contractor which is neither organized and existing under the laws of the State of Alabama, nor maintains its principal place of business in the State of Alabama. A nonresident contractor which has maintained a permanent office within the State of Alabama for at least five continuous years shall not thereafter be deemed to be a non-resident contractor so long as the contractor continues to maintain a branch office within Alabama.

5. EXAMINATION of BID DOCUMENTS and the SITE of the WORK:

Before submitting a bid for the Work, the bidders shall carefully examine the Bid Documents, visit the site, and satisfy themselves as to the nature and location of the Work, and the general and local conditions, including weather, the general character of the site or building, the character and extent of existing work within or adjacent to the site and any other work being performed thereon at the time of submission of their bids. They shall obtain full knowledge as to transportation, disposal, handling, and storage of materials, availability of water, electric power, and all other facilities in the area which will have a bearing on the performance of the Work for which they submit their bids. The submission of a bid shall constitute a representation by the bidder that the bidder has made such examination and visit and has judged for and satisfied himself or herself as to conditions to be encountered regarding the character, difficulties, quality, and quantities of work to be performed and the material and equipment to be furnished, and as to the contract requirements involved.

6. EXPLANATIONS and INTERPRETATIONS:

a. Should any bidder observe any ambiguity, discrepancy, omission, or error in the drawings and specifications, or in any other bid document, or be in doubt as to the intention and meaning of these documents, the bidder should immediately report such to the Architect and request clarification.

b. Clarification will be made only by written Addenda sent to all prospective bidders. Neither the Architect nor the Awarding Authority will be responsible in any manner for verbal answers or instructions regarding intent or meaning of the Bid Documents.

c. In the case of inconsistency between drawings and specifications or within either document, a bidder will be deemed to have included in its bid the better quality or greater quantity of the work involved unless the bidder asked for and obtained the Architect's written clarification of the requirements before submission of a bid.

7. SUBSTITUTIONS:

a. The identification of any product, material, system, item of equipment, or service in the Bid Documents by reference to a trade name, manufacturer's name, model number, etc. (hereinafter referred to as "source"), is intended to establish a required standard of performance, design, and quality and is not intended to limit competition unless the provisions of paragraph "d" below apply.

b. When the Bid Documents identify only one or two sources, or three or more sources followed by "or approved equal" or similar wording, the bidder's proposal may be based on a source not identified but considered by the bidder to be equal to the standard of performance, design and quality as specified; however, such substitutions must ultimately be approved by the Architect. If the bidder elects to bid on a substitution without "Pre-bid Approval" as described below, then it will be understood that proof of compliance with specified requirements is the exclusive responsibility of the bidder.

c. When the Bid Documents identify three or more sources and the list of sources is not followed by "or approved equal" or similar wording, the bidder's proposal shall be based upon one of the identified sources, unless the bidder obtains "Pre-bid Approval" of another source as described below. Under these conditions it will be expressly understood that no product, material, system, item of equipment, or service that is not identified in the Bid Documents or granted "Pre-Bid Approval" will be incorporated into the Work unless such substitution is authorized and agreed upon through a Contract Change Order.

d. If the Bid Documents identify only one source and expressly provide that it is an approved sole source for the product, material, system, item of equipment, or service, the bidder's proposal must be based upon the identified sole source.

e. Procedures for "Pre-bid Approval". If it is desired that a product, material, system, piece of equipment, or service from a source different from those sources identified in the Bid Documents be approved as an acceptable source, application for the approval of such source must reach the hands of the Architect at least ten days prior to the date set for the opening of bids. At the Architect's discretion, this ten day provision may be waived. The application for approval of a proposed source must be accompanied by technical data which the applicant desires to submit in support of the application. The Architect will give consideration to reports from reputable independent testing laboratories, verified experience records showing the reputation of the proposed source with previous users, evidence of reputation of the source for prompt delivery, evidence of reputation of the source for efficiency in servicing its products, or any other pertinent written information. The application to the Architect for approval of a proposed source must be accompanied by a schedule setting forth in which respects the materials or equipment submitted for consideration differ from the materials or equipment designated in the Bid Documents. The burden of proof of the merit of the proposed substitution is upon the proposer. To be approved, a proposed source must also meet or exceed all express requirements of the Bid Documents. Approval, if granted, shall not be effective until published by the Architect in an addendum to the Bid Documents.

8. PREPARATION and DELIVERY of BIDS:

a. DCM Form C-3: Proposal Form:

(1) Bids must be submitted on the Proposal Form as contained in the Bid Documents; only one copy is required to be submitted. A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with the Proposal Form.

(2) All information requested of the bidder on the Proposal Form must be filled in. The form must be completed by typewriter or hand-printed in ink.

(3) Identification of Bidder: On the first page of the Proposal Form the bidder must be fully identified by completing the spaces provided for:

- **(a)** the legal name of the bidder,
- **(b)** the state under which laws the bidder's business is organized and existing,
- **(c)** the city (and state) in which the bidder has its principal offices,
- **(d)** the bidder's business organization, i.e., corporation, partnership, or individual (to be indicated by marking the applicable box and writing in the type of organization if it is not one of those listed), and
- **(e)** the partners or officers of the bidder's organization, if the bidder is other than an individual. If the space provided on the Proposal Form is not adequate for this listing, the bidder may insert "See Attachment" in this space and provide the listing on an attachment to the Proposal Form.

(4) Where indicated by the format of the Proposal Form, the bidder must specify lump sum prices in both words and figures. In case of discrepancy between the prices shown in words and in figures, the words will govern.

(5) All bid items requested in the Proposal Form, including alternate bid prices and unit prices for separate items of the Work, must be bid. If a gross sum of bid items is requested in the Proposal Form, the gross sum shall be provided by the bidder.

(6) In the space provided in the Proposal Form under "Bidder's Alabama License", the bidder must insert his or her current general contractor's state license number, current bid limit, and type(s) of work for which bidder is licensed.

(7) The Proposal Form shall be properly signed by the bidder. If the bidder is:

- **(a) an individual**, that individual or his or her "authorized representative" must sign the Proposal Form;
- **(b) a partnership,** the Proposal Form must be signed by one of the partners or an "authorized representative" of the Partnership;
- **(c) a corporation,** the president, vice-president, secretary, or "authorized representative" of the corporation shall sign and affix the corporate seal to the Proposal Form.

As used in these Instructions to Bidders, "authorized representative" is defined as a person to whom the bidder has granted written authority to conduct business in the bidder's behalf by signing and/or modifying the bid. Such written authority shall be signed by the bidder (the individual proprietor, or a member of the Partnership, or an officer of the Corporation) and shall be attached to the Proposal Form.

(8) Interlineation, alterations or erasures on the Proposal Form must be initialed by the bidder or its "authorized representative".

b. DCM Form C-3A: Accounting of Sales Tax

A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.

c. Bid Guaranty

(1) The Proposal Form must be accompanied by a cashier's check, drawn on an Alabama bank, or a Bid Bond, executed by a surety company duly authorized and qualified to make such bonds in the State of Alabama, payable to the Awarding Authority.

(2) If a Bid Bond is provided in lieu of a cashier's check, the bond shall be on the Bid Bond form as stipulated in the Bid Documents.

(3) The amount of the cashier's check or Bid Bond shall not be less than five percent of the contractor's bid, but is not required to be in an amount more than ten thousand dollars.

d. Delivery of Bids:

(1) Bids will be received until the time set, and at the location designated, in the Advertisement for Bids unless notice is given of postponement. Any bid not received prior to the time set for opening bids will be rejected absent extenuating circumstances and such bids shall be rejected in all cases where received after other bids are opened.

(2) Each bid shall be placed, together with the bid guaranty, in a sealed envelope. On the outside of the envelope the bidder shall write in large letters "Proposal", below which the bidder shall identify the Project and the Work bid on, the name of the bidder, and the bidder's current general contractor's state license number.

(3) Bids may be delivered in person, or by mail if ample time is allowed for delivery. When sent by mail, the sealed envelope containing the bid, marked as indicated above, shall be enclosed in another envelope for mailing.

9. WITHDRAWAL or REVISION of BIDS:

a. A bid may be withdrawn prior to the time set for opening of bids, provided a written request, executed by the bidder or the bidder's "authorized representative", is filed with the Architect prior to that time. The bid will then be returned to the bidder unopened.

b. A bid which has been sealed in its delivery envelope may be revised by writing the change in price on the outside of the delivery envelope over the signature of the bidder or the bidder's "authorized representative". In revising the bid in this manner, the bidder must only write the amount of the change in price on the envelope **and must not reveal the bid price.**

c. Written communications, signed by the bidder or its "authorized representative", to revise bids will be accepted if received by the Architect prior to the time set for opening bids. The Architect will record the instructed revision upon opening the bid. Such written communication may be by facsimile if so stipulated in Supplemental Instructions to Bidders. In revising the bid in this manner, the bidder must only write the amount of the change in price **and must not reveal the bid price.**

d. Except as provided in Article 12 of these Instructions to Bidders, no bid shall be withdrawn, modified, or corrected after the time set for opening bids.

10. OPENING of BIDS:

a. Bids will be opened and read publicly at the time and place indicated in the Advertisement for Bids. Bidders or their authorized representatives are invited to be present.

b. A list of all proposed major subcontractors and suppliers will be submitted by Bidders to the Architect at a time subsequent to the receipt of bids as established by the Architect in the Bid Documents but in no event shall this time exceed twenty-four (24) hours after receipt of bids. If the list includes a fire alarm contractor and/or fire sprinkler contractor, Bidders will also submit a copy of the fire alarm contractor's and/or fire sprinkler contractor's permits from the State of Alabama Fire Marshal's Office.

11. INCOMPLETE and IRREGULAR BIDS:

A bid that is not accompanied by data required by the Bid Documents, or a bid which is in any way incomplete, may be rejected. Any bid which contains any uninitialed alterations or erasures, or any bid which contains any additions, alternate bids, or conditions not called for, or any other irregularities of any kind, will be subject to rejection.

12. BID ERRORS:

a. Errors and Discrepancies in the Proposal Form. In case of error in the extension of prices in bids, the unit price will govern. In case of discrepancy between the prices shown in the figures and in words, the words will govern.

b. Mistakes within the Bid. If the low bidder discovers a mistake in its bid, the low bidder may seek withdrawal of its bid without forfeiture of its bid guaranty under the following conditions:

(1) Timely Notice: The low bidder must notify the Awarding Authority and Architect in writing, within three working days after the opening of bids, that a mistake was made. This notice must be given within this time frame whether or not award has been made.

(2) Substantial Mistake: The mistake must be of such significance as to render the bid price substantially out of proportion to the other bid prices.

(3) Type of Mistake: The mistake must be due to calculation or clerical error, an inadvertent omission, or a typographical error which results in an erroneous sum. A mistake of law, judgment, or opinion shall not constitute a valid ground for withdrawal without forfeiture.

(4) Documentary Evidence: Clear and convincing documentary evidence of the mistake must be presented to the Awarding Authority and the Architect as soon as possible, but no later than three working days after the opening of bids.

The Awarding Authority's decision regarding a low bidder's request to withdraw its bid without penalty shall be made within 10 days after receipt of the bidder's evidence or by the next regular meeting of the Awarding Authority. Upon withdrawal of bid without penalty, the low bidder shall be prohibited from (1) doing work on the project as a subcontractor or in any other capacity and (2) bidding on the same project if it is re-bid.

13. DISQUALIFICATION of BIDDERS:

Any bidder(s) may be disqualified from consideration for contract award for the following reasons:

a. Collusion. Any agreement or collusion among bidders or prospective bidders in restraint of freedom of competition to bid at a fixed price or to refrain from bidding or otherwise shall render the bids void and shall cause the bidders or prospective bidders participating in such agreement or collusion to be disqualified from submitting further bids to the Awarding Authority on future lettings. (See § 39-2-6, Code of Alabama 1975, for possible criminal sanctions.)

b. Advance Disclosure. Any disclosure in advance of the terms of a bid submitted in response to an Advertisement for Bids shall render the proceedings void and require re-advertisement and rebid.

c. Failure to Settle Other Contracts. The Awarding Authority may reject a bid from a bidder who has not paid, or satisfactorily settled, all bills due for labor and material on other contracts in force at the time of letting.

14. CONSIDERATION of BIDS:

a. After the bids are opened and read publicly, the bid prices will be compared and the results of this comparison will be available to the public. Until the final award of the contract, however, the Awarding Authority shall have the right to reject any or all bids, and it shall have the right to waive technical errors and irregularities if, in its judgment, the bidder will not have obtained a competitive advantage and the best interests of the Awarding Authority will be promoted.

b. If the Bid Documents request bids for projects or parts of projects in combination or separately, the Bid Documents must include supplements to, these Instructions to Bidders setting forth applicable bid procedures. Award or awards will be made to the lowest responsible and responsive bidder or bidders in accordance with such bid procedures.

15. DETERMINATION of LOW BIDDER by USE of ALTERNATES:

a. The Awarding Authority may request alternate bid prices (alternates) to facilitate either reducing the base bid to an amount within the funds available for the project or adding items to the base bid within the funds available for the project. Alternates, if any, are listed in the

Proposal Form in the order in which they shall cumulatively deduct from or add to the base bid for determining the lowest bidder.

b. If alternates are included in the Proposal Form, the Awarding Authority shall determine the dollar amount of funds available and immediately prior to the opening of bids shall announce publicly the funds available for the project. The dollar amount of such funds shall be used to determine the lowest bidder as provided herein below, notwithstanding that the actual funds available for the project may subsequently be determined to be more or less than the expected funds available as determined immediately prior to the time of the opening of bids.

c. If the base bid of the lowest bidder exceeds the funds available and alternate bid prices will reduce the base bids to an amount that is within the funds available, the lowest bidder will be determined by considering, in order, the fewest number of the alternates that produces a price within the funds available. If the base bid of the lowest bidder is within the funds available and alternate bid prices will permit adding items to the base bid, the lowest bidder will be determined by considering, in order, the greatest number of the alternates that produces a price within the funds available.

d. After the lowest bidder has been determined as set forth above, the Awarding Authority may award that bidder any combination of alternates, provided said bidder is also the low bidder when only the Base Bid and such combination of alternates are considered.

16. UNIT PRICES:

a. Work Bid on a Unit Price Basis. Where all, or part(s), of the planned Work is bid on a unit price basis, both the unit prices and the extensions of the unit prices constitute a basis of determining the lowest responsible and responsive bidder. In cases of error in the extension of prices of bids, the unit price will govern. A bid may be rejected if any of the unit prices are obviously unbalanced or non-competitive.

b. Unit Prices for Application to Change Orders. As a means of predetermining unit costs for changes in certain elements of the Work, the Bid Documents may require that the bidders furnish unit prices for those items in the Proposal Form. Unit prices for application to changes in the work are not a basis for determining the lowest bidder. Non-competitive unit prices proposed by the successful bidder may be rejected and competitive prices negotiated by the Awarding Authority prior to contract award. Unit prices for application to changes in the work are not effective unless specifically included and agreed upon in the Construction Contract.

17. AWARD of CONTRACT:

a. The contract shall be awarded to the lowest responsible and responsive bidder unless the Awarding Authority finds that all the bids are unreasonable or that it is not in the best interest of the Awarding Authority to accept any of the bids. A responsible bidder is one who, among other qualities determined necessary for performance, is competent, experienced, and financially able to perform the contract. A responsive bidder is one who submits a bid that complies with the terms and conditions of the Advertisement for Bids and the Bid Documents. Minor irregularities in the bid shall not defeat responsiveness.

b. A bidder to whom award is made will be notified by telegram, confirmed facsimile, or letter to the address shown on the Proposal Form at the earliest possible date. Unless other

time frames are stipulated in Supplemental Instructions to Bidders, the maximum time frames allowed for each step of the process between the opening of bids and the issuance of an order to proceed with the work shall be as follows:

(1)	Award of contract by Awarding Authority	30 calendar days after the opening of bids
(2)	Contractor's return of the fully executed contract, with bonds and evidence of insurance, to the Awarding Authority	15 calendar days after the contract has been presented to the contractor for signature (from the Lead Design Professional)
(3)	Awarding Authority's approval of the contractor's bonds and evidence of insurance and completion of contract execution	20 calendar days after the contractor presents complete and acceptable documents to the Architect
(4)	Notice To Proceed issued to the contractor along with distribution of the fully executed construction contract to all parties.	15 calendar days after final execution of contract by the Awarding Authority, by various State Agencies if required and by the Governor if his or her signature on the contract is required by law

The time frames stated above, or as otherwise specified in the Bid Documents, may be extended by written agreement between the parties. Failure by the Awarding Authority to comply with the time frames stated above or stipulated in Supplemental Instructions to Bidders, or agreed extensions thereof, shall be just cause for the withdrawal of the contractor's bid and contract without forfeiture of bid security.

c. Should the successful bidder or bidders to whom the contract is awarded fail to execute the Construction Contract and furnish acceptable Performance and Payment Bonds and satisfactory evidence of insurance within the specified period, the Awarding Authority shall retain from the bid guaranty, if it is a cashier's check, or recover from the principal or the sureties, if the guaranty is a bid bond, the difference between the amount of the contract as awarded and the amount of the bid of the next lowest responsible and responsive bidder, but not more than $10,000. If no other bids are received, the full amount of the bid guaranty shall be so retained or recovered as liquidated damages for such default. Any sums so retained or recovered shall be the property of the Awarding Authority.

d. All bid guaranties, except those of the three lowest bona fide bidders, will be returned immediately after bids have been checked, tabulated, and the relation of the bids established. The bid guaranties of the three lowest bidders will be returned as soon as the contract bonds and the contract of the successful bidder have been properly executed and approved. When the award is deferred for a period of time longer than 15 days after the opening of the bids, all bid guaranties, except those of the potentially successful bidders, shall be returned. If no award is made within the specified period, as it may by agreement be extended, all bids will be rejected, and all guaranties returned. If any potentially successful bidder agrees in writing to a stipulated extension in time for consideration of its bid and its bid was guaranteed with a cashier's check, the Awarding Authority may permit the potentially successful bidder to substitute a satisfactory bid bond for the cashier's check.

END of INSTRUCTIONS TO BIDDERS

PROPOSAL FORM

To: City of Anniston _____ Date: _____
(Awarding Authority)

In compliance with the Advertisement for Bids and subject to all the conditions thereof, the undersigned

_____
(Legal Name of Bidder)

hereby proposes to furnish all labor and materials and perform all work required for the construction of

WORK Glen Addie Community Center Slope Stabilization

_____

in accordance with Drawings and Specifications, dated _____, prepared by MBA Engineers, Inc., Architect/Engineer.

The Bidder, which is organized and existing under the laws of the State of _____,

having its principal offices in the City of _____,

is: ☐ a Corporation ☐ a Partnership ☐ an Individual ☐ (other) _____.

LISTING OF PARTNERS OR OFFICERS: If Bidder is a Partnership, list all partners and their addresses; if Bidder is a Corporation, list the names, titles, and business addresses of its officers:

_____

_____

_____

BIDDER'S REPRESENTATION: The Bidder declares that it has examined the site of the Work, having become fully informed regarding all pertinent conditions, and that it has examined the Drawings and Specifications (including all Addenda received) for the Work and the other Bid and Contract Documents relative thereto, and that it has satisfied itself relative to the Work to be performed.

ADDENDA: The Bidder acknowledges receipt of Addenda Nos._____ through _____ inclusively.

BASE BID: For construction complete as shown and specified, the sum of _____

_____ Dollars ($ _____)

ALTERNATES: If alternates as set forth in the Bid Documents are accepted, the following adjustments are to be made to the Base Bid:

For Alternate No. 1 (. . . . .) ☐ (add) ☐ (deduct) $ _____
(Insert key word for Alternate)

For Alternate No. 2 (. . . . .) ☐ (add) ☐ (deduct) $ _____

For Alternate No. 3 (. . . . .) ☐ (add) ☐ (deduct) $ _____

For Alternate No. 4 (. . . . .) ☐ (add) ☐ (deduct) $ _____

For Alternate No. 5 (. . . . .) ☐ (add) ☐ (deduct) $ _____

For Alternate No. 6 (. . . . .) ☐ (add) ☐ (deduct) $ _____

UNIT PRICES - (Attach to this Proposal Form the unit prices, if any, on a separate sheet.)

BID SECURITY: The undersigned agrees to enter into a Construction Contract and furnish the prescribed Performance and Payment Bonds and evidence of insurance within fifteen calendar days, or such other period stated in the Bid Documents, after the contract forms have been presented for signature, provided such presentation is made within 30 calendar days after the opening of bids, or such other period stated in the Bid Documents. As security for this condition, the undersigned further agrees that the funds represented by the Bid Bond (or cashier's check) attached hereto may be called and paid into the account of the Awarding Authority as liquidated damages for failure to so comply.

Attached hereto is a: (*Mark the appropriate box and provide the applicable information.*)

○ Bid Bond, executed by _____as Surety,

○ a cashier's check on the_____ Bank of _____,

for the sum of _____

Dollars ($ _____) made payable to the Awarding Authority.

BIDDER'S ALABAMA LICENSE:

State License for General Contracting: _____
License Number Bid Limit Type(s) of Work

CERTIFICATIONS: The undersigned certifies that he or she is authorized to execute contracts on behalf of the Bidder as legally named, that this proposal is submitted in good faith without fraud or collusion with any other bidder, that the information indicated in this document is true and complete, and that the bid is made in full accord with State law. Notice of acceptance may be sent to the undersigned at the address set forth below.

The Bidder also declares that a list of all proposed major subcontractors and suppliers will be submitted at a time subsequent to the receipt of bids as established by the Architect in the Bid Documents but in no event shall this time exceed twenty-four (24) hours after receipt of bids.

Legal Name of Bidder _____

Mailing Address _____

* **By (Legal Signature)** _____

* Name & Title (print) _____ (*Seal*)

Telephone Number _____

Email Address _____

* 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.

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.

ACCOUNTING OF SALES TAX
Attachment to DCM Form C-3: Proposal Form

To: City of Anniston Date: _____
(Awarding Authority)

NAME OF PROJECT Glen Addie Community Center Slope Stabilization

_____

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: $_____

Alternate No. 1 (……..) ☐(add) ☐(deduct) $_____
(Insert key word for Alternate)

Alternate No. 2 (……..) ☐(add) ☐(deduct) $_____

Alternate No. 3 (……..) ☐(add) ☐(deduct) $_____

Alternate No. 4 (……..) ☐(add) ☐(deduct) $_____

Alternate No. 5 (……..) ☐(add) ☐(deduct) $_____

Alternate No. 6 (……..) ☐(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)** _____

*Name (type or print) _____ *(Seal)*

*Title _____

Telephone Number _____

Email Address _____

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A with DCM Form C-3 is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.

Do not staple this form; use clips.

DCM Form C-4
Revised August 2020

BID BOND

The **PRINCIPAL** (*Bidder's company name and address*)
Name: Tom Callison, P.E.
Address: 300 20th St. N Suite 100, Birmingham, AL, 35203

The **SURETY** (*Company name and primary place of business*)
Name:
Address:

The **OWNER** (*Entity name and address*)
Name: City of Anniston
Address: 4309 McClellan Blvd,
Anniston, AL 36206

The **PROJECT** for which the Principal's Bid is submitted: (*Project name as it appears in the Bid Documents*)
Glenn Addie Community Center Slope Stabilization

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned Principal and Surety, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the **PENAL SUM of five percent (5%) of the amount of the Principal's bid, but in no event more than Ten-thousand Dollars ($10,000.00).**

THE CONDITION OF THIS OBLIGATION is that the Principal has submitted to the Owner the attached bid, which is incorporated herein by reference, for the Project identified above.

NOW, THEREFORE, if, within the terms of the Bid Documents, the Owner accepts the Principal's bid and the Principal thereafter either:

(a) executes and delivers a Construction Contract with the required Performance and Payment Bonds (each in the form contained in the Bid Documents and properly completed in accordance with the bid) and delivers evidence of insurance as prescribed in the Bid Documents, or

(b) fails to execute and deliver such Construction Contract with such Bonds and evidence of insurance, but pays the Owner the difference, not to exceed the Penal Sum of this Bond, between the amount of the Principal's Bid and the larger amount for which the Owner may award a Construction Contract for the same Work to another bidder,

then, this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligation of the Surety under this Bond shall not in any manner be impaired or affected by any extension of the time within which the Owner may accept the Principal's bid, and the Surety does hereby waive notice of any such extension.

SIGNED AND SEALED this _____ day of _____, _____.

ATTEST:

_____

PRINCIPAL:

_____

By _____

_____
Name and Title

SURETY:

ATTEST:

_____

_____

By _____

_____
Name and Title

Note: Do not staple this form; use clips. Purpose: quickly and efficiently scan thousands of documents into DCM's database.

You may use your own form provided all requested information and signatures are on your form as well as the "I certify..." statement.
- DO NOT USE COLORED PRINT OR SHADED TABLES -

DCM Form B-6
Revised August 2020

CERTIFIED TABULATION OF BIDS

PROJECT: Glenn Addie Community Center Slope Stabilization

DCM (BC) PROJECT No._____

AS TABULATED BELOW, BIDS WERE RECEIVED:

DATE:_____ TIME: _____

PLACE: _____

CONTRACTOR	SURETY	BASE BID	BID ALT. #1	BID ALT. #2	REMARKS

I certify that the above bids were advertised, were received sealed and were publicly opened and read aloud at the time and place indicated and that this is a true and correct tabulation of all bids received for this project.

MBA Engineers, Inc.
_____
Architectural / Engineering Firm Name

Sworn and subscribed before me this _____ day of _____
Month, Year

By: _____
Signature

_____
Notary Public

_____
Type or print Name and Title of Architect / Engineer

Seal:

Numbers in margin correspond to "Checklist", DCM Form B-7

(1) **DCM (BC) Project #** _____ *(required)*

PSCA Project # _____ *(required)*

Do not staple this form and/or attachments; use clips. Print single-sided; do not submit double-side printed documents.

CONSTRUCTION CONTRACT

(2) This Construction Contract is entered into this day of in the year of between the **OWNERS, the ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY**

(3) and **LOCAL OWNER,**
Entity Name: City of Anniston
Address: 4309 McClellan Blvd, Anniston, AL 36206
Email & Phone #: Contact: Steven Folks (City Manager)
Phone: (256) 236-3422
Email: citymanager@annistonal.gov

(4) and the **CONTRACTOR,**
Company Name:
Address:
Email & Phone #:

(5) for the **WORK** of the Project, identified as:
Glen Addie Community Center Slope Stabilization

(6) The **CONTRACT DOCUMENTS** are dated and have been amended by
(7) **ADDENDA**

(8) The **ARCHITECT** is
Firm Name: MBA Engineers, Inc.
Address: 300 20th Street North, Suite 100
Birmingham, AL 35203
Email & Phone #: Contact: Tom Callison, P.E.
Phone: (205) 323-6385
Email: tcallison@mbasei.com

(9) The **CONTRACT SUM** is
Dollars ($) and is the sum of the Contractor's Base Bid for the Work and the following
(10) **BID ALTERNATE PRICES:**
N/A

(11) The **CONTRACT TIME** is ( ) calendar days.

THE OWNER AND THE CONTRACTOR AGREE AS FOLLOWS: The Contract Documents, as defined in the General Conditions of the Contract (DCM Form C-8), are incorporated herein by reference. The Contractor shall perform the Work in accordance with the Contract Documents. The Owner will pay and the Contractor will accept as full compensation for such performance of the Work, the Contract Sum subject to additions and deductions (including liquidated damages) as provided in the Contract Documents. The Work shall commence on a date to be specified in a Notice to Proceed issued by the Owner or the Director, Alabama Division of Construction Management, and shall then be substantially completed within the Contract Time.

(12) **LIQUIDATED DAMAGES** for which the Contractor and its Surety (if any) shall be liable and may be required to pay the Owner in accordance with the Contract Documents shall be equal to six percent interest per annum on the total Contract Sum unless a dollar amount is stipulated in the following space, in which case liquidated damages shall be determined at _____ dollars ($_____) per calendar day.

Numbers in margin correspond to "Checklist", ABC Form B-7

(13) **SPECIAL PROVISIONS** *(such as acceptance or rejection of unit prices. Indicate continuation on an attachment if needed.)*

A. SEVERABLE PAYMENTS: The Alabama Public School and College Authority will first pay the Contractor _____ Dollars ($_____) from its available funds and the City of Anniston will thereafter pay the Contractor the remaining _____ Dollars ($_____) from its available funds.

B.

(14) **STATE GENERAL CONTRACTOR'S LICENSE**: The Contractor does hereby certify that Contractor is currently licensed by the Alabama State Licensing Board for General Contractors and that the certificate for such license bears the following:

License No.: Classification(s):

Bid Limit:

The Owner and Contractor have entered into this Construction Contract as of the date first written above and have executed this Construction Contract in sufficient counterparts to enable each contracting party to have an originally executed Construction Contract each of which shall, without proof or accounting for the other counterparts, be deemed an original thereof.

The Owner does hereby certify that this Construction Contract was let in accordance with the provisions of Title 39, Code of Alabama 1975, as amended, and all other applicable provisions of law, and that the terms and commitments of this Construction Contract do not constitute a debt of the State of Alabama in violation of Article 11, Section 213 of the Constitution of Alabama, 1901, as amended by Amendment Number 26.

(15)

APPROVALS

ALABAMA DEPARTMENT OF FINANCE, REAL PROPERTY MANAGEMENT, DIVISION OF CONSTRUCTION MANAGEMENT (DCM)

By _____
Director

REVIEWED BY AND FUNDS AVAILABLE:
PSCA funds are available in the amount stated in (13) "Special Provisions", Paragraph A.

By _____
Contract Administrator

CONTRACTING PARTIES

_____
Contractor Company

By _____
Signature

Name & Title _____

Hoover City Schools
Local Owner Entity

By _____

Name & Title _____

ALABAMA PUBLIC SCHOOL and COLLEGE AUTHORITY

By _____ Date: _____
Governor and President of Authority

Review/Signature flow: Architect/Engineer (prepare documents) > Contractor (review and sign) > Architect/Engineer (review) > Local Owner (review and sign) > DCM (review and sign) > Finance-Legal > Governor (review and sign) > DCM (distribute the fully executed Contract to all parties along with a Notice to Proceed).

Numbers in margin correspond to second page of "Checklist", DCM Form B-7

(1) # PERFORMANCE BOND

SURETY'S BOND NUMBER

Do not staple this form; use clips.

(2) The **PRINCIPAL** (*Company name and address of Contractor as appears in the Construction Contract*)
Name:
Address:

(3) The **SURETY** (*Company name and primary place of business*)
Name:
Address:

(4) The **OWNER: The ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY** and
(*Local Owner entity's name and address, same as appears in the Construction Contract*)
Name: City of Anniston
Address: 4309 McClellan Blvd,
Anniston, AL 36206

(5) The **PENAL SUM** of this Bond (the Contract Sum)

Dollars ($).

(6) **DATE** of the Construction Contract :

(7) The **PROJECT**: (*Same as appears in the Construction Contract*)
Glenn Addie Community Center Slope Stabilization

1. **WE, THE PRINCIPAL (hereinafter "Contractor") AND THE SURETY**, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the Penal Sum stated above for the performance of the Contract, and Contract Change Orders, in accord with the requirements of the Contract Documents, which are incorporated herein by reference. If the Contractor performs the Contract, and Contract Change Orders, in accordance with the Contract Documents, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

2. The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. All Contract Change Orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the Contract Change Order form. The Surety waives notification of any Contract Change Orders involving only extension of the Contract Time.

Numbers in margin correspond to second page of "Checklist", DCM Form B-7

3. Whenever the Architect gives the Contractor and the Surety, at their addresses stated above, a written Notice to Cure a condition for which the Contract may be terminated in accordance with the Contract Documents, the Surety may, within the time stated in the notice, cure or provide the Architect with written verification that satisfactory positive action is in process to cure the condition.

4. The Surety's obligation under this Bond becomes effective after the Contractor fails to satisfy a Notice to Cure and the Owner:
   (a) gives the Contractor and the Surety, at their addresses stated above, a written Notice of Termination declaring the Contractor to be in default under the Contract and stating that the Contractor's right to complete the Work, or a designated portion of the Work, shall terminate seven days after the Contractor's receipt of the notice; and
   (b) gives the Surety a written demand that, upon the effective date of the Notice of Termination, the Surety promptly fulfill its obligation under this Bond.

5. In the presence of the conditions described in Paragraph 4, the Surety shall, at its expense:
   (a) On the effective date of the Notice of Termination, take charge of the Work and be responsible for the safety, security, and protection of the Work, including materials and equipment stored on and off the Project site, and
   (b) Within twenty-one days after the effective date of the Notice of Termination, proceed, or provide the Owner with written verification that satisfactory positive action is in process to facilitate proceeding promptly, to complete the Work in accordance with the Contract Documents, either with the Surety's resources or through a contract between the Surety and a qualified contractor to whom the Owner has no reasonable objection.

6. As conditions precedent to taking charge of and completing the Work pursuant to Paragraph 5, the Surety shall neither require, nor be entitled to, any agreements or conditions other than those of this Bond and the Contract Documents. In taking charge of and completing the Work, the Surety shall assume all rights and obligations of the Contractor under the Contract Documents; however, the Surety shall also have the right to assert "Surety Claims" to the Owner in accordance with the Contract Documents. The presence or possibility of a Surety Claim shall not be just cause for the Surety to fail or refuse to promptly take charge of and complete the Work or for the Owner to fail or refuse to continue to make payments in accordance with the Contract Documents.

7. By accepting this Bond as a condition of executing the Construction Contract, and by taking the actions described in Paragraph 4, the Owner agrees that:
   (a) the Owner shall promptly advise the Surety of the unpaid balance of the Contract Sum and, upon request, shall make available or furnish to the Surety, at the cost of reproduction, any portions of the Project Record, and
   (b) as the Surety completes the Work, or has it completed by a qualified contractor, the Owner shall pay the Surety, in accordance with terms of payment of the Contract Documents, the unpaid balance of the Contract Sum, less any amounts that may be or become due the Owner from the Contractor under the Construction Contract or from the Contractor or the Surety under this Bond.

8. In the presence of the conditions described in Paragraph 4, the Surety's obligation includes responsibility for the correction of Defective Work, liquidated damages, and reimbursement of any reasonable expenses incurred by the Owner as a result of the Contractor's default under the Contract, including architectural, engineering, administrative, and legal services.

Numbers in margin correspond to second page of "Checklist", DCM Form B-7

9. Nothing contained in this Bond shall be construed to mean that the Surety shall be liable to the Owner for an amount exceeding the Penal Sum of this Bond, except in the event that the Surety should be in default under the Bond by failing or refusing to take charge of and complete the Work pursuant to Paragraph 5. If the Surety should fail or refuse to take charge of and complete the Work, the Owner shall have the authority to take charge of and complete the Work, or have it completed, and the following costs to the Owner, less the unpaid balance of the Contract Sum, shall be recoverable under this Bond:

(a) the cost of completing the Contractor's responsibilities under the Contract, including correction of Defective Work;

(b) additional architectural, engineering, managerial, and administrative services, and reasonable attorneys' fees incident to completing the Work;

(c) interest on, and the cost of obtaining, funds to supplement the unpaid balance of the Contract Sum as may be necessary to cover the foregoing costs;

(d) the fair market value of any reductions in the scope of the Work necessitated by insufficiency of the unpaid balance of the Contract Sum and available supplemental funds to cover the foregoing costs; and

(f) additional architectural, engineering, managerial, and administrative services, and reasonable attorneys' fees incident to ascertaining and collecting the Owner's losses under the Bond.

10. All claims and disputes arising out of or related to this bond, or its breach, shall be resolved in accordance with Article 24, General Conditions of the Contract.

(8) **SIGNED AND SEALED** this _____ day of _____, _____.

(9 & 10)

SURETY:

_____
Surety Company Name

By_____

_____
Signee's Printed Name and Title

CONTRACTOR as PRINCIPAL:

_____
Contractor Company Name

By_____

_____
Signee's Printed Name and Title

(11) NOTE: Original power of attorney for the Surety's signatory shall be furnished with each of the original six bond forms to be attached to each of the six contract forms per project.

Do not staple this form; use clips. Purpose: quickly and efficiently scan thousands of documents into DCM's database.

Numbers in margin correspond to second page of "Checklist", DCM Form B-7

(1) # PAYMENT BOND

Do not staple this form; use clips.

SURETY'S BOND NUMBER

(2) The **PRINCIPAL** *(Company name and address of Contractor as appears in the Construction Contract)*
Name:
Address:

(3) The **SURETY** (Company *name and primary place of business*)
Name:
Address:

(4) The **OWNER: The ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY** and (*Local Owner entity's name and address, same as appears in the Construction Contract*)
Name:
Address: City of Anniston
4309 McClellan Blvd,
Anniston, AL 36206

(5) The **PENAL SUM** of this Bond (the Contract Sum)

Dollars ($).

(6) **DATE** of the Construction Contract :

(7) The **PROJECT**: (*Same as appears in the Construction Contract*)
Spain Park Tennis and Baseball Drainage

1. **WE, THE PRINCIPAL (hereinafter "Contractor") AND THE SURETY**, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the Penal Sum stated above to promptly pay all persons supplying labor, materials, or supplies for or in the prosecution of the Contract, which is incorporated herein by reference, and any modifications thereof by Contract Change Orders. If the Contractor and its Subcontractors promptly pay all persons supplying labor, materials, or supplies for or in the prosecution of the Contract and Contract Change Orders, then this obligation shall be null and void; otherwise to remain and be in full force and effect.
2. The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. All Contract Change Orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the Contract Change Order form. The Surety waives notification of any Contract Change Orders involving only extension of the Contract Time.

Numbers in margin correspond to second page of "Checklist", DCM Form B-7

3. Any person that has furnished labor, materials, or supplies for or in the prosecution of the Contract and Contract Change Orders for which payment has not been timely made may institute a civil action upon this Bond and have their rights and claims adjudicated in a civil action and judgment entered thereon. Notwithstanding the foregoing, a civil action may not be instituted on this bond until 45 days after written notice to the Surety of the amount claimed to be due and the nature of the claim. The civil action must commence not later than one year from the date of final settlement of the Contract. The giving of notice by registered or certified mail, postage prepaid, addressed to the Surety at any of its places of business or offices shall be deemed sufficient. In the event the Surety or Contractor fails to pay the claim in full within 45 days from the mailing of the notice, then the person or persons may recover from the Contractor and Surety, in addition to the amount of the claim, a reasonable attorney's fee based on the result, together with interest on the claim from the date of the notice.

4. Every person having a right of action on this bond shall, upon written application to the Owner indicating that labor, material, or supplies for the Work have been supplied and that payment has not been made, be promptly furnished a certified copy of this bond and the Construction Contract. The claimant may bring a civil action in the claimant's name on this Bond against the Contractor and the Surety, or either of them, in the county in which the Work is to be or has been performed or in any other county where venue is otherwise allowed by law.

5. This bond is furnished to comply with Code of Alabama, §39-1-1, and all provisions thereof shall be applicable to civil actions upon this bond.

6. All claims and disputes between Owner and either the Contractor or Surety arising out of or related to this bond, or its breach, shall be resolved in accordance with Article 24, General Conditions of the Contract.

(8) **SIGNED AND SEALED** this _____ day of _____, _____.

(9 & 10)

SURETY:	**CONTRACTOR as PRINCIPAL:**
_____	_____
Surety Company Name	Contractor Company Name
By_____	By_____
_____	_____
Signee's Printed Name and Title	Signee's Printed Name and Title

(11) NOTE: Original power of attorney for the Surety's signatory shall be furnished with each of the original six bond forms to be attached to each of the six contract forms per project.

Do not staple this form; use clips. Purpose: quickly and efficiently scan thousands of documents into DCM's database.

PREPARATION AND APPROVAL OF
CONSTRUCTION CONTRACTS
and *BONDS*

CHECKLIST

Use with DCM Forms C-5, C-6, & C-7
and DCM Forms 9-A, 9-B, & 9-C

	CONSTRUCTION CONTRACT - DCM Form C-5 or DCM Form 9-A (PSCA Projects) Six copies of documents with original signatures required. The numbers in the left column below correspond to numbers in the left margin of the Contract form. If the project is funded partially or fully by the Alabama Public School and College Authority (PSCA), use DCM Form 9-A instead of DCM Form C-5.
(1)	**PROJECT NUMBER(S):** Insert the DCM (BC) Project Number in the block provided. • On DCM Form 9-A, also insert the PSCA Project Number in the block provided.
(2)	**DATE:** Insert the date upon which the Contractor will sign the contract.
(3)	**OWNER:** Insert the full, legal name, address, email, and telephone number of the Owner (Awarding Authority). • On DCM Form 9-A, insert the name, address, email, and telephone number of the Local Owner (city or county school board, college, university, etc.) after "Alabama Public School and College Authority"
(4)	**CONTRACTOR:** Insert the Contractor's full, legal company name, correct mailing address, email, and telephone number. For State Agency projects, the Contractor Company name and address must match the name and address registered in the State of Alabama Accounting and Resource System (STAARS) used by the State to pay Vendors. The Contractor Company name and address must be consistent across all documents in the same contract package, in order to avoid STAARS rejection. • On DCM Form 9-A: The Contractor Company name and address must match the name and address registered in STAARS used by the State to pay Vendors. The Contractor Company name and address must be consistent across all documents in the same contract package, in order to avoid STAARS rejection.
(5)	**The WORK:** Insert the complete name of the Project; same as in the Bid Documents.
(6)	**CONTRACT DOCUMENTS**: Insert the date of the Bid Documents
(7)	**ADDENDA:** Identify, by number and date, all pre-bid Addenda that were issued to the Bid Documents. If none were issued, insert "None". All Addenda shall be submitted to DCM for review prior to contract issuance.
(8)	**ARCHITECT:** Insert the full, legal name, address, email, and telephone number of the Project Architectural or Engineering firm.
(9)	**CONTRACT SUM:** The Contract Sum is the total of the Contract's Base Bid and accepted Bid Alternate Prices, if any. Insert the Contract Sum in words and figures, verifying that this amount corresponds with the CERTIFIED TABULATION OF BIDS.
(10)	**BID ALTERNATE PRICES**: Identify which, if any, Bid Alternate Prices are accepted and included in the Contract Sum by inserting either (a) "No Alternate Prices Requested in Bid", (b) "No Alternate Prices Accepted", or (c) a listing of the accepted Alternates by number and dollar amount.
(11)	**The CONTRACT TIME:** State the Contract Time in words and in figures.
(12)	**LIQUIDATED DAMAGES:** If the Owner has computed a daily rate for liquidated damages, insert the amount in both words and figures in the spaces provided.
(13)	**SPECIAL PROVISIONS:** This space may be used to incorporate Special Provisions into the Contract, such as unit prices, compliance with enacted provisions, and value engineering. If the solicitation for bids required Unit Prices, insert a statement of which Unit Prices, if any, are accepted and incorporated into the Contract. If more space is needed, Special Provisions may be stated on an attachment that is cited in the Special Provisions section. • DCM Form 9-A is published bearing Special Provision **"A. Severable Payments"**, which is where the portions of the Contract Sum to be paid by the PSCA and the Local Owner are to be stated. Obtain these amounts from Local Owner and insert them in the spaces provided. Other Special Provisions, such as disposition of Unit Prices, may be inserted below this provision.
(14)	**STATE GENERAL CONTRACTOR'S LICENSE:** Insert the Contractor's current state general contracting license number, bid limit, and classification in the spaces provided.

(15)	**SIGNATURES - APPROVING and CONTRACTING PARTIES** Signature spaces vary for different Owner types and funding sources. Download the appropriate document per Owner/funding type from www.dcm.alabama.gov/forms.aspx. Original signatures required; copies of signatures will not be accepted.

PERFORMANCE BOND, DCM Form C-6 or DCM Form 9-B (PSCA Projects), and
PAYMENT BOND, DCM Form C-7 or DCM Form 9-C (PSCA Projects)

Before forwarding the Construction Contract and Bonds to the Owner, verify that the Surety has accurately provided all information in the spaces provided. The information should be the same on both Bonds.

(1)	**SURETY'S BOND NUMBER** should be inserted in the block provided.
(2)	**PRINCIPAL:** Contractor's name and address is to be the same as appears in the Construction Contract.
(3)	**SURETY:** The full, legal name and address of the bonding company.
(4)	**OWNER:** The Owner's name and address is to be the same as appears in the Construction Contract.
(5)	**PENAL SUM:** The Penal Sum of each Bond is to be the Contract Sum of the Construction Contract and is to be inserted in both words and figures.
(6)	The **Date** of the Construction Contract**:** The date that appears on the Construction Contract.
(7)	The **PROJECT:** The same name or description as appears in the Construction Contract.
(8)	**DATE:** After "SIGNED AND SEALED" is to appear the date upon which Contractor and Surety sign the Bond. **THIS DATE CANNOT PRECEDE THE DATE OF THE CONSTRUCTION CONTRACT.**
(9)	**CONTRACTOR'S SIGNATURE:** The Contractor's name must appear beneath "CONTRACTOR", under which the signature of a member or officer of the firm must appear with the name and title of the signing party appearing LEGIBLY beneath the signature.
(10)	**SURETY'S SIGNATURE:** The full, legal name of the bonding company must appear under "SURETY", under which the signature of an individual having power of attorney for the bonding company must appear with the individual's name and title appearing LEGIBLY beneath the signature.
(11)	**ATTACHED POWER OF ATTORNEY:** Clipped to each copy of the Bonds must be a Power of Attorney, signed by an officer of the bonding company, for the individual signing the bond on behalf of the bonding company. **The date of the Power of Attorney** must **not precede the date of the bond.**

ATTACHMENTS

The following documents must be attached to each of the six Construction Contract copies:

- Insurance Certificate (attach copy): It is the responsibility of the design professional to ensure all insurance requirements are discussed with bidders prior to a bid and that Contractor has provided the requirements to their insurance provider. Contractor must obtain all insurance coverage specified in Article 37 of the General Conditions of the Contract.
- Performance Bond (attach original with surety's power-of-attorney original): not required for contracts under $50,000.00.
- Payment Bond (attach original with surety's power-of-attorney original): not required for contracts under $50,000.00.
- Certified Tabulation of Bids (attach copy): required for all projects including those with informal bids.
- DCM Form C-3: Proposal Form (attach copy).
- DCM Form C-3A: Accounting of Sales Tax (attach copy): copy must be of the executed C-3A from the bid.
- E-Verify Memorandum of Understanding (attach copy): entire document required.
- Alabama Disclosure Statement (attach original).

FORWARDING CONTRACT and ATTACHMENTS

After determining that the Construction Contract (signed by the Contractor) and attachments are in order, the design professional shall forward all six (6) copies of these documents (with original signatures) to the Owner for signature. The Owner shall then forward the documents per the Review/Signature Flow instructions specified on the contract form underneath the signature block.

SUBMITTAL TO DCM:

- All contract documents and attachments must be single-sided on letter-sized paper without staples; use clips. Purpose: quickly and efficiently scan thousands of documents into DCM's database. Scanners compatible with the database do not scan double-sided nor legal-sized paper.
- Contracts with double-sided printing will not be accepted.
- The Contract Document Administration Fee-CC and the Permit Fee must be paid by the time a Construction Contract for a state agency project, Alabama Community College System (ACCS) project or PSCA-funded project is submitted to DCM for review, or when a fully locally-funded project Construction Contract is converted to PSCA. Contract reviews can begin once the fees have been paid.
- The Permit Fee must be paid by the time a copy of a fully locally-funded K-12 school project's executed Construction Contract is received at DCM's office from the State Department of Education (SDE).

Basic Contract Document Administration (CDA) Fee: This fee covers review of the Agreement Between Owner and Architect (O/A Agreement) and Construction Contract for state agency projects, ACCS projects and partially or fully PSCA-funded projects of K-12 public schools and universities and the related amendments, change orders, service invoices and pay requests. This fee does not apply to fully locally- funded K-12 public school projects or fully locally-funded university projects. The Basic CDA Fee covers review of the original submitted document and one revision. The total basic CDA fee is 1/2 of 1% of the total construction cost, due in two parts: 1/4 of 1% (.25%) of the Project Budget for administration of the O/ A Agreement. 1/4 of 1% (.25%) of the Construction Contract Amount for administration of the Construction Contract.

Additional Revised Contract Document Fee: When more than one revision of a Construction Contract is required, an additional fee of $200.00 will be charged to the design professional for each additional submittal until the document is executed.

Basic Permit Fee: This fee covers required project inspections. The Permit Fee is due when a construction contract or self-performance letter is received by DCM, and must be paid before a Pre-Construction Conference is scheduled with DCM Inspectors for any type of project. Note: although DCM does not review the construction contracts of non-ACCS public higher education institutions such as two and four-year universities, the permit fee must be paid before a required Pre-Construction Conference is scheduled with DCM Inspectors for such projects.

Fees may be paid online at www.dcm.alabama.gov or paid with a physical check. Make check payable to: "Finance - Construction Management", include the DCM (BC) Project #, if assigned, on the check and attach the CDA Fees Calculation Worksheet (also available on www.dcm.alabama.gov). Mail payment to: Finance - Construction Management, P.O. Box 301150, Montgomery, AL 36130-1150. For payments using Public School and College Authority (PSCA) funds and for state agency inter-fund transfers: contact Jennie Jones at 334-242-4808 or jennie.jones@realproperty.alabama.gov.

TO: Alabama Department of Finance
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, AL 36104
(334) 242-4082, inspections@realproperty.alabama.gov

This form does not need to be submitted to DCM. It is for your office use and the Contractor's office use, if needed.

DCM Form B-9
Revised August 2020

PROJECT DATA FORM

Date: _____

DCM (BC) No. _____

PROJECT (NAME AND LOCATION)	OWNER (FULL ENTITY NAME, ADDRESS, & PHONE No.)
Glen Addie Community Center Slope Stabilization 426 Mulberry Ave, Anniston, AL 36021	City of Anniston 4309 McClellan Blvd, Anniston, AL 36206 Contact: Steven Folks, City Manager Phone: (256) 236-3422
CONTRACTOR (FULL CO. NAME, ADDRESS, & PHONE No.)	ARCHITECT/ENGINEER (FIRM NAME, ADDRESS, & PHONE No.)
	MBA Engineers, Inc. 300 20th Street North, Suite 100 Birmingham, AL 35203 Contact: Tom Callison, P.E. Phone: (205) 323-6385

FUNDING SOURCE:
☐ **PSCA** ☐ **LOCAL** ☐ **STATE** ☐ **OTHER** _____

CONTRACT AMOUNT: $
Alternates Included in Contract:

CONTRACT TIME	Date Bids Rec'd:	Date of Contract:
Work Start Date:	Time Limit:	Scheduled Completion Date:

BONDS and INSURANCE
Performance Bond By:
Payment Bond By:
Builder's Risk By:
Workman's Compensation By:
Liability By:

****PRECONSTRUCTION CONFERENCE NOTE****

Please contact the appropriate DCM Inspector for this project by telephone or email at least fourteen (14) days prior to scheduling the Pre-Construction Conference. Inspector territories and email addresses are on the Staff webpage of www.dcm.alabama.gov.

	Len Kirk - (334) 850-2067		**Matthew Danner - (334) 320-1844**
	Paul Gray - (256) 248-5202		**David Roberson - (256) 299-0517**
	Corey Odom - (334) 320-1721		**Steve Pendley - (251) 331-2319**
	Don Williams - (256) 248-5147		

STATE OF ALABAMA
DEPARTMENT OF FINANCE
REAL PROPERTY MANAGEMENT
Division of Construction Management

Kay Ivey
Governor

Kelly Butler
Director of Finance

P.O. Box 301150, Montgomery, AL 36130-1150
770 Washington Avenue, Suite 444, Montgomery, AL 36104
Telephone: (334) 242-4082 Fax: (334) 242-4182

Mickey Allen
Assistant Finance Director
Real Property Management

Frank Barnes, Director
Construction Management

E-Verify Memorandum of Understanding

Instructions for inclusion in project manuals.

Per DCM's May 29, 2012 bulletin *Guidance on Act 2012-491 Amending the Alabama Immigration Law*: "Contractors (including architects and engineers) will … be required to enroll in the E-Verify program and to provide documentation of enrollment in the E-Verify program with their contracts or agreements."

Upon completing enrollment in the E-Verify program available at https://www.e-verify.gov/employers/enrolling-in-e-verify, an E-Verify Memorandum of Understanding (MOU) is issued to the enrolled business. The same E-Verify MOU can be repeatedly used until any information in the business's E-Verify user profile is updated, at which time E-Verify updates the printable Company Information section of the MOU, while the original signatory information remains the same. Typically, an E-Verify MOU is 13-18 pages long depending on business type and number of employees.

DCM requires a copy of the entire current E-Verify MOU document to be submitted as an attachment to each Construction Contract original and to each Agreement Between Owner and Architect original.

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)
Glenn Addie Community Center Slope Stabilization	

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?	NAME OF PARTY TO THE CONTRACT
☐ Yes ☐ No If yes, please attach list.	

JOB DESCRIPTION

WILL ANY POLLUTION CONTROL EXEMPTION BE APPLICABLE?	ESTIMATED POLLUTION CONTROL COST
☐ Yes ☐ No	$

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)
Glenn Addie Community Center Slope Stabilization	

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 mate-rials 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.

TO: Alabama Department of Finance
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, AL 36104
(334) 242-4082 (ph), inspections@realproperty.alabama.gov

DCM Form B-10
Revised August 2020

STATEMENT OF FIELD OBSERVATIONS

Date: _____

DCM (BC) # 2020665	**PSCA #** 9065
PROJECT NAME AND LOCATION: Glen Addie Community Center Slope Stabilization 426 Mulberry Ave, Anniston, AL 36021	**OWNER ENTITY NAME & ADDRESS:** City of Anniston 4309 McClellan Blvd, Anniston, AL 36206 Contact: Steven Folks (City Manager) **Phone No.** (256) 236-3422
CONTRACTOR COMPANY NAME & ADDRESS: **Phone No.**	**ARCHITECTURAL/ENGINEERING FIRM NAME & ADDRESS:** MBA Engineers, Inc. 300 20th Street North, Suite 100 Birmingham, AL 35203 **Phone No.** (205) 323-6385

PROJECT DATA ON THE DATE OF OBSERVATION: No. of Workers _____

Site Conditions _____ Weather _____

Starting Date _____ Contract Completion Date _____

Scheduled State of Completion _____% Estimated Actual Completion _____%

Contractor's Superintendent _____ Job Phone # _____

COMMENTS / DEFICIENCIES:

Signature _____ **Report No.** _____

cc: Owner, Architect/Engineer, Contractor, DCM Office (inspections@realproperty.alabama.gov), **DCM Inspector**

DCM Form C-10
Revised January 2021

DCM (BC) No. _____

PSCA Projects: PSCA No. _____

Application No. _____

Date: _____

APPLICATION and CERTIFICATE for PAYMENT

Attach DCM Form C-10SOV: Schedule of Values

TO OWNER: Entity Name: City of Anniston Address: 4309 McClellan Blvd, Anniston, AL 36206	PROJECT: Glenn Addie Community Center Slope Stabilization
FROM CONTRACTOR: Company Name: Address:	ARCHITECT/ENGINEER: Firm Name: MBA Engineers, Inc. Address: 300 20th Street North, Suite 100 Birmingham, AL 35203

Total Original Contract	$
Fully Executed Change Order(s) Numbers ___ through ___	$
Total Contract To Date	$

1. Work Completed to Date per attached Schedule of Values	$
2. Stored Materials *(Attach list or Form DCM C10-SM, Inventory of Stored Materials)*	$
3. Total Completed Work and Stored Materials (____% *of Contract To Date*)	$
4. Less Retainage *(5% of Total Completed Work & Stored Materials [TCWSM] is retained when TCWSM is less than 50% of Total Contract To Date [TCTD]. 0 is retained on final pay. app.)*	($)
5. Total Due	$
6. Less Total Previous Payments	($)
7. Balance Due This Estimate	$

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that to tbe best of bis knowledge, information, and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by bim for Work for which previous Certificates for Payments were issued and payments received from the Owner and that current payment shown herein has not yet been received.

By: _____ Date: _____
Contractor's Signature

Name & Title _____

Sworn and subscribed before me this _____ day of _____
Day Month, Year

Seal:

_____
Notary Public's Signature

ARCHITECT'S/ENGINEER'S CERTIFICATION

In accordance with the Contract Documents, the Architect/ Engineer certifies to the Owner that, to the best of the Architect's/ Engineer's knowledge and belief, the Work has progressed to the point indicated herein, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the amount approved.

By _____
Architect's/Engineer's Signature

Name & Title _____

Date _____

INSTRUCTIONS

- Four copies of pay. app., each with original signatures and all attachments required.
- Date of first payment application cannot precede the Notice to Proceed's Begin Date.
- Pay. app. must exactly match an attached DCM Form C-10SOV: Schedule of Values.
- A change order must be fully executed before inclusion on a payment application.
- On a final payment application, all change orders must be fully executed and included.
- Contractor's signature date cannot precede the payment application date.
- Progress schedules must be included with non-final payment applications.
- One payment application per month may be submitted.
- Retainage is released when the Certificate of Substantial Completion is fully executed, all other close-out requirements per General Conditions Article 34 are completed and the final payment application is reviewed, approved and processed.
- DCM processes pay. apps. of state agencies, PSCA and other bond-funded projects.

APPROVAL

_____
Owner Entity

By _____
Signature

Name & Title _____

Date _____

SCHEDULE OF VALUES

DCM Form C-10SOV
Revised January 2021

Project:
Glen Addie Community Center Slope Stabilization

DCM (BC) No.:

Contractor Company:

PSCA projects: PSCA No.:

Application No.:

Retainage: *5% of Completed Work and Stored Materials to Date (G) is retained when G Total is less than 50% of Scheduled Value (C) Total. 0 is retained on final payment application.*

Application Date:

Period From: Period To:

A	B	C	D	E	F	G		H	I
Item No.	Description of Work	Scheduled Value (including fully executed change orders)	Work Completed: From Previous Application (D+E)	Work Completed: This Period	Materials Presently Stored (Not in D or E)	Completed Work & Stored Materials to Date (D+E+F)	% of Contract to Date (G/C)	Balance to Finish (C-G)	Retainage (Variable Rate)
1.						$ -			$ -
2.						$ -			$ -
3.						$ -			$ -
4.						$ -			$ -
5.						$ -			$ -
6.						$ -			$ -
7.						$ -			$ -
8.						$ -			$ -
9.						$ -			$ -
10.						$ -			$ -
11.						$ -			$ -
12.						$ -			$ -
13.						$ -			$ -
14.						$ -			$ -
15.						$ -			$ -
16.						$ -			$ -
17.						$ -			$ -
18.						$ -			$ -
19.						$ -			$ -
20.						$ -			$ -
21.						$ -			$ -
22.						$ -			$ -
23.						$ -			$ -
24.						$ -			$ -
25.						$ -			$ -
26.						$ -			$ -
27.						$ -			$ -
28.						$ -			$ -
29.						$ -			$ -
30.						$ -			$ -
	TOTALS:	$ -	$ -	$ -	$ -	$ -		$ -	$ -

INVENTORY OF STORED MATERIALS

Proiect: Glen Addie Community Center Slope Stabilization	DCM (BC) No.:
	PSCA projects: PSCA No.:
Contractor:	For Estimate No.:
	For Period Ending:

A	B	C	D	E	F
DESCRIPTION	MATERIALS STORED LAST PERIOD	PURCHASED THIS PERIOD	TOTAL COLUMNS B + C	MATERIALS USED THIS PERIOD	MATERIALS PRESENTLY STORED

To be used as documentation to support value of Stored Materials reported on APPLICATION AND CERTIFICATE FOR PAYMENT.

Page ____ of_____

DCM Form C-10SM
Revised July 2020

SAMPLE PROGRESS SCHEDULE & REPORT	CONTRACTOR (Contractor may use own form in lieu of Form C-11):	DATE OF REPORT:
DCM (BC) No.:		
PSCA projects: PSCA No.:		PROCEED DATE:
PROJECT: Glen Addie Community Center Slope Stabilization	ARCHITECT/ENGINEER: MBA Engineers, Inc.	PROJECTED COMPLETION DATE:

	WORK DIVISION	%	AMOUNT													
1.	GENERAL REQUIREMENTS															
2.	SITEWORK															
3.	CONCRETE															
4.	MASONRY															
5.	METALS															
6.	WOOD AND PLASTIC															100%
7.	THERMAL AND MOISTURE PROTECTION															90%
8.	DOORS AND WINDOWS															80%
9.	FINISHES															70%
10.	SPECIALTIES															60%
11.	EQUIPMENT															50%
12.	FURNISHINGS															40%
13.	SPECIAL CONSTRUCTION															30%
14.	CONVEYING SYSTEMS															20%
15.	MECHANICAL															10%
16.	ELECTRICAL															0%
TOTAL ORIG. CONTRACT		100%														
ANTICIPATED DRAW IN $1,000																
ACTUAL DRAW IN $1,000																

LEGEND: ANTICIPATED ACTIVITY ACTUAL ACTIVITY ANTICIPATED CASH FLOW ACTUAL CASH FLOW

USE ADDITIONAL SHEETS IF JOB IS SCHEDULED OVER 12 MONTHS.

DCM Form C-11 Revised July 2020

Alabama Department of Finance
Real Property Management
Division of Construction Management (DCM)
770 Washington Avenue, Suite 444
Montgomery, Alabama 36104
(334) 242-4082 FAX (334) 242-4182

INVOICE CHECKLIST

For Materials and Equipment to be Purchased with Funds of the
ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY

This checklist contains the prerequisites for DCM's approval of the use of ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY (PSCA) bond issue funds for the purchase of materials and equipment. The prerequisites assure conformance with PSCA requirements, competitive bid laws, DCM recording methods, and distribution requirements. The authority submitting invoices for payment with PSCA funds should utilize this checklist when preparing invoices for submittal to assure prompt approval and processing.

☐	1.	Materials and/or equipment are to be for capital improvements only (not maintenance, etc.)
☐	2.	Two originals of the invoice are to be submitted. Faxed and emailed copies are not acceptable.
☐	3.	The two invoices must be certified as being "True, correct and unpaid." The vendor's signature must be **Notarized**.
☐	4.	Material Receipt DCM form 9 – I is no longer required. Instead, the following statement must be included on each invoice and signed by the Owner. Agencies can use a certification stamp or affix a printed label to the invoices. **"I hereby certify that the article(s) and or service(s) listed on this document were received on _____ in the proper condition, are the kind and quantity ordered and appropriate purchasing policy and purchasing procedures were followed.** **Received by:**_____ **Date:**_____**"**
☐	5.	A "Certificate of Compliance" with Competitive Bid Law must be attached to each invoice. DCM Form 9-H, Certificate of Compliance, Title 41: Public Contracts, is to be used for this purpose.
☐	6.	Each "Certificate of Compliance" must bear the original signature of the president, director or superintendent of the school or institution. This signature must be **Notarized**.
☐	7.	The following statement is to be included via Memorandum on the school or institution letterhead. The president, director or superintendent must sign the memorandum. **To:** **Any/All Interested Parties** **From:** **(*Insert name of President, Director or Superintendent)*** **Subject:** **Immigration Requirements** **Date:** **(*Insert Date)*** **The undersigned hereby certifies that the transaction under which this payment is requested is subject to the requirements of §31-13-9(a) and (b), Code of Alabama, 1975, as amended, and the proper documentation is on file in the agency. If you have questions, please call (*insert school or institution telephone number*).**
☐	8.	A copy of the purchase order issued to the Vendor must be attached to each invoice.

Alabama Department of Finance
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, Alabama 36104
(334) 242-4082 FAX (334) 242-4182

DCM Form 9-H
Revised August 2020

CERTIFICATION OF COMPLIANCE
TITLE 41: PUBLIC CONTRACTS

I hereby certify that the contract for the Equipment or Materials covered by the attached invoice was awarded in accordance with Competitive Bid Law applying to the School Board or Institution noted below.

DCM (BC)# _____ City of Anniston
City - County - Institution

PSCA# _____ By _____
Signature of Officer & Title

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

_____
Notary Public Signature

Seal

INSTRUCTIONS: This certification must be signed by the president, director, or superintendent of the school or institution, notarized, and attached to each copy of each invoice for equipment or materials being submitted to Alabama Division of Construction Management for approval to pay the invoice from funds of the ALABAMA PUBLIC SCHOOL AND COLLEGE AUTHORITY. The certificate attached to each copy of an invoice must bear original signatures.

Do not staple this form and/or attachments; use clips. Print single-sided; do not submit double-side printed documents.

DCM Form 9-J, Revised November 2020;
PSCA version of DCM Form C-12;
A Change Order is not valid without an accompanying completed Change Order Justification (DCM Form B-11).

CONTRACT CHANGE ORDER

Change Order No. _____ **Date** _____

DCM (BC) # _____ *(required)*

PSCA # _____ *(required)*

TO: Contractor Company Name & Address:	**PROJECT:** Glenn Addie Community Center Slope Stabilization

TERMS: You are hereby authorized, subject to the provisions of your Contract for this project, to make the following changes thereto in accordance with your proposal(s) dated _____

_____.

FURNISH the necessary labor, materials, and equipment to (*Description of work to be done or changes to be made. If the description is continued in an attachment, identify the attachment below.*):

Description continued from Page 1:

ORIGINAL CONTRACT SUM $ _____

NET TOTAL OF PREVIOUS CHANGE ORDERS $ _____

PREVIOUS REVISED CONTRACT SUM $ _____

THIS CHANGE ORDER WILL ☐ **INCREASE** ☐ **DECREASE**
THE CONTRACT SUM BY $ _____

REVISED CONTRACT SUM, INCLUDING THIS CHANGE ORDER $ _____

EXTENSION OF TIME resulting from this Change Order: ☐ None *or* _____ Calendar days

The amount of this Change Order will be the responsibility of _____
(*Owner and/or PSCA*)

The Owner does hereby certify that this Change Order was executed per the provisions of Title 39, Code of Alabama, 1975, as amended.

MBA Engineers
Architectural/Engineering Firm

Recommended By _____

Name & Title _____

APPROVALS

**ALABAMA DEPARTMENT OF FINANACE,
REAL PROPERTY MANAGEMENT
DIVISION OF CONSTRUCTION MANAGEMENT (DCM)**

By _____
Director

Reviewed By _____
Contract Administrator

For DCM office use only:

_____ PSCA funds are available to fund this change order.

_____ PSCA funds will not be used to fund this change order.

CONTRACTING PARTIES

_____
Contractor Company

By _____

Name & Title _____

_____
Local Owner Entity

By _____

Name & Title _____

ALABAMA PUBLIC SCHOOL & COLLEGE AUTHORITY

By _____ Date: _____
Governor and President of Authority

CONSENT OF SURETY

_____
Surety Company

By _____
(Attach current Power of Attorney)

Name & Title _____

Review/Signature flow: Architect/Engineer (prepare documents) > Contractor (review and sign) (> Surety for additive $ change orders only [sign]) > Architect/Engineer (review and sign) > Local Owner (review and sign) > DCM (review and sign) > Finance-Legal > Governor (review and sign) > DCM (distribute fully executed Change Order to all parties).

DCM Form B-11
Revised August 2020

TO: **Alabama Department of Finance**
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, Alabama 36104
(334) 242-4082 FAX (334) 242-4182

CHANGE ORDER JUSTIFICATION

Change Order No. _____
Date: _____
DCM (BC) No. _____

Purpose and instructions on next page.
Do not staple this form and/or attachments; use clips.

(A)

PROJECT NAME & LOCATION:	OWNER ENTITY NAME & ADDRESS:
Glen Addie Community Center Slope Stabilization 426 Mulberry Ave, Anniston, AL 36021	City of Anniston 4309 McClellan Blvd, Anniston, AL 36206
CONTRACTOR COMPANY NAME & ADDRESS:	ARCHITECTURAL / ENGINEERING FIRM NAME & ADDRESS: MBA Engineers, Inc. 300 20th Street North, Suite 100 Birmingham, AL 35203

(B) **DESCRIPTION OF PROPOSED CHANGE(S):** **ATTACH CONTRACTOR'S DETAILED COST PROPOSAL(s)**

AMOUNT: ☐ **ADD** ☐ **DEDUCT $**_____ **TIME EXTENSION:** _____ **CALENDAR DAYS**

(C)

ORIGINAL CONTRACT AMOUNT	PREVIOUS C.O.'s _____ THRU _____		CONTRACT AMOUNT PRIOR TO PROPOSED CHANGE ORDER
$_____	+ $_____	=	$_____

(D) **JUSTIFICATION FOR NEED OF CHANGE(S):**

(E) **JUSTIFICATION OF CHANGE ORDER vs. COMPETITIVE BID:**

(F) **ARCHITECT / ENGINEER'S EVALUATION OF PROPOSED COST:**

(G)

CHANGE ORDER RECOMMENDED	CHANGE ORDER JUSTIFIED AND APPROVED
_____ ARCHITECTURAL / ENGINEERING FIRM NAME	_____ LOCAL OWNER ENTITY NAME
By: _____ ARCHITECT / ENGINEER'S SIGNATURE	By: _____ OWNER'S SIGNATURE
By: _____ OWNER'S PROJECT REPRESENTATIVE'S SIGNATURE	By: _____ OWNER'S LEGAL COUNSEL'S SIGNATURE

CHANGE ORDER JUSTIFICATION: PURPOSE and INSTRUCTIONS

PURPOSE

The awarding of work through an existing contract may potentially conflict with, or violate, the "Competitive Bid Laws" of the State of Alabama. **The determination of legality of Change Orders rests with the Awarding Authority and its legal advisor.** In a June 15, 1979, Opinion, the Office of the Attorney General offered guidelines for making such determinations in conjunction with considering the facts and merits of each situation. The purpose of the CHANGE ORDER JUSTIFICATION is to provide a means through which the Awarding Authority considers these guidelines and the intent of the "Competitive Bid Laws" when authorizing Change Orders. Pursuant to these guidelines, the following types of changes meet the criteria for awarding work through Change Orders in lieu of through the Competitive Bid process:

I. Minor Changes for a monetary value less than required for competitive bidding.

II. Changes for matters relatively minor and incidental to the original contract necessitated by unforeseeable circumstances arising during the course of the work.

III. Emergencies arising during the course of the work of the contract.

IV. Bid alternates provided for in the original bidding where there is no difference in price of the change order from the original best bid on the alternate.

V. Changes of relatively minor items not contemplated when the plans and specifications were prepared and the project was bid which are in the public interest and which do not exceed 10% of the contract price.

Under these guidelines the cumulative total of Change Orders, including any negotiations to bring the original contract price within the funds available, would become questionable if the total of such changes and negotiations exceed 10% of the original contract price. These guidelines are not intended to interfere with the Awarding Authority's good faith discretion to respond to specific situations in the public's best interest. If the cumulative change order amount exceeds 10% of the original contract amount then the Owner's legal consultant must sign the Change Order Justification prior to submission to the Division of Construction Management (DCM).

INSTRUCTIONS

The CHANGE ORDER JUSTIFICATION is to be prepared by the design professional, who has evaluated the fairness and reasonableness of the proposed cost of the change(s) and recommends that the proposed Change Order be executed. The fully executed Form B-11: CHANGE ORDER JUSTIFICATION must accompany the proposed DCM Form C-12: Change Order. Instructions for completing the B-11 form are:

1. Insert the proposed Change Order Number, date of the Justification, and DCM (BC) Project Number in the spaces provided in the upper right-hand corner.

2. **Section (A):** Insert the complete name and address of the PROJECT, OWNER, CONTRACTOR, AND ARCHITECT/ENGINEER.

3. **Section (B)**: Provide a complete description of the proposed changes in work, referring to and attaching revised specifications and/or drawings as appropriate. An attachment may be used if additional space is needed, but insert the proposed amount and time extension of the change(s) in the spaces provided. **Attached a copy of the contractor's detailed cost proposal.**

4. **Section (C)**: Insert the Original Contract amount, the net increase or decrease of previous Change Orders, and the Current Contract amount (preceding the currently proposed Change Order).

5. **Section (D):** Explain why it is necessary, or in the public's interest, to make the proposed change(s) to the Work.

6. **Section (E)**: Explain why award of the changed work to the existing contractor instead of awarding the work under the competitive bid process is justified.

7. **Section (F)**: The design professional must state his evaluation of the reasonableness and fairness of the proposed costs based upon his review of the contractor's proposal.

8. **Section (G)**: The design professional must recommend the Change Order to the Owner by signing the document; the Owner may require such recommendation from other individuals. The Owner must sign the document indicating that they believe change order action in lieu of the competitive bid process is justified for the proposed change(s). **Review of the matter and signing of the document by the Owner's legal counsel is highly recommended. If the cumulative change order amount exceeds 10% of the original contract amount then the Owner's legal consultant must sign the Change Order Justification prior to submission to DCM.**

Alabama Department of Finance
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, Alabama 36104
(334) 242-4082 FAX (334) 242-4182

DCM Form B-12
Revised July 2020

CHANGE ORDER CHECKLIST

For use with DCM Form C-12 and DCM Form 9-J

WHICH FORM DO YOU USE?

Use **DCM Form C-12** for contracts of state agencies and departments, ACCS & SDE.
Use **DCM Form 9-J** for contracts of projects partially or fully Public School and College Authority (PSCA)-funded.
Include a completed **DCM Form B-11:** Change Order Justification with either DCM Forms C-12 or 9-J.

Verify that the following information is inserted in the spaces provided on the CONTRACT CHANGE ORDER form, or attached to the form where attachments are noted to be acceptable or obviously necessary. Do not staple forms; use clips.

1.	**CHANGE ORDER NUMBER:** Insert current change order number.
2.	**DATE:** Insert date.
3.	**DCM (BC) PROJECT NUMBER:** Insert DCM Project Number in the block provided at top of document.
4.	**CONTRACTOR** Insert name and address of the Contractor, exactly as they appear on the Construction Contract.
5.	**NAME OF PROJECT:** Under "Project", insert the complete name of the project as identified in the bid documents. If using DCM Form 9-J, insert the PSCA Project Number in the space provided.
6.	**CONTRACTOR'S PROPOSALS:** Under "TERMS", identify the change order proposals submitted by the contractor that are being addressed by the Contract Change Order. Identify these proposals by inserting their dates.
7.	**DESCRIPTION OF THE CHANGE(S) IN WORK:** Fully describe the change or changes to the original contract work for which the Construction Contract is being modified. This description should be written so that a reader of the document who is not directly involved in the project can understand what is being changed. If the space provided on the form is inadequate for such a description, use attachments and cite them.
8.	**CONTRACT AND CHANGE ORDER AMOUNTS:** Insert the applicable dollar amounts to record the original contract sum, change orders, and the currently revised contract sum.
9.	**EXTENSION OF TIME:** If the Contract Time is being extended by the Contract Change Order, insert appropriate number of **calendar days** in the space provided. If the Contract Time is not being extended, insert "NONE".
10.	**RESPONSIBILITY FOR CHANGE ORDER FUNDING - DCM Form 9-J ONLY:** The authority responsible for funding the change order is to be identified in the following sentence in the form,: "The amount of this Change Order will be the responsibility of _____." Insert whichever is appropriate: (1) "PSCA", (2) name of LEA, or (3) "PSCA" and name of LEA.
11.	**SIGNATURES:** The signature spaces for State Agency, PSCA and fully locally-funded Alabama Community College System projects are different from each other. Download the appropriate document per Owner/project type from www.dcm.alabama.gov/forms.aspx. Before submitting a Contract Change Order to DCM, the document must be signed by the contractor, surety (for additive change orders only), design professional and owner (local owner or using agency). Signature by the surety is not necessary on deductive change orders or change orders involving only extensions of time. If the cumulative change order amount exceeds 10% of the original contract amount then the Owner's legal consultant must sign DCM Form B-11: Change Order Justification.
12.	**ATTACHMENTS:** To each copy of the Contract Change Order form, attach with clips (do not staple): a. Contractor's change order proposals and/or invoices providing a detailed breakdown of change order costs. General Contractors (GC) must include subcontractors' (sub) quotes as backup. All GC and sub quotes must be broken down by labor (hours and rates), materials including quantities and unit prices (with receipts or quotes attached), equipment whether rented or owned (with receipts or quotes attached), and Overhead & Profit (OH&P). 1. Total OH&P can be a maximum of 25% divided between GC and subs; GC can have a maximum of 15% OH&P (in which case a sub could have up to 10% OH&P). See General Conditions- Article #19. 2. Sales tax cannot be included in change orders. 3. Deductive change orders also require backup including breakdown of labor and material, and must also deduct OH&P if included in original bid. Include specification section regarding allowances. b. **POWER OF ATTORNEY** for the individual signing the Contract Change Order for the surety. c. **DCM Form B-11, CHANGE ORDER JUSTIFICATION:** completed and signed by the design professional and owner.

DCM Form C-13
Revised August 2020

TO: **Alabama Department of Finance**
Real Property Management
Division of Construction Management
770 Washington Avenue, Suite 444
Montgomery, AL 36130-1150
(334) 242-4082 FAX (334) 242-4182

CERTIFICATE OF SUBSTANTIAL COMPLETION

Do not staple this form and/or attachments; use clips.
Print single-sided; do not submit double-side printed documents.

ROUTING PROCEDURES *ON NEXT PAGE*

DCM (BC) No. _____

OWNER ENTITY NAME AND ADDRESS:	**ARCHITECTURAL / ENGINEERING FIRM NAME AND ADDRESS:**
City of Anniston 4309 McClellan Blvd, Anniston, AL 36206 Email to receive executed copy: _____	MBA Engineers, Inc. 300 20th Street North, Suite 100 Birmingham, AL 35203 Email to receive executed copy: tcallison@mbasei.com
CONTRACTOR COMPANY NAME AND ADDRESS:	**BONDING COMPANY NAME AND ADDRESS:**
Email to receive executed copy: _____	Email to receive executed copy: _____

PROJECT:
Demolition Package: Glenn Addie Community Center Slope Stabilization

Substantial Completion has been achieved for ☐ the entire Work ☐ the following portion of the Work:

_____

_____.

The **Date of Substantial Completion** of the Work covered by this certificate is established to be _____.

"Substantial Completion" means the designated Work is sufficiently complete, in accordance with the Contract Documents, such that the Owner may occupy or utilize the Work for its intended use without disruption or interference by the Contractor in completing or correcting any remaining unfinished Work. The Date of Substantial Completion is the date upon which all warranties for the designated Work commence, unless otherwise agreed and recorded herein.

Punch List: A _____ page list of items to be completed or corrected prior to the Owner's approval of Final Payment is attached hereto, but does not alter the Contractor's responsibility to complete or correct all Work in full compliance with the Contract Documents. The Contractor shall complete or correct all items on the attached list, ready for re-inspection for Final Acceptance, within 30 days after the above Date of Substantial Completion, unless another date is stated here: _____.
If completed or corrected within this period, warranties of these items commence on the Date of Substantial Completion, otherwise such warranties commence on the date of Final Acceptance of each item.

Only <u>one</u> (1) originally executed substantial completion form shall be routed for signature. DCM office will mail the fully-executed original to the Owner and email copies to all parties.

RECOMMENDED BY *(signature and email address required)*:	
ARCHITECT/ENGINEER: _____	DATE: _____
CONTRACTING PARTIES:	
CONTRACTOR: _____	DATE: _____
OWNER: _____	DATE: _____
_____	DATE: _____
APPROVALS:	
DCM INSPECTOR: _____	DATE: _____
DCM CHIEF INSPECTOR: _____	DATE: _____
DCM DIRECTOR: _____	DATE: _____

CERTIFICATE OF SUBSTANTIAL COMPLETION ROUTING PROCEDURE

Only one (1) originally executed substantial completion form shall be routed for signature. DCM office will mail the fully-executed original to the owner and email copies to all parties.

ARCHITECT/ENGINEER: Sign and date document, then mail it to Contractor. Provide Owner with DCM Inspector's name & field office address; territories and addresses are available at www.dcm.alabama.gov/staff.aspx.

CONTRACTOR: Sign and date document, then mail it to Owner.

OWNER: Sign and date document, then mail it to DCM Inspector's field office address; DCM Inspector territories and addresses are available at www.dcm.alabama.gov/staff.aspx.

DCM INSPECTOR: Sign and date document, then mail it to DCM Montgomery office.

DCM OFFICE: After review and signature/date by DCM Chief Inspector and DCM Director, DCM office will mail the fully-executed original document to Owner and will email copies to all parties.

NOTICE

THE EXECUTED "GENERAL CONTRACTOR'S ROOFING GUARANTEE" (DCM Form C-9) AND ANY OTHER ROOFING WARRANTY REQUIRED BY THE CONTRACT MUST ACCOMPANY THIS CERTIFICATE TO OBTAIN DCM APPROVAL.

FINAL PAYMENT CHECKLIST (FPC)

To be completed by the Architect/Engineer and submitted to DCM for review; applicable only to state agencies, partially or fully PSCA-funded and other bond-funded projects. Four copies of the FPC are required. Each copy of the FPC shall include all attachments including the Contractor's Application for Final Payment.

(For further guidance refer to Article 34/Final Payment of DCM Form C-8: General Conditions of the Contract.)

PROJECT: Glen Addie Community Center Slope Stabilization	**DCM (BC) No.** _____ **PSCA No.** _____ (If applicable)

YES	N/A	Select "YES" or "N/A" as applicable.
☐	☐	Application and Certificate for Final Payment, DCM Form C-10: Attach one copy to FPC. The application must include original signatures of all parties and include all application attachments.
☐		Certificate of Substantial Completion, DCM Form C-13: Attach one fully-executed copy to FPC.
☐		Advertisement for Completion, DCM Form C-14: Attach one copy of the affidavit of publication (including the advertisement) to the FPC.
☐	☐	Contractor's Affidavit of Payment of Debts & Claims, DCM Form C-18: Attach one copy to FPC.
☐	☐	Contractor's Affidavit of Release of Liens, if required by Owner, DCM Form C-19: Attach one copy to the FPC.
☐	☐	Consent of Surety to Final Payment, if any, To Contractor, DCM Form C-20: Consent is required for projects with P&P Bonds. Original has been delivered to Owner. Attach one copy to FPC.
☐	☐	General Contractor's Roofing Guarantee, DCM Form C-9, and Other Specified Roofing Guarantees, if any: Attached to Certificate of Substantial Completion.
☐	☐	Contractor's One-Year Warranty: Original has been delivered to the Owner. Attach one copy to the FPC.
☐	☐	Other Warranties: All other specified original warranties has been delivered to the Owner. Attach one copy to the FPC.
☐	☐	Record Documents: Specified "As-built" plans and specifications have been delivered to the Owner.
☐		O & M Manuals: Specified instructions and O&M Manuals have been delivered to the Owner.
☐	☐	Time Extension: Over-run of Contract Time has been reconciled by: ☐ Change Order ☐ Liquidated Damages ☐ Attached explanation
☐	☐	Additional Documents or Explanations which are attached:

Submitted By:

MBA Engineers, Inc.
Architectural / Engineering Firm

Signature	Tom Callison, Civil Engineer Principal	18 May 2022
	Printed Name and Title	Date

Final Reconciliation of Fees: Between the final change order execution and the year-end inspection, report the final project cost to https://appengine.egov.com/apps/al/dcm-fees (back-up is not needed unless requested by DCM). DCM will then email a Final Reconciliation of Fees Statement to the Owner. If the Final Statement shows a net payment is owed to DCM, that amount must be paid prior to scheduling the year-end inspection. If the Final Statement shows a net refund is owed then a check will be mailed to the Owner.

ALABAMA DEPARTMENT OF FINANCE
CONSTRUCTION MANAGEMENT DIVISION
ADMINISTRATIVE CODE

CHAPTER 355-16-1
COLLECTION OF USER FEES

TABLE OF CONTENTS

ED NOTE: THE RULES OF THE BUILDING COMMISSION, CHAPTER 170-X-8, WERE TRANSFERRED TO THE DEPARTMENT OF FINANCE PURSUANT TO ACT 2015-435.

355-16-1-.01 Applicability. The following procedures and user fees are applicable to new construction, additions, or alteration projects for buildings under the jurisdiction of the Alabama Division of Construction Management as defined by the Code of Ala. 1975, Title 41, Section 41-9-162 and authorized by Section 41-4-400(a)(7).
Author: Frank Barnes
Statutory Authority: Code of Ala. 1975, §41-4-400(a)(7).
History: New Rule: Filed October 27, 1994; effective December 1, 1994. **Repealed:** Filed October 12, 1995; effective November 16, 1995. **New Rule:** Filed August 7, 2014; effective September 11, 2014. **Amended:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.02 Calculation Of Basic Plan Review And Permit Fees.

Construction Cost	Basic Plan Review Fee	Basic Permit Fee
Less than $1000	No fee.	No fee, unless inspection required, in which case a $15.00 fee for each inspection shall be charged.
$1,001 to $50,000	One-half of the permit fee which is $15.00 for the first $1,000.00 plus $5.00 for each additional thousand or fraction thereof, to and including $50,000.00.	$15.00 for the first $1,000.00 plus $5.00 for each additional thousand or fraction thereof, to and including $50,000.00.
$50,001 to $100,000	One-half of the permit fee which is $260.00 for the first $50,000.00 plus $4.00 or each additional thousand or fraction thereof, to and including $100,000.00.	$260.00 for the first $50,000.00 plus $4.00 or each additional thousand or fraction thereof, to and including $100,000.00.
$100,001 to $500,000	One-half of the permit fee which is $460.00 for the first $100,000.00 plus $3.00 for each additional thousand or fraction thereof, to and including $500,000.00.	$460.00 for the first $100,000.00 plus $3.00 for each additional thousand or fraction thereof, to and including $500,000.00.
$500,001 and up	One-half of the permit fee which is $1,660.00 for the first $500,000.00 plus $2.00 for each additional thousand or fraction thereof.	$1,660.00 for the first $500,000.00 plus $2.00 for each additional thousand or fraction thereof.

Construction Cost: Construction Cost shall include the cost of the actual building construction, addition, or alteration work, including sitework.
Authors: Katherine Lynn, Frank Barnes
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8).
History: New Rule: Filed October 27, 1994; effective December 1, 1994. **Repealed:** Filed October 12, 1995; effective November 16, 1995. **New Rule:** Filed August 7, 2014; effective September 11, 2014. **Amended:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.03 Fees Required.

(1) The Basic Plan Review Fee, the Basic Permit Fee, and the Basic Contract Document Administration Fee are subject to the Final Reconciliation at the close of construction as described in Rule 355-16-1-.05.

(2) Basic Plan Review Fee: This fee includes review of Schematic, Preliminary, Final, and one revised Final Plan Submittal.

(a) If the first submittal of a new project is for a schematic or preliminary review, it shall be accompanied by ½ of the Basic Plan Review Fee not to exceed $500. Submittals sent in without this fee will not be reviewed until payment is received.

(b) The final submittal of each project shall be accompanied by a payment for the balance of the Basic Plan Review Fee. Submittals sent in without this final submittal fee will not be reviewed until payment is received.

(c) Written final plan review comments must be sent by the Division of Construction Management to the architect within 30 calendar days of receipt of the submittal. If the submittal is not reviewed within this time limitation, the balance of the Basic Plan Review Fee is waived.

(3) Basic Permit Fee: This fee shall include the following required major building inspections: Pre-Construction Conference, Pre-Roofing Conference, Above-Ceiling Inspection, Final Inspection, and Year-End Inspection. Additional required inspections such as fire alarm inspections, kitchen hood inspections, elevator inspections, and other such inspections shall be included as part of the Basic Permit Fee.

(a) The Basic Permit Fee is due upon approval or receipt of the Construction Contract. The Pre-Construction Conference will not be performed prior to receipt of the Basic Permit Fee.

(4) Basic Contract Document Administration Fee: The Basic Contract Document Administration Fee applies to contracts that are administered by the Division of Construction Management. The fee covers review of the Owner/Architect Agreement and Construction Contract along with related amendments, change orders, service invoices, and pay requests.

(a) Payment must be received before the associated contract is fully executed. The total fee is ½% of the Construction Cost and it is paid in the following 2 parts:

(i) ¼% of the Project Budget for the Owner/Architect Agreement

(ii) ¼% of the Construction Cost for the Construction Contract.

(5) Additional Fees:

(a) If more than one revised Final Plan Submittal is required, an additional fee shall be required for each additional revised submittal. This additional fee shall be equal to the lesser of the following: 15% of the Basic Plan Review Fee or $2000. The time restrictions and conditions which apply to routine submittals shall apply to additional submittals.

(b) If the contractor schedules an inspection and it is determined by the Division of Construction Management Inspector on site that the contractor has not met required benchmarks or the inspection is cancelled without 48-hours' notice, the Division of Construction Management shall require an additional fee of $1500. This additional inspection fee shall be applied to each additional inspection that is required to be rescheduled.

(c) Changes to plans for rebid or a significant revision in the scope of work may incur an additional fee, up to the amount of the Basic Plan Review Fee, based on the reviewers' evaluation of the extent of the changes reviewed.

(d) Projects owned and locally funded by municipality and county governments must be submitted for a review for compliance with the current ADA Standards for Accessible Design. The additional fee for this service is 50% of the Basic Plan Review Fee, with a maximum of $500.00. If more than one revised Final Plan Submittal is required, the fee for each additional review will be 15% of the Basic Plan Review Fee.

(e) In addition to the Schematic, Preliminary, and Final Review Submittals, the Owner may request an optional 65% Intermediate Review to include all systems of the project at a point that is less than 100% complete. The additional fee for this review will be 65% of the Basic Plan Review Fee.

(f) The Basic Contract Document Administration Fee includes review of the original submitted document and one revision. When more than one revision is required, an additional fee of $200 will be charged to the design professional for each additional document submittal until the document is executed.
Author: Frank Barnes
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8).
History: **New Rule:** Filed October 27, 1994; effective December 1, 1994. **Repealed:** Filed October 12, 1995; effective November 16, 1995. **New Rule:** Filed August 7, 2014; effective September 11, 2014. **Amended:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.04 Payment Of Fees.

(1) The balance of the Basic Plan Review Fee payment shall be accompanied by the "Plan Review Fee Worksheet" and a copy of the architect's latest estimated Construction Cost. The cost estimate shall be the basis for calculating the estimated Basic Plan Review Fee on the fee worksheet.

(2) The Basic Permit Fee payment shall be accompanied by the completed "Permit Fee Worksheet" and a copy of the executed Construction Contract. The Construction Contract shall be the basis for calculating the total fee on the fee worksheet.

(3) Fee payments are nonrefundable to the extent that work has been performed by the Division of Construction Management.

(4) Fee payments shall be paid by either (i) check or money order made payable to "Alabama Department of Finance-Division of Construction Management," (ii) by an electronic means accepted by the Division of Construction Management, or (iii) an inter-agency transfer. Fees are deemed paid when the funds represented by the payment method are received by or made available to the Division of Construction Management.

(5) Check or money order payments shall be received only at the Division of Construction Management's office in Montgomery.
Authors: Katherine Lynn, Frank Barnes
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8).

History: New Rule: Filed October 27, 1994; effective December 1, 1994. **Repealed:** Filed October 12, 1995; effective November 16, 1995. **New Rule:** Filed August 7, 2014; effective September 11, 2014. **Amended:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.05 Final Reconciliation Of Fees.

(1) Final Reconciliation: The Basic Plan Review Fee, the Basic Permit Fee, and the Basic Contract Document Administration Fee are paid based on the best estimate of the Construction Cost at the time each fee is due. When construction is complete, a Final Reconciliation will recalculate each of these fees using the actual Construction Cost. The Final Reconciliation will determine the amount due from or refunded to the Owner. The Owner has the final responsibility for payment of all fees.

(2) The actual Construction Cost for the final Basic Plan Review Fee shall be adjusted to include the lowest bid on any additive unawarded alternates from the bid tab. The actual Construction Cost for the final Basic Permit Fee and the final Basic Contract Document Administration Fee shall be adjusted for any change orders and for any sales-tax credit received by the Owner.

Author: Katherine Lynn
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8).
History: New Rule: Filed October 27, 1994; effective December 1, 1994. **Repealed:** Filed October 12, 1995; effective November 16, 1995. **New Rule:** Filed August 7, 2014; effective September 11, 2014. **Repealed and New Rule:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.06 Penalties. Where work, for which Division of Construction Management approval is required, is started or proceeds prior to obtaining said approval, the fees herein specified shall be doubled. The payment of such double fee shall not relieve any persons from fully complying with the requirements of the Division of Construction Management in the execution of the work nor from any other penalties prescribed herein.

Author: Frank Barnes
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8).

History: New Rule: Filed August 7, 2014; effective September 11, 2014. **Amended:** Published November 29, 2019; effective January 13, 2020.

355-16-1-.07 Contract Document Administration Fees. (REPEALED)
Author: Katherine Lynn
Statutory Authority: Code of Ala. 1975, §41-9-141(a)(8.
History: New Rule: Filed August 7, 2014; effective September 11, 2014. **Repealed:** Published November 29, 2019; effective January 13, 2020.

Revised August 2020

ALABAMA DEPARTMENT OF FINANCE
REAL PROPERTY MANAGEMENT
Division of Construction Management

www.dcm.alabama.gov, 334-242-4082, inspections@realproperty.alabama.gov

Department Use Only
Invoice # _____
Date Paid _____
Confirmation # _____

PERMIT FEE & PERMIT RE-INSPECTION FEE CALCULATON WORKSHEET

DCM (BC) # _____ Date _____

Project Name; Owner/Architect/Engineer Project # & Phase/Package # _____

Glenn Addie Community Center Slope Stabilization

Owner Entity Name City of Anniston

Architect/Engineer Firm Name MBA Engineers, Inc.

Contractor Company Name _____

Awarded Contract Sum _____

Select ONE of the following: ☑ Basic Permit Fee ☐ Permit Re-Inspection Fee

Email address(es) for Payment Receipt:

_____

BASIC PERMIT FEE CALCULATION:

Awarded Contract Sum is less than $1,000 N/A

Awarded Contract Sum is $1,001 - $50,000

Contract Sum less $1,000= _____/1,000 x $5.00=_____+$15.00=_____

Awarded Contract Sum is $50,001 - $100,000

Contract Sum less $50,000= _____/1,000 x $4.00=_____+$260.00=_____

Awarded Contract Sum is $100,001 - $500,000

Contract Sum less $100,000= _____/1,000 x $3.00=_____+$460.00=_____

Awarded Contract Sum is $500,001 and up

Contract Sum less $500,000= _____/1,000 x $2.00=_____+$1,660.00=_____

PERMIT RE-INSPECTION FEE:

Flat fee of $1,500.00 per occurrence

TOTAL DUE: _____

Basic Permit Fee: Covers all required inspections by the DCM Inspector during construction. This fee is due when a construction contract or self-performance letter is received by DCM and must be paid before the required Pre-Construction Conference is scheduled with the DCM Inspector.

Permit Re-Inspection Fee: May be charged if (A) the contractor has not completed the work required for the particular inspection as detailed in DCM Form B-8: Pre-Construction Conference Checklist, or (B) the inspection is canceled or rescheduled without the required minimum 48 hours notice to all parties.

Make check payable to: "Finance - Construction Management," include the DCM (BC) Project # on the check and attach the fee worksheet. Mail payment to: Finance - Construction Management, P.O. Box 301150, Montgomery, AL 36130-1150.

State agency inter-fund transfer and payments using Public School and College Authority (PSCA) funds: contact Jennie Jones at 334-242-4808 or jennie.jones@realproperty.alabama.gov.

Fees may be paid online at www.dcm.alabama.gov (in which case a completed fee worksheet is not required).

The Basic Permit Fee is subject to the Final Reconciliation of Fees at the close of construction.

SAMPLE FORM OF ADVERTISEMENT FOR COMPLETION

LEGAL NOTICE

In accordance with Chapter 1, Title 39, Code of Alabama, 1975, as amended, notice is hereby given

that _____,
(*Contractor Company Name*)
Contractor, has completed the Contract for ☐(Construction) ☐(Renovation) ☐(Alteration) ☐(Equipment) ☐(Improvement) of (*Name of Project*):

Glen Addie Community Center Slope Stabilization

426 Mulberry Avenue, Anniston, AL 36021

at _____

(*Insert location data in County or City*)
for the State of Alabama and the (County) (City) of Anniston, Owner(s), and have made request for final settlement of said Contract. All persons having any claim for labor, materials, or otherwise in connection with this project should immediately notify

MBA Engineers; Attention - Tom Callison; 300 20th Street North Suite 100, Birmingham AL 35203

Phone 205-323-6385; tcallison@mbasei.com

(*Architect / Engineer*)

_____
(Contractor)

_____
(Business Address)

NOTE: This notice must be run once a week for four successive weeks for projects exceeding $50,000.00. For projects of $50,000.00 or less, run one time only. A copy of the publisher's affidavit of publication (including a copy of the advertisement) shall be submitted by the Contractor to the Design Professional for inclusion with DCM Form B-13: Final Payment Checklist for state agencies, PSCA-funded and other bond-funded projects.

GENERAL CONDITIONS of the CONTRACT

CONTENTS

ARTICLE 1
DEFINITIONS

Whenever the following terms, or pronouns in place of them, are used in the Contract Documents, the intent and meaning shall be interpreted as follows:

A. ALABAMA DIVISION OF CONSTRUCTION MANAGEMENT: The Technical Staff of the Alabama Division of Construction Management.

B. ARCHITECT: The Architect is the person or entity lawfully licensed to practice architecture in the State of Alabama, who is under contract with the Owner as the primary design professional for the Project and identified as the Architect in the Construction Contract. The term "Architect" means the Architect or the Architect's authorized representative. If the employment of the Architect is terminated, the Owner shall employ a new Architect whose status under the Contract Documents shall be that of the former Architect. If the primary design professional for the Project is a Professional Engineer, the term "Engineer" shall be substituted for the term "Architect" wherever it appears in this document.

C. COMMISSION: The former Alabama Building Commission, for which the Alabama Division of Construction Management has been designated by the Legislature as its successor.

D. CONTRACT: The Contract is the embodiment of the Contract Documents. The Contract represents the entire and integrated agreement between the Owner and Contractor and supersedes any prior written or oral negotiations, representations or agreements that are not incorporated into the Contract Documents. The Contract may be amended only by a Contract Change Order or a Modification to the Construction Contract. The contractual relationship which the Contract creates between the Owner and the Contractor extends to no other persons or entities. The Contract consists of the following Contract Documents, including all additions, deletions, and modifications incorporated therein before the execution of the Construction Contract:

(1) Construction Contract
(2) Performance and Payment Bonds
(3) Conditions of the Contract (General, Supplemental, and other Conditions)
(4) Specifications
(5) Drawings
(6) Contract Change Orders
(7) Modifications to the Construction Contract (applicable to PSCA Projects)

E. CONTRACT SUM: The Contract Sum is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents. The term "Contract Sum" means the Contract Sum stated in the Construction Contract as may have been increased or decreased by Change Order(s) in accordance with the Contract Documents.

F. CONTRACT TIME: The Contract Time is the period of time in which the Contractor must achieve Substantial Completion of the Work. The date on which the Contract Time begins is specified in the written Notice To Proceed issued to the Contractor by the Owner or Director. The Date of Substantial Completion is the date established in accordance with Article 32. The term "Contract Time" means the Contract Time stated in the Construction Contract as may have been extended by Change Order(s) in accordance with the Contract Documents. The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

G. CONTRACTOR: The Contractor is the person or persons, firm, partnership, joint venture, association, corporation, cooperative, limited liability company, or other legal entity, identified as such in the Construction Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

H. DCM: The Alabama Division of Construction Management.

I. DCM PROJECT INSPECTOR: The member of the Technical Staff of the Alabama Division of Construction Management to whom the Project is assigned relative to executing the respective inspections and authorities described in Article 16, Inspection of the Work.

J. DEFECTIVE WORK: The term "Defective Work" shall apply to: **(1)** any product, material, system, equipment, or service, or its installation or performance, which does not conform to the requirements of the Contract Documents, **(2)** in-progress or completed Work the workmanship of which does not conform to the quality specified or, if not specified, to the quality produced by skilled workers performing work of a similar nature on similar projects in the state, **(3) s**ubstitutions and deviations not properly submitted and approved or otherwise authorized, **(4)** temporary

supports, structures, or construction which will not produce the results required by the Contract Documents, and **(5)** materials or equipment rendered unsuitable for incorporation into the Work due to improper storage or protection.

K. DIRECTOR: The Director of the Alabama Division of Construction Management.

L. DRAWINGS: The Drawings are the portions of the Contract Documents showing graphically the design, location, layout, and dimensions of the Work, in the form of plans, elevations, sections, details, schedules, and diagrams.

M. NOTICE TO PROCEED: A proceed order issued by the Owner or Director, as applicable, fixing the date on which the Contractor shall begin the prosecution of the Work, which is also the date on which the Contract Time shall begin.

N. OWNER: The Owner is the entity or entities identified as such in the Construction Contract and is referred to throughout the Contract Documents as if singular in number. The term "Owner" means the Owner or the Owner's authorized representative. The term "Owner" as used herein shall be synonymous with the term "Awarding Authority" as defined and used in Title 39 - Public Works, Code of Alabama, 1975, as amended.

O. THE PROJECT: The Project is the total construction of which the Work required by these Contract Documents may be the entirety or only a part with other portions to be constructed by the Owner or separate contractors.

P. PROJECT MANUAL: The Project Manual is the volume usually assembled for the Work which may include the Advertisement for Bids, Instructions to Bidders, sample forms, General Conditions of the Contract, Supplementary Conditions, and Specifications of the Work.

Q. SPECIFICATIONS: The Specifications are that portion of the Contract Documents which set forth in writing the standards of quality and performance of products, equipment, materials, systems, and services and workmanship required for acceptable performance of the Work.

R. SUBCONTRACTOR: A Subcontractor is a person or entity who is undertaking the performance of any part of the Work by virtue of a contract with the Contractor. The term "Subcontractor" means a Subcontractor or its authorized representatives.

S. THE WORK: The Work is the construction and services required by the Contract Documents and includes all labor, materials, supplies, equipment, and other items and services as are necessary to produce the required construction and to fulfill the Contractor's obligations under the Contract. The Work may constitute the entire Project or only a portion of it.

ARTICLE 2
INTENT and INTERPRETATION of the CONTRACT DOCUMENTS

A. INTENT

It is the intent of the Contract Documents that the Contractor shall properly execute and complete the Work described by the Contract Documents, and unless otherwise provided in the Contract, the

Contractor shall provide all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work, in full accordance with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

B. COMPLEMENTARY DOCUMENTS

The Contract Documents are complementary. If Work is required by one Contract Document, the Contractor shall perform the Work as if it were required by all of the Contract Documents. However, the Contractor shall be required to perform Work only to the extent that is consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

C. ORDER of PRECEDENCE

Should any discrepancy arise between the various elements of the Contract Documents, precedence shall be given to them in the following order unless to do so would contravene the apparent Intent of the Contract Documents stated in preceding Paragraph A:

(1) The Construction Contract.
(2) Addenda, with those of later date having precedence over those of earlier date.
(3) Supplementary Conditions (or other Conditions which modify the General Conditions of the Contract).
(4) General Conditions of the Contract.
(5) The Specifications.
(6) Details appearing on the Drawings; large scale details shall take precedence over smaller scale details.
(7) The Drawings; large scale drawings shall take precedence over smaller scale drawings.

D. ORGANIZATION

Except as may be specifically stated within the technical specifications, neither the organization of the Specifications into divisions, sections, or otherwise, nor any arrangement of the Drawings shall control how the Contractor subcontracts portions of the Work or assigns Work to any trade.

E. INTERPRETATION

(1) The Contract Documents shall be interpreted collectively, each part complementing the others and consistent with the Intent of the Contract Documents stated in preceding Paragraph A. Unless an item shown or described in the Contract Documents is specifically identified to be furnished or installed by the Owner or others or is identified as "Not In Contract" ("N.I.C."), the Contractor's obligation relative to that item shall be interpreted to include furnishing, assembling, installing, finishing, and/or connecting the item at the Contractor's expense to produce a product or system that is complete, appropriately tested, and in operative condition ready for use or subsequent construction or operation of the Owner or separate contractors. The omission of words or phases for brevity of the Contract Documents, the inadvertent omission of words or phrases, or obvious typographical or written errors shall not defeat such interpretation as long as it is reasonably inferable from the Contract Documents as a whole.

(2) Words or phrases used in the Contract Documents which have well-known technical or

construction industry meanings are to be interpreted consistent with such recognized meanings unless otherwise indicated.

(3) Except as noted otherwise, references to standard specifications or publications of associations, bureaus, or organizations shall mean the latest edition of the referenced standard specification or publication as of the date of the Advertisement for Bids.

(4) In the case of inconsistency between Drawings and Specifications or within either document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.

(5) Any portions of the Contract Documents written in longhand must be initialed by all parties..

(6) Any doubt as to the meaning of the Contract Documents or any obscurity as to the wording of them, shall be promptly submitted in writing to the Architect for written interpretation, explanation, or clarification.

F. SEVERABILITY.

The partial or complete invalidity of any one or more provision of this Contract shall not affect the validity or continuing force and effect of any other provision.

ARTICLE 3
CONTRACTOR'S REPRESENTATIONS

By executing the Construction Contract the Contractor represents to the Owner:

A. The Contractor has visited the site of the Work to become familiar with local conditions under which the Work is to be performed and to evaluate reasonably observable conditions as compared with requirements of the Contract Documents.

B. The Contractor shall use its best skill and attention to perform the Work in an expeditious manner consistent with the Contract Documents.

C. The Contractor is an independent contractor and in performance of the Contract remains and shall act as an independent contractor having no authority to represent or obligate the Owner in any manner unless authorized by the Owner in writing.

ARTICLE 4
DOCUMENTS FURNISHED to CONTRACTOR

Unless otherwise provided in the Contract Documents, twenty sets of Drawings and Project Manuals will be furnished to the Contractor by the Architect without charge. Other copies requested will be furnished at reproduction cost.

ARTICLE 5
OWNERSHIP of DRAWINGS

All original or duplicated Drawings, Specifications, and other documents prepared by the Architect, and furnished to the Contractor are the property of the Architect and are to be used solely for this Project and not to be used in any manner for other work. Upon completion of the Work, all copies of Drawings and Specifications, with the exception of the Contractor's record set, shall be returned or accounted for by the Contractor to the Architect, on request.

ARTICLE 6
SUPERVISION, SUPERINTENDENT, and EMPLOYEES

A. SUPERVISION and CONSTRUCTION METHODS

(1) The term "Construction Methods" means the construction means, methods, techniques, sequences, and procedures utilized by the Contractor in performing the Work. The Contractor is solely responsible for supervising and coordinating the performance of the Work, including the selection of Construction Methods, unless the Contract Documents give other specific instructions concerning these matters.

(2) The Contractor is solely and completely responsible for job site safety, including the protection of persons and property in accordance with Article 14.

(3) The Contractor shall be responsible to the Owner for acts and omissions of not only the Contractor and its agents and employees, but all persons and entities, and their agents and employees, who are performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

(4) The Contractor shall be responsible to inspect the in-progress and completed Work to verify its compliance with the Contract Documents and to insure that any element or portion of the Work upon which subsequent Work is to be applied or performed is in proper condition to receive the subsequent Work.

B. SUPERINTENDENT

(1) The Contractor shall employ and maintain a competent level of supervision for the performance of the Work at the Project site, including a superintendent who shall:

(a) have full authority to receive instructions from the Architect or Owner and to act on those instructions and **(b)** be present at the Project site at all times during which Work is being performed.

(2) Before beginning performance of the Work, the Contractor shall notify the Architect in writing of the name and qualifications of its proposed superintendent so that the Owner may review the individual's qualifications. If, for reasonable cause, the Owner refuses to approve the individual, or withdraws its approval after once giving it, the Contractor shall name a different superintendent for the Owner's review and approval. Any disapproved superintendent will not perform in that capacity thereafter at the Project site.

C. EMPLOYEES

The Contractor shall permit only fit and skilled persons to perform the Work. The Contractor shall enforce safety procedures, strict discipline, and good order among persons performing the Work. The Contractor will remove from its employment on the Project any person who deliberately or persistently produces non-conforming Work or who fails or refuses to conform to reasonable rules of personal conduct contained in the Contract Documents or implemented by the Owner and delivered to the Contractor in writing during the course of the Work.

ARTICLE 7
REVIEW of CONTRACT DOCUMENTS and FIELD CONDITIONS by CONTRACTOR

A. In order to facilitate assembly and installation of the Work in accordance with the Contract Documents, before starting each portion of the Work, the Contractor shall examine and compare the relevant Contract Documents, and compare them to relevant field measurements made by the Contractor and any conditions at the site affecting that portion of the Work.

B. If the Contractor discovers any errors, omissions, or inconsistencies in the Contract Documents, the Contractor shall promptly report them to the Architect as a written request for information that includes a detailed statement identifying the specific Drawings or Specifications that are in need of clarification and the error, omission, or inconsistency discovered in them.

(1) The Contractor shall not be expected to act as a licensed design professional and ascertain whether the Contract Documents comply with applicable laws, statutes, ordinances, building codes, and rules and regulations, but the Contractor shall be obligated to promptly notify the Architect of any such noncompliance discovered by or made known to the Contractor. If the Contractor performs Work without fulfilling this notification obligation, the Contractor shall pay the resulting costs and damages that would have been avoided by such notification.

(2) The Contractor shall not be liable to the Owner for errors, omissions, or inconsistencies that may exist in the Contract Documents, or between the Contract Documents and conditions at the site, unless the Contractor knowingly fails to report a discovered error, omission, or inconsistency to the Architect, in which case the Contractor shall pay the resulting costs and damages that would have been avoided by such notification.

C. If the Contractor considers the Architect's response to a request for information to constitute a change to the Contract Documents involving additional costs and/or time, the Contractor shall follow the procedures of Article 20, Claims for Extra Cost or Extra Work.

D. If, with undue frequency, the Contractor requests information that is obtainable through reasonable examination and comparison of the Contract Documents, site conditions, and previous correspondence, interpretations, or clarifications, the Contractor shall be liable to the Owner for reasonable charges from the Architect for the additional services required to review, research, and respond to such requests for information.

ARTICLE 8
SURVEYS by CONTRACTOR

A. The Contractor shall provide competent engineering services to assure accurate execution of the Work in accordance with the Contract Documents. The Contractor shall verify the figures given for the contours, approaches and locations shown on the Drawings before starting any Work and be responsible for the accuracy of the finished Work. Without extra cost to the Owner, the Contractor shall engage a licensed surveyor if necessary to verify boundary lines, keep within property lines, and shall be responsible for encroachments on rights or property of public or surrounding property owners.

B. The Contractor shall establish all base lines for the location of the principal components of the Work and make all detail surveys necessary for construction, including grade stakes, batter boards and other working points, lines and elevations. If the Work involves alteration of or addition to existing structures or improvements, the Contractor shall locate and measure elements of the existing conditions as is necessary to facilitate accurate fabrication, assembly, and installation of new Work in the relationship, alignment, and/or connection to the existing structure or improvement as is shown in the Contract Documents.

ARTICLE 9
SUBMITTALS

A. Where required by the Contract Documents, the Contractor shall submit shop drawings, product data, samples and other information (hereinafter referred to as Submittals) to the Architect for the purpose of demonstrating the way by which the Contractor proposes to conform to the requirements of the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect without action.

B. The Contractor shall be responsible to the Owner for the accuracy of its Submittals and the conformity of its submitted information to the requirements of the Contract Documents. Each Submittal shall bear the Contractor's approval, evidencing that the Contractor has reviewed and found the information to be in compliance with the requirements of the Contract Documents. Submittals which are not marked as reviewed and approved by the Contractor may be returned by the Architect without action.

C. The Contractor shall prepare and deliver its submittals to the Architect sufficiently in advance of construction requirements and in a sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. In coordinating the Submittal process with its construction schedule, the Contractor shall allow sufficient time to permit adequate review by the Architect.

D. By approving a Submittal the Contractor represents not only that the element of Work presented in the Submittal complies with the requirements of the Contract Documents, but also that the Contractor has:

(1) found the layout and/or dimensions in the Submittal to be comparable with those in the Contract Documents and other relevant Submittals and has made field measurements as necessary to verify their accuracy, and
(2) determined that products, materials, systems, equipment and/or procedures presented in the Submittal are compatible with those presented, or being presented, in other relevant Submittals and

with the Contractor's intended Construction Methods.

E. The Contractor shall not fabricate or perform any portion of the Work for which the Contract Documents require Submittals until the respective Submittals have been approved by the Architect.

F. In the case of a resubmission, the Contractor shall direct specific attention to all revisions in a Submittal. The Architect's approval of a resubmission shall not apply to any revisions that were not brought to the Architect's attention.

G. If the Contract Documents specify that a Submittal is to be prepared and sealed by a registered architect or licensed engineer retained by the Contractor, all drawings, calculations, specifications, and certifications of the Submittal shall bear the Alabama seal of registration and signature of the registered/licensed design professional who prepared them or under whose supervision they were prepared. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of such a Submittal, provided that all performance and design criteria that such Submittal must satisfy are sufficiently specified in the Contract Documents. The Architect will review, approve or take other appropriate action on such a Submittal only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria specified in the Contract Documents.

H. DEVIATIONS

(1) The Architect is authorized by the Owner to approve "minor" deviations from the requirements of the Contract Documents. "Minor" deviations are defined as those which are in the interest of the Owner, do not materially alter the quality or performance of the finished Work, and do not affect the cost or time of performance of the Work. Deviations which are not "minor" may be authorized only by the Owner through the Change Order procedures of Article 19.

(2) Any deviation from the requirements of the Contract Documents contained in a Submittal shall be clearly identified as a "Deviation from Contract Requirements" (or by similar language) within the Submittal and, in a letter transmitting the Submittal to the Architect, the Contractor shall direct the Architect's attention to, and request specific approval of, the deviation. Otherwise, the Architect's approval of a Submittal does not constitute approval of deviations from the requirements of the Contract Documents contained in the Submittal.

(3) The Contractor shall bear all costs and expenses of any changes to the Work, changes to work performed by the Owner or separate contractors, or additional services by the Architect required to accommodate an approved deviation unless the Contractor has specifically informed the Architect in writing of the required changes and a Change Order has been issued authorizing the deviation and accounting for such resulting changes and costs.

I. ARCHITECT'S REVIEW and APPROVAL

(1) The Architect will review the Contractor's Submittals for conformance with requirements of, and the design concept expressed in, the Contract Documents and will approve or take other appropriate action upon them. This review is not intended to verify the accuracy and completeness of details such as dimensions and quantities nor to substantiate installation instructions or performance of equipment or systems, all of which remain the responsibility of the Contractor. However, the Architect shall advise the Contractor of any errors or omissions which the Architect

may detect during this review. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

(2) The Architect will review and respond to all Submittals with reasonable promptness to avoid delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time to permit adequate review.

(3) No corrections or changes to Submittals indicated by the Architect will be considered as authorizations to perform Extra Work. If the Contractor considers such correction or change of a Submittal to require Work which differs from the requirements of the Contract Documents, the Contractor shall promptly notify the Architect in writing in accordance with Article 20, Claims for Extra Cost or Extra Work.

J. CONFORMANCE with SUBMITTALS

The Work shall be constructed in accordance with approved Submittals.

ARTICLE 10
DOCUMENTS and SAMPLES at the SITE

A. "AS ISSUED" SET

The Contractor shall maintain at the Project site, in good order, at least one copy of all Addenda, Change Orders, supplemental drawings, written directives and clarifications, and approved Submittals intact as issued, and an updated construction schedule.

B. "POSTED" SET

The Contractor shall maintain at the Project site, in good order, at least one set of the Drawings and Project Manual into which the Contractor has "posted"(incorporated) all Addenda, Change Orders, supplemental drawings, clarifications, and other information pertinent to the proper performance of the Work. The Contractor shall assure that all sets of the Drawings and Project Manuals being used by the Contractor, Subcontractors, and suppliers are "posted" with the current information to insure that updated Contract Documents are used for performance of the Work.

C. RECORD SET

One set of the Drawings and Project Manual described in Paragraph B shall be the Contractor's record set in which the Contractor shall record all field changes, corrections, selections, final locations, and other information as will be duplicated on the "As-built" documents required under Article 11. The Contractor shall record such "as-built" information in its record set as it becomes available through progress of the Work. The Contractor's performance of this requirement shall be subject to confirmation by the Architect at any time as a prerequisite to approval of Progress Payments.

D. The documents and samples required by this Article to be maintained at the Project site shall be readily available to the Architect, Owner, DCM Project Inspector, and their representatives.

ARTICLE 11
"AS-BUILT" DOCUMENTS

A. Unless otherwise provided in the Contract Documents, the Contractor shall deliver two (2) sets of "As-built" documents, as described herein, to the Architect for submission to the Owner upon completion of the Work. Each set of "As-built' documents shall consist of a copy of the Drawings and Project Manual, in like-new condition, into which the Contractor has neatly incorporated all Addenda, Change Orders, supplemental drawings, clarifications, field changes, corrections, selections, actual locations of underground utilities, and other information as required herein or specified elsewhere in the Contract Documents.

B. The Contractor shall use the following methods for incorporating information into the "As-built" documents:

(1) Drawings

(a) To the greatest extent practicable, information shall be carefully drawn and lettered, in ink, on the Drawings in the form of sketches, details, plans, notes, and dimensions as required to provide a fully dimensioned record of the Work. When required for clarity, sketches, details, or partial plans shall be drawn on supplemental sheets and bound into the Drawings and referenced on the drawing being revised.

(b) Where a revised drawing has been furnished by the Architect, the drawing of latest date shall be bound into the Drawings in the place of the superseded drawing.

(c) Where a supplemental drawing has been furnished by the Architect, the supplemental drawing shall be bound into the Drawings in an appropriate location and referred to by notes added to the drawing being supplemented.

(d) Where the Architect has furnished details, partial plans, or lengthy notes of which it would be impractical for the Contractor to redraw or letter on a drawing, such information may be affixed to the appropriate drawing with transparent tape if space is available on the drawing.

(e) Any entry of information made in the Drawings that is the result of an Addendum or Change Order, shall identify the Addendum or Change Order from which it originated.

(2) Project Manual

(a) A copy of all Addenda and Change Orders, excluding drawings thereof, shall be bound in the front of the Project Manual.

(b) Where a document, form, or entire specification section is revised, the latest issue shall be bound into the Project Manual in the place of the superseded issue.

(c) Where information within a specification section is revised, the deleted or revised information shall be drawn through in ink and an adjacent note added identifying the Addendum or Change Order containing the revised information.

C. Within ten days after the Date of Substantial Completion of the Work, or the last completed portion of the Work, the Contractor shall submit the "As-built" documents to the Architect for approval. If the Architect requires that any corrections be made, the documents will be returned in a reasonable time for correction and resubmission.

ARTICLE 12
PROGRESS SCHEDULE

(Not applicable if the Contract Time is 60 days or less.)

A. The Contractor shall within fifteen days after the date of commencement stated in the Notice to Proceed, or such other time as may be provided in the Contract Documents, prepare and submit to the Architect for review and approval a practicable construction schedule informing the Architect and Owner of the order in which the Contractor plans to carry on the Work within the Contract Time. The Architect's review and approval of the Contractor's construction schedule shall be only for compliance with the specified format, Contract Time, and suitability for monitoring progress of the Work and shall not be construed as a representation that the Architect has analyzed the schedule to form opinions of sequences or durations of time represented in the schedule.

B. If a schedule format is not specified elsewhere in the Contract Documents, the construction schedule shall be prepared using DCM Form C-11, "Sample Progress Schedule and Report", (contained in the Project Manual) or similar format of suitable scale and detail to indicate the percentage of Work scheduled to be completed at the end of each month. At the end of each month the Contractor shall enter the actual percentage of completion on the construction schedule submit two copies to the Architect, and attach one copy to each copy of the monthly Application for Payment. The construction schedule shall be revised to reflect any agreed extensions of the Contract Time or as required by conditions of the Work.

C. If a more comprehensive schedule format is specified elsewhere in the Contract Documents or voluntarily employed by the Contractor, it may be used in lieu of DCM Form C-11.

D. The Contractor's construction schedule shall be used by the Contractor, Architect, and Owner to determine the adequacy of the Contractor's progress. The Contractor shall be responsible for maintaining progress in accordance with the currently approved construction schedule and shall increase the number of shifts, and/or overtime operations, days of work, and/or the amount of construction plant and equipment as may be necessary to do so. If the Contractor's progress falls materially behind the currently approved construction schedule and, in the opinion of the Architect or Owner, the Contractor is not taking sufficient steps to regain schedule, the Architect may, with the Owner's concurrence, issue the Contractor a Notice to Cure pursuant to Article 27. In such a Notice to Cure the Architect may require the Contractor to submit such supplementary or revised construction schedules as may be deemed necessary to demonstrate the manner in which schedule will be regained.

ARTICLE 13
EQUIPMENT, MATERIALS, and SUBSTITUTIONS

A. Every part of the Work shall be executed in a workmanlike manner in accordance with the Contract Documents and approved Submittals. All materials used in the Work shall be furnished in sufficient quantities to facilitate the proper and expeditious execution of the Work and shall be new except such materials as may be expressly provided or allowed in the Contract Documents to be otherwise.

B. Whenever a product, material, system, item of equipment, or service is identified in the Contract Documents by reference to a trade name, manufacturer's name, model number, etc.(hereinafter

referred to as "source"), and only one or two sources are listed, or three or more sources are listed and followed by "or approved equal" or similar wording, it is intended to establish a required standard of performance, design, and quality, and the Contractor may submit, for the Architect's approval, products, materials, systems, equipment, or services of other sources which the Contractor can prove to the Architect's satisfaction are equal to, or exceed, the standard of performance, design and quality specified, unless the provisions of Paragraph D below apply. Such proposed substitutions are not to be purchased or installed without the Architect's written approval of the substitution.

C. If the Contract Documents identify three or more sources for a product, material, system, item of equipment or service to be used and the list of sources is not followed by "or approved equal" or similar wording, the Contractor may make substitution only after evaluation by the Architect and execution of an appropriate Contract Change Order.

D. If the Contract Documents identify only one source and expressly provide that it is an approved sole source for the product, material, system, item of equipment, or service, the Contractor must furnish the identified sole source.

ARTICLE 14
SAFETY and PROTECTION of PERSONS and PROPERTY

A. The Contractor shall be solely and completely responsible for conditions at the Project site, including safety of all persons (including employees) and property. The Contractor shall create, maintain, and supervise conditions and programs to facilitate and promote safe execution of the Work, and shall supervise the Work with the attention and skill required to assure its safe performance. Safety provisions shall conform to OSHA requirements and all other federal, state, county, and local laws, ordinances, codes, and regulations. Where any of these are in conflict, the more stringent requirement shall be followed. Nothing contained in this Contract shall be construed to mean that the Owner has employed the Architect nor has the Architect employed its consultants to administer, supervise, inspect, or take action regarding safety programs or conditions at the Project site.

B. The Contractor shall employ Construction Methods, safety precautions, and protective measures that will reasonably prevent damage, injury or loss to:

(1) workers and other persons on the Project site and in adjacent and other areas that may be affected by the Contractor's operations;

(2) the Work and materials and equipment to be incorporated into the Work and stored by the Contractor on or off the Project site; and

(3) other property on, or adjacent to, the Project site, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and other improvements not designated in the Contract Documents to be removed, relocated, or replaced.

C. The Contractor shall be responsible for the prompt remedy of damage and loss to property, including the filing of appropriate insurance claims, caused in whole or in part by the fault or negligence of the Contractor, a Subcontractor, or anyone for whose acts they may be liable.

D. The Contractor shall comply with and give notices required by applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety and protection of persons or property, including without limitation notices to adjoining property owners of excavation or other construction activities that potentially could cause damage or injury to adjoining property or persons thereon.

E. The Contractor shall erect and maintain barriers, danger signs, and any other reasonable safeguards and warnings against hazards as may be required for safety and protection during performance of the Contract and shall notify owners and users of adjacent sites and utilities of conditions that may exist or arise which may jeopardize their safety.

F. If use or storage of explosives or other hazardous materials or equipment or unusual Construction Methods are necessary for execution of the Work, the Contractor shall exercise commensurate care and employ supervisors and workers properly qualified to perform such activity.

G. The Contractor shall furnish a qualified safety representative at the Project site whose duties shall include the prevention of accidents. The safety representative shall be the Contractor's superintendent, unless the Contractor assigns this duty to another responsible member of its on-site staff and notifies the Owner and Architect in writing of such assignment.

H. The Contractor shall not permit a load to be applied, or forces introduced, to any part of the construction or site that may cause damage to the construction or site or endanger safety of the construction, site, or persons on or near the site.

I. The Contractor shall have the right to act as it deems appropriate in emergency situations jeopardizing life or property. The Contractor shall be entitled to equitable adjustment of the Contract Sum or Contract Time for its efforts expended for the sole benefit of the Owner in an emergency. Such adjustment shall be determined as provided in Articles 19 and 20.

J. The duty of the Architect and the Architect's consultants to visit the Project site to conduct periodic inspections of the Work or for other purposes shall not give rise to a duty to review or approve the adequacy of the Contractor's safety program, safety supervisor, or any safety measure which Contractor takes or fails to take in, on, or near the Project site.

ARTICLE 15
HAZARDOUS MATERIALS

A. A Hazardous Material is any substance or material identified as hazardous under any federal, state, or local law or regulation, or any other substance or material which may be considered hazardous or otherwise subject to statutory or regulatory requirements governing its handling, disposal, and/or clean-up. Existing Hazardous Materials are Hazardous Materials discovered at the Project site and not introduced to the Project site by the Contractor, a Subcontractor, or anyone for whose acts they may be liable.

B. If, during the performance of the Work, the Contractor encounters a suspected Existing Hazardous Material, the Contractor shall immediately stop work in the affected area, take measures appropriate to the condition to keep people away from the suspected Existing Hazardous Material, and

immediately notify the Architect and Owner of the condition in writing.

C. The Owner shall obtain the services of an independent laboratory or professional consultant, appropriately licensed and qualified, to determine whether the suspected material is a Hazardous Material requiring abatement and, if so, to certify after its abatement that it has been rendered harmless. Any abatement of Existing Hazardous Materials will be the responsibility of the Owner. The Owner will advise the Contractor in writing of the persons or entities who will determine the nature of the suspected material and those who will, if necessary, perform the abatement. The Owner will not employ persons or entities to perform these services to whom the Contractor or Architect has reasonable objection.

D. After certification by the Owner's independent laboratory or professional consultant that the material is harmless or has been rendered harmless, work in the affected area shall resume upon written agreement between the Owner and Contractor. If the material is found to be an Existing Hazardous Material and the Contractor incurs additional cost or delay due to the presence and abatement of the material, the Contract Sum and/or Contract Time shall be appropriately adjusted by a Contract Change Order pursuant to Article 19.

E. The Owner shall not be responsible for Hazardous Materials introduced to the Project site by the Contractor, a Subcontractor, or anyone for whose acts they may be liable unless such Hazardous Materials were required by the Contract Documents.

ARTICLE 16
INSPECTION of the WORK

A. GENERAL

(1) The Contractor is solely responsible for the Work's compliance with the Contract Documents; therefore, the Contractor shall be responsible to inspect in-progress and completed Work, and shall verify its compliance with the Contract Documents and that any element or portion of the Work upon which subsequent Work is to be applied or performed is in proper condition to receive the subsequent Work. Neither the presence nor absence of inspections by the Architect, Owner, Director, DCM Project Inspector, any public authority having jurisdiction, or their representatives shall relieve the Contractor of responsibility to inspect the Work, for responsibility for Construction Methods and safety precautions and programs in connection with the Work, or from any other requirement of the Contract Documents.

(2) The Architect, Owner, Director, DCM Project Inspector, any public authority having jurisdiction, and their representatives shall have access at all times to the Work for inspection whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and inspection. All materials, workmanship, processes of manufacture, and methods of construction, if not otherwise stipulated in the Contract Documents, shall be subject to inspection, examination, and test at any and all places where such manufacture and/or construction are being carried on. Such inspections will not unreasonably interfere with the Contractor's operations.

(3) The Architect will inspect the Work as a representative of the Owner. The Architect's inspections may be supplemented by inspections by the DCM Project Inspector as a representative of the Alabama Division of Construction Management.

(4) The Contractor may be charged by the Owner for any extra cost of inspection incurred by the Owner or Architect on account of material and workmanship not being ready at the time of inspection set by the Contractor.

B. TYPES of INSPECTIONS

(1) SCHEDULED INSPECTIONS and CONFERENCES. Scheduled Inspections and Conferences are conducted by the Architect, scheduled by the Architect in coordination with the Contractor and DCM Project Inspector, and are attended by the Contractor and applicable Subcontractors, suppliers and manufacturers, and the DCM Project Inspector. Scheduled Inspections and Conferences of this Contract include:

(a) Pre-construction Conference.

(b) Pre-roofing Conference (not applicable if the Contract involves no roofing work)

(**c) Above Ceiling Inspection(s)**: An above ceiling inspection of all spaces in the building is required before the ceiling material is installed. Above ceiling inspections are to be conducted at a time when all above ceiling systems are complete and tested to the greatest extent reasonable pending installation of the ceiling material. System identifications and markings are to be complete. All fire-rated construction including fire-stopping of penetrations and specified identification above the ceiling shall be complete. Ceiling framing and suspension systems shall be complete with lights, grilles and diffusers, access panels, fire protection drops for sprinkler heads, etc., installed in their final locations to the greatest extent reasonable. Above ceiling framing to support ceiling mounted equipment shall be complete. The above ceiling construction shall be complete to the extent that after the inspection the ceiling material can be installed without disturbance.

(**d) Final Inspection(s):** A Final Inspection shall establish that the Work, or a designated portion of the Work, is Substantially Complete in accordance with Article 32 and is accepted by the Architect, Owner, and DCM Project Inspector as being ready for the Owner's occupancy or use. At the conclusion of this inspection, items requiring correction or completion ("punch list" items) shall be minimal and require only a short period of time for accomplishment to establish Final Acceptance of the Work. If the Work, or designated portion of the Work, includes the installation, or modification, of a fire alarm system or other life safety systems essential to occupancy, such systems shall have been tested and appropriately certified before the Final Inspection.

(**e) Year-end Inspection(s):** An inspection of the Work, or each separately completed portion thereof, is required near the end of the Contractor's one year warranty period(s). The subsequent delivery of the Architect's report of this inspection will serve as confirmation that the Contractor was notified of Defective Work found within the warranty period in accordance with Article 35.

(2) PERIODIC INSPECTIONS. Periodic Inspections are conducted throughout the course of the Work by the Architect, the Architect's consultants, their representatives, and the DCM Project Inspector, jointly or independently, with or without advance notice to the Contractor.

(3) SPECIFIED INSPECTIONS and TESTS. Specified Inspections and Tests include inspections, tests, demonstrations, and approvals that are either specified in the Contract Documents or required by laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction, to be performed by the Contractor, one of its Subcontractors, or an independent testing laboratory or firm (whether paid for by the Contractor or Owner).

C. INSPECTIONS by the ARCHITECT

(1) The Architect is not authorized to revoke, alter, relax, or waive any requirements of the Contract Documents (other than "minor" deviations as defined in Article 9 and "minor" changes as defined in Article 19), to finally approve or accept any portion of the Work or to issue instructions contrary to the Contract Documents without concurrence of the Owner.

(2) The Architect will visit the site at intervals appropriate to the stage of the Contractor's operations and as otherwise necessary to:

(a) become generally familiar with the in-progress and completed Work and the quality of the Work,

(b) determine whether the Work is progressing in general accordance with the Contractor's schedule and is likely to be completed within the Contract Time,

(c) visually compare readily accessible elements of the Work to the requirements of the Contract Documents to determine, in general, if the Contractor's performance of the Work indicates that the Work will conform to the requirements of the Contract Documents when completed,

(d) endeavor to guard the Owner against Defective Work,

(e) review and address with the Contractor any problems in implementing the requirements of the Contract Documents that the Contractor may have encountered, and

(f) keep the Owner fully informed about the Project.

(3) The Architect shall have the authority to reject Defective Work or require its correction, but shall not be required to make exhaustive investigations or examinations of the in-progress or completed portions of the Work to expose the presence of Defective Work. However, it shall be an obligation of the Architect to report in writing, to the Owner, Contractor, and DCM Project Inspector, any Defective Work recognized by the Architect.

(4) The Architect shall have the authority to require the Contractor to stop work only when, in the Architect's reasonable opinion, such stoppage is necessary to avoid Defective Work. The Architect shall not be liable to the Contractor or Owner for the consequences of any decisions made by the Architect in good faith either to exercise or not to exercise this authority.

(5) "Inspections by the Architect" includes appropriate inspections by the Architect's consultants as dictated by their respective disciplines of design and the stage of the Contractor's operations.

D. INSPECTIONS by the DCM PROJECT INSPECTOR

(1) The DCM Project Inspector will:

(a) participate in scheduled inspections and conferences as practicable,

(b) perform periodic inspections of in-progress and completed Work to ensure code compliance of the Project and general conformance of the Work with the Contract Documents, and

(c) monitor the Contractor's progress and performance of the Work.

(2) The DCM Project Inspector shall have the authority to:

(a) reject Work that is not in compliance with the State Building Code adopted by the DCM, unless the Work is in accordance with the Contract Documents in which case the DCM Project Inspector will advise the Architect to initiate appropriate corrective action, and

(b) notify the Architect, Owner, and Contractor of Defective Work recognized by the DCM Project Inspector.

(3) The DCM Project Inspector's periodic inspections will usually be scheduled around key stages of construction based upon information reported by the Architect. As the Architect or Owner deems appropriate, the DCM Project Inspector, as well as other members of the Technical Staff, can be requested to schedule special inspections or meetings to address specific matters. The written findings of DCM Project Inspector will be transmitted to the Owner, Contractor, and Architect.

(4) The DCM Project Inspector is not authorized to revoke, alter, relax, or waive any requirements of the Contract Documents, to finally approve or accept any portion of the Work or to issue instructions contrary to the Contract Documents without concurrence of the Owner. The Contractor shall not proceed with Work as a result of instructions or findings of the DCM Project Inspector which the Contractor considers to be a change to the requirements of the Contract Documents without written authorization of the Owner through the Architect.

E. UNCOVERING WORK

(1) If the Contractor covers a portion of the Work before it is examined by the Architect and this is contrary to the Architect's request or specific requirements in the Contract Documents, then, upon written request of the Architect, the Work must be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

(2) Without a prior request or specific requirement that Work be examined by the Architect before it is covered, the Architect may request that Work be uncovered for examination and the Contractor shall uncover it. If the Work is in accordance with the Contract Documents, the Contract Sum shall be equitably adjusted under Article 19 to compensate the Contractor for the costs of uncovering and replacement. If the Work is not in accordance with the Contract Documents, uncovering, correction, and replacement shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

F. SPECIFIED INSPECTIONS and TESTS

(1) The Contractor shall schedule and coordinate Specified Inspections and Tests to be made at appropriate times so as not to delay the progress of the Work or the work of the Owner or separate contractors. If the Contract Documents require that a Specified Inspection or Test be witnessed or attended by the Architect or Architect's consultant, the Contractor shall give the Architect timely notice of the time and place of the Specified Inspection or Test. If a Specified Inspection or Test reveals that Work is not in compliance with requirements of the Contract Documents, the Contractor shall bear the costs of correction, repeating the Specified Inspection or Test, and any related costs incurred by the Owner, including reasonable charges, if any, by the Architect for additional services. Through appropriate Contract Change Order the Owner shall bear costs of tests, inspections or approvals which become Contract requirements subsequent to the receipt of bids.

(2) If the Architect, Owner, or public authority having jurisdiction determines that inspections, tests, demonstrations, or approvals in addition to Specified Inspections and Tests are required, the Contractor shall, upon written instruction from the Architect, arrange for their performance by an entity acceptable to the Owner, giving timely notice to the architect of the time and place of their performance. Related costs shall be borne by the Owner unless the procedures reveal that Work is

not in compliance with requirements of the Contract Documents, in which case the Contractor shall bear the costs of correction, repeating the procedures, and any related costs incurred by the Owner, including reasonable charges, if any, by the Architect for additional services.

(3) Unless otherwise required by the Contract Documents, required certificates of Specified Inspections and Tests shall be secured by the Contractor and promptly delivered to the Architect.

(4) Failure of any materials to pass Specified Inspections and Tests will be sufficient cause for refusal to consider any further samples of the same brand or make of that material for use in the Work.

ARTICLE 17
CORRECTION of DEFECTIVE WORK

A. The Contractor shall, at the Contractor's expense, promptly correct Defective Work rejected by the Architect or which otherwise becomes known to the Contractor, removing the rejected or nonconforming materials and construction from the project site.

B. Correction of Defective Work shall be performed in such a timely manner as will avoid delay of completion, use, or occupancy of the Work and the work of the Owner and separate contractors.

C. The Contractor shall bear all expenses related to the correction of Defective Work, including but not limited to: **(1)** additional testing and inspections, including repeating Specified Inspections and Tests**, (2)** reasonable services and expenses of the Architect, and **(3)** the expense of making good all work of the Contractor, Owner, or separate contractors destroyed or damaged by the correction of Defective Work.

ARTICLE 18
DEDUCTIONS for UNCORRECTED WORK

If the Owner deems it advisable and in the Owner's interest to accept Defective Work, the Owner may allow part or all of such Work to remain in place, provided an equitable deduction from the Contract Sum, acceptable to the Owner, is offered by the Contractor.

ARTICLE 19
CHANGES in the WORK

A. GENERAL

(1) The Owner may at any time direct the Contractor to make changes in the Work which are within the general scope of the Contract, including changes in the Drawings, Specifications, or other portions of the Contract Documents to add, delete, or otherwise revise portions of the Work. The Architect is authorized by the Owner to direct "minor" changes in the Work by written order to the Contractor. "Minor" changes in the Work are defined as those which are in the interest of the Owner, do not materially alter the quality or performance of the finished Work, and do not affect the cost or time of performance of the Work. Changes in the Work which are not "minor" may be

authorized only by the Owner.

(2) If the Owner directs a change in the Work, the change shall be incorporated into the Contract by a Contract Change Order prepared by the Architect and signed by the Contractor, Owner, and other signatories to the Construction Contract, stating their agreement upon the change or changes in the Work and the adjustments, if any, in the Contract Sum and the Contract Time.

(3) Subject to compliance with Alabama's Public Works Law, the Owner may, upon agreement by the Contractor, incorporate previously unawarded bid alternates into the Contract.

(4) In the event of a claim or dispute as to the appropriate adjustment to the Contract Sum or Contract Time due to a directive to make changes in the Work, the Work shall proceed as provided in this article subject to subsequent agreement of the parties or final resolution of the dispute pursuant to Article 24.

(5) Consent of surety will be obtained for all Contract Change Orders involving an increase in the Contract Sum.

(6) Changes in the Work shall be performed under applicable provisions of the Contract Documents and the Contractor shall proceed promptly to perform changes in the Work, unless otherwise directed by the Owner through the Architect.

(7) All change orders require DCM Form C-12: Contract Change Order and DCM Form B-11: Change Order Justification. Only Change Orders 10% or greater of the current contract amount require the Owner's legal advisor's signature on DCM Form B-11: Change Order Justification.

B. DETERMINATION of ADJUSTMENT of the CONTRACT SUM

The adjustment of the Contract Sum resulting from a change in the Work shall be determined by one of the following methods, or a combination thereof, as selected by the Owner:

(1) Lump Sum. By mutual agreement to a lump sum based on or negotiated from an itemized cost proposal from the Contractor. Additions to the Contract Sum shall include the Contractor's direct costs plus a maximum 15% markup for overhead and profit. Where subcontract work is involved the total mark-up for the Contractor and a Subcontractor shall not exceed 25%. **Changes which involve a net credit to the Owner shall include fair and reasonable credits for overhead and profit on the deducted work, in no case less than 5%.** For the purposes of this method of determining an adjustment of the Contract Sum, "overhead" shall cover the Contractor's indirect costs of the change, such as the cost of bonds, superintendent and other job office personnel, watchman, job office, job office supplies and expenses, temporary facilities and utilities, and home office expenses.

(2) Unit Price. By application of Unit Prices included in the Contract or subsequently agreed to by the parties. However, if the character or quantity originally contemplated is materially changed so that application of such unit price to quantities of Work proposed will cause substantial inequity to either party, the applicable unit price shall be equitably adjusted.

(3) Force Account. By directing the Contractor to proceed with the change in the Work on a "force account" basis under which the Contractor shall be reimbursed for reasonable expenditures incurred by the Contractor and its Subcontractors in performing added Work and the Owner shall

receive reasonable credit for any deleted Work. The Contractor shall keep and present, in such form as the Owner may prescribe, an itemized accounting of the cost of the change together with sufficient supporting data. Unless otherwise stated in the directive, the adjustment of the Contract Sum shall be limited to the following:

(a) costs of labor and supervision, including employee benefits, social security, retirement, unemployment and workers' compensation insurance required by law, agreement, or under Contractor's or Subcontractor's standard personnel policy;

(b) cost of materials, supplies and equipment, including cost of delivery, whether incorporated or consumed;

(c) rental cost of machinery and equipment, not to exceed prevailing local rates if contractor-owned;

(d) costs of premiums for insurance required by the Contract Documents, permit fees, and sales, use or similar taxes related to the change in the Work;

(e) reasonable credits to the Owner for the value of deleted Work, without Contractor or Subcontractor mark-ups; and

(f) for additions to the Contract Sum, mark-up of the Contractor's direct costs for overhead and profit not exceeding 15% on Contractor's work nor exceeding 25% for Contractor and Subcontractor on a Subcontractor's work. **Changes which involve a net credit to the Owner shall include fair and reasonable credits for overhead and profit on the deducted work, in no case less than 5%.** For the purposes of this method of determining an adjustment of the Contract Sum, "overhead" shall cover the Contractor's indirect costs of the change, such as the cost of insurance other than mentioned above, bonds, superintendent and other job office personnel, watchman, use and rental of small tools, job office, job office supplies and expenses, temporary facilities and utilities, and home office expenses.

C. ADJUSTMENT of the CONTRACT TIME due to CHANGES

(1) Unless otherwise provided in the Contract Documents, the Contract Time shall be equitably adjusted for the performance of a change provided that the Contractor notifies the Architect in writing that the change will increase the time required to complete the Work. Such notice shall be provided no later than:

(a) with the Contractor's cost proposal stating the number of days of extension requested, or

(b) within ten days after the Contractor receives a directive to proceed with a change in advance of submitting a cost proposal, in which case the notice should provide an estimated number of days of extension to be requested, which may be subject to adjustment in the cost proposal.

(2) The Contract Time shall be extended only to the extent that the change affects the time required to complete the entire Work of the Contract, taking into account the concurrent performance of the changed and unchanged Work.

D. CHANGE ORDER PROCEDURES

(1) If the Owner proposes to make a change in the Work, the Architect will request that the Contractor provide a cost proposal for making the change to the Work. The request shall be in writing and shall adequately describe the proposed change using drawings, specifications, narrative, or a combination thereof. Within 21 days after receiving such a request, or such other time as may be stated in the request, the Contractor shall prepare and submit to the Architect a written proposal, properly itemized and supported by sufficient substantiating data to facilitate evaluation. The stated

time within which the Contractor must submit a proposal may be extended if, within that time, the Contractor makes a written request with reasonable justification thereof.

(2) The Contractor may voluntarily offer a change proposal which, in the Contractor's opinion, will reduce the cost of construction, maintenance, or operation or will improve the cost-effective performance of an element of the Project, in which case the Owner, through the Architect, will accept, reject, or respond otherwise within 21 days after receipt of the proposal, or such other reasonable time as the Contractor may state in the proposal.

(3) If the Contractor's proposal is acceptable to the Owner, or is negotiated to the mutual agreement of the Contractor and Owner, the Architect will prepare an appropriate Contract Change Order for execution. Upon receipt of the fully executed Contract Change Order, the Contractor shall proceed with the change.

(4) In advance of delivery of a fully executed Contract Change Order, the Architect may furnish to the Contractor a written authorization to proceed with an agreed change. However, such an authorization shall be effective only if it:

(a) identifies the Contractor's accepted or negotiated proposal for the change,
(b) states the agreed adjustments, if any, in Contract Sum and Contract Time,
(c) states that funds are available to pay for the change, and
(d) is signed by the Owner.

(5) If the Contractor and Owner cannot agree on the amount of the adjustment in the Contract Sum for a change, the Owner, through the Architect, may order the Contractor to proceed with the change on a Force Account basis, but the net cost to the Owner shall not exceed the amount quoted in the Contractor's proposal. Such order shall state that funds are available to pay for the change.

(6) If the Contractor does not promptly respond to a request for a proposal, or the Owner determines that the change is essential to the final product of the Work and that the change must be effected immediately to avoid delay of the Project, the Owner may:

(a) determine with the Contractor a sufficient maximum amount to be authorized for the change and
(b) direct the Contractor to proceed with the change on a Force Account basis pending delivery of the Contractor's proposal, stating the maximum increase in the Contract Sum that is authorized for the change.

(7) Pending agreement of the parties or final resolution of any dispute of the total amount due the Contractor for a change in the Work, amounts not in dispute for such changes in the Work may be included in Applications for Payment accompanied by an interim Change Order indicating the parties' agreement with part of all of such costs or time extension. Once a dispute is resolved, it shall be implemented by preparation and execution of an appropriate Change Order.

ARTICLE 20
CLAIMS for EXTRA COST or EXTRA WORK

A. If the Contractor considers any instructions by the Architect, Owner, DCM Project Inspector, or public authority having jurisdiction to be contrary to the requirements of the Contract Documents and will involve extra work and/or cost under the Contract, the Contractor shall give the Architect

written notice thereof within ten days after receipt of such instructions, and in any event before proceeding to execute such work. As used in this Article, "instructions" shall include written or oral clarifications, directions, instructions, interpretations, or determinations.

B. The Contractor's notification pursuant to Paragraph 20.A shall state: (1) the date, circumstances, and source of the instructions, **(2)** that the Contractor considers the instructions to constitute a change to the Contract Documents and why, and **(3)** an estimate of extra cost and time that may be involved to the extent an estimate may be reasonably made at that time.

C. Except for claims relating to an emergency endangering life or property, no claim for extra cost or extra work shall be considered in the absence of prior notice required under Paragraph 20.A.

D. Within ten days of receipt of a notice pursuant to Paragraph 20.A, the Architect will respond in writing to the Contractor, stating one of the following:

(1) The cited instruction is rescinded.

(2) The cited instruction is a change in the Work and in which manner the Contractor is to proceed with procedures of Article 19, Changes in the Work.

(3) The cited instruction is reconfirmed, is not considered by the Architect to be a change in the Contract Documents, and the Contractor is to proceed with Work as instructed.

E. If the Architect's response to the Contractor is as in Paragraph 20.D(3), the Contractor shall proceed with the Work as instructed. If the Contractor continues to consider the instructions to constitute a change in the Contract Documents, the Contractor shall, within ten days after receiving the Architect's response, notify the Architect in writing that the Contractor intends to submit a claim pursuant to Article 24, Resolution of Claims and Disputes

ARTICLE 21
DIFFERING SITE CONDITIONS

A. DEFINITION

"Differing Site Conditions" are:

(1) subsurface or otherwise concealed physical conditions at the Project site which differ materially from those indicated in the Contract Documents, or

(2) unknown physical conditions at the Project site which are of an unusual nature, differing materially from conditions ordinarily encountered and generally recognized as inherent in construction activities of the character required by the Contract Documents.

B. PROCEDURES

If Differing Site Conditions are encountered, then the party discovering the condition shall promptly notify the other party before the condition is disturbed and in no event later than ten days after discovering the condition. Upon such notice and verification that a Differing Site Condition exists, the Architect will, with reasonable promptness and with the Owner's concurrence, make changes in the Drawings and/or Specifications as are deemed necessary to conform to the Differing

Site Condition. Any increase or decrease in the Contract Sum or Contract Time that is warranted by the changes will be made as provided under Article 19, Changes in the Work. If the Architect determines a Differing Site Condition has not been encountered, the Architect shall notify the Owner and Contractor in writing, stating the reason for that determination.

ARTICLE 22
CLAIMS for DAMAGES

If either party to the Contract 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, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time after the discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

ARTICLE 23
DELAYS

A. A delay beyond the Contractor's control at any time in the commencement or progress of Work by an act or omission of the Owner, Architect, or any separate contractor or by labor disputes, unusual delay in deliveries, unavoidable casualties, fires, abnormal floods, tornadoes, or other cataclysmic events of nature, may entitle the Contractor to an extension of the Contract Time provided, however, that the Contractor shall, within ten days after the delay first occurs, give written notice to the Architect of the cause of the delay and its probable effect on progress of the entire Work.

B. Adverse weather conditions that are more severe than anticipated for the locality of the Work during any given month may entitle the Contractor to an extension of Contract Time provided, however;

(1) the weather conditions had an adverse effect on construction scheduled to be performed during the period in which the adverse weather occurred, which in reasonable sequence would have an effect on completion of the entire Work,

(2) the Contractor shall, within twenty-one days after the end of the month in which the delay occurs, give the Architect written notice of the delay that occurred during that month and its probable effect on progress of the Work, and

(3) within a reasonable time after giving notice of the delay, the Contractor provides the Architect with sufficient data to document that the weather conditions experienced were unusually severe for the locality of the Work during the month in question. Unless otherwise provided in the Contract Documents, data documenting unusually severe weather conditions shall compare actual weather conditions to the average weather conditions for the month in question during the previous five years as recorded by the National Oceanic and Atmospheric Administration (NOAA) or similar record-keeping entities.

C. Adjustments, if any, of the Contract Time pursuant to this Article shall be incorporated into the Contract by a Contract Change Order prepared by the Architect and signed by the Contractor, Owner, and other signatories to the Construction Contract or, at closeout of the Contract, by mutual

written agreement between the Contractor and Owner. The adjustment of the Contract Time shall not exceed the extent to which the delay extends the time required to complete the entire Work of the Contract.

D. The Contractor shall not be entitled to any adjustment of the Contract Sum for damage due to delays claimed pursuant to this Article unless the delay was caused by the Owner or Architect and was either:
(1) the result of bad faith or active interference or
(2) beyond the contemplation of the parties and not remedied within a reasonable time after notification by the Contractor of its presence.

ARTICLE 24
RESOLUTION of CLAIMS and DISPUTES

A. APPLICABILITY of ARTICLE

(1) As used in this Article, "Claims and Disputes" include claims or disputes asserted by the Contractor, its Surety, or Owner arising out of or related to the Contract, or its breach, including without limitation claims seeking, under the provisions of the Contract, equitable adjustment of the Contract Sum or Contract Time and claims and disputes arising between the Contractor (or its Surety) and Owner regarding interpretation of the Contract Documents, performance of the Work, or breach of or compliance with the terms of the Contract.

(2) "Resolution" addressed in this Article applies only to Claims and Disputes arising between the Contractor (or its Surety) and Owner and asserted after execution of the Construction Contract and prior to the date upon which final payment is made. Upon making application for final payment the Contractor may reserve the right to subsequent Resolution of existing Claims by including a list of all Claims, in stated amounts, which remain to be resolved and specifically excluding them from any release of claims executed by the Contractor, and in that event Resolution may occur after final payment is made.

B. CONTINUANCE of PERFORMANCE

An unresolved Claim or Dispute shall not be just cause for the Contractor to fail or refuse to proceed diligently with performance of the Contract or for the Owner to fail or refuse to continue to make payments in accordance with the Contract Documents.

C. GOOD FAITH EFFORT to SETTLE

The Contractor and Owner agree that, upon the assertion of a Claim by the other, they will make a good faith effort, with the Architect's assistance and advice, to achieve mutual resolution of the Claim. If mutually agreed, the Contractor and Owner may endeavor to resolve a Claim through mediation. If efforts to settle are not successful, the Claim shall be resolved in accordance with paragraph D or E below, whichever applies.

D FINAL RESOLUTION for STATE-FUNDED CONTRACTS

(1) If the Contract is funded in whole or in part with state funds, the final Resolution of Claims

and Disputes which cannot be resolved by the Contractor (or its Surety) and Owner shall be by the Director, whose decision shall be final, binding, and conclusive upon the Contractor, its Surety, and the Owner.

(2) When it becomes apparent to the party asserting a Claim (the Claimant) that an impasse to mutual resolution has been reached, the Claimant may request in writing to the Director that the Claim be resolved by decision of the Director. Such request by the Contractor (or its Surety) shall be submitted through the Owner. Should the Owner fail or refuse to submit the Contractor's request within ten days of receipt of same, the Contractor may forward such request directly to the Director. Upon receipt of a request to resolve a Claim, the Director will instruct the parties as to procedures to be initiated and followed.

(3) If the respondent to a Claim fails or refuses to participate or cooperate in the Resolution procedures to the extent that the Claimant is compelled to initiate legal proceedings to induce the Respondent to participate or cooperate, the Claimant will be entitled to recover, and may amend its Claim to include, the expense of reasonable attorney's fees so incurred.

E. FINAL RESOLUTION for LOCALLY-FUNDED CONTRACTS

If the Contract is funded in whole with funds provided by a city or county board of education or other local governmental authority and the Contract Documents do not stipulate a binding alternative dispute resolution method, the final resolution of Claims and Disputes which cannot be resolved by the Contractor (or its Surety) and Owner may be by any legal remedy available to the parties. Alternatively, upon the written agreement of the Contractor (or its Surety) and the Owner, final Resolution of Claims and Disputes may be by submission to binding arbitration before a neutral arbitrator or panel or by submission to the Director in accordance with preceding Paragraph D.

ARTICLE 25
OWNER'S RIGHT to CORRECT DEFECTIVE WORK

If the Contractor fails or refuses to correct Defective Work in a timely manner that will avoid delay of completion, use, or occupancy of the Work or work by the Owner or separate contractors, the Architect may give the Contractor written Notice to Cure the Defective Work within a reasonable, stated time. If within ten days after receipt of the Notice to Cure the Contractor has not proceeded and satisfactorily continued to cure the Defective Work or provided the Architect with written verification that satisfactory positive action is in process to cure the Defective Work, the Owner may, without prejudice to any other remedy available to the Owner, correct the Defective Work and deduct the actual cost of the correction from payment then or thereafter due to the Contractor.

ARTICLE 26
OWNER'S RIGHT to STOP or SUSPEND the WORK

A. STOPPING the WORK for CAUSE

If the Contractor fails to correct Defective Work or persistently fails to carry out Work in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work, or any part of the Work, until the cause for the Owner's directive has been eliminated;

however, the Owner's right to stop the Work shall not be construed as a duty of the Owner to be exercised for the benefit of the Contractor or any other person or entity.

B. SUSPENSION by the OWNER for CONVENIENCE

(1) The Owner may, at any time and without cause, direct the Contractor in writing to suspend, delay or interrupt the Work, or any part of the Work, for a period of time as the Owner may determine.

(2) The Contract Sum and Contract Time shall be adjusted, pursuant to Article 19, for reasonable increases in the cost and time caused by an Owner-directed suspension, delay or interruption of Work for the Owner's convenience. However, no adjustment to the Contract Sum shall be made to the extent that the same or concurrent Work is, was or would have been likewise suspended, delayed or interrupted for other reasons not caused by the Owner.

ARTICLE 27
OWNER'S RIGHT to TERMINATE CONTRACT

A. TERMINATION by the OWNER for CAUSE

(1) Causes: The Owner may terminate the Contractor's right to complete the Work, or any designated portion of the Work, if the Contractor:

(a) should be adjudged bankrupt, or should make a general assignment for the benefit of the Contractor's creditors, or if a receiver should be appointed on account of the Contractor's insolvency to the extent termination for these reasons is permissible under applicable law;

(b) refuses or fails to prosecute the Work, or any part of the Work, with the diligence that will insure its completion within the Contract Time, including any extensions, or fails to complete the Work within the Contract Time;

(c) refuses or fails to perform the Work, including prompt correction of Defective Work, in a manner that will insure that the Work, when fully completed, will be in accordance with the Contract Documents;

(d) fails to pay for labor or materials supplied for the Work or to pay Subcontractors in accordance with the respective Subcontract;

(e) persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction, or the instructions of the Architect or Owner; or

(f) is otherwise guilty of a substantial breach of the Contract.

(2) Procedure for Unbonded Construction Contracts (Generally, contracts less than $50,000):

(a) Notice to Cure: In the presence of any of the above conditions the Architect may give the Contractor written notice to cure the condition within a reasonable, stated time, but not less than ten days after the Contractor receives the notice.

(b) Notice of Termination: If, at the expiration of the time stated in the Notice to Cure, the Contractor has not proceeded and satisfactorily continued to cure the condition or provided the Architect with written verification that satisfactory positive action is in process to cure the condition, the Owner may, without prejudice to any other rights or remedies of the Owner, give the Contractor written notice that the Contractor's right to complete the Work, or a designated portion of the Work, shall terminate seven days after the Contractor's receipt of the

written Notice of Termination.

(c) If the Contractor satisfies a Notice to Cure, but the condition for which the notice was first given reoccurs, the Owner may give the Contractor a seven day Notice of Termination without giving the Contractor another Notice to Cure.

(d) At the expiration of the seven days of the termination notice, the Owner may:

.1 take possession of the site, of all materials and equipment stored on and off site, and of all Contractor-owned tools, construction equipment and machinery, and facilities located at the site, and

.2 finish the Work by whatever reasonable method the Owner may deem expedient.

(e) The Contractor shall not be entitled to receive further payment under the Contract until the Work is completed.

(f) If the Owner's cost of completing the Work, including correction of Defective Work, compensation for additional architectural, engineering, managerial, and administrative services, and reasonable attorneys' fees due to the default and termination, is less than the unpaid balance of the Contract Sum, the excess balance less liquidated damages for delay shall be paid to the Contractor. If such cost to the Owner including attorney's fees, plus liquidated damages, exceeds the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the Owner. Final Resolution of any claim or Dispute involving the termination or any amount due any party as a result of the termination shall be pursuant to Article 24.

(g) Upon the Contractor's request, the Owner shall furnish to the Contractor a detailed accounting of the Owner's cost of completing the Work.

(3) Procedure for Bonded Construction Contracts (Generally, contracts over $50,000):

(a) Notice to Cure: In the presence of any of the above conditions the Architect may give the Contractor and its Surety written Notice to Cure the condition within a reasonable, stated time, but not less than ten days after the Contractor receives the notice.

(b) Notice of Termination: If, at the expiration of the time stated in the Notice to Cure, the Contractor has not proceeded and satisfactorily continued to cure the condition or provided the Architect with written verification that satisfactory positive action is in process to cure the condition, the Owner may, without prejudice to any other rights or remedies of the Owner, give the Contractor and its Surety written notice declaring the Contractor to be in default under the Contract and stating that the Contractor's right to complete the Work, or a designated portion of the Work, shall terminate seven days after the Contractor's receipt of the written Notice of Termination.

(c) If the Contractor satisfies a Notice to Cure, but the condition for which the notice was first given reoccurs, the Owner may give the Contractor a Notice of Termination without giving the Contractor another Notice to Cure.

(d) Demand on the Performance Bond: With the Notice of Termination the Owner shall give the Surety a written demand that, upon the effective date of the Notice of Termination, the Surety promptly fulfill its obligation to take charge of and complete the Work in accordance with the terms of the Performance Bond.

(e) Surety Claims: Upon receiving the Owner's demand on the Performance Bond, the Surety shall assume all rights and obligations of the Contractor under the Contract. However, the Surety shall also have the right to assert "Surety Claims" to the Owner, which are defined as claims relating to acts or omissions of the Owner or Architect prior to termination of the Contractor which may have prejudiced its rights as Surety or its interest in the unpaid balance of the Contract Sum. If the Surety wishes to assert a Surety Claim, it shall give the Owner, through the Architect, written notice within twenty-one days after first recognizing the

condition giving rise to the Surety Claim. The Surety Claim shall then be submitted to the Owner, through the Architect, no later than sixty days after giving notice thereof, but no such Surety Claims shall be considered if submitted after the date upon which final payment becomes due. Final resolution of Surety Claims shall be pursuant to Article 24, Resolution of Claims and Disputes. The presence or possibility of a Surety Claim shall not be just cause for the Surety to fail or refuse to take charge of and complete the Work or for the Owner to fail or refuse to continue to make payments in accordance with the Contract Documents.

(f) Payments to Surety: The Surety shall be paid for completing the Work in accordance with the Contract Documents as if the Surety were the Contractor. The Owner shall have the right to deduct from payments to the Surety any reasonable costs incurred by the Owner, including compensation for additional architectural, engineering, managerial, and administrative services, and attorneys' fees as necessitated by termination of the Contractor and completion of the Work by the Surety. No further payments shall be made to the Contractor by the Owner. The Surety shall be solely responsible for any accounting to the Contractor for the portion of the Contract Sum paid to Surety by Owner or for the costs and expenses of completing the Work.

(4) Wrongful Termination: If any notice of termination by the Owner for cause, made in good faith, is determined to have been wrongly given, such termination shall be effective and compensation therefore determined as if it had been a termination for convenience pursuant to Paragraph B below.

B. TERMINATION by the OWNER for CONVENIENCE

(1) The Owner may, without cause and at any time, terminate the performance of Work under the Contract in whole, or in part, upon determination by the Owner that such termination is in the Owner's best interest. Such termination is referred to herein as Termination for Convenience.

(2) Upon receipt of a written notice of Termination for Convenience from the Owner, the Contractor shall:

(a) stop Work as specified in the notice;

(b) enter into no further subcontracts or purchase orders for materials, services, or facilities, except as may be necessary for Work directed to be performed prior to the effective date of the termination or to complete Work that is not terminated;

(c) terminate all existing subcontracts and purchase orders to the extent they relate to the terminated Work;

(d) take such actions as are necessary, or directed by the Architect or Owner, to protect, preserve, and make safe the terminated Work; and

(e) complete performance of the Work that is not terminated.

(3) In the event of Termination for Convenience, the Contractor shall be entitled to receive payment for the Work performed prior to its termination, including materials and equipment purchased and delivered for incorporation into the terminated Work, and any reasonable costs incurred because of the termination. Such payment shall include reasonable mark-up of costs for overhead and profit, not to exceed the limits stated in Article 19, Changes in the Work. The Contractor shall be entitled to receive payment for reasonable anticipated overhead ("home office") and shall not be entitled to receive payment for any profits anticipated to have been gained from the terminated Work. A proposal for decreasing the Contract Sum shall be submitted to the Architect by the Contractor in such time and detail, and with such supporting documentation, as is reasonably

directed by the Owner. Final modification of the Contract shall be by Contract Change Order pursuant to Article 19. Any Claim or Dispute involving the termination or any amount due a party as a result shall be resolved pursuant to Article 24.

ARTICLE 28
CONTRACTOR'S RIGHT to SUSPEND or TERMINATE the CONTRACT

A. SUSPENSION by the OWNER

If all of the Work is suspended or delayed for the Owner's convenience or under an order of any court, or other public authority, for a period of sixty days, through no act or fault of the Contractor or a Subcontractor, or anyone for whose acts they may be liable, then the Contractor may give the Owner a written Notice of Termination which allows the Owner fourteen days after receiving the Notice in which to give the Contractor appropriate written authorization to resume the Work. Absent the Contractor's receipt of such authorization to resume the Work, the Contract shall terminate upon expiration of this fourteen day period and the Contractor will be compensated by the Owner as if the termination had been for the Owner's convenience pursuant to Article 27.B.

B. NONPAYMENT

The Owner's failure to pay the undisputed amount of an Application for Payment within sixty days after receiving it from the Architect (Certified pursuant to Article 30) shall be just cause for the Contractor to give the Owner fourteen days' written notice that the Work will be suspended pending receipt of payment but that the Contract shall terminate if payment is not received within fourteen days (or a longer period stated by the Contractor) of the expiration of the fourteen day notice period.

(1) If the Work is then suspended for nonpayment, but resumed upon receipt of payment, the Contractor will be entitled to compensation as if the suspension had been by the Owner pursuant to Article 26, Paragraph B.

(2) If the Contract is then terminated for nonpayment, the Contractor will be entitled to compensation as if the termination had been by the Owner pursuant to Article 27, Paragraph B.

ARTICLE 29
PROGRESS PAYMENTS

A. FREQUENCY of PROGRESS PAYMENTS

Unless otherwise provided in the Contract Documents, the Owner will make payments to the Contractor as the Work progresses based on monthly estimates prepared and certified by the Contractor, approved and certified by the Architect, and approved by the Owner and other authorities whose approval is required.

B. SCHEDULE of VALUES

Within ten days after receiving the Notice to Proceed the Contractor shall submit to the Architect a

DCM Form C-10SOV, Schedule of Values, which is a breakdown of the Contract Sum showing the value of the various parts of the Work for billing purposes. The Schedule of Values shall be printable on 8.5" × 11" for DCM's scanning purposes and shall divide the Contract Sum into as many parts ("line items") as the Architect and Owner determine necessary to permit evaluation and to show amounts attributable to Subcontractors. The Contractor's overhead and profit are to be proportionately distributed throughout the line items of the Schedule of Values. Upon approval, the Schedule of Values shall be used as a basis for monthly Applications for Payment, unless it is later found to be in error. Approved change order amounts shall be added to or incorporated into the Schedule of Values as mutually agreed by the Contractor and Architect.

C. APPLICATIONS for PAYMENTS

(1) Based on the approved Schedule of Values, each DCM Form C-10, Application and Certificate for Payment shall show the Contractor's estimate of the value of Work performed in each line item as of the end of the billing period. The Contractor's cost of materials and equipment not yet incorporated into the Work, but delivered and suitably stored on the site, may be considered in monthly Applications for Payment. One payment application per month may be submitted. Each DCM Form C-10, Application and Certificate for Payment shall match to the penny and be accompanied by an attached DCM Form C-10SOV, Schedule of Values.

(2) The Contractor's estimate of the value of Work performed and stored materials must represent such reasonableness as to warrant certification by the Architect to the Owner in accordance with Article 30. Each monthly Application for Payment shall be supported by such data as will substantiate the Contractor's right to payment, including without limitation copies of requisitions from subcontractors and material suppliers.

(3) If no other date is stated in the Contract Documents or agreed upon by the parties, each Application for Payment shall be submitted to the Architect on or about the first day of each month and payment shall be issued to the Contractor within thirty days after an Application for Payment is Certified pursuant to Article 30 and delivered to the Owner.

(4) Four copies of DCM Form C-10, Application and Certificate for Payment containing original signatures, with each copy of DCM Form C-10 to include all attachments, shall be submitted to DCM for review following the Contractor's, Notary's, Architect's and Owner's signatures.

D. MATERIALS STORED OFF SITE

Unless otherwise provided in the Contract Documents, the Contractor's cost of materials and equipment to be incorporated into the Work, which are stored off the site, may also be considered in monthly Applications for Payment under the following conditions:

(1) the contractor has received written approval from the Architect and Owner to store the materials or equipment off site in advance of delivering the materials to the off site location;

(2) a Certificate of Insurance is furnished to the Architect evidencing that a special insurance policy, or rider to an existing policy, has been obtained by the Contractor providing all-risk property insurance coverage, specifically naming the materials or equipment stored, and naming the Owner as an additionally insured party;

(3) the Architect is provided with a detailed inventory of the stored materials or equipment and the materials or equipment are clearly marked in correlation to the inventory to facilitate inspection and verification of the presence of the materials or equipment by the Architect or

Owner;

(4) the materials or equipment are properly and safely stored in a bonded warehouse, or a facility otherwise approved in advance by the Architect and Owner; and

(5) 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.

E. RETAINAGE

(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 the materials stored for the Work; but after retainage has been held upon fifty percent of the Contract Sum, no additional retainage will be withheld.

F. CONTRACTOR'S CERTIFICATION

(1) Each Application for Payment shall bear the Contractor's notarized certification that, to the best of the Contractor's knowledge, information, and belief, the Work covered by the Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payments were issued and payments received from the Owner and that the current payment shown in the Application for Payment has not yet been received.

(2) By making this certification the Contractor represents to the Architect and Owner that, upon receipt of previous progress payments from the Owner, the Contractor has promptly paid each Subcontractor, in accordance with the terms of its agreement with the Subcontractor, the amount due the Subcontractor from the amount included in the progress payment on account of the Subcontractor's Work and stored materials. The Architect and Owner may advise Subcontractors and suppliers regarding percentages of completion or amounts requested and/or approved in an Application for Payment on account of the Subcontractor's Work and stored materials.

G. PAYMENT ESTABLISHES OWNERSHIP

All material and Work covered by progress payments shall become the sole property of the Owner, but the Contractor shall not be relieved from the sole responsibility for the care and protection of material and Work upon which payments have been made and for the restoration of any damaged material and Work.

ARTICLE 30
CERTIFICATION and APPROVALS for PAYMENT

A. The Architect's review, approval, and certification of Applications for Payment shall be based on the Architect's general knowledge of the Work obtained through site visits and the information provided by the Contractor with the Application. The Architect shall not be required to perform

exhaustive examinations, evaluations, or estimates of the cost of completed or uncompleted Work or stored materials to verify the accuracy of amounts requested by the Contractor, but the Architect shall have the authority to adjust the Contractor's estimate when, in the Architect's reasonable opinion, such estimates are overstated or understated.

B. Within seven days after receiving the Contractor's monthly Application for Payment, or such other time as may be stated in the Contract Documents, the Architect will take one of the following actions:

(1) The Architect will approve and certify the Application as submitted and forward it to the Owner as a Certification for Payment for approval by the Owner (and other approving authorities, if any) and payment.

(2) If the Architect takes exception to any amounts claimed by the Contractor and the Contractor and Architect cannot agree on revised amounts, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to certify to the Owner, transmitting a copy of same to the Contractor.

(3) To the extent the Architect determines may be necessary to protect the Owner from loss on account of any of the causes stated in Article 31, the Architect may subtract from the Contractor's estimates and will issue a Certificate for Payment to the Owner, with a copy to the Contractor, for such amount as the Architect determines is properly due and notify the Contractor and Owner in writing of the Architect's reasons for withholding payment in whole or in part.

C. Neither the Architect's issuance of a Certificate for Payment nor the Owner's resulting progress payment shall be a representation to the Contractor that the Work in progress or completed at that time is accepted or deemed to be in conformance with the Contract Documents.

D. The Architect shall not be required to determine that the Contractor has promptly or fully paid Subcontractors and suppliers or how or for what purpose the Contractor has used monies paid under the Construction Contract. However, the Architect may, upon request and if practical, inform any Subcontractor or supplier of the amount, or percentage of completion, approved or paid to the Contractor on account of the materials supplied or the Work performed by the Subcontractor.

ARTICLE 31
PAYMENTS WITHHELD

A. The Architect may nullify or revise a previously issued Certificate for Payment prior to Owner's payment thereunder to the extent as may be necessary in the Architect's opinion to protect the Owner from loss on account of any of the following causes not discovered or fully accounted for at the time of the certification or approval of the Application for Payment:

(1) Defective Work;
(2) filed, or reasonable evidence indicating probable filing of, claims arising out of the Contract by other parties against the Contractor;
(3) the Contractor's failure to pay for labor, materials or equipment or to pay Subcontractors;
(4) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
(5) damage suffered by the Owner or another contractor caused by the Contractor, a

Subcontractor, or anyone for whose acts they may be liable;

(6) reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance is insufficient to cover applicable liquidated damages; or

(7) the Contractor's persistent failure to conform to the requirements of the Contract Documents.

B. If the Owner deems it necessary to withhold payment pursuant to preceding Paragraph A, the Owner will notify the Contractor and Architect in writing of the amount to be withheld and the reason for same.

C. The Architect shall not be required to withhold payment for completed or partially completed Work for which compliance with the Contract Documents remains to be determined by Specified Inspections or Final Inspections to be performed in their proper sequence. However, if Work for which payment has been approved, certified, or made under an Application for Payment is subsequently determined to be Defective Work, the Architect shall determine an appropriate amount that will protect the Owner's interest against the Defective Work.

(1) If payment has not been made against the Application for Payment first including the Defective Work, the Architect will notify the Owner and Contractor of the amount to be withheld from the payment until the Defective Work is brought into compliance with the Contract Documents.

(2) If payment has been made against the Application for Payment first including the Defective Work, the Architect will withhold the appropriate amount from the next Application for Payment submitted after the determination of noncompliance, such amount to then be withheld until the Defective Work is brought into compliance with the Contract Documents.

D. The amount withheld will be paid with the next Application for Payment certified and approved after the condition for which the Owner has withheld payment is removed or otherwise resolved to the Owner's satisfaction.

E. The Owner shall have the right to withhold from payments due the Contractor under this Contract an amount equal to any amount which the Contractor owes the Owner under another contract.

ARTICLE 32
SUBSTANTIAL COMPLETION

A. Substantial Completion is the stage in the progress of the Work when the Work or designated portion of the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use without disruption or interference by the Contractor in completing or correcting any remaining unfinished Work ("punch list" items). Substantial Completion of the Work, or a designated portion of the Work, is not achieved until so agreed in a Certificate of Substantial Completion signed by the Contractor, Architect, Owner, and Technical Staff of the Alabama Division of Construction Management.

B. The Contractor shall notify the Architect in writing when it considers the Work, or a portion of the Work which the Owner has agreed to accept separately, to be substantially complete and ready for a Final Inspection pursuant to Article 16. In this notification the Contractor shall identify any items remaining to be completed or corrected for Final Acceptance prior to final payment.

C. Substantial Completion is achieved and a Final Inspection is appropriate only when a minimal number of punch list items exists and only a short period of time will be required to correct or complete them. Upon receipt of the Contractor's notice for a Final Inspection, the Architect will advise the Contractor in writing of any conditions of the Work which the Architect or Owner is aware do not constitute Substantial Completion, otherwise, a Final Inspection will proceed within a reasonable time after the Contractor's notice is given. However, the Architect will not be required to prepare lengthy listings of punch list items; therefore, if the Final Inspection discloses that Substantial Completion has not been achieved, the Architect may discontinue or suspend the inspection until the Contractor does achieve Substantial Completion.

D. CERTIFICATE of SUBSTANTIAL COMPLETION

(1) When the Work or a designated portion of the Work is substantially complete, the Architect will prepare and sign a Certificate of Substantial Completion to be signed in order by the Contractor, Owner, and Alabama Division of Construction Management.

(2) When signed by all parties, the Certificate of Substantial Completion shall establish the Date of Substantial Completion which is the date upon which:

(a) the Work, or designated portion of the Work, is accepted by the Architect, Owner, and Alabama Division of Construction Management as being ready for occupancy,

(b) the Contractor's one-year and special warranties for the Work covered by the Certificate commence, unless stated otherwise in the Certificate (the one-year warranty for punch list items completed or corrected after the period allowed in the Certificate shall commence on the date of their Final Acceptance), and

(c) Owner becomes responsible for building security, maintenance, utility services, and insurance, unless stated otherwise in the Certificate.

(3) The Certificate of Substantial Completion shall set the time within which the Contractor shall finish all items on the "punch list" accompanying the Certificate. The completion of punch list items shall be a condition precedent to Final Payment.

(4) If the Work or designated portion covered by a Certificate of Substantial Completion includes roofing work, the General Contractor's (5-year) Roofing Guarantee, DCM Form C-9, must be executed by the Contractor and attached to the Certificate of Substantial Completion. If the Contract Documents specify any other roofing warranties to be provided by the roofing manufacturer, Subcontractor, or Contractor, they must also be attached to the Certificate of Substantial Completion. The Alabama Division of Construction Management will not sign the Certificate of Substantial Completion in the absence of the roofing guarantees.

E. The Date of Substantial Completion of the Work, as set in the Certificate of Substantial Completion of the Work or of the last completed portion of the Work, establishes the extent to which the Contractor is liable for Liquidated Damages, if any; however, should the Contractor fail to complete all punch list items within thirty days, or such other time as may be stated in the respective Certificate of Substantial Completion, the Contractor shall bear any expenses, including additional Architectural services and expenses, incurred by the Owner as a result of such failure to complete punch list items in a timely manner.

ARTICLE 33
OCCUPANCY or USE PRIOR to COMPLETION

A. UPON SUBSTANTIAL COMPLETION

Prior to completion of the entire Work, the Owner may occupy or begin utilizing any designated portion of the Work on the agreed Date of Substantial Completion of that portion of the Work.

B. BEFORE SUBSTANTIAL COMPLETION

(1) The Owner shall not occupy or utilize any portion of the Work before Substantial Completion of that portion has been achieved.

(2) The Owner may deliver furniture and equipment and store, or install it in place ready for occupancy and use, in any designated portion of the Work before it is substantially completed under the following conditions:

(a) The Owner's storage or installation of furniture and equipment will not unreasonably disrupt or interfere with the Contractor's completion of the designated portion of the Work.

(b) The Contractor consents to the Owner's planned action (such consent shall not be unreasonably withheld).

(c) The Owner shall be responsible for insurance coverage of the Owner's furniture and equipment, and the Contractor's liability shall not be increased.

(d) The Contractor, Architect, and Owner will jointly inspect and record the condition of the Work in the area before the Owner delivers and stores or installs furniture and equipment; the Owner will equitably compensate the Contractor for making any repairs to the Work that may subsequently be required due to the Owner's delivery and storage or installation of furniture and equipment.

(e) The Owner's delivery and storage or installation of furniture and equipment shall not be deemed an acceptance of any Work not completed in accordance with the requirements of the Contract Documents.

ARTICLE 34
FINAL PAYMENT

A. PREREQUISITES to FINAL PAYMENT

The following conditions are prerequisites to Final Payment becoming due the Contractor:

(1) Full execution of a Certificate of Substantial Completion for the Work, or each designated portion of the Work.

(2) Final Acceptance of the Work.

(3) The Contractor's completion, to the satisfaction of the Architect and Owner, of all documentary requirements of the Contract Documents; such as delivery of "as-built" documents, operating and maintenance manuals, warranties, etc.

(4) Delivery to the Owner of a final Application for Payment, prepared by the Contractor and approved and certified by the Architect. Architect prepares DCM Form B-13: Final Payment Checklist and forwards it to the Owner along with the final Application for Payment.

(5) Completion of an Advertisement for Completion pursuant to Paragraph C below.

(6) Delivery by the Contractor to the Owner through the Architect of DCM Form C-18: Contractor's Affidavit of Payment of Debts and Claims, and a Release of Claims, if any, and

such other documents as may be required by Owner, satisfactory in form to the Owner pursuant to Paragraph D below.

(7) Consent of Surety to Final Payment, if any, to Contractor. This Consent of Surety is required for projects which have Payment and Performance Bonds.

(8) Delivery by the Contractor to the Architect and Owner of other documents, if any, required by the Contract Documents as prerequisites to Final Payment.

(9) See Manual of Procedures Chapter 7, Section L.7 concerning reconciliation of contract time, if any.

B. FINAL ACCEPTANCE of the WORK

"Final Acceptance of the Work" shall be achieved when all "punch list" items recorded with the Certificate(s) of Substantial Completion are accounted for by either: **(1)** their completion or correction by the Contractor and acceptance by the Architect, Owner, and DCM Project Inspector, or **(2)** their resolution under Article 18, Deductions for Uncorrected Work.

C. ADVERTISEMENT for COMPLETION

(1) If the Contract Sum is $50,000 or less: The Owner, immediately after being notified by the Architect that all other requirements of the Contract have been completed, shall give public notice of completion of the Contract by having an Advertisement for Completion published one time in a newspaper of general circulation, published in the county in which the Owner is located for one week, and shall require the Contractor to certify under oath that all bills have been paid in full. Final payment may be made at any time after the notice has been posted for one entire week.

(2) If the Contract Sum is more than $50,000: The Contractor, immediately after being notified by the Architect that all other requirements of the Contract have been completed, shall give public notice of completion of the Contract by having an Advertisement for Completion, similar to the sample contained in the Project Manual, published for a period of four successive weeks in some newspaper of general circulation published within the city or county where the Work was performed. Proof of publication of the Advertisement for Completion shall be made by the Contractor to the Architect by affidavit of the publisher, in duplicate, and a printed copy of the Advertisement for Completion published, in duplicate. If no newspaper is published in the county where the work was done, the notice may be given by posting at the Court House for thirty days and proof of same made by Probate Judge or Sheriff and the Contractor. Final payment shall not be due until thirty days after this public notice is completed.

D. RELEASE of CLAIMS

The Release of Claims and other documents referenced in Paragraph A(6) above are as follows:

(1) A release executed by Contractor of all claims and claims of lien against the Owner arising under and by virtue of the Contract, other than such claims of the Contractor, if any, as may have been previously made in writing and as may be specifically excepted by the Contractor from the operation of the release in stated amounts to be set forth therein.

(2) An affidavit under oath, if required, stating that so far as the Contractor has knowledge or information, there are no claims or claims of lien which have been or will be filed by any Subcontractor, Supplier or other party for labor or material for which a claim or claim of lien could be filed.

(3) A release, if required, of all claims and claims of lien made by any Subcontractor, Supplier or other party against the Owner or unpaid Contract funds held by the Owner arising under or related to the Work on the Project; provided, however, that if any Subcontractor, Supplier or others refuse to furnish a release of such claims or claims of lien, the Contractor may furnish a bond executed by Contractor and its Surety to the Owner to provide an unconditional obligation to defend, indemnify and hold harmless the Owner against any loss, cost or expense, including attorney's fees, arising out of or as a result of such claims, or claims of lien, in which event Owner may make Final Payment notwithstanding such claims or claims of lien. If Contractor and Surety fail to fulfill their obligations to Owner under the bond, the Owner shall be entitled to recover damages as a result of such failure, including all costs and reasonable attorney's fees incurred to recover such damages.

E. EFFECT of FINAL PAYMENT

(1) The making of Final Payment shall constitute a waiver of Claims by the Owner except those arising from:

- **(a)** liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- **(b)** failure of the Work to comply with the requirements of the Contract Documents;
- **(c)** terms of warranties or indemnities required by the Contract Documents, or
- **(d)** latent defects.

(2) Acceptance of Final Payment by the Contractor shall constitute a waiver of claims by Contractor except those previously made in writing, identified by Contractor as unsettled at the time of final Application for Payment, and specifically excepted from the release provided for in Paragraph D(1), above.

ARTICLE 35
CONTRACTOR'S WARRANTY

A. GENERAL WARRANTY

The Contractor warrants to the Owner and Architect that all materials and equipment furnished under the Contract will be of good quality and new, except such materials as may be expressly provided or allowed in the Contract Documents to be otherwise, and that none of the Work will be Defective Work as defined in Article 1.

B. ONE-YEAR WARRANTY

(1) If, within one year after the date of Substantial Completion of the Work or each designated portion of the Work (or otherwise as agreed upon in a mutually-executed Certificate of Substantial Completion), any of the Work is found to be Defective Work, the Contractor shall promptly upon receipt of written notice from the Owner or Architect, and without expense to either, replace or correct the Defective Work to conform to the requirements of the Contract Documents, and repair all damage to the site, the building and its contents which is the result of Defective Work or its replacement or correction.

(2) The one-year warranty for punch list items shall begin on the Date of Substantial Completion if they are completed or corrected within the time period allowed in the Certificate of Substantial Completion in which they are recorded. The one-year warranty for punch list items that are not

completed or corrected within the time period allowed in the Certificate of Substantial Completion, and other Work performed after Substantial Completion, shall begin on the date of Final Acceptance of the Work. The Contractor's correction of Work pursuant to this warranty does not extend the period of the warranty. The Contractor's one-year warranty does not apply to defects or damages due to improper or insufficient maintenance, improper operation, or wear and tear during normal usage.

(3) Upon recognizing a condition of Defective Work, the Owner shall promptly notify the Contractor of the condition. If the condition is causing damage to the building, its contents, equipment, or site, the Owner shall take reasonable actions to mitigate the damage or its continuation, if practical. If the Contractor fails to proceed promptly to comply with the terms of the warranty, or to provide the Owner with satisfactory written verification that positive action is in process, the Owner may have the Defective Work replaced or corrected and the Contractor and the Contractor's Surety shall be liable for all expense incurred.

(4) Year-end Inspection(s): An inspection of the Work, or each separately completed portion thereof, is required near the end of the Contractor's one-year warranty period(s). The inspection must be scheduled with the Owner, Architect and DCM Inspector. The subsequent delivery of the Architect's report of a Year-end Inspection will serve as confirmation that the Contractor was notified of Defective Work found within the warranty period.

(5) The Contractor's warranty of one year is in addition to, and not a limitation of, any other remedy stated herein or available to the Owner under applicable law.

C. GENERAL CONTRACTOR'S ROOFING GUARANTEE

(1) In addition to any other roof related warranties or guarantees that may be specified in the Contract Documents, the roof and associated work shall be guaranteed by the General Contractor against leaks and defects of materials and workmanship for a period of five (5) years, starting on the Date of Substantial Completion of the Project as stated in the Certificate of Substantial Completion. This guarantee for punch list items shall begin on the Date of Substantial Completion if they are completed or corrected within the time period allowed in the Certificate of Substantial Completion in which they are recorded. The guarantee for punch list items that are not completed or corrected within the time period allowed in the Certificate of Substantial Completion shall begin on the date of Final Acceptance of the Work.

(2) The "General Contractor's Roofing Guarantee" (DCM Form C-9), included in the Project Manual, shall be executed in triplicate, signed by the appropriate party and submitted to the Architect for submission with the Certificate of Substantial Completion to the Owner and the Division of Construction Management.

(3) This guarantee does not include costs which might be incurred by the General Contractor in making visits to the site requested by the Owner regarding roof problems that are due to lack of proper maintenance (keeping roof drains and/or gutters clear of debris that cause a stoppage of drainage which results in water ponding, overflowing of flashing, etc.), or damages caused by vandalism or misuse of roof areas. Should the contractor be required to return to the job to correct problems of this nature that are determined not to be related to faulty workmanship and materials in the installation of the roof, payment for actions taken by the Contractor in response to such request will be the responsibility of the Owner. A detailed written report shall be made by the General Contractor on each of these 'Service Calls' with copies to the Architect, Owner and Division of

Construction Management.

D. SPECIAL WARRANTIES

(1) The Contractor shall deliver to the Owner through the Architect all special or extended warranties required by the Contract Documents from the Contractor, Subcontractors, and suppliers.

(2) The Contractor and the Contractor's Surety shall be liable to the Owner for such special warranties during the Contractor's one-year warranty; thereafter, the Contractor's obligations relative to such special warranties shall be to provide reasonable assistance to the Owner in their enforcement.

E. ASSUMPTION of GUARANTEES of OTHERS

If the Contractor disturbs, alters, or damages any work guaranteed under a separate contract, thereby voiding the guarantee of that work, the Contractor shall restore the work to a condition satisfactory to the Owner and shall also guarantee it to the same extent that it was guaranteed under the separate contract.

ARTICLE 36
INDEMNIFICATION AGREEMENT

To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Owner, Architect, Architect's consultants, Alabama Division of Construction Management, State Department of Education (if applicable), and their agents, employees, and consultants (hereinafter collectively referred to as the "Indemnitees") from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of, related to, 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, including loss of use resulting therefrom, and is caused in whole or in part by 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 such claim, damage, loss or expense is caused in part, or is alleged but not legally established to have been caused in whole or in part by the negligence or other fault of a party indemnified hereunder.

A. This indemnification shall extend to all claims, damages, losses and expenses for injury or damage to adjacent or neighboring property, or persons injured thereon, that arise out of, relate to, or result from performance of the Work.

B. This indemnification does not extend to the liability of the Architect, or the Architect's Consultants, agents, or employees, arising out of **(1)** the preparation or approval of maps, shop drawings, opinions, reports, surveys, field orders, Change Orders, drawings or specifications, or **(2)** the giving of or the failure to give directions or instructions, provided such giving or failure to give instructions is the primary cause of the injury or damage.

C. This indemnification does not apply to the extent of the sole negligence of the Indemnitees.

ARTICLE 37
CONTRACTOR'S and SUBCONTRACTORS' INSURANCE

(Provide entire Article 37 to Contractor's insurance representative.)

A. GENERAL

(1) RESPONSIBILITY. The Contractor shall be responsible to the Owner from the time of the signing of the Construction Contract or from the beginning of the first work, whichever shall be earlier, for all injury or damage of any kind resulting from any negligent act or omission or breach, failure or other default regarding the work by the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of who may be the owner of the property.

(2) INSURANCE PROVIDERS. Each of the insurance coverages required below shall be issued by an insurer licensed by the Insurance Commissioner to transact the business of insurance in the State of Alabama for the applicable line of insurance, and such insurer (or, for qualified self-insureds or group self-insureds, a specific excess insurer providing statutory limits) must have a Best Policyholders Rating of "A-" or better and a financial size rating of Class V or larger.

(3) NOTIFICATION ENDORSEMENT. Each policy shall be endorsed to provide that the insurance company agrees that the policy shall not be canceled, changed, allowed to lapse or allowed to expire for any reason until thirty days after the Owner has received written notice by certified mail as evidenced by return receipt or until such time as other insurance coverage providing protection equal to protection called for in the Contract Documents shall have been received, accepted and acknowledged by the Owner. Such notice shall be valid only as to the Project as shall have been designated by Project Name and Number in said notice.

(4) INSURANCE CERTIFICATES. The Contractor shall procure the insurance coverages identified below, or as otherwise required in the Contract Documents, at the Contractor's own expense, and to evidence that such insurance coverages are in effect, the Contractor shall furnish the Owner an insurance certificate(s) acceptable to the Owner and listing the Owner as the certificate holder. The insurance certificate(s) must be delivered to the Owner with the Construction Contract and Bonds for final approval and execution of the Construction Contract. The insurance certificate must provide the following:

- **(a)** Name and address of authorized agent of the insurance company
- **(b)** Name and address of insured
- **(c)** Name of insurance company or companies
- **(d)** Description of policies
- **(e)** Policy Number(s)
- **(f)** Policy Period(s)
- **(g)** Limits of liability
- **(h)** Name and address of Owner as certificate holder
- **(i)** Project Name and Number, if any
- **(j)** Signature of authorized agent of the insurance company
- **(k)** Telephone number of authorized agent of the insurance company
- **(l)** Mandatory thirty day notice of cancellation / non-renewal / change

(5) MAXIMUM DEDUCTIBLE. Self-insured retention, except for qualified self-insurers or

group self-insurers, in any policy shall not exceed $25,000.00.

B. INSURANCE COVERAGES

Unless otherwise provided in the Contract Documents, the Contractor shall purchase the types of insurance coverages with liability limits not less than as follows:

(1) WORKERS' COMPENSATION and EMPLOYER'S LIABILITY INSURANCE

(a) Workers' 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 the Contractor qualifies to pay its own workers' compensation claims.

(b) Employer's Liability Insurance limits shall be at least:

.1 Bodily Injury by Accident - $1,000,000 each accident

.2 Bodily Injury by Disease - $1,000,000 each employee

(2) COMMERCIAL GENERAL LIABILITY INSURANCE

(a) Commercial General Liability Insurance, written on an ISO Occurrence Form (current edition as of the date of Advertisement for 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:

Coverage	Limit
.1 General Aggregate	$ 2,000,000.00 per Project
.2 Products, Completed Operations Aggregate	$ 2,000,000.00 per Project
.3 Personal and Advertising Injury	$ 1,000,000.00 per Occurrence
.4 Each Occurrence	$ 1,000,000.00

(b) Additional Requirements for Commercial General Liability Insurance:

.1 The policy shall name the Owner, Architect, Alabama Division of Construction Management, State Department of Education (if applicable), and their agents, consultants and employees as additional insureds, state that this coverage shall be primary insurance for the additional insureds; and contain no exclusions of the additional insureds relative to job accidents.

.2 The policy must include separate per project aggregate limits.

(3) COMMERCIAL BUSINESS AUTOMOBILE LIABILITY INSURANCE

(a) Commercial Business Automobile Liability Insurance which 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.

(b) The policy shall name the Owner, Architect, Alabama Division of Construction Management, State Department of Education (if applicable), and their agents, consultants, and employees as additional insureds.

(4) COMMERCIAL UMBRELLA LIABILITY INSURANCE

(a) Commercial Umbrella Liability Insurance to provide excess coverage above the

Commercial General Liability, Commercial Business Automobile Liability and the Workers' Compensation and Employer's Liability to satisfy the minimum limits set forth herein.

(b) Minimum Combined Primary Commercial General Liability and Commercial/Excess Umbrella Limits of:

.1 $ 5,000,000 per Occurrence

.2 $ 5,000,000 Aggregate

(c) Additional Requirements for Commercial Umbrella Liability Insurance:

.1 The policy shall name the Owner, Architect, Alabama Division of Construction Management, State Department of Education (if applicable), and their agents, consultants, and employees as additional insureds.

.2 The policy must be on an "occurrence" basis.

(5) BUILDER'S RISK INSURANCE

(a) The Builder's Risk Policy shall be made payable to the Owner and Contractor, as their interests may appear. The policy amount shall be equal to 100% of the Contract Sum, written on a Causes of Loss - Special Form (current edition as of the date of Advertisement for Bids), or its equivalent. All deductibles shall be the sole responsibility of the Contractor.

(b) The policy shall be endorsed as follows:

"The following may occur without diminishing, changing, altering or otherwise affecting the coverage and protection afforded the insured under this policy:

(i) Furniture and equipment may be delivered to the insured premises and installed in place ready for use; or

(ii) Partial or complete occupancy by Owner; or

(iii) Performance of work in connection with construction operations insured by the Owner, by agents or lessees or other contractors of the Owner, or by contractors of the lessee of the Owner."

C. SUBCONTRACTORS' INSURANCE

(1) WORKERS' COMPENSATION and EMPLOYER'S LIABILITY INSURANCE. The Contractor shall require each Subcontractor to obtain and maintain Workers' Compensation and Employer's Liability Insurance coverages as described in preceding Paragraph B, or to be covered by the Contractor's Workers' Compensation and Employer's Liability Insurance while performing Work under the Contract.

(2) LIABILITY INSURANCE. The Contractor shall require each Subcontractor to obtain and maintain adequate General Liability, Automobile Liability, and Umbrella Liability Insurance coverages similar to those described in preceding Paragraph B. Such coverage shall be in effect at all times that a 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 Architect or Owner acceptable evidence of insurance for any Subcontractor.

D. 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) BUILDER'S RISK INSURANCE. The obligation to insure under Subparagraph B(5) shall remain in effect until the Date of Substantial Completion as shall be established in the Certificate of Substantial Completion. In the event that multiple Certificates of Substantial Completion covering designated portions of the Work are issued, Builder's Risk coverage shall remain in effect until the Date of Substantial Completion as shall be established in the last issued Certificate of Substantial Completion. However, in the case that the Work involves separate buildings, Builder's Risk coverage of each separate building may terminate on the Date of Substantial Completion as established in the Certificate of Substantial Completion issued for each building.

(2) PRODUCTS and COMPLETED OPERATIONS. The obligation to carry Products and Completed Operations coverage specified under Subparagraph B(2) shall remain in effect for two years after the Date(s) of Substantial Completion.

(3) ALL OTHER INSURANCE. The obligation to carry other insurance coverages specified under Subparagraphs B(1) through B(4) and Paragraph C 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.

E. WAIVERS of SUBROGATION

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, and (2) the Architect, Architect's consultants, separate contractors performing construction or operations related to the Project, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss. But said waiver shall apply only to the extent the loss or damage is covered by builder's risk insurance applicable to the Work or to other property located within or adjacent to the Project, except such rights as they may have to proceeds of such insurance held by the Owner or Contractor as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors, if any, and the subcontractor, sub-subcontractors, suppliers, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The Policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to the person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged. The waivers provided for in this paragraph shall not be applicable to loss or damage that occurs after final acceptance of the Work.

ARTICLE 38
PERFORMANCE and PAYMENT BONDS

A. GENERAL

Upon signing and returning the Construction Contract to the Owner for final approval and execution, the Contractor shall, at the Contractor's expense, furnish to the Owner a Performance Bond and a Payment Bond (P&P Bonds), DCM Forms C-6 and C-7 as contained in the Project

Manual, each in a penal sum equal to 100% of the Contract Sum. Each bond shall be on the form contained in the Project Manual, shall be executed by a surety company (Surety) acceptable to the Owner and duly authorized and qualified to make such bonds in the State of Alabama in the required amount. There shall be six original P&P Bonds submitted with original signatures for each of the six contracts required. The P&P bonds must be signed either on the same day or after the construction contract date. Each P&P Bond shall have attached thereto an original power of attorney (POA) of the signing official. The POA signature date must be the same day as the P&P Bond's signature date. All signatures must be present.

The provisions of this Article are not applicable to this Contract if the Contract Sum is less than $50,000, unless bonds are required for this Contract in the Supplemental General Conditions.

B. PERFORMANCE BOND

Through the Performance Bond, the Surety's obligation to the Owner shall be to assure the prompt and faithful performance of the Contract and Contract Change Orders. The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. In case of default on the part of the Contractor, the Surety shall take charge of and complete the Work in accordance with the terms of the Performance Bond. Any reasonable expenses incurred by the Owner as a result of default on the part of the Contractor, including architectural, engineering, administrative, and legal services, shall be recoverable under the Performance Bond.

C. PAYMENT BOND

Through the Payment Bond the Surety's obligation to the Owner shall be to guarantee that the Contractor and its Subcontractors shall promptly make payment to all persons supplying labor, materials, or supplies for, or in, the prosecution of the Work, including the payment of reasonable attorneys fees incurred by successful claimants or plaintiffs in civil actions on the Bond. Any person or entity indicating that they have a claim of nonpayment under the Bond shall, upon written request, be promptly furnished a certified copy of the Bond and Construction Contract by the Contractor, Architect, Owner, or Alabama Division of Construction Management, whomever is recipient of the request.

D. CHANGE ORDERS

The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. All Contract Change Orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the Contract Change Order form. The Surety waives notification of any Contract Change Orders involving only extension of the Contract Time.

E. EXPIRATION

The obligations of the Contractor's performance bond surety shall be coextensive with the contractor's performance obligations under the Contract Documents; provided, however, that the surety's obligation shall expire at the end of the one-year warranty period(s) of Article 35.

ARTICLE 39
ASSIGNMENT

The Contractor shall not assign the Contract or sublet it as a whole nor assign any moneys due or to

become due to the Contractor thereunder without the previous written consent of the Owner (and of the Surety, in the case of a bonded Construction Contract). As prescribed by the Public Works Law, the Contract shall in no event be assigned to an unsuccessful bidder for the Contract whose bid was rejected because the bidder was not a responsible or responsive bidder.

ARTICLE 40
CONSTRUCTION by OWNER or SEPARATE CONTRACTORS

A. OWNER'S RESERVATION of RIGHT

(1) The Owner reserves the right to self-perform, or to award separate contracts for, other portions of the Project and other Project related construction and operations on the site. The contractual conditions of such separate contracts shall be substantially similar to those of this Contract, including insurance requirements and the provisions of this Article. If the Contractor considers such actions to involve delay or additional cost under this Contract, notifications and assertion of claims shall be as provided in Article 20 and Article 23.

(2) When separate contracts are awarded, the term "Contractor" in the separate Contract Documents shall mean the Contractor who executes the respective Construction Contract.

B. COORDINATION

Unless otherwise provided in the Contract Documents, the Owner shall be responsible for coordinating the activities of the Owner's forces and separate contractors with the Work of the Contractor. The Contractor shall cooperate with the Owner and separate contractors, shall participate in reviewing and comparing their construction schedules relative to that of the Contractor when directed to do so, and shall make and adhere to any revisions to the construction schedule resulting from a joint review and mutual agreement.

C. CONDITIONS APPLICABLE to WORK PERFORMED by OWNER

Unless otherwise provided in the Contract Documents, when the Owner self-performs construction or operations related to the Project, the Owner shall be subject to the same obligations to Contractor as Contractor would have to a separate contractor under the provision of this Article 40.

D. MUTUAL RESPONSIBILITY

(1) The Contractor shall reasonably accommodate the required introduction and storage of materials and equipment and performance of activities by the Owner and separate contractors and shall connect and coordinate the Contractor's Work with theirs as required by the Contract Documents.

(2) By proceeding with an element or portion of the Work that is applied to or performed on construction by the Owner or a separate contractor, or which relies upon their operations, the Contractor accepts the condition of such construction or operations as being suitable for the Contractor's Work, except for conditions that are not reasonably discoverable by the Contractor. If the Contractor discovers any condition in such construction or operations that is not suitable for the proper performance of the Work, the Contractor shall not proceed, but shall instead promptly notify

the Architect in writing of the condition discovered.

(3) The Contractor shall reimburse the Owner for any costs incurred by a separate contractor and payable by the Owner because of acts or omissions of the Contractor. Likewise, the Owner shall be responsible to the Contractor for any costs incurred by the Contractor because of the acts or omissions of a separate contractor.

(4) The Contractor shall not cut or otherwise alter construction by the Owner or a separate contractor without the written consent of the Owner and separate contractor; such consent shall not be unreasonably withheld. Likewise, the Contractor shall not unreasonably withhold its consent allowing the Owner or a separate contractor to cut or otherwise alter the Work.

(5) The Contractor shall promptly remedy any damage caused by the Contractor to the construction or property of the Owner or separate contractors**.**

ARTICLE 41
SUBCONTRACTS

A. AWARD of SUBCONTRACTS and OTHER CONTRACTS for PORTIONS of the WORK

(1) Unless otherwise provided in the Contract Documents, when delivering the executed Construction Contract, bonds, and evidence of insurance to the Architect, the Contractor shall also submit a listing of Subcontractors proposed for each principal portion of the Work and fabricators or suppliers proposed for furnishing materials or equipment fabricated to the design of the Contract Documents. This listing shall be in addition to any naming of Subcontractors, fabricators, or suppliers that may have been required in the bid process. The Architect will promptly reply to the Contractor in writing stating whether or not the Owner, after due investigation, has reasonable objection to any Subcontractor, fabricator, or supplier proposed by the Contractor. The issuance of the Notice to Proceed in the absence of such objection by the Owner shall constitute notice that no reasonable objection to them is made.

(2) The Contractor shall not contract with a proposed Subcontractor, fabricator, or supplier to whom the Owner has made reasonable and timely objection. Except in accordance with prequalification procedures as may be contained in the Contract Documents, through specified qualifications, or on the grounds of reasonable objection, the Owner may not restrict the Contractor's selection of Subcontractors, fabricators, or suppliers.

(3) Upon the Owner's reasonable objection to a proposed Subcontractor, fabricator, or supplier, the Contractor shall promptly propose another to whom the Owner has no reasonable objection. If the proposed Subcontractor, fabricator, or supplier to whom the Owner made reasonable objection was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be equitably adjusted by Contract Change Order for any resulting difference if the Contractor has acted promptly and responsively in this procedure.

(4) The Contractor shall not change previously selected Subcontractors, fabricators, or suppliers without notifying the Architect and Owner in writing of proposed substitute Subcontractors, fabricators, or suppliers. If the Owner does not make a reasonable objection to a proposed substitute within three working days, the substitute shall be deemed approved.

B. SUBCONTRACTUAL RELATIONS

(1) The Contractor agrees to bind every Subcontractor and material supplier (and require every Subcontractor to so bind its subcontractors and material suppliers) to all the provisions of the Contract Documents as they apply to the Subcontractor's and material supplier's portion of the Work.

(2) Nothing contained in the Contract Documents shall be construed as creating any contractual relationship between any Subcontractor and the Owner, nor to create a duty of the Architect, Owner, or Director to resolve disputes between or among the Contractor or its Subcontractors and suppliers or any other duty to such Subcontractors or suppliers.

ARTICLE 42
ARCHITECT'S STATUS

A. The Architect is an independent contractor performing, with respect to this Contract, pursuant to an agreement executed between the Owner and the Architect. The Architect has prepared the Drawings and Specifications and assembled the Contract Document and is, therefore, charged with their interpretation and clarification as described in the Contract Documents. As a representative of the Owner, the Architect will endeavor to guard the Owner against variances from the requirements of the Contract Documents by the Contractor. On behalf of the Owner, the Architect will administer the Contract as described in the Contract Documents during construction and the Contractor's one-year warranty.

B. So as to maintain continuity in administration of the Contract and performance of the Work, and to facilitate complete documentation of the project record, all communications between the Contractor and Owner regarding matters of or related to the Contract shall be directed through the Architect, unless direct communication is otherwise required to provide a legal notification. Unless otherwise authorized by the Architect, communications by and with the Architect's consultants shall be through the Architect. Unless otherwise authorized by the Contractor, communications by and with Subcontractors and material suppliers shall be through the Contractor.

C. ARCHITECT'S AUTHORITY

Subject to other provisions of the Contract Documents, the following summarizes some of the authority vested in the Architect by the Owner with respect to the Construction Contract and as further described or conditioned in other Articles of these General Conditions of the Contract.

(1) The Architect is authorized to:

(a) approve "minor" deviations as defined in Article 9, Submittals,
(b) make "minor" changes in the Work as defined in Article 19, Changes in the Work,
(c) reject or require the correction of Defective Work,
(d) require the Contractor to stop the performance of Defective Work,
(e) adjust an Application for Payment by the Contractor pursuant to Article 30, Certification and Approval of payments, and
(f) issue Notices to Cure pursuant to Article 27.

(2) The Architect is not authorized to:

(a) revoke, alter, relax, or waive any requirements of the Contract Documents (other than "minor" deviations and changes) without concurrence of the Owner,

(b) finally approve or accept any portion of the Work without concurrence of the Owner,
(c) issue instructions contrary to the Contract Documents,
(d) issue Notice of Termination or otherwise terminate the Contract, or
(e) require the Contractor to stop the Work except only to avoid the performance of Defective Work.

D. LIMITATIONS of RESPONSIBILITIES

(1) The Architect shall not be responsible to Contractors or to others for supervising or coordinating the performance of the Work or for the Construction Methods or safety of the Work, unless the Contract Documents give other specific instructions concerning these matters.
(2) The Architect will not be responsible to the Contractor (nor the Owner) for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents or for acts or omissions of the Contractor, a Subcontractor, or anyone for whose acts they may be liable. However, the Architect will report to the Owner and Contractor any Defective Work recognized by the Architect.

(3) The Architect will endeavor to secure faithful performance by Owner and Contractor, and the Architect will not show partiality to either or be liable to either for results of interpretations or decisions rendered in good faith.

(4) The Contractor's remedies for additional time or expense arising out of or related to this Contract, or the breach thereof, shall be solely as provided for in the Contract Documents. The Contractor shall have no claim or cause of action against the Owner, Architect, or its consultants for any actions or failures to act, whether such claim may be in contract, tort, strict liability, or otherwise, it being the agreement of the parties that the Contractor shall make no claim against the Owner or any agents of the Owner, including the Architect or its consultants, except as may be provided for claims or disputes submitted in accordance with Article 24. The Architect and Architect's consultants shall be considered third party beneficiaries of this provision of the Contract and entitled to enforce same.

E. ARCHITECT'S DECISIONS

Decisions by the Architect shall be in writing The Architect's decisions on matters relating to aesthetic effect will be final and binding if consistent with the intent expressed in the Contract Documents. The Architect's decisions regarding disputes arising between the Contractor and Owner shall be advisory.

ARTICLE 43
CASH ALLOWANCES

A. All allowances stated in the Contract Documents shall be included in the Contract Sum. Items covered by allowances shall be supplied by the Contractor as directed by the Architect or Owner and the Contractor shall afford the Owner the economy of obtaining competitive pricing from responsible bidders for allowance items unless other purchasing procedures are specified in the Contract Documents.

B. Unless otherwise provided in the Contract Documents:
(1) allowances shall cover the cost to the Contractor of materials and equipment delivered to the

Project site and all applicable taxes, less applicable trade discounts;

(2) the Contractor's costs for unloading, storing, protecting, and handling at the site, labor, installation, overhead, profit and other expenses related to materials or equipment covered by an allowance shall be included in the Contract Sum but not in the allowances;

(3) if required, the Contract Sum shall be adjusted by Change Order to reflect the actual costs of an allowance.

C. Any selections of materials or equipment required of the Architect or Owner under an allowance shall be made in sufficient time to avoid delay of the Work.

ARTICLE 44
PERMITS, LAWS, and REGULATIONS

A. PERMITS, FEES AND NOTICES

(1) Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are customarily secured after award of the Construction Contract and which are in effect on the date of receipt of bids.

(2) The Contractor shall comply with and give notices required by all laws, ordinances, rules, regulations, and lawful orders of public authorities applicable to performance of the Work.

B. TAXES

Unless stated otherwise in the Contract Documents, materials incorporated into the Work are exempt from sales and use tax pursuant to Section 40-9-33, Code of Alabama, 1975 as amended. The Owner, Contractor and its subcontractors shall be responsible for complying with rules and regulations of the Sales, Use, & Business Tax Division of the Alabama Department of Revenue regarding certificates and other qualifications necessary to claim such exemption when making qualifying purchases from vendors. The Contractor shall pay all applicable taxes that are not covered by the exemption of Section 40-9-33 and which are imposed as of the date of receipt of bids, including those imposed as of the date of receipt of bids but scheduled to go into effect after that date.

C. COMPENSATION for INCREASES

The Contractor shall be compensated for additional costs incurred because of increases in tax rates imposed after the date of receipt of bids.

D. ALABAMA IMMIGRATION LAW

Per ACT 2011-535 as codified in Title 31, Chapter 13 of the Code of Alabama, 1975, as amended:

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.

E. ALABAMA BOYCOT LAW

Per Act 2016-312as codified in Title 41, Chapter 16, Article 1, of the Code of Alabama, 1975, as amended:

The contracting parties affirm, for the duration of the agreement, that they are 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.

F. ACCOUNTING OF SALES TAX EXEMPT PROJECTS

Per Act 2013-205 as codified in Title 40, Chapter 9, Article 1, of the Code of Alabama, 1975, as amended:

In bidding the work on a tax exempt project, the bid form shall provide an accounting for the tax savings.

ARTICLE 45
ROYALTIES, PATENTS, and COPYRIGHTS

The Contractor shall pay all royalties and license fees. The Contractor shall defend, indemnify and hold harmless the Owner, Architect, Architect's consultants, Alabama Division of Construction Management, State Department of Education (if applicable), and their agents, employees, and consultants from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of, related to, or resulting from all suits or claims for infringement of any patent rights or copyrights arising out of the inclusion of any patented or copyrighted materials, methods, or systems selected by the Contractor and used during the execution of or incorporated into the Work. This indemnification does not apply to any suits or claims of infringement of any patent rights or copyrights arising out of any patented or copyrighted materials, methods, or systems specified in the Contract Documents. However, if the Contractor has information that a specified material, method, or system is or may constitute an infringement of a patent or copyright, the Contractor shall be responsible for any resulting loss unless such information is promptly furnished to the Architect.

ARTICLE 46
USE of the SITE

A. The Contractor shall confine its operations at the Project site to areas permitted by the Owner and by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials, equipment, employees' vehicles, or debris. The Contractor's operations at the site shall be restricted to the sole purpose of constructing the Work, use of the site as a staging, assembly, or storage area for other business which the Contractor may undertake shall not be permitted.

B. Unless otherwise provided in the Contract Documents, temporary facilities, such as storage sheds, shops, and offices may be erected on the Project site with the approval of the Architect and Owner.

Such temporary buildings and/or utilities shall remain the property of the Contractor, and be removed at the Contractor's expense upon completion of the Work, unless the Owner authorizes their abandonment without removal.

ARTICLE 47
CUTTING and PATCHING

A. The Contractor shall be responsible for all cutting, fitting, or patching that may be required to execute the Work to the results indicated in the Contract Documents or to make its parts fit together properly.

B. Any cutting, patching, or excavation by the Contractor shall be supervised and performed in a manner that will not endanger persons nor damage or endanger the Work or any fully or partially completed construction of the Owner or separate contractors.

ARTICLE 48
IN-PROGRESS and FINAL CLEANUP

A. IN-PROGRESS CLEAN-UP

(1) The Contractor shall at all times during the progress of the Work keep the premises and surrounding area free from rubbish, scrap materials and debris resulting from the Work. Trash and combustible materials shall not be allowed to accumulate inside buildings or elsewhere on the premises. At no time shall any rubbish be thrown from window openings. Burning of trash and debris on site is not permitted.

(2) The Contractor shall make provisions to minimize and confine dust and debris resulting from construction activities.

B. FINAL CLEAN-UP

(1) Before Substantial Completion or Final Acceptance is achieved, the Contractor shall have removed from the Owner's property all construction equipment, tools, and machinery; temporary structures and/or utilities including the foundations thereof (except such as the Owner permits in writing to remain); rubbish, debris, and waste materials; and all surplus materials, leaving the site clean and true to line and grade, and the Work in a safe and clean condition, ready for use and operation.

(2) In addition to the above, and unless otherwise provided in the Contract Documents, the Contractor shall be responsible for the following special cleaning for all trades as the Work is completed:

(a) Cleaning of all painted, enameled, stained, or baked enamel work: Removal of all marks, stains, finger prints and splatters from such surfaces.

(b) Cleaning of all glass: Cleaning and removing of all stickers, labels, stains, and paint from all glass, and the washing and polishing of same on interior and exterior.

(c) Cleaning or polishing of all hardware: Cleaning and polishing of all hardware.

(d) Cleaning all tile, floor finish of all kinds: Removal of all splatters, stains, paint, dirt,

and dust, the washing and polishing of all floors as recommended by the manufacturer or required by the Architect.

(e) Cleaning of all manufactured articles, materials, fixtures, appliances, and equipment: Removal of all stickers, rust stains, labels, and temporary covers, and cleaning and conditioning of all manufactured articles, material, fixtures, appliances, and electrical, heating, and air conditioning equipment as recommended or directed by the manufacturers, unless otherwise required by the Architect; blowing out or flushing out of all foreign matter from all equipment, piping, tanks, pumps, fans, motors, devices, switches, panels, fixtures, boilers, sanitizing potable water systems; and freeing identification plates on all equipment of excess paint and the polishing thereof.

C. OWNER'S RIGHT to CLEAN-UP

If the Contractor fails to comply with these clean-up requirements and then fails to comply with a written directive by the Architect to clean-up the premises within a specified time, the Architect or Owner may implement appropriate clean-up measures and the cost thereof shall be deducted from any amounts due or to become due the Contractor.

ARTICLE 49
LIQUIDATED DAMAGES

A. Time is the essence of the Contract. Any delay in the completion of the Work required by the Contract Documents may cause inconvenience to the public and loss and damage to the Owner including but not limited to interest and additional administrative, architectural, inspection and supervision charges. By executing the Construction Contract, the Contractor agrees that the Contract Time is sufficient for the achievement of Substantial Completion.

B. The Contract Documents may provide in the Construction Contract or elsewhere for a certain dollar amount for which the Contractor and its Surety (if any) will be liable to the Owner as liquidated damages for each calendar day after expiration of the Contract Time that the Contractor fails to achieve Substantial Completion of the Work. If such daily liquidated damages are provided for, Owner and Contractor, and its Surety, agree that such amount is reasonable and agree to be bound thereby.

C. If a daily liquidated damage amount is not otherwise provided for in the Contract Documents, a time charge equal to six percent interest per annum on the total Contract Sum may be made against the Contractor for the entire period after expiration of the Contract Time that the Contractor fails to achieve Substantial Completion of the Work.

D. The amount of liquidated damages due under either paragraph B or C, above, may be deducted by the Owner from the moneys otherwise due the Contractor in the Final Payment, not as a penalty, but as liquidated damages sustained, or the amount may be recovered from Contractor or its Surety. If part of the Work is substantially completed within the Contract Time and part is not, the stated charge for liquidated damages shall be equitably prorated to that portion of the Work that the Contractor fails to substantially complete within the Contract Time. It is mutually understood and agreed between the parties hereto that such amount is reasonable as liquidated damages.

ARTICLE 50
USE of FOREIGN MATERIALS

A. In the performance of the Work the Contractor agrees to use materials, supplies, and products manufactured, mined, processed or otherwise produced in the United States or its territories, if same are available at reasonable and competitive prices and are not contrary to any sole source specification implemented under the Public Works Law.

B. In the performance of the Work the Contractor agrees to use steel produced in the United States if the Contract Documents require the use of steel and do not limit its supply to a sole source pursuant to the Public Works Law. If the Owner decides that the procurement of domestic steel products becomes impractical as a result of national emergency, national strike, or other cause, the Owner shall waive this restriction.

C. If domestic steel or other domestic materials, supplies, and products are not used in accordance with preceding Paragraphs A and B, the Contract Sum shall be reduced by an amount equal to any savings or benefits realized by the Contractor.

D. This Article applies only to Public Works projects financed entirely by the State of Alabama or any political subdivision of the state.

ARTICLE 51
PROJECT SIGN

A. Fully locally-funded State Agency and Public Higher Education projects: DCM Form C-15: Detail of Project Sign must be included in the project manual regardless of expected bid amount. If the awarded contract sum is $100,000.00 or more, Contractor shall furnish and erect a project sign. Other conditions besides the contract sum may warrant waiver of this requirement, but only with approval of the Technical Staff.

B. Fully locally-funded K-12 school projects: Project sign is not required unless requested by Owner; if project sign is requested by Owner, include DCM Form C-15: Detail of Project Sign in the project manual.

C. Partially or fully PSCA-funded projects: DCM Form C-15: Detail of Project Sign must be included in the project manual. Contractor shall furnish and erect a project sign for all PSCA-funded projects, regardless of the contract sum. "Alabama Public School and College Authority" as well as the local owner entity must be included as awarding authorities on the project sign of all PSCA-funded projects.

When required per the above conditions, the project sign shall be erected in a prominent location selected by the Architect and Owner and shall be maintained in good condition until completion of Work. If the Contract involves Work on multiple sites, only one project sign is required, which shall be erected on one of the sites in a location selected by the Architect and Owner. Slogan: The title of the current PSCA Act should be placed on the project sign of all PSCA-funded projects, otherwise the Awarding Authority/Owner's slogan, if any, should be used. If the Awarding Authority/Owner of a fully locally-funded project does not have a slogan, the project sign does not require a slogan.

END of
GENERAL CONDITIONS of the CONTRACT

DCM (BC) Number: _____

PSCA Projects: PSCA Number: _____

Date of the Construction Contract: _____

Contractor's Affidavit of Payment of Debts and Claims

To Owner (*Entity name and address*):	**Project** (*Same as appears in the Construction Contract*):
City of Anniston 4309 McClellan Blvd, Anniston, AL 36206	Glen Addie Community Center Slope Stabilization

STATE OF: Alabama

COUNTY OF: Calhoun

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Construction Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

Supporting Documents Attached Hereto:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. DCM Form C-20, Consent of Surety to Final Payment, may be used for this purpose.

   Indicate attachment: ☐ Yes ☐ No

The following supporting document should be attached hereto if required by the Owner:

1. Contractor's Release of Waiver of Liens.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment supplies, to the extent required by the Owner, accompanied by the list thereof.
3. Contractor's Affidavit of Release of Liens, DCM Form C-19.

Contractor (*Insert company name and address*):

By: _____
Signature of authorized representative

_____
Name and Title

Sworn to and subscribed before me this _____ day

of _____, _____.

_____
Notary Public's Signature

My commission expires: _____

Seal:

DCM Form C-19
Revised December 2020

DCM (BC) Number: _____

PSCA Projects: PSCA Number: _____

Date of the Construction Contract: _____

Contractor's Affidavit of Release of Liens

To Owner (*Entity name and address*):	**Project** (*Same as appears in the Construction Contract*):
City of Anniston 4309 McClellan Blvd, Anniston, AL 36206	Glen Addie Community Center Slope Stabilization

STATE OF: Alabama

COUNTY OF: Calhoun

The undersigned hereby certifies that, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Construction Contract referenced above.

EXCEPTIONS:

Supporting Documents Attached Hereto:

1. Contractor's Release of Waiver of Liens.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment supplies, to the extent required by the Owner, accompanied by the list thereof.

Contractor (*Insert company name and address*):

By: _____
Signature of authorized representative

_____
Name and Title

Sworn to and subscribed before me this _____ day

of _____, _____.

_____
Notary Public's Signature

My commission expires: _____

Seal:

DCM (BC) Number: _____

PSCA Projects: PSCA Number: _____

Date of the Construction Contract: _____

Surety's Bond Number: _____

CONSENT OF SURETY TO FINAL PAYMENT

To Owner (*Entity name and address):*	**Project** (*Same as appears in the Construction Contract*)**:**
City of Anniston 4309 McClellan Blvd, Anniston, AL 36206	Glen Addie Community Center Slope Stabilization

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the

Surety (*Insert name and address of Surety*)

on bond of

Contractor (*Insert name and address of Contractor*)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to

Owner (*Insert name and address of Entity*)**:**

City of Anniston
4309 McClellan Blvd,
Anniston, AL 36206

as set forth in said Surety's bond.

SIGNED AND SEALED this _____ day of _____, _____.

SURETY:

_____ Seal:
Company Name

By _____
Signature of Authorized Representative

_____
Printed Name and Title

Note: Original Power of Attorney for the Surety's signatory shall be furnished with each of the original forms to be attached to each of the four (4) final payment forms.

SECTION 033000 - CAST-IN-PLACE CONCRETE

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 cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:

1. Footings.
2. Foundation walls.
3. Slabs-on-grade.
4. Concrete on metal deck.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mixing water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.

D. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.

1. Location of construction joints is subject to approval of the Architect.

1.5 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Floor surface flatness and levelness measurements indicating compliance with specified tolerances.

C. Field quality-control reports.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

B. Testing Agency Qualifications: An independent agency, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

C. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.

D. Welding Qualifications: Qualify procedures and personnel according to AWS D1.4/D 1.4M, "Structural Welding Code - Reinforcing Steel."

E. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:

1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

F. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage. Avoid damaging coatings on steel reinforcement.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.

1. Plywood, metal, or other approved panel materials.

2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:

    a. Structural 1, B-B or better; mill oiled and edge sealed.

B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.

D. Rustication Strips: Wood, metal, PVC, or rubber strips, kerfed for ease of form removal.

E. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

2.2 STEEL REINFORCEMENT

A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

C. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain, fabricated from as-drawn steel wire into flat sheets.

2.3 REINFORCEMENT ACCESSORIES

A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:

1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

2.4 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:

1. Portland Cement: ASTM C 150, Type I/II, gray. Supplement with the following:

    a. Fly Ash: ASTM C 618, Class F.

B. Normal-Weight Aggregates: ASTM C 33, Class 1N coarse aggregate or better, graded.

1. Maximum Coarse-Aggregate Size: 1 inch (25 mm) nominal.

2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Water: ASTM C 94/C 94M.

2.5 ADMIXTURES

A. Air-Entraining Admixture: ASTM C 260.

B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.6 VAPOR RETARDERS

A. Sheet Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 15 mils thick.

2.7 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

1. Products: Subject to compliance with requirements, provide the following provide one of the following available products that may be incorporated into the Work include, but are not limited to, the following:

a. BASF Construction Chemicals - Building Systems; Confilm.
b. ChemMasters; SprayFilm.
c. Conspec by Dayton Superior; Aquafilm.
d. Dayton Superior Corporation; Sure Film (J-74).
e. Edoco by Dayton Superior; BurkeFilm.
f. Euclid Chemical Company (The), an RPM company; Eucobar.
g. Kaufman Products, Inc.; Vapor-Aid.
h. Lambert Corporation; LAMBCO Skin.
i. L&M Construction Chemicals, Inc.; E-CON.
j. Meadows, W. R., Inc.; EVAPRE.
k. Metalcrete Industries; Waterhold.
l. Nox-Crete Products Group; MONOFILM.
m. Sika Corporation; SikaFilm.
n. SpecChem, LLC; Spec Film.
o. Symons by Dayton Superior; Finishing Aid.
p. TK Products, Division of Sierra Corporation; TK-2120 TRI-FILM.
q. Vexcon Chemicals, Inc.; Certi-Vex Envio Set.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.

C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

2.8 RELATED MATERIALS

A. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

B. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade to suit requirements, and as follows:

1. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

C. Reglets: Fabricate reglets of not less than 0.022-inch- (0.55-mm-) thick, galvanized-steel sheet. Temporarily fill or cover face opening of reglet to prevent intrusion of concrete or debris.

D. Dovetail Anchor Slots: Hot-dip galvanized-steel sheet, not less than 0.034 inch (0.85 mm) thick, with bent tab anchors. Temporarily fill or cover face opening of slots to prevent intrusion of concrete or debris.

2.9 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash: 25 percent.

C. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

D. Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing high-range water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.50.

2.10 CONCRETE MIXTURES FOR BUILDING ELEMENTS

A. Footings: Proportion normal-weight concrete mixture as follows:

1. Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
2. Maximum Water-Cementitious Materials Ratio: 0.50.
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-inch (25-mm) nominal maximum aggregate size.

B. Foundation Walls: Proportion normal-weight concrete mixture as follows:

1. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.
2. Maximum Water-Cementitious Materials Ratio: 0.45.
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-inch (25-mm) nominal maximum aggregate size.

C. Slabs-on-Grade: Proportion normal-weight concrete mixture as follows:

1. Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
2. Minimum Cementitious Materials Content: 520 lb/cu. yd. (309 kg/cu. m).
3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
4. Air Content: Do not air entrain concrete for travel finished interior floors. Do not allow entrapped air to exceed 3 percent.

2.11 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.12 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:

1. Class A, 1/8 inch (3.2 mm) for smooth-formed finished surfaces.
2. Class B, 1/4 inch (6 mm) for rough-formed finished surfaces.

D. Construct forms tight enough to prevent loss of concrete mortar.

E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.

1. Install keyways, reglets, recesses, and the like, for easy removal.
2. Do not use rust-stained steel form-facing material.

F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.

G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

H. Chamfer exterior corners and edges of permanently exposed concrete.

I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

1. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of AISC's "Code of Standard Practice for Steel Buildings and Bridges."
2. Install reglets to receive waterproofing and to receive through-wall flashings in outer face of concrete frame at exterior walls, where flashing is shown at lintels, shelf angles, and other conditions.
3. Install dovetail anchor slots in concrete structures as indicated.

3.3 REMOVING AND REUSING FORMS

A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.

1. Leave formwork for beam soffits, joists, slabs, and other structural elements that supports weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
2. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores.

B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.4 VAPOR RETARDERS

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.

1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended tape.

B. Granular Course: Cover vapor retarder with granular fill moisten, and compact with mechanical equipment to elevation tolerances of plus 0 inch (0 mm) or minus 3/4 inch (19 mm).

1. Place and compact a 1/2-inch- (13-mm-) thick layer of fine-graded granular material over granular fill.

3.5 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.

C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

1. Weld reinforcing bars according to AWS D1.4/D 1.4M, where indicated.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

E. Install welded wire reinforcement in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction. Lace overlaps with wire.

3.6 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.
2. Form keyed joints as indicated. Embed keys at least 1-1/2 inches (38 mm) into concrete.
3. Locate joints for beams, slabs, joists, and girders in the middle third of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
4. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
5. Space vertical joints in walls as indicated. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
6. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
7. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated.
2. Terminate full-width joint-filler strips not less than 1/2 inch (13 mm) or more than 1 inch (25 mm) below finished concrete surface where joint sealants, specified in Section 079200 "Joint Sealants," are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.

3.7 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Do not add water to concrete during delivery, at Project site, or during placement unless approved by Architect.

C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.

1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Deposit concrete in horizontal layers of depth to not exceed formwork design pressures and in a manner to avoid inclined construction joints.
2. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
3. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches (150 mm) into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

E. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
2. Maintain reinforcement in position on chairs during concrete placement.
3. Screed slab surfaces with a straightedge and strike off to correct elevations.
4. Slope surfaces uniformly to drains where required.
5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

F. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

1. When average high and low temperature is expected to fall below 40 deg F (4.4 deg C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

G. Hot-Weather Placement: Comply with ACI 301 and as follows:

1. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

3.8 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces not exposed to public view.

B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces exposed to public view.

3.9 FINISHING FLOORS AND SLABS

A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch (6 mm) in one direction.

1. Apply scratch finish to surfaces indicated.

C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

1. Apply float finish to surfaces indicated.

D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.

1. Apply a trowel finish to surfaces indicated.

2. Finish surfaces to the following tolerances, according to ASTM E 1155 (ASTM E 1155M), for a randomly trafficked floor surface:

    a. Specified overall values of flatness, F(F) 25; and of levelness, F(L) 20; with minimum local values of flatness, F(F) 17; and of levelness, F(L) 15.
    b. Specified overall values of flatness, F(F) 35; and of levelness, F(L) 25; with minimum local values of flatness, F(F) 24; and of levelness, F(L) 17; for slabs-on-grade.

3.10 MISCELLANEOUS CONCRETE ITEMS

A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Equipment Bases and Foundations: Provide machine and equipment bases and foundations as shown on Drawings. Set anchor bolts for machines and equipment at correct elevations, complying with diagrams or templates from manufacturer furnishing machines and equipment.

D. Steel Pan Stairs: Provide concrete fill for steel pan stair treads, landings, and associated items. Cast-in inserts and accessories as shown on Drawings. Screed, tamp, and trowel finish concrete surfaces.

3.11 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.

D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.

E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

a. Water.
b. Continuous water-fog spray.
c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300-mm) lap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

   a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
   b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
   c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies will not interfere with bonding of floor covering used on Project.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

   a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer.

4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.12 JOINT FILLING

A. Prepare, clean, and install joint filler according to manufacturer's written instructions.

   1. Defer joint filling until concrete has aged at least one six month(s). Do not fill joints until construction traffic has permanently ceased.

B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.

C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches (50 mm) deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.13 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

B. Testing and Inspecting: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

C. Inspections:

1. Steel reinforcement placement.
2. Steel reinforcement welding.
3. Headed bolts and studs.
4. Verification of use of required design mixture.
5. Concrete placement, including conveying and depositing.
6. Curing procedures and maintenance of curing temperature.
7. Verification of concrete strength before removal of shores and forms from beams and slabs.

D. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd. (4 cu. m), but less than 25 cu. yd. (19 cu. m), plus one set for each additional 50 cu. yd. (38 cu. m) or fraction thereof.

2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when 80 deg F (27 deg C) and above, and one test for each composite sample.
5. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
6. Compression Test Specimens: ASTM C 31/C 31M.

    a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.

7. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.

    a. Test one set of two field-cured specimens at 7 days and one set of two specimens at 28 days.
    b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

8. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
9. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa).

10. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
11. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
12. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
13. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
14. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

E. Measure floor and slab flatness and levelness according to ASTM E 1155 (ASTM E 1155M) within 24 hours of finishing.

END OF SECTION 033000

SECTION 31 1000 SITE CLEARING

PART 1 - GENERAL

1.1 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 site utilities.
7. Temporary erosion- and sedimentation-control measures.

1.2 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.

1.3 SUBMITTALS

A. Record Drawings: Indentifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions and said property and affected adjoining properties.

1.4 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. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises (Refer to Architect for Details).

C. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.

D. Do not commence site clearing operations until temporary erosion- and sedimentation-control and any plant protection measures are in place.

E. 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.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "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 or to be relocated.

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 measures shown on the Drawings and the requirements of the Alabama Department of Environmental Management (ADEM).

   Construction Exit Pads (CEPs), perimeter sediment barriers, inlet protection, Sedimentation Basins (SBNs), and/or temporary sediment traps with a minimum volume of 67 Cubic Yards per acre of disturbed area shall be considered the minimum items required.

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 Section 015639 "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. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.

1. Arrange with utility companies to shut off indicated utilities and as required to perform the work.

B. 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 and Engineer not less than two days in advance of proposed utility interruptions.
   2. Do not proceed with utility interruptions without Engineer's written permission.

C. Removal of underground utilities is included in earthwork sections and with applicable fire suppression, plumbing, HVAC, electrical, communications, electronic safety and security and utilities sections and Section 024116 "Structure Demolition" and Section 024119 "Selective Structure Demolition."

D. Contractor shall coordinate all work within 25' of overhead and underground power lines with Alabama Power prior to performing any work. The Contractor shall also coordinate all crane and boom truck work Alabama Power. The Contractor shall comply with all Alabama Power and OSHA safety clearance regulations for power lines.

3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
   1. Grind down stumps and remove roots, obstructions, and debris to a depth of 36 inches below finished subgrade or depth of undercut, whichever is deeper.
   2. Use only hand methods for grubbing within protection zones.

B. All existing structures (including above and below ground construction) within the project area shall be removed. Removal shall include any foundations, existing paving larger than 4" in any direction, building materials, underground pipes and lines, etc.

C. 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, 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 from areas to be graded in a manner to prevent intermingling with underlying subsoil or other waste materials. A depth of approximately 5 inches was indicated by the geotechnical report.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Surround with silt fencing in order to prevent erosion from carrying sediment downstream. If necessary cover to prevent windblown dust. Provide temporary seeding and mulching for all stockpiles if stockpile is planned to remain for a period of 13 days or more. If necessary cover to prevent windblown dust.

3.7 SITE IMPROVEMENTS

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

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, or waste at a suitable location on-site with Owner’s written approval.

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 31 1000

SECTION 31 2000 EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Geotechnical Report by MBA Engineers dated September 09, 2021. All other geotechnical findings and reports by MBA specifically for this project. Copies shall be obtained directly from MBA Engineers (205) 323-6385.

1.2 SUMMARY

A. Section Includes:
1. Preparing subgrades for slabs-on-grade, walks, pavements, turf and grasses, and plants.
2. Excavating and backfilling for buildings and structures.
3. Drainage course for concrete slabs-on-grade.
4. Subbase course for concrete walks and pavements.
5. Subbase course and base course for asphalt paving.
6. Excavating and backfilling for utility trenches.

1.3 DEFINITIONS

A. Backfill: Soil material used to fill an excavation.
1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 PROJECT CONDITIONS

A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth moving operations.

B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Architect and then only after arranging to provide temporary utility services according to requirements indicated.

C. Do not commence earth moving operations until plant-protection measures and erosion and sediment control measures are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Satisfactory Soils: Soil Classification [Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487] [Groups A-1, A-2-4, A-2-5, and A-3 according to AASHTO M 145], or a combination of these groups; free of rock or gravel larger than **4 inches** in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter, and as recommended in the geotechnical report. Also the soils must meet the following criteria:
   1. Liquid Limit: less than **50**
   2. Plasticity Index: less than **25**
   3. Maximum Dry Density: Greater than **100** pcf

C. Unsatisfactory Soils: Soil Classification [Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D 2487] [Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145], or a combination of these groups, as well as alluvial soils and organic soils, and as recommended in the geotechnical report.

   1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D 448; 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.

I. Controlled Low Strength Material (Flowable Fill): Cementitious mixture of fine aggregate, cement, water, etc. with a maximum long-term compressive strength of 125psi, 28-day compressive strength between 60 and 100; maximum plasticity index of 6, aggregate passing sieve size ¾ = 100%; passing sieve size No. 200 = 0-30%

2.2 ACCESSORIES

A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored to comply with local practice or requirements of authorities having jurisdiction.

B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.
1. Red: Electric
2. Yellow: Gas, oil, steam, and dangerous materials
3. Orange: Telephone and other communications
4. Blue: Water systems
5. Green: Sanitary sewer

A. Drainage Fabric: Nonwoven geotextile, specifically manufactured as a drainage geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:
1. Grab Tensile Strength: 110 lbf); ASTM D 4632.
2. Tear Strength: 40 lbf); ASTM D 4533.
3. Puncture Resistance: 50 lbf); ASTM D 4833.
4. Water Flow Rate: 150 gpm per sq. ft.); ASTM D 4491.
5. Apparent Opening Size: No. 50); ASTM D 4751.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving and dewatering operations.

B. Protect and maintain erosion and sedimentation controls during earth moving operations.

C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 EXCAVATION, GENERAL

A. 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.
   1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.3 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
   1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

B. Excavations at Edges of Tree- and Plant-Protection Zones:
   1. Excavate by hand to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
   2. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.5 EXCAVATION FOR UTILITY TRENCHES

A. Excavate trenches to indicated gradients, lines, depths, and elevations.

B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
   1. Clearance: 12 inches each side of pipe or conduit.

C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
   1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material, 4 inches deeper elsewhere, to allow for bedding course, or as required by the utility or regulatory agencies.

D. Trenches in Tree- and Plant-Protection Zones:
   1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
   2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
   3. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.6 SUBGRADE INSPECTION

A. Proof-roll subgrade below the building slabs and pavements and as recommended by the geotechnical / materials testing firm, with a loaded pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.7 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
   1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.8 STORAGE OF SOIL MATERIALS

A. As allowed by the Owner, stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
   1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.9 UTILITY TRENCH BACKFILL

A. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with lean concrete; fill with concrete to elevation of bottom of footings. Concrete is specified in Division 3 Section.

D. Trenches under Roadways and Sidewalks: Provide 4-6 inch thick crushed aggregate bedding layer for piping or conduit. After installing and testing piping, use compacted ALDOT #8910 stone as backfill full depth or completely encase piping or conduit at least up to 12” above top of pipes in flowable fill (CLSM) in locations and as directed in the Plans. If flowable fill is used for partial trench backfill, compacted ALDOT #8910 stone is required to complete the trench backfill up to the roadway base course.

E. Place and compact initial backfill as indicated on plans, free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
   1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

F. Place and compact final backfill of satisfactory soil to final subgrade elevation.

G. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.10 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:
   1. Under grass and planted areas, use satisfactory soil material.
   2. Under walks and pavements, use satisfactory soil material.
   3. Under steps and ramps, use engineered fill.
   4. Under building slabs, use engineered fill.
   5. Under footings and foundations, use engineered fill.

3.11 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
   1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
   2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages for Standard Proctor density according to ASTM D 698 (or Modified Proctor according to ADTM D1557):

1. Under structures, walls, and stairs, compact soils to a minimum of 98 percent of the Standard Proctor maximum dry density.
2. Under walkways and sidewalks, and compact each layer of backfill or fill soil material at 95 percent Standard Proctor.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 90 percent Standard Proctor.
4. For utility trenches, compact each layer of initial and final backfill ALDOT #8910 stone backfill at 98 percent modified proctor with pneumatic-piston tampers or other methods capable of compacting the material.
5. Compact asphalt base material ALDOT 825-B crushed stone base at 100% Modified Proctor.

3.13 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
1. Turf or Unpaved Areas: Plus or minus 1 inch.
2. Walks: Plus or minus 1 inch.
3. Pavements: Plus or minus 1/2 inch.

C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.14 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
1. Shape subbase course and base course to required crown elevations and cross-slope grades.
2. Place subbase course and base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.

3. Compact subbase course [and base course] within +/-2% optimum moisture content to required grades, lines, cross sections, and thickness to not less than **98** percent of Standard Proctor maximum dry density according to ASTM D 698.

3.15 DRAINAGE COURSE UNDER CONCRETE SLABS-ON-GRADE

A. Place drainage course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:
   1. Place drainage course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
   2. Compact each layer of drainage course to required cross sections and thicknesses to not less than 98 percent Modified Proctor maximum dry density according to ASTM D 1557.

3.16 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. 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.

3.17 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
   1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

3.19 COMPLY WITH GEOTECHNICAL REPORT

A. All work must comply with the geotechnical report and the geotechnical engineer's guidelines and recommendations. If there is a conflict between the specifications and the geotechnical report, the geotechnical report will govern.

END OF SECTION 31 2000

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Driveways.
   2. Roadways.
   3. Parking lots.
   4. Curbs and gutters.
   5. Walks.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. LEED Submittals:

   1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.

C. Samples: For each exposed product and for each color and texture specified.

D. Other Action Submittals:

   1. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.3 QUALITY ASSURANCE

A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

B. ACI Publications: Comply with ACI 301 unless otherwise indicated.

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

A. Recycled Content: Postconsumer recycled content plus one-half of preconsumer recycled content not less than ___ percent.

B. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.

C. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.

D. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.

E. Plain-Steel Wire: ASTM A 82/A 82M, as drawn.

F. Deformed-Steel Wire: ASTM A 496/A 496M.

G. Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars zinc coated after fabrication according to ASTM A 767/A 767M, Class I coating]. Cut bars true to length with ends square and free of burrs.

H. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified.

2.2 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project:
1. Portland Cement: ASTM C 150, Type I

a. Fly Ash: ASTM C 618, Class F.

b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.

B. Normal-Weight Aggregates: ASTM C 33, uniformly graded. Provide aggregates from a single source.
1. Maximum course aggregate size: 1" unless noted.

2. Fine aggregate: Free of materials with deleterious reactivity when exposed to alkali in cement.

C. Water: Potable and complying with ASTM C 94/C 94M.

D. Air-Entraining Admixture: ASTM C 260.

E. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.

F. Color Pigment: ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable,[free of carbon black,] non-fading, and resistant to lime and other alkalis.
1. Color: As indicated by architect, if requested.

2.3 FIBER REINFORCEMENT

A. Synthetic Fiber: [Monofilament] [or] [fibrillated] polypropylene fibers engineered and designed for use in concrete paving, complying with ASTM C 1116/C 1116M, Type III, 1/2 to 2 inches long (Fibers may be of graded lengths).

2.4 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, [Class 3, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry] [or] [cotton mats].

B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.

E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.

F. White, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 2, Class B, dissipating.

2.5 RELATED MATERIALS

A. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber in preformed strips.

B. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, non-glazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery aggregate containing not less than 50 percent aluminum oxide and not less than 20 percent ferric oxide; unaffected by freezing, moisture, and cleaning materials.

2.6 PAVEMENT MARKINGS

A. Pavement Marking Paint: Alkyd-resin type, lead and chromate free, ready mixed, complying with AASHTO M248, Type N; colors complying with FS TT-P-1952.

B. Pavement-Marking Paint: Latex, waterborne emulsion, lead and chromate free, ready mixed, complying with FS TT-P-1952, Type II.
1. Color: As indicated.

C. Pavement-Marking Paint: MPI #97 Latex Traffic Marking Paint.
1. Color: As indicated.

2.7 WHEEL STOPS

A. Wheel Stops: Precast, air-entrained concrete.
1. Dowels: Galvanized steel, 3/4 inch in diameter, 10-inch minimum length.

2. Adhesive: As recommended by wheel stop manufacturer for application to concrete pavement.

2.8 CONCRETE MIXTURES

A. Prepare design mixtures, proportioned according to ACI 301, with the following properties by Class:
1. Class A – 4000 psi compressive strength @ 28 Days. Maximum water to cement ratio shall be 0.40. Slump shall be a minimum of 2” and a maximum of 4”. Air content shall be 6 percent plus or minus 1.5 percent.

2. Class B – 3000 psi compressive strength @ 28 Days. Maximum water to cement ratio shall be 0.50. Slump shall be a minimum of 2” and a maximum of 4”. Air content shall be 5 percent plus or minus 1.5 percent.

B. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.

C. Synthetic Fiber: Uniformly disperse in concrete mixture at manufacturer's recommended rate, but not less than 1.0 lb/cu. yd. .

D. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions.

2.9 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94 and ASTM C 1116. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Proof-roll prepared subbase surface below concrete paving with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Replace and recompact as necessary to achieve a favorable proof roll test according to the testing / geotechnical representative.

B. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.3 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.4 JOINTS

A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.

B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.

C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.

D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness[,and at locations to match jointing of existing adjacent concrete paving]. Contraction joints in curbs, structures, etc. shall match up with joints in paving where possible.

E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 3/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.5 CONCRETE PLACEMENT

A. Moisten subbase to provide a uniform dampened condition at time concrete is placed.

B. Comply with ACI 301 requirements for measuring, mixing, transporting, placing, and consolidating concrete.

C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

D. Screed paving surface with a straightedge and strike off.

E. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

3.6 FLOAT FINISHING

A. General: Do not add water to concrete surfaces during finishing operations.

B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
   1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.

   2. Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.

   3. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

C. Slip-Resistive Aggregate Finish: Before final floating, spread slip-resistive aggregate finish on paving surface according to manufacturer's written instructions.
   1. Cure concrete with curing compound recommended by slip-resistive aggregate manufacturer. Apply curing compound immediately after final finishing.

   2. After curing, lightly work surface with a steel wire brush or abrasive stone and water to expose nonslip aggregate.

3.7 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

B. Comply with ACI 306.1 for cold-weather protection.

C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.

D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these.

3.8 PAVING TOLERANCES

A. Comply with tolerances in ACI 117 and as follows:
1. Elevation: 3/4 inch.
2. Thickness: Plus 3/8 inch, minus 1/4 inch.
3. Surface: Gap below 10-foot- long, unleveled straightedge not to exceed 1/2 inch.
4. Joint Spacing: 3 inches.
5. Contraction Joint Depth: Plus 1/4 inch, no minus.
6. Joint Width: Plus 1/8 inch, no minus.

3.9 PAVEMENT MARKING

A. Allow concrete paving to cure for a minimum of 28 days and be dry before starting permanent pavement marking. Temporary marking may be necessary.

B. Sweep and clean surface to eliminate loose material and dust.

C. Apply paint with mechanical equipment to produce markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.

3.10 WHEEL STOPS

A. Install wheel stops in bed of adhesive applied as recommended by manufacturer.

B. Securely attach wheel stops to paving with not less than two steel dowels located at one-quarter to one-third points. Install dowels in drilled holes in the paving and bond dowels to wheel stop. Recess head of dowel beneath top of wheel stop.

3.11 REPAIRS AND PROTECTION

A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.

B. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.

C. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 32 1313

SECTION 329200 - TURF AND GRASSES

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. Seeding.
2. Hydroseeding.
3. Sodding.
4. Plugging.
5. Sprigging.
6. Meadow grasses and wildflowers.
7. Turf renovation.
8. Erosion-control material(s).
9. Grass paving.

B. Related Requirements:

1. Section 312000 "Earth Moving" for subgrade preparation.
2. Section 328400 "Planting Irrigation" for irrigation.
3. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.
4. Section 334600 "Subdrainage" for below-grade drainage of landscaped areas.

1.3 DEFINITIONS

A. Finish Grade: Elevation of finished surface of planting soil.

B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.

C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See [**Section 329113 "Soil Preparation"**] [**Section 329115 "Soil Preparation (Performance Specification)"**] and drawing designations for planting soils.

E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include manufacturer's installation instructions.

1.5 INFORMATIONAL SUBMITTALS

Coordinate "Qualification Data" Paragraph below with qualification requirements in Section 014000 "Quality Requirements" and as may be supplemented in "Quality Assurance" Article.

A. Qualification Data: For landscape Installer.

B. Product Data: Manufacturer's product data and installation instructions.

C. Material Certificates: For base course and sand fill materials.

D. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture, stating the botanical and common name, 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.

Retain subparagraph below for turfgrass sod.

1. Certification of each seed mixture for **turfgrass sod**. Include identification of source and name and telephone number of supplier.

Retain "Product Certificates" Paragraph below to require submittal of product certificates from manufacturers.

E. Product Certificates: For fertilizers, from manufacturer.

F. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of turf[**and meadows**] during a calendar year. Submit before expiration of required maintenance periods.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf[**and meadow**] establishment and paving projects of comparable size.

Retain applicable subparagraphs below; revise to suit Project.

According to Section 014000 "Quality Requirements," experience qualification includes having successfully completed a minimum number of previous projects. Before retaining "Professional Membership" and "Experience" subparagraphs below for government-funded projects, verify acceptability of these requirements with Owner.

1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
2. Experience: [**Three**] [**Five**] <**Insert number**> years' experience in turf installation in addition to requirements in Section 014000 "Quality Requirements."

3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.

Certification program in "Personnel Certifications" Subparagraph below is administered by the Professional Landcare Network. Verify availability of qualified individuals in Project area before retaining. See Evaluations.

4. Personnel Certifications: Installer's [**field supervisor**] [**personnel assigned to the Work**] shall have certification in [**one of**] [**all of**] the following categories from the Professional Landcare Network:

   a. Landscape Industry Certified Technician - Exterior.
   b. Landscape Industry Certified Lawncare Manager.
   c. Landscape Industry Certified Lawncare Technician.

5. Pesticide Applicator: State licensed, commercial.

1.8 DELIVERY, STORAGE, AND HANDLING

Retain one or more paragraphs in this article to suit Project. Limit inserts to only those unusual requirements not included in Section 016000 "Product Requirements."

A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.

Time limit in "Sod" Paragraph below is requirement of TPI's "Guideline Specifications to Turfgrass Sodding." Coordinate time limit in "Sodding" Article for laying sod. Insert sod-reinforcing requirements if required for uses such as swales and intermittent waterways.

B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.

C. 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. Accompany each delivery of bulk materials with appropriate certificates.

D. Grass Paving: AirDrain units.

1. Protect AirDrain grass paving units from damage during delivery and store under tarp to protect from sunlight, when time of delivery exceeds thirty days.

1.9 FIELD CONDITIONS

Gradients for grass porous paving surfaces can vary depending upon vehicle types to use the surface. Note that fire lanes, or other emergency vehicles, will generally require a gradient that is less than 6 percent. If there are any questions regarding existing gradients on a specific project, contact the Architect or Airfield Systems, LLC.

A. Grade: <**Insert Value**> percent.

B. Grass Paving System Installation in Cold Weather:

AirDrain has an impact modifier added so temperatures above 32 deg F (0 deg C) and/or extreme temperature shifts will not have any bearing on the installation.

1. Do not use frozen materials or materials mixed or coated with ice or frost.
2. Do not build on frozen, wet, or muddy subgrade.

Retain "Planting Restrictions" Paragraph below to restrict planting times.

C. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.

In "Spring Planting" and "Fall Planting" subparagraphs below, insert specific dates for spring and fall plantings of seed, sod, plugs, sprigs, and meadows if required.

1. Spring Planting: <**Insert dates**>.
2. Fall Planting: <**Insert dates**>.

D. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

PART 2 - PRODUCTS

See Editing Instruction No. 1 in the Evaluations for cautions about named manufacturers and products. For an explanation of options and Contractor's product selection procedures, see Section 016000 "Product Requirements."

2.1 SEED

Retain this article if planting with seed. Selection of turfgrass species depends on climate, exposure, durability, and soil conditions.

A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Rules for Testing Seeds" for purity and germination tolerances.

1. Use seed materials, of the preferred species for local environmental and projected traffic conditions from certified sources.
2. Provide seed in containers clearly labeled to show seed name, lot number, net weight, percentage weed seed content, and guaranteed percentage of purity and germination. Pure Live Seed types and amount as indicated on Drawings.

B. Traffic Applications:

Retain one or more of the subparagraphs below to suit project requirements. Use species resistant to wear by traffic for traffic applications. Parking applications require greatest wear-resistant species possible, generally only available by seed or sprigging.

1. Northern Climates: Blue/Rye/Fescue mix.
2. Southern Climates: Zoysia, Fescue, or Bermuda types.
3. Dedicated Fire Lanes: Use same grass species as used on surrounding turf.

4. Parking Areas: Use greatest wear-resistant species possible.

Retain "Seed Species" Paragraph below if specifying grass seed and mixes by species. Delete if specifying proprietary grass-seed mixes.

C. Seed Species:

Retain one of two "Quality" subparagraphs below. Retain first subparagraph if grass seed is certified by the State Department of Agriculture. Most states have seed-certification agencies. Retain second subparagraph if the State Department of Agriculture does not regulate seed germination, purity, and weed seed or if there is no state seed certification.

1. Quality: State-certified seed of grass species as listed below for solar exposure.
2. Quality: Seed of grass species as listed below for solar exposure, with not less than [**85**] <**Insert number**> percent germination, not less than [**95**] <**Insert number**> percent pure seed, and not more than [**0.5**] <**Insert number**> percent weed seed:

"Full Sun," "Sun and Partial Shade," and "Shade" subparagraphs below are examples only. Determine if a single grass species or mixture of two or more grass species is required. Insert specific cultivars to each grass species if required. Consult university cooperative extension service or county extension agency for current recommendations. Revise descriptions if preferred. Indicate, here or on Drawings, areas of full sun, sun and partial shade, and shade.

Retain one of two "Full Sun" subparagraphs below. Retain first subparagraph for warm-season grass.

3. Full Sun: Bermudagrass (Cynodon dactylon).

Retain "Full Sun," "Sun and Partial Shade," or "Shade" Subparagraph below for cool-season grass. Revise grass species and assign mixture proportions if required for grass in first subparagraph below.

4. Full Sun: Kentucky bluegrass (Poa pratensis), a minimum of three cultivars.

Retain "Sun and Partial Shade" Subparagraph below for grass in sun and partial shade. Revise species and mixture proportions if required.

5. Sun and Partial Shade: Proportioned by weight as follows:

    a. 50 percent Kentucky bluegrass (Poa pratensis).
    b. 30 percent chewings red fescue (Festuca rubra variety).
    c. 10 percent perennial ryegrass (Lolium perenne).
    d. 10 percent redtop (Agrostis alba).

Retain "Shade" Subparagraph below for shaded grass. Revise species and mixture proportions if required.

6. Shade: Proportioned by weight as follows:

    a. 50 percent chewings red fescue (Festuca rubra variety).
    b. 35 percent rough bluegrass (Poa trivialis).
    c. 15 percent redtop (Agrostis alba).

Retain "Grass-Seed Mix" Paragraph below if specifying proprietary grass-seed mixes.

D. Grass-Seed Mix: Proprietary seed mix as follows:

Retain "Products" Subparagraph and list of manufacturers and products below to require specific products or a comparable product from other manufacturers. Insert subparagraphs for different solar exposures if required.

1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:

    a. <**Insert manufacturer's name; product name or designation**>.

2.2 TURFGRASS SOD

A. Turfgrass Sod: Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.

1. Use a 1/4 inch (6 mm) shallow cut rolled sod from a reputable local grower.
2. Species should be wear-resistant, free from disease, and in excellent condition.
3. Sod shall be grown in sand or sandy loam soils only. Sod grown in soils of clay, silt, or high organic materials such as peat, will not be accepted.

B. Traffic Applications:
1. Southern Climates: Zoysia, Fescue, or Bermuda types.

Retain first "Turfgrass Species" Paragraph below for warm-season grass or second "Turfgrass Species" Paragraph below for cool-season grass. Turfgrass sod grown from a warm-season, single-species grass predominates in the South. Turfgrass sod grown from cool-season grass-seed mixes or blends predominates in the North.

C. Turfgrass Species: [**Bermudagrass (Cynodon dactylon)**]

D. Turfgrass Species: Sod of grass species as follows, with not less than [**85**] <**Insert number**> percent germination, not less than [**95**] <**Insert number**> percent pure seed, and not more than [**0.5**] <**Insert number**> percent weed seed:

"Full Sun," "Sun and Partial Shade," and "Shade" subparagraphs below are examples only. Determine if a single grass species or mixture of two or more grass species is required. Insert specific cultivars to each grass species if required. Consult university cooperative extension service or county extension agency for current recommendations. Revise descriptions and insert proprietary seed mixes if preferred. Indicate, here or on Drawings, areas of full sun, sun and partial shade, and shade.

1. Full Sun: Kentucky bluegrass (Poa pratensis), a minimum of three cultivars.

Retain "Sun and Partial Shade" Subparagraph below for grass in sun and partial shade. Revise species and mixture proportions if required.

2. Sun and Partial Shade: Proportioned by weight as follows:

    a. 50 percent Kentucky bluegrass (Poa pratensis).
    b. 30 percent chewings red fescue (Festuca rubra variety).
    c. 10 percent perennial ryegrass (Lolium perenne).
    d. 10 percent redtop (Agrostis alba).

Retain "Shade" Subparagraph below for shaded grass. Revise species and mixture proportions if required.

3. Shade: Proportioned by weight as follows:

    a. 50 percent chewings red fescue (Festuca rubra variety).
    b. 35 percent rough bluegrass (Poa trivialis).
    c. 15 percent redtop (Agrostis alba).

2.3 PLUGS

Plugs are derived from warm-season, southern grass species of turfgrass sod.

A. Plugs: Turfgrass sod, [**Certified**] [**Approved**] [**Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects**], complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture that is cut into square or round plugs, strongly rooted, and capable of vigorous growth and development when planted; of the following turfgrass species and plug size:

1. Turfgrass Species: [**Bermudagrass (Cynodon dactylon)**] [**Carpetgrass (Axonopus affinis)**] [**Centipedegrass (Eremochloa ophiuroides)**] [**St. Augustinegrass (Stenotaphrum secundatum)**] [**Zoysiagrass (Zoysia japonica)**] [**Zoysiagrass (Zoysia matrella)**] <**Insert species**>.
2. Plug Size: [**2 inches (50 mm)**] [**3 inches (75 mm)**] [**4 inches (100 mm)**] <**Insert dimension**>.

2.4 SPRIGS

Parking applications require greatest wear-resistant species possible, generally only available by seed or sprigging.

Warm-season grasses can be planted as individual sprigs that spread belowground as rhizomes or aboveground as stolons. Creeping bentgrass, although a cool-season grass, is an exception and is commonly sprig planted.

A. Sod Sprigs: Healthy living stems, rhizomes, or stolons with a minimum of two nodes and attached roots free of soil, of the following turfgrass species:

Retain one of two "Turfgrass Species" subparagraphs below. Retain one option in first subparagraph for warm-season grass species. Retain second subparagraph for cool-season grass species.

1. Turfgrass Species: [**Bermudagrass (Cynodon dactylon)**] [**Carpetgrass (Axonopus affinis)**] [**Centipedegrass (Eremochloa ophiuroides)**] [**St. Augustinegrass (Stenotaphrum secundatum)**] [**Zoysiagrass (Zoysia japonica)**] [**Zoysiagrass (Zoysia matrella)**] <**Insert species**>.
2. Turfgrass Species: Creeping bentgrass (Agrostis palustris).

2.5 MEADOW GRASSES AND WILDFLOWERS

Retain this article if planting seed for meadow grasses or wildflowers. Seed mix is usually governed by region of adaptation, plant height, flower color, and sun or shade exposure. Insert percentage of each wildflower or native-grass species in mix, or name acceptable proprietary mixes.

A. Wildflower Seed: Fresh, clean, and dry new seed, of mixed species as follows:

1. <**Insert mix of wildflower species**>.

B. Native-Grass Seed: Fresh, clean, and dry new seed, of mixed species as follows:

1. <**Insert mix of native-grass species**>.

C. Wildflower and Native-Grass Seed: Fresh, clean, and dry new seed, of mixed species as follows:

1. <**Insert mix of wildflower and native-grass species**>.

Most seed vendors recommend mixing a carrier with seed to increase volume and aid in even distribution of the seed. Revise "Seed Carrier" Paragraph below to suit Project.

D. Seed Carrier: Inert material, sharp clean sand or perlite.

2.6 FERTILIZERS

Retain "Commercial Fertilizer" or "Slow-Release Fertilizer" Paragraph below, or both. If retaining both, indicate location of each on Drawings or by inserts. Revise fertilizer composition to suit Project.

A. Commercial "Starter" 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: 17 percent nitrogen, 23 percent phosphorous, and 6 percent potassium, by weight.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended by local grass supplier.

2.7 MULCHES

Mulches are needed only for seeding. Airfield Systems recommends wood or paper cellulose types of commercial mulch materials often used in conjunction with hydroseeding operations. Mulches of straw, pine needles, etc, will not be acceptable because of their low moisture holding capacity.

Retain one or more of two mulch paragraphs below.

A. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic and free of plant-growth or germination inhibitors; with a maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.

Mulch in "Fiber Mulch" Paragraph above and material in "Nonasphaltic Tackifier" Paragraph below are primarily used to protect hydroseeded areas from wind and water erosion during establishment.

B. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.

2.8 PESTICIDES

Retain applicable paragraphs in this article; revise to suit Project. Insert requirements for other types of pesticides, such as rodenticides, if required.

A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.9 EROSION-CONTROL MATERIALS

Retain applicable paragraphs in this article; revise to suit Project or insert other 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, nonbiodegradable slope-stabilization mats designed to isolate and contain small areas of soil over steeply sloped surface, of [**3-inch (75-mm)**] [**4-inch (100-mm)**] [**6-inch (150-mm)**] <**Insert dimension**> nominal mat thickness. Include manufacturer's recommended anchorage system for slope conditions.

Retain "Products" Subparagraph and list of manufacturers and products below to require specific products or a comparable product from other manufacturers.

1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**] [**available products that may be incorporated into the Work include, but are not limited to, the following**]:

    a. Invisible Structures, Inc.; Slopetame 2.
    b. Presto Products Company; Geoweb.
    c. Tenax Corporation; Tenweb.
    d. <**Insert manufacturer's name; product name or designation**>.

2.10 GRASS-PAVING MATERIALS

A. Grass Paving Units: Cellular, nonbiodegradable plastic mats, designed to contain small areas of soil and enhance the ability of turf to support vehicular and pedestrian traffic, of 1-inch (25-mm) nominal mat thickness. Include manufacturer's recommended anchorage system for slope conditions.

Retain "Products" Subparagraph and list of manufacturers and products below to require specific products or a comparable product from other manufacturers.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Airfield Systems LLC; AirDrain Grass Paving or comparable product by one of the following:

    a. Invisible Structures, Inc.
    b. NDS Inc.
    c. PermaTurf Co., Inc.
    d. <**Insert manufacturer's name**>.

2. Description:

    a. Material:

        1) 100 percent post-industrial recycled copolymer polypropylene plastic using an impact modifier, with a minimum of 3 percent carbon black added for UV protection.
        2) Injection molded.

b. Size: 31.784 inches by 31.880 inches (807 mm by 810 mm).
c. Thickness: 1 inch (25.4 mm).

AirDrain is shipped palletized at 7 sq. ft. (0.65 sq. m) per part, 114 parts per pallet and approximately 798 sq. ft. (74 sq. m) per pallet.

d. Unit Coverage: 7.03 sq. ft. (0.65 sq. meter).
e. Unit Weight: 3.10 lb (1.4 kg), volume equals 8 percent solid.
f. Loading Capacity: Equal to 233 psi (1.6 MPa) empty capacity and 6,747 psi (45.5 MPa) when filled with sand, over an appropriate base depth that provides adequate support for project design loads.

Retain "Base Course" or "Sand" Paragraph below, or both, if these materials are required as indicated on Drawings. Revise as recommended by paving-material manufacturer for site conditions and anticipated loading for Project.

B. Base Course: Sound crushed stone or gravel complying with [**ASTM D 448 for Size No. 8**] [**Section 312000 "Earth Moving" for base-course material**] <**Insert requirements**>.

C. Sand: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements in ASTM C 33/C 33M for fine aggregate.

Retain "Proprietary Growing Mix," "Sandy Loam Soil Mix," or "Soil for Paving Fill" Paragraph below as recommended by paving-material manufacturer for site conditions, drainage requirements, and loading. Revise requirements to suit Project.

Retain "Proprietary Growing Mix" Paragraph below if paving-material manufacturer requires a special mix, other than planting soil mix, for site conditions and loading.

D. Proprietary Growing Mix: As submitted and acceptable to Architect.

If retaining either "Sandy Loam Soil Mix" or "Soil for Paving Fill" Paragraph below, insert drawing designations if more than one type of planting soil mix is required.

E. Sandy Loam Soil Mix: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements in ASTM C 33/C 33M for fine aggregate blended with planting soil <**Insert drawing designation**>. Use blend consisting of [**1/2 sand and 1/2 planting soil**] [**2/3 sand and 1/3 planting soil**] <**Insert proportions**>.

F. Soil for Paving Fill: Planting soil <**Insert drawing designation**>.

Retain "FIRE LANE SIGNAGE AND DELINEATION" Article below for projects including Fire Lanes.

2.11 FIRE LANE SIGNAGE AND DELINEATION:

A. Fire lanes must be identified regarding their entrances and physical location with placement of signs, gates, curbs, bollards, etc. Specific signage wording and other details must be coordinated with and approved by local fire authorities.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.

1. 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 soil within a planting area.
2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
3. Uniformly moisten excessively dry soil that is not workable or which is dusty.

It is recommended that Fire Department inspectors be scheduled to inspect installation of AirDrain grass paving units during preparation of the subbase, installation of the base course, and installation of the AirDrain units. Most small projects can accommodate these inspections all on the same day. Verify with Fire Department if certificates of inspection are required.

B. Examine subgrade and base course installed conditions for areas to receive grass paving units. Check for improperly compacted trenches, debris, and improper gradients.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

D. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

E. All hard surface paving adjacent to grass paving unit areas, including concrete walks and asphalt paving, must be completed prior to installation of grass paving units.

3.2 PREPARATION

A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations and grass paving unit installation..

Retain first subparagraph below for hydroseeding.

1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
2. Protect grade stakes set by others until directed to remove them.

B. Install 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.

3.3 TURF AREA PREPARATION

A. General: Prepare planting area for soil placement and mix planting soil according to [**Section 329113 "Soil Preparation."**] [**Section 329115 "Soil Preparation (Performance Specification)."**]

Coordinate "Placing Planting Soil" Paragraph below with Section 329113 "Soil Preparation" or Section 329115 "Soil Preparation (Performance Specification)."

B. Placing Planting Soil: [**Place and mix planting soil in place over exposed subgrade**] [**Place manufactured planting soil over exposed subgrade**] [**Blend planting soil in place**] <**Insert requirement**>.

Retain subparagraph below for sodded turf.

1. Reduce elevation of planting soil to allow for soil thickness of sod.

C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 PREPARATION FOR EROSION-CONTROL MATERIALS

Retain this article for erosion-control materials.

A. Prepare area as specified in "Turf Area Preparation" Article.

Retain first two paragraphs below for erosion-control matting.

B. For erosion-control mats, install planting soil 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 soil and compact before planting.

Retain first paragraph below for erosion-control blanket or mesh.

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.

3.5 PREPARATION FOR GRASS-PAVING MATERIALS

Retain this article for grass-paving materials.

Ensure that subbase materials are structurally adequate to receive designated base course, wearing course, and designated loads. Generally excavation into undisturbed normal strength soils will require no additional modification. Fill soils and otherwise structurally weak soils may require modifications, such as geotextiles, geogrids, and/or compaction (not to exceed 90 percent). Ensure that grading and soil porosity of the subbase will provide adequate subsurface drainage.

A. Reduce subgrade elevation soil to allow for thickness of grass-paving system. Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade so that installed paving is within plus or minus 1/2 inch (13 mm) of finish elevation. Roll and rake, remove ridges, and fill depressions.

B. Install [**base course**] [**and**] [**sand course**] and [**sandy loam soil mix**] [**proprietary growing mix**] [**soil for paving fill**] as recommended by paving-material manufacturer for site conditions and according to details indicated on Drawings. Compact according to paving-material manufacturer's written instructions.

C. Place base course material over prepared subbase to grades shown on Drawings, in lifts not to exceed 6 inches (150 mm), compacting each lift separately with 95 percent Modified proctor. Leave minimum 1 inch (25.4 mm) to 1 1/2 inch (35 mm) for AirDrain grass paving unit and sand/sod fill to final grade.

D. Spread all fertilizer mix evenly over the surface of the base course with a hand-held, or wheeled, rotary spreader. Place fertilizer mix immediately before installing the AirDrain grass paving units.

1. Spreader Rate: 10 lbs per 1076 sq. ft. (4.53 kg per 100 sq. m).

E. Install the AirDrain grass paving units by placing units with clovers facing up. Install AirDrain GeoCell panels with the larger diameter clover openings facing downward.

1. Place the first GeoCell panel to the field's upper left hand corner.

Proper sequencing and orientation of GeoCell panels will result in a more rapid installation.

2. Orientate the GeoCell materials with the integral indicator tab to the panel's bottom left corner.
3. Install the GeoCell panels across the field in a rowed pattern. Staggering of rows will allow for multiple row completion by a multi-manned crew.
4. Secure the first panel to the base with pins and commence with panels 1-2, 1-3, and so on with one directional pull to secure.
5. After each one directional pull secures the panel connectors together, slightly push back each panel to allow for contraction space at each connector.
6. Verify each integral connector is snapped in place with sufficient contraction room allowed as panel installation proceeds.
7. Once the first row has progressed across the field, start with a second row. By maintaining proper GeoCell panel orientation, the top edge panel connectors will drop into the previously installed panel receptors after the one directional pull secures the panel.
8. GeoCell panels can be shaped to individual field areas as needed with appropriate cutting device.
   a. If only a few parts need to be trimmed, use tin snips.
   b. If many parts require trimming, set up a table and use a circular saw with a no melt, plastic cutting saw blade.
9. AirDrain units placed on curves and slopes shall be anchored to the base course, using 8 inch (203 mm) Chisel Point Pins 6 gauge BB Wire and 1 1/2 (35 mm) round attached washers, as required to secure units in place.
10. Tops of clovers shall be between 1/4 inch (6 mm) to 1/2 inch (13 mm) below the surface of adjacent hard surface pavements.

F. Install sand in clovers by "back-dumping" directly from a dump truck, or from buckets mounted on tractors, which then exit the site by driving over clovers already filled with sand.

1. Spread sand laterally from the pile using flat bottomed shovels and/or wide "asphalt rakes" to fill the clovers.
2. Use a still bristled broom for final "finishing" of the sand.
3. Compact sand using water from a hose, irrigation heads, or rainfall, with the finish grade no less than the top of the clovers and no more than 1/4 inch (6 mm) above top of clovers.

G. Moisten prepared area before planting if surface is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

3.6 SEEDING

A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h).

1. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
2. Do not use wet seed or seed that is moldy or otherwise damaged.
3. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.

Revise first paragraph below to suit Project. Sowing rates vary with grass species and mixtures.

B. Sow seed at a total rate of [**2 lb/1000 sq. ft. (0.9 kg/92.9 sq. m)**] [**3 to 4 lb/1000 sq. ft. (1.4 to 1.8 kg/92.9 sq. m)**] [**5 to 8 lb/1000 sq. ft. (2.3 to 3.6 kg/92.9 sq. m)**] <**Insert values**>.

C. Rake seed lightly into top 1/8 inch (3 mm) of soil, roll lightly, and water with fine spray.

Retain one or all options in first paragraph below if specifying blankets or mesh. Coordinate erosion-control materials with slope ratios, and revise if required.

D. Protect seeded areas with slopes exceeding [**1:4 with erosion-control blankets**] [**and**] [**1:6 with erosion-control fiber mesh**] installed and stapled according to manufacturer's written instructions.

Retain first paragraph below if specifying erosion-control mats.

E. Protect seeded areas with erosion-control mats where indicated on Drawings; install and anchor according to manufacturer's written instructions.

Retain first paragraph below if straw protection is required for seeded areas.

Protection in paragraph below is usually required in warm, dry climates.

F. Protect seeded project areas from hot, dry weather or drying winds by applying [**compost mulch**] [**peat mulch**] [**planting soil**] within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of [**3/16 inch (4.8 mm)**] <**Insert dimension**>, and roll surface smooth.

G. Protect seeded grass paver unit areas with a light "dusting" of commercial topsoil mix, not to exceed 1/4 inch (6 mm) placed above the clovers and seed mix to aid germination. Seeded areas muct be fertilized and kept moist during development of the turf plants.

3.7 HYDROSEEDING

Retain this article if hydroseeding is permitted.

Hydroseeding is the preferred method of grass installation for AirDrain installations.

A. Hydroseeding: Mix specified seed, [**commercial fertilizer**] [**slow-release fertilizer**] <**Insert type**>, and fiber mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.

Retain applicable option in first subparagraph below for improved erosion control.

1. Mix slurry with [**nonasphaltic**] [**asphalt-emulsion**] [**fiber-mulch manufacturer's recommended**] tackifier.

Retain one of two subparagraphs below. See "Hydroseeding" Article in the Evaluations.

2. Spray-apply slurry uniformly to all areas to be seeded in a one-step process. Apply slurry at a rate so that mulch component is deposited at not less than [**1500-lb/acre (15.6-kg/92.9 sq. m)**] <**Insert values**> dry weight, and seed component is deposited at not less than the specified seed-sowing rate.

Revise weight of fiber-mulch application in subparagraph below to suit Project.

3. Spray-apply slurry uniformly to all areas to be seeded in a two-step process. Apply first slurry coat at a rate so that mulch component is deposited at not less than [**500-lb/acre (5.2-kg/92.9 sq. m)**] <**Insert values**> dry weight, and seed component is deposited at not less than the specified

seed-sowing rate. Apply slurry cover coat of fiber mulch (hydromulching) at a rate of [**1000 lb/acre (10.4 kg/92.9 sq. m)**] <**Insert values**>.

4. Flollowing germination of the seed, areas lacking germination larger than 8 inches by 8 inches (20 cm by 20 cm) must be reseeded.
5. Seeded areas must be fertilized and kept moist during development of the turf plants.

3.8 SODDING

Time limit and option in first paragraph below are requirements of TPI's "Guideline Specifications to Turfgrass Sodding."

A. Lay sod within 24 hours of harvesting[**unless a suitable preservation method is accepted by Architect prior to delivery time**]. Do not lay sod if dormant or if ground is frozen or muddy.

B. Install thin cut sand-based sod directly over sand filled AirDrain clovers, sand filled no higher than the top of the clovers.

C. Lay sod to form a solid mass with tightly fitted joints, moistened and rolled to create good contact for growth. 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 soil or sod during installation. Tamp and roll lightly to ensure contact with soil, 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 slopes exceeding 1:3.

Retain subparagraph below if required. Steel staple anchors are commonly used.

2. Anchor sod on slopes exceeding 1:6 with wood pegs[**or steel staples**] spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.

D. 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.

E. Sodded areas must be fertilized and kept moist during root establishment (minimum of 3 weeks).

3.9 PLUGGING

Revise plug spacing in this article to suit Project. Zoysiagrass plugs may require spacing as close as 6 inches (150 mm) in northern areas to speed coverage.

A. Plant plugs in holes or furrows, spaced [**12 inches (300 mm)**] [**18 inches (450 mm)**] <**Insert dimension**> apart in [**both directions**] [**triangular pattern**]. On slopes, contour furrows to near level.

3.10 SPRIGGING

Sprigs may be row planted in furrows or broadcast and roller pressed into planting soil. Retain first paragraph below if planting sprigs in rows. Retain spacings to suit Project. Closer spacing results in more rapid establishment of slower-growing species.

A. Plant freshly shredded sod sprigs in furrows [**1 to 1-1/2 inches (25 to 38 mm)**] [**1-1/2 to 2 inches (38 to 50 mm)**] [**2-1/2 to 3 inches (64 to 75 mm)**] deep. Place individual sprigs with roots and portions of stem in moistened soil, [**6 inches (150 mm)**] [**12 inches (300 mm)**] <**Insert dimension**> apart in rows [**10**

inches (250 mm)] [**18 inches (450 mm)**] <**Insert dimension**> apart, and fill furrows without covering growing tips. Lightly roll and firm soil around sprigs after planting.

Retain paragraph below if broadcast sprigging, also called "stolonizing," is required. Determine broadcasting rate based on rate of grass establishment.

B. Broadcast sprigs uniformly over prepared surface at a rate of [**10 cu. ft./1000 sq. ft. (0.28 cu. m/92.9 sq. m)**] <**Insert values**> and mechanically force sprigs into lightly moistened soil.

1. Spread a 1/4-inch- (6-mm-) thick layer of [**compost mulch**] [**peat mulch**] [**planting soil**] on sprigs.
2. Lightly roll and firm soil around sprigs after planting.
3. Water sprigs immediately after planting and keep moist by frequent watering until well rooted.

3.11 TURF RENOVATION

Retain this article if turf renovation is required or if Contractor is likely to damage existing turf. Retain one or both of first two paragraphs below to suit Project.

A. Renovate existing turf where indicated.

B. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.

1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
2. Install new planting soil as required.

C. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.

D. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.

E. Mow, dethatch, core aerate, and rake existing turf.

F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.

G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.

H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches (150 mm).

I. Apply[**soil amendments and**] initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches (100 mm) of existing soil. Install new planting soil to fill low spots and meet finish grades.

Retain "Soil Amendments" Subparagraph below if retaining option in first paragraph above. Insert application rate for each required soil-amendment material.

1. Soil Amendment(s): <**Insert required soil amendment(s)**> according to requirements of [Section 329113 "Soil Preparation."] [Section 329115 "Soil Preparation (Performance Specification)."] Apply <**Insert soil amendment**> at the rate of <**Insert application rate**>.
2. Initial Fertilizer: [**Commercial fertilizer**] [**Slow-release fertilizer**] <**Insert type**> applied according to manufacturer's recommendations.

Generally retain one option in first paragraph below. If retaining more than one, indicate location of each on Drawings or by inserts. Seeding and sodding are more commonly used for turf renovation.

J. Apply [**seed and protect with straw mulch**] [**sod**] [**plugs**] [**sprigs**] as required for new turf.

K. Water newly planted areas and keep moist until new turf is established.

3.12 TURF MAINTENANCE

A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.

Retain first subparagraph below if mulching is required.

2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

Revise "Watering" Paragraph below and insert requirements for use of sprinkler or irrigation systems if available. Also, revise below if water sources are distant or unavailable or if Contractor must pay for water. Coordinate with Section 015000 "Temporary Facilities and Controls."

B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches (100 mm).

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.

Revise rate of watering in subparagraph below to suit Project.

2. Water turf with fine spray at a minimum rate of 1 inch (25 mm) per week unless rainfall precipitation is adequate.

C. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third 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:

Retain applicable subparagraphs below for mowing height. For seed mixtures, base selection on predominant species to be established.

1. Mow [**bentgrass**] <**Insert grass species**> to a height of 1/2 inch (13 mm) or less.
2. Mow [**bermudagrass**] <**Insert grass species**> to a height of 1/2 to 1 inch (13 to 25 mm).
3. Mow [**carpetgrass**] [**centipedegrass**] [**perennial ryegrass**] [**zoysiagrass**] <**Insert grass species**> to a height of 1 to 2 inches (25 to 50 mm).
4. Mow [**Kentucky bluegrass**] [**buffalograss**] [**annual ryegrass**] [**chewings red fescue**] <**Insert grass species**> to a height of 1-1/2 to 2 inches (38 to 50 mm).

5. Mow [**bahiagrass**] [**turf-type tall fescue**] [**St. Augustinegrass**] <**Insert grass species**> to a height of 2 to 3 inches (50 to 75 mm).

Revise timing of fertilizer application in "Turf Postfertilization" Paragraph below if a slow-release fertilizer is initially applied.

D. Turf Postfertilization: Apply [**commercial fertilizer**] [**slow-release fertilizer**] <**Insert type**> after initial mowing and when grass is dry.

Revise option in subparagraph below to suit Project. Halve the amount of nitrogen and apply twice during initial maintenance period if preferred.

1. Use fertilizer that provides actual nitrogen of at least [**1 lb/1000 sq. ft. (0.45 kg/92.9 sq. m)**] <**Insert value**> to turf area.

3.13 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Architect:

Retain one or more of four subparagraphs below. Revise descriptions or minimum acceptable coverage limits to suit Project.

1. Satisfactory Seeded Turf: 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)**] <**Insert coverage**>.
2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
3. Satisfactory Plugged Turf: At end of maintenance period, the required number of plugs has been established as well-rooted, viable patches of grass, and areas between plugs are free of weeds and other undesirable vegetation.
4. Satisfactory Sprigged Turf: At end of maintenance period, the required number of sprigs has been established as well-rooted, viable plants, and areas between sprigs are free of weeds and other undesirable vegetation.

B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

3.14 MEADOW

Retain this article if planting seed for meadow grasses or wildflowers.

A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph (8 km/h).

1. Before sowing, mix seed with seed carrier at a ratio of not less than [**two**] [**three**] [**four**] <**Insert number**> parts seed carrier to one part seed.
2. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
3. Do not use wet seed or seed that is moldy or otherwise damaged.

Sowing rates vary with mix of species but are usually much lighter than turfgrass-seed application rates. Revise first paragraph below to suit Project.

B. Sow seed at a total rate of [**4 oz./1000 sq. ft. (113 g/92.9 sq. m)**] [**5 oz./1000 sq. ft. (142 g/92.9 sq. m)**] [**6 oz./1000 sq. ft. (170 g/92.9 sq. m)**] <**Insert values**>.

C. Brush seed into top 1/16 inch (1.6 mm) of soil, roll lightly, and water with fine spray.

Protection in first paragraph below is usually required in warm, dry climates.

D. Protect seeded areas from hot, dry weather or drying winds by applying [**peat**] [**or**] [**compost**] mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch (4.8 mm), and roll surface smooth.

E. Water newly planted areas and keep moist until meadow is established.

3.15 MEADOW MAINTENANCE

A. Maintain and establish meadow by watering, weeding, mowing, trimming, replanting, and performing other operations as required to establish a healthy, viable meadow. Roll, regrade, and replant bare or eroded areas and remulch. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and meadow damaged or lost in areas of subsidence.

Retain first subparagraph below if mulching is required.

2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
3. Apply treatments as required to keep meadow and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

Revise "Watering" Paragraph below and insert requirements for use of sprinkler or irrigation system if available. Also, revise below if water sources are distant or unavailable or if Contractor must pay for water. Coordinate with Section 015000 "Temporary Facilities and Controls."

B. Watering: Install and maintain temporary piping, hoses, and meadow-watering equipment to convey water from sources and to keep meadow 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.

Revise rate of watering in subparagraph below to suit Project. Revise watering requirements according to meadow seed vendor's written recommendations.

2. Water meadow with fine spray at a minimum rate of 1/2 inch (13 mm) per week for [**four**] [**six**] [**eight**] weeks after planting unless rainfall precipitation is adequate.

Consider adding weed-control requirements during meadow establishment. Also, consider adding a single fall mowing to a height of 4 to 6 inches (100 to 150 mm) if landscape Installer is required to maintain meadow during fall season.

3.16 PESTICIDE APPLICATION

Revise article to suit Project.

A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.17 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by turf work from paved areas. 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. 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 plantings are established. Any barricades constructed must still be accessible by emergency and fire equipment during and after construction..

Retain one of the following two subparagraphs to match grass installation method.

1. Seeded areas must be protected from any traffic, other than for actual emergencies, for a period of 4 to 8 weeks, or until grass is mature enough to handle traffic.
2. Sodded areas must be protected from any traffic, other than emergency vehicles, for a period of 3 to 4 weeks, or until root system has penetrated below the AirDrain units.

D. Remove nondegradable erosion-control measures after grass establishment period.

E. Remove and replace segments of AirDrain units where three or more adjacent clovers are broken or damaged, reinstalling as specified, so no evidence of replacement is apparent.

F. Repair any damage to adjacent materials and surfaces resulting form installation of this work.

3.18 MAINTENANCE SERVICE

Verify with Owner that maintenance service is required for Project. Consider deleting this article for small-scale residential projects. Generally, a maintenance period should be long enough to ascertain the initial establishment of healthy turf.

A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:

Retain one or more turf subparagraphs below to suit Project. Revise minimum maintenance periods to suit local customs and growing conditions.

1. Seeded Turf: [**60**] <**Insert number**> days from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.

    a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

2. Sodded Turf: [**30**] <**Insert number**> days from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.
3. Plugged Turf: [**30**] <**Insert number**> days from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.
4. Sprigged Turf: [**30**] <**Insert number**> days from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.

Retain "Meadow Maintenance Service" Paragraph below for meadows. Revise minimum maintenance period to suit local customs and growing conditions.

B. Meadow Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Meadow Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable meadow is established, but for not less than maintenance period below.

Revise maintenance period in "Maintenance Period" Subparagraph below to suit local customs and growing conditions.

1. Maintenance Period: [**40**] <**Insert number**> days from date of [**planting completion**] [**Substantial Completion**] <**Insert starting time**>.

END OF SECTION 329200

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

MBA Engineers Inc – Geotechnical Department
2717 6th Avenue South, Birmingham, AL 35233

September 22, 2021

Clay Dorsey
Dorsey Architects & Associates Inc.
2301 1st Avenue North
Birmingham, AL 35203

Subject: Final Report of Subsurface Exploration and Geotechnical Engineering Evaluation
Glen Addie Community Center Addition
Anniston, Alabama
MBA Reference Number: G21-042.00

Dear Mr. Dorsey:

MBA Engineers has completed the authorized subsurface exploration and geotechnical engineering evaluation of the proposed Glen Addie Community Center Addition located at 426 Mulberry Avenue in Anniston, Alabama. Our services were performed in general accordance with the scope of services outlined in our Proposal Number G9081-21 dated August 10, 2021.

The purpose of our geotechnical study was to determine general subsurface conditions at widely spread boring locations, and to gather information on which to base recommendations relative to site preparation, earthwork, and foundation design for the proposed building addition. As design of the project progresses, we suggest our office be contacted regarding geotechnical-related design, earthwork specifications and contract documents so we may provide additional input related to development-specific subsurface conditions.

We appreciate the opportunity to work with you and we look forward to assisting you through the design and construction phase of this project. If you have any questions or need any additional information, please call us.

Respectfully submitted,
MBA ENGINEERS, INC

Drew Thornbury, P.E.
Geotechnical Principal Engineer

Tucker Thomas
Geotechnical Staff Professional

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APPENDIX

1.0 SCOPE OF SERVICES

The objective of the exploration is to provide site preparation and foundation recommendations for the proposed Addition to the Glen Addie Community Center. Based on the objectives, the following scope of services was conducted:

1. Site reconnaissance, test boring layout, geologic map review and mobilization of a truck-mounted drill rig.

2. Soil Test Borings: Three (3) soil test borings located within the proposed building pad addition were extended to depths of 15.5 feet below the existing ground surface. One (1) soil test boring located within the parking lot area was extended to a depth of 5.5 feet below the existing ground surface.

3. Laboratory Soil Classification Testing: Laboratory testing primarily focused on the general characteristics of the soils with an emphasis on the potential of highly plastic clays.

4. Report Preparation: Engineering evaluation and geotechnical report including site preparation and foundation recommendations for the proposed Glen Addie Addition.

2.0 SITE AND PROJECT DESCRIPTION

The Glen Addie Community Center is located at 426 Mulberry Avenue in Anniston, Alabama, and the planned addition will be located on the south side of the existing building. A Boundary Survey (dated provided by 9/17/21) provided Tom Callison with MBA Engineers, shows the grades changing from 707' at the southwestern corner of the existing building to 697' along Mulberry Aveneue. The proposed addition area is relatively flat and primarily consists of landscaped grass with a sidewalk. Additionally, an existing 14-space parking lot is located to the south of the existing clinic building. During our exploration, the existing parking lot was highly distressed and weathered. Figure 1 shows the location of the proposed Glen Addie Addition site.

Figure 1: Approximate Location of Glen Addie Addition Outline in Yellow

Planned Construction: Based on the *Glen Addie Community Center Clinic Floor Plan* (dated 8/21/20) provided to us, we understand construction will consist of an approximately 1,218 SF building addition located to the south of the existing clinic building. The building addition will include a vestibule, men and women restrooms, a corridor and lobby. Additionally, we understand there are plans to change the existing 14-space parking lot, located to the south of the proposed addition, to a 29-space parking lot. In view of the existing conditions, we have assumed cut and fill will be less than 1'. Based on our experience with similar buildings, maximum column loads are expected to be less than 50 kips.

3.0 SITE GEOLOGY

Published geologic maps (*Geologic Map of Calhoun County,* Alabama, 1962) indicate that the subject site is underlain by the **Shady Dolomite Formation**, and located near the contact with the **Weisner Formation**.

The **Weisner Formation** typically consists of sandstone, conglomerate, and lesser mudstone. The Weisner Formation forms ridges in which the unit is tightly cemented and impermeable. In addition, the Weisner typically weathers to a sandy porous subsoil that holds and transmits water effectively.

The **Shady Dolomite Formation** typically consists of limestone and dolomite and exposures are composed of reddish-brown sandy clay containing limonite granules and pebbles. The Shady Dolomite Formation is also susceptible to vertical clay filled slots and seams in addition to the development of sinkholes. Figure 2 is an excerpt from the referenced map and the approximate subject site limits are outlined in red.

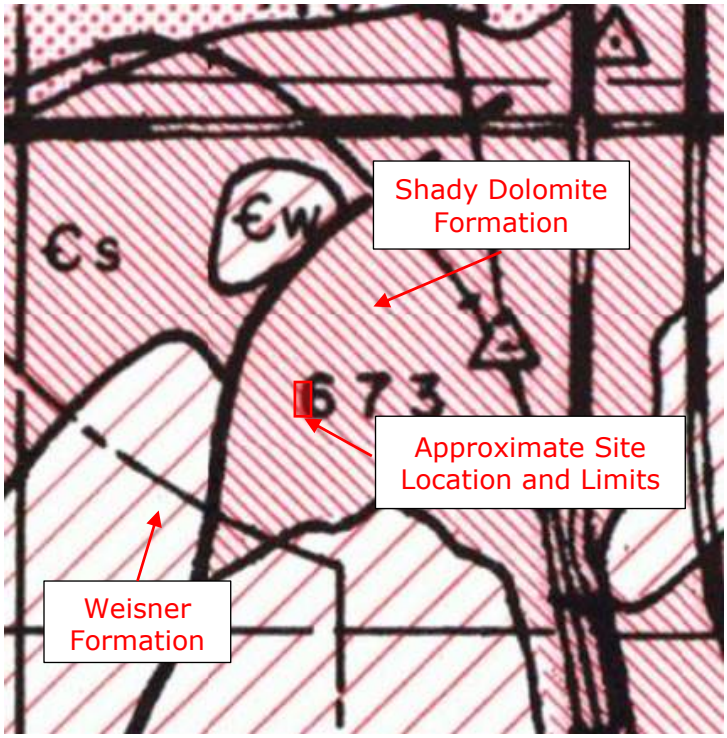

Figure 2: Excerpt from Geology Map of Calhoun County, Alabama, dated 1962

3.1 SINKHOLE POTENTIAL

Because the Shady Dolomite Formation is a carbonate rock formation, it is subject to dissolution; particularly along fractures, joints, and bedding planes. The rock dissolution is a very slow process and occurs over tens of thousands of years. The dissolution process tends to initially form vertical or steeply dipping slots in the carbonate rock. As water enters the slots and continues to dissolve the rock, the slots widen and can form sizeable cavities in the rock. Sinkholes may result when the overburden collapses or erodes into such voids.

Our scope of services did not include specific exploration to determine the presence of subsurface cavities or to determine sinkhole risk beneath the overall study area. Should the client so desire, a more comprehensive evaluation could be conducted in a separate exploratory program. However, even after an extensive exploration, the risk of a sinkhole developing during the service life of the development cannot be eliminated.

4.0 FIELD EXPLORATION

On August 23, 2021, a field exploration was conducted at the subject site consisting of four (4) soil test borings. Three (3) borings (designated B-1 to B-3) were drilled in the proposed addition building pad and were extended to depths of 15.5'. Boring P-1 was conducted in the parking lot area and was extended to a depth on the order of 5.5'. The boring locations were determined by measuring and angling from existing site features, and the boring locations should be considered approximate.

The approximate boring locations are shown on the boring location plan in the Appendix. Conditions encountered at the boring locations represent conditions at the specific test locations at the time of exploration. It should be expected that conditions at other locations or at other times could differ from those observed and reported herein.

4.1 SOIL TEST BORINGS

Within each soil test boring, split-tube sampling, and Standard Penetration tests (SPT) were performed in accordance with ASTM D1586. The soil test borings were advanced by mechanically twisting continuous, hollow-stem auger flights into the ground. In the soil test borings, soil samples were obtained with a standard 2-inch O.D., 1.4-inch I.D., split-tube sampler. The sampler was first seated six inches to penetrate any loose cuttings and then driven one additional foot with blows of a mechanical hammer. The number of blows (N) required to drive the sampler the final foot of penetration is the standard penetration resistance. The penetration resistance, when properly evaluated, is an index to the soil's strength, density, and ability to support foundations.

Representative portions of the samples obtained from the split-tube sampler were sealed in relatively airtight containers and transported to our laboratory. In the laboratory, the geotechnical engineer classified the samples. The Logs of Boring in the Appendix indicate the soil descriptions and penetration resistances.

Groundwater levels were measured during and immediately after the borings were drilled and are indicated on the attached Logs of Boring. The completed boreholes were backfilled promptly for safety reasons. Consequently, groundwater levels were evaluated for only a very short time.

4.2 LABORATORY TESTING

In addition to the field exploration, a laboratory-testing program was conducted to obtain data regarding the engineering characteristics of subsurface materials. Results of laboratory testing may be found on the attached boring logs. The following laboratory procedures were conducted:

- Atterberg Limits (ASTM D4318) were determined on select samples to evaluate how the soil characteristics change upon variations in moisture content. The soil Plasticity Index (PI) is representative of these characteristics and is the difference between the Liquid Limit (LL) and the Plastic Limit (PL).

- Materials in Soil Finer than the No. 200 Sieve (ASTM D1140) was determined on select samples to determine the percentage of fine-grained soils. The No. 200 sieve represents the break point between a material classified as coarse grained versus fine grained.

- Natural Soil Moisture Contents (ASTM D2216) were conducted on selected samples to determine the natural moisture content, which is the ratio, expressed as a percentage, of the weight of water in each amount of soil to the weight of solid particles.

5.0 SURFACE AND SUBSURFACE CONDITIONS

Details of the subsurface conditions encountered by the borings are shown on the attached logs in the Appendix. The boring logs represent our interpretation of the subsurface conditions based upon examination of the split-spoon samples. Stratification lines on the logs represent approximate boundaries between soil types; however, the actual transition between soil types may be gradual.

Conditions represented by the logs should be considered applicable only at the boring locations on the dates shown, and it should be assumed that the conditions may be different at other locations or at other times. The general subsurface conditions encountered, and their pertinent characteristics are described in the following subsections.

5.1 SURFACE CONDITIONS

At the time of our exploration, the relatively flat addition area primarily consisted of landscaped grass and a concrete sidewalk. The topsoil observed within borings B-1 and B-3 was measured to be approximately 3 inches thick.

An existing asphalt parking lot is located to the south of the proposed addition, and the asphalt observed within borings B-2 and P-1 was measured to be approximately 2 inches thick with no underlying base. The existing asphalt parking lot was very weathered and distressed. Some areas of the existing parking lot consisted of gravel and a concrete driveway was located at the entrance.

5.2 UNDOCUMENTED FILL

Soil described as undocumented fill was encountered directly beneath the topsoil at boring location B-1 (no fill encountered at B-2 and B-3) and directly beneath the asphalt at boring location P-1.

Fill Located in Building Pad: The fill encountered at B-1 extended to a depth of 2 feet below the existing ground surface and consisted of medium-stiff, tan and brown, silty clay with little amounts of rock fragments. Standard penetration test (SPT) N-values at this depth was 6 bpf, indicating a medium consistency material. Laboratory test results showed a moisture content of 19.4 percent within the fill mass at boring location B-1.

Fill Located in Parking Lot: The fill encountered at P-1 extended to a termination depth of 5.5 feet below the existing ground surface and consisted of medium-stiff, dark red-brown, sandy clay underlain by a loose, dark red-brown, clayey sand with trace amounts of rock fragments. SPT N-values within the fill mass at P-1 were 6 and 7 bpf, indicating a medium to low consistency material. Laboratory test results showed a moisture content of 14.8 percent within the fill mass at boring location P-1.

5.3 RESIDUAL SOIL

Residual soils, or those soils formed by in-place weathering of the parent rock, were encountered directly below the fill or topsoil at each boring location located within the proposed addition area. The residual soils extended to boring termination depths at each of the tested locations. The residual soils encountered generally consisted of medium to very stiff, tan and brown sandy clay or clayey silt. Standard penetration test (SPT) N-values in the residuum ranged from 5 to 24 bpf; however, typical values ranged from 8 to 19 bpf, indicating a high consistency soil. SPT N-values generally increased with depth.

The medium consistency N-values are likely a result of residual soils located at a geologic contact between the Weisner and Shady Dolomite geologic formations.

Classification Testing: Laboratory test results of selected residual soil samples showed moisture contents ranged from approximately 16.0 percent to 25.3 percent; however, the majority were below 21 percent. Typically, the moisture content percentage increased with increasing depth.

Classification testing was performed on a selected residual soil sample at boring locations B-3 within the upper 3 feet. Atterberg limits test results showed a liquid limit of 42 and a plasticity index of 19. This sample also had a percent passing the No. 200 sieve of 55.0%. Based on classification testing, results indicate a sandy clay material with low plasticity.

5.4 GROUNDWATER

During our exploration, groundwater was not encountered at any boring location. The absence of water in the borings during our exploration does not necessarily mean that groundwater would or would not be present at other times. Groundwater levels fluctuate seasonally and are related to the amount of rainfall during months prior to observations. Water is often trapped slightly above subsurface interfaces such as fill/ residual intervals and should be expected during mass grading and undercut. Groundwater is also typically trapped above the rock surface and between rock pinnacles in carbonate rock formations.

6.0 SITE PREPARATION AND GRADING CONSIDERATIONS

The following considerations and recommendations are based on our understanding of the proposed construction and the subsurface conditions encountered during our limited subsurface exploration. We have developed our recommendations under the assumption that the sampling we performed on the subject site accurately portrays conditions that are otherwise concealed by earth, rock, water, and time. Responsible geo-professionals cannot finalize such recommendations until they confirm that the conditions they inferred to exist do exist, a process they perform in the field through observation of excavations. Accordingly, if we do not observe excavation to see what actually exist, we cannot accept responsibility for these recommendations, given that – if we observe conditions we did not expect to see – we would modify the recommendations.

6.1 GENERAL SITE PREPARATION

At the time of this report, grading information for the Glen Addie Addition was not provided; however, based on the existing grades, we have assumed cut and fill will be less than 1'. In view of our initial findings, we anticipate that the following will have to be considered when developing the subject site.

- **Initial Site Preparation**: Site preparation should include removal of all topsoil, stripping of all remnant construction (including buried utilities and low consistency trench backfill), debris, concrete sidewalk, and asphalt. Demolition and removal of buried utilities, and sidewalks commonly results in disturbance of the upper soils, necessitating restoration of the disturbed soil conditions. As a result, precautions should be taken to minimize soil disturbance, and the contractor should be prepared to restore disturbed subgrade to a stable condition prior to fill placement or construction of surface improvements. Based on our borings, the existing topsoil was approximately three (3) inches thick, and the existing asphalt was approximately 2 inches thick with no underlying base.

- **Existing Undocumented Fill in the Building Pad:** An undocumented fill zone, extending to a depth of approximately 2', was encountered in the building pad at boring location B-1. In order to stabilize the building pad, we recommend undercutting any observed low consistency fill material. In view of the expected subgrade conditions, we recommend the following for stabilizing the subgrade:

    1. We recommend the MBA Engineer observe the subgrade to determine the extent of undercut required. The subgrade is typically observed by conducting a proofroll with a fully loaded dumptruck in the presence of a geotechnical engineer to determine the overall depth and area of undercut.

    2. We recommend the exposed subgrade at the base of the undercut be moisture conditioned and recompacted prior to replacing fill material.

    3. Pockets of organics or overly saturated clays would need to be removed from the building pad.

    4. Undercut onsite fill soils free of organics can potentially be reused as structural fill in the building pad as long as the material is moisture conditioned and placed and compacted in accordance to project specifications.

- **Subgrade Observation**: Following preparation of the subgrade, areas that are to receive engineered fill or construction of surface improvements, including pavements, should be evaluated by the geotechnical engineer. Such an evaluation will include proofrolling with a loaded dump truck or other heavy pneumatic tire-mounted construction equipment to reveal areas containing soft or loose soil. The geotechnical engineer can then determine the proper stabilization procedure to prepare a suitable subgrade. Proofrolling operations will help reveal areas containing the upper soft fill soils that may require stabilization such as undercutting and replacing or moisture conditioning and recompacting. As a minimum, unit rates for undercut and replacing and moisture conditioning and recompacting should be included in the contract documents.

6.2 FILL PLACEMENT

Prior to placement of fill, we recommend any areas to receive fill should be proofrolled thoroughly by a loaded dump truck in the presence of the geotechnical engineer. Engineered fill placed at the site should be virtually free of organic matter and other deleterious materials and should be low plasticity (LL less than 50, PI less than 25 and a maximum dry density greater than 105 pcf). Rock fragments in the fill mass should be no greater than four (4) inches in greatest dimension following compaction. Based on classification testing, onsite soils can be reused as structural fill as long as the material is properly moisture conditioned and free of organics.

Field Density Testing: A sufficient number of field density tests should be performed during fill placement to indicate whether the fill is in general compliance with the project specifications. A commonly used testing frequency is one test per lift of compacted fill per 2,500 square feet of fill area. Structural fill should be compacted to a minimum 98 percent of the maximum dry density obtained by a Standard Proctor compaction test. Fill moisture content should typically be in the range of ±2 percent of optimum as determined by ASTM D698. Mass fills should be placed in maximum 8-inch loose lifts.

We recommend the grading contractor provide (well in advance of the start of site grading) us with representative samples of proposed off site borrow soil (if required) so tests can be performed to confirm compliance with the above structural fill recommendations. In general, soils with higher maximum dry densities and lower liquid limits and plasticity indices have better structural characteristics, are easier to moisture condition and compact, and will perform better than soils with lower maximum dry densities or higher liquid limits and plasticity indices.

6.3 LIMITED SPACE BACKFILLING

Backfilling around storm drains and within utility trenches must be performed in a controlled manner to prevent settlement of the fill and cracking of floor slabs and pavements supported by the backfill. The same level of care must be exercised when backfilling around below-grade structures such as manholes, junction boxes, etc. Backfilling around such structures typically involves placing and compacting fill in relatively confined spaces where manually operated equipment must be utilized for effective compaction of fill.

We recommend limited spaces be backfilled with acceptable fill in four-inch lifts and densified by mechanical compactors to the project requirements. Should seepage occur in excavation trenches, it may be necessary to "floor" the trench with open-graded crushed stone (compacted in lifts) to provide a dry working surface. Systematic compaction of limited space backfill will be required even if crushed stone backfill is used.

6.4 SITE DRAINAGE DURING AND POST CONSTRUCTION

Site grading plans should include positive drainage away from the structures, and the contractor should provide drainage during the construction period. Surface water should be diverted away permanently from the surface improvements. It may be necessary to install temporary interceptor ditches to collect and divert surface water away from the construction area.

Excessive twisting and turning of construction equipment have the potential to disturb the subgrade soils and may cause the need for near-surface soil remediation. Consequently, preparing/protecting the exposed subgrade prior to rain events will be particularly important if backfilling cannot be completed promptly and the upper soil would be vulnerable to strength loss from water ponding. We recommend the project specification address the contractor's responsibility to maintain controlled site drainage during construction.

7.0 FOUNDATION RECOMMENDATIONS

Based on conversations with Keith Owens with MBA Engineers, the maximum column loads are expected to be less than 50 kips. Considering the structural loads and the soils that our exploratory borings encountered under the proposed building footprint, it is our opinion that spread and strip footings would be an appropriate foundation system for support of the planned building. *The use of spread footings assumes that all recommendations in the site preparation section are followed including undercutting and replacing any upper soft fill material.*

Foundation Construction Consideration: Foundations bearing on high consistency, residual clay or *properly compacted structural fill* can be designed for a maximum allowable bearing capacity of 2,500 psf. Additionally, we recommend that the following items be incorporated into the building foundation design:

- Minimum footing dimensions of 18 inches are recommended for continuous strip footings. Column footings should have a minimum dimension of 24 inches.

- Pockets of organic or low consistency soils encountered during footing excavation should be fully penetrated to reach the high consistency soils for proper bearing. As discussed previously, pockets of low consistency fill may be observed during footing construction that will require over excavation. Footing over excavation can be backfilled with lean concrete to the original bottom of footing elevation.

- *It is recommended that all footing bearing surfaces be compacted by a manually operated piston type tamper or vibratory plate compactor prior to placement of the reinforcing steel and observation by the geotechnical engineer*. We suggest that bearing surface compaction be addressed in the foundation notes.

- Soil exposed in the base of all satisfactory foundation trenches should be protected against any detrimental change in conditions such as disturbance from rain, frost, or flooding. Surface runoff water should be drained away from the excavations and not be allowed to pond during construction.

- All footing concrete should be placed during the same day the excavation is made. If this is not possible, then the footing excavation and bearing surface should be adequately protected using a 'mud mat' or other suitable means. Clays soils will lose strength if

subjected to excessive weathering.

- Roof drainage should be routed away from the structure by positive drainage. Roof runoff should be directed away from the foundation areas and discharged a minimum of 5' away from the foundations with a positive slope away from the building.

- Limiting water intrusion around the building perimeter will be important. Applying "hardscape" such as sidewalks adjacent to the building's exterior walls is preferred to landscaped areas that require regular irrigation. Moisture penetration under slabs and foundation areas could be detrimental to the bearing capacity of the fine grained soils.

8.0 FLOOR SLAB SUPPORT CONSIDERATIONS

Based on the subsurface conditions, the buildings may be supported on-grade if recommendations made in the Site Preparation section are followed including undercut and replacement of low consistency fill soils. We recommend the ground-supported slab should be constructed over a minimum four (4) inches of vibro-compacted open-graded granular materials (such as ALDOT #57 stone) to achieve more uniform support and provide a capillary break.

Care should be taken so that fines are not allowed to contaminate the capillary break. If fines contaminate the stone, capillary rise and subsequent damage to moisture sensitive floor covering could occur. Moisture penetration through the slab and subsequent wetting of walls, carpets etc. can also result in other problems such as mold contamination.

We recommend that just prior to the placement of the sub-slab gravel layer, a geotechnical engineer evaluate the condition of the floor slab subgrade. The evaluation may include proofrolling with a loaded dump truck or other heavy, pneumatic-tire mounted construction equipment. Should proofrolling reveal subgrade that deflects significantly, the area containing the loose or soft soil should be improved to a non-yielding/stable condition by scarification, aeration, and recompaction, or undercutting and replacement.

The use of a vapor retarder directly beneath the slab should be at the discretion of the project architect, who can determine the potential impact of water vapor (passing through the slab) on floor finishes, adhesives, and building contents. Our geotechnical evaluation did not include any evaluation for determining the potential for mold growth inside the building due to the observed subsurface conditions and the site development plan.

On most projects, there is some delay between initial grading and the time when the contractor is ready to construct the slab-on-grade. Exposure to wet weather, construction traffic, etc., can destroy the integrity of subgrade soil, particularly in view of the moisture sensitive soil that we encountered during the exploration. We suggest that provisions be included in the project specifications for the contractor to restore the floor slab subgrade soils to an acceptable condition prior to the construction of floor slabs. Subgrade restoration can be challenging (and a source of controversy) if the gravel sub-slab layer is placed early in the construction process, rainwater becomes trapped in the under slab gravel, and construction traffic contributes to rutting of the nearly completed pad.

Based on our experience, wide joint spacing is a common reason for floor slab cracking. We recommend that joint spacing and construction follow Portland Cement Association (PCA) and ACI guidelines. Any crack control steel (including wire mesh) included in the slab should be supported permanently in its proper position in the slab during concrete placement to gain

maximum benefit. Slab thickness design recommendations and establishing a slab joint pattern were not within our scope of services.

Special precautions must be taken during the placement and curing of all concrete slabs. Excessive slump (high water-cement ratio) of the concrete and/or improper curing procedures used during either hot or cold weather conditions could lead to excessive shrinkage cracking or curling of the slabs. Again, we suggest that concrete placement and curing operations be performed in accordance with ACI guidelines.

9.0 PAVEMENT CONSIDERATIONS

Based on conversations with Tom Callison with MBA Engineers, we understand there are plans to convert the existing 14-space parking lot to a 29-space parking lot. A pavement design was beyond our scope of services; however, the following should be considered during construction of the new pavement areas.

9.1 PAVEMENT SUBGRADE SOILS

Because the performance and durability of the pavement primarily depends on the support provided by the underlying subgrade material, use of proper soils, uniform compaction of fill to a high degree and subgrade restoration are some of the most important elements in pavement design and construction.

Silts and clays are susceptible to moisture-related volume change, as well as rutting and pumping upon saturation. Moisture sensitive soils should be modified by stabilizing agents or undercutting and replacement with better materials. Problems often occur when expansive soils are present in pockets and when transitioning from cuts to fills.

9.2 SUBGRADE DRAINAGE

Pavements fail for many reasons, including improper construction, design, or materials. However, one very important cause of failure is poor drainage of the subgrade. Poor drainage, according to AASHTO accounts for 60 percent of all pavement failures. The material under the structural element (asphaltic concrete or PCC) is usually a dense-graded granular base. Such bases are not usually free draining and can become saturated. Saturation of the subgrade and granular base leads to a reduction in load bearing strength and the potential for deformation. Water penetration under the pavement can occur from various sources and we recommend the pavement be designed to prevent the following:

- Ingress via cracks and joints or from unpaved permeable adjoining areas.
- Water pooling at the edges of the pavement and curbs and entering the base.
- Excessive runoff from landscape planters or lawn areas.
- Utility lines under the paving.
- Lack of slope on pavement causing pooling on the surface.

9.3 SUBGRADE PROTECTION AND NEWLY CONSTRUCTED PAVEMENTS

Often after the subgrade has been moisture conditioned and prepared, construction traffic and inclement weather cause disturbance of the subgrade. It is essential that the subgrade be restored prior to placement of base materials. Further, the base materials should not be left unprotected and the pavement should be placed promptly after placement of base to maintain the integrity of the subgrade and base.

Premature pavement failures often occur when medium construction traffic crosses either light-duty pavements or partially completed heavy-duty pavements. We recommend that construction traffic be restricted to routes (that will be repaired/replaced prior to the opening of the development) and the remainder of the pavements be blocked to construction traffic.

10.0 CONSTRUCTION OBSERVATION AND TESTING

We recommend that MBA be retained by the owner to provide a comprehensive geotechnical observation and construction materials testing program to assist the owner in determining whether certain aspects of construction are carried out in general conformance with the project-specific plans and specifications. Such a program includes testing of construction materials, such as compacted fill and asphalt and engineering observations and testing during earthwork construction. The recommended *quality assurance* program would be for the owner's benefit and would not be intended to serve the quality control function for which the general contractor would be responsible.

Observation and testing by the design geotechnical engineer during the earthwork and construction phase is particularly important because inferences and recommendations have been made based on data obtained from a limited number of soil test borings. Confirmation by the design geotechnical engineer that actual subsurface conditions are comparable to the inferred conditions is an essential part of the overall geotechnical evaluation. Failure to engage the geotechnical engineer during the earthwork and construction phase of the project would result in an incomplete geotechnical evaluation being conducted and could increase the owner's risk of delays, disputes, or change orders.

Inspection and testing would be done solely for the owner's benefit and would not relieve the contractor of his contractual obligation to meet the project specification requirements. The contractor would be responsible for his own quality control function, regardless of whether independent testing is conducted by the owner's representative.

11.0 GENERAL REMARKS AND LIMITATIONS

This report has been prepared for the exclusive use of **Mr. Clay Dorsey with Dorsey Architects & Associates, Inc.** for specific application to the subject project and is non-transferable to any third party without prior consent from MBA Engineers. All recommendations contained in this report have been made in accordance with generally accepted soil and foundation engineering practices in the area where the services were performed. No other warranties are implied or expressed.

At the time this report was prepared the site grading plan had not been finalized, and consequently the report may not address all geotechnical-related design issues. In addition, the analysis and recommendations submitted in this report are based, in part, upon the data obtained from a limited number of borings. The nature and extent of variations in soil conditions between the borings may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report

The information contained in this report is not intended, nor is sufficient, for the design of segmental retaining walls. Segmental wall designers/builders should perform independent analysis to determine all necessary soil characteristics (including soil shear strength and bearing capacity) used in wall design. Also, the geotechnical engineer in charge of this project is not a mold prevention consultant; none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.

It is important that the geotechnical engineer be provided the opportunity to review the final geotechnical related plans and specifications to provide a level of confidence that the recommendations in this report were properly interpreted and incorporated in the design. It will be the client's responsibility to furnish the final grading and foundation plans to MBA Engineers for the necessary review. *If the geotechnical engineer is not accorded the privilege of making this recommended review, he can assume no responsibility for misinterpretation of the recommendations in this report.*

The information contained in this report is for the benefit of the client and to aid the other project professionals in planning and design of the subject project. The report is not intended to serve as a contract document and should not be used as a substitute for a project-specific earthwork or foundation specification. Instead, the input herein should be interpreted and applied to the appropriate specification sections.

An article published by the Geoprofessional Business Association (GBA), titled Important Information About Your Geotechnical Report, has been included in the Appendix. We encourage all individuals to become familiar with the article to help manage risk.

LEGEND

INDICATES APPROXIMATE LOCATION OF SOIL TEST BORINGS

NOTES

1. THIS DRAWING HAS BEEN ADAPTED FROM GOOGLE EARTH SATELLITE IMAGERY AND THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY.

PROJECT NAME:	Glen Addie Addition
PROJECT NO:	G21-042
LOCATION:	Anniston, AL
SCALE:	N/A
DATE:	07-Sep-2021
DRAWN BY:	RTT

BORING LOCATION PLAN

MBA ENGINEERS, INC.
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LOG OF BORING

BORING LOCATION: B-1

Project Name: Glen Addie Addition
Project Number: G21-042
Drilling Method: HSA
Equipment Used: Truck-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Drilling Date: Aug-23-2021
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

APPROX. SURFACE ELEV: n/a-ft

DEPTH (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	Topsoil = 3"											
	Medium stiff, tan and brown, silty clay with little rock fragments (Fill)	1	☒	2 - 2 - 4	6	19.4						
5	Stiff, tan and brown, silty clay	2	☒	2 - 3 - 5	8	17.9						
	Very stiff, tan, clayey silt	3	☒	2 - 3 - 5	8	25.3				>4.0		
10	Medium stiff, brown-tan, sandy clay	4	☒	1 - 2 - 3	5							
15	Very stiff, tan-brown, sandy clay (Residual)	5	☒	6 - 9 - 10	19					3.50		GNE
	Boring Terminated at 15.5'											
20												
25												
30												

☒ Split Spoon Sample
Grab Sample
No Recovery
Rock Coring
Water Table Encountered @ Time of Drilling
Delayed Water Table Level

GNE = Groundwater Not Encountered
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

LOG OF BORING

BORING LOCATION: B-2

Project Name: Glen Addie Addition
Project Number: G21-042
Drilling Method: HSA
Equipment Used: Truck-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Drilling Date: Aug-23-2021
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

APPROX. SURFACE ELEV: n/a-ft

DEPTH (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	Asphalt = 2"											
	Medium stiff, red-brown, sandy clay	1	SS	2 - 3 - 3	6	16.0						
5	...same...	2	SS	2 - 3 - 4	7	19.1						
	Stiff, red-brown, sandy clay	3	SS	4 - 4 - 5	9	22.8						
10	Very stiff, tan, clayey silt	4	SS	4 - 8 - 11	19					3.50		
15	...same... (Residual)	5	SS	8 - 9 - 13	22					>4.0		GNE
	Boring Terminated at 15.5'											
20												
25												
30												

Split Spoon Sample
Grab Sample
No Recovery
Rock Coring
Water Table Encountered @ Time of Drilling
Delayed Water Table Level

GNE = Groundwater Not Encountered
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

LOG OF BORING

BORING LOCATION: B-3

Project Name: Glen Addie Addition
Project Number: G21-042
Drilling Method: HSA
Equipment Used: Truck-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Drilling Date: Aug-23-2021
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

APPROX. SURFACE ELEV: n/a-ft

DEPTH (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	Topsoil = 3"											
	Stiff, red-brown, sandy clay	1	☒	3 - 3 - 5	8	19.5	42	24	19			Percent Passing #200 Sieve = 55% USCS = CL
5	Very stiff, tan, clayey silt	2	☒	3 - 3 - 5	8	18.0				3.50		
	...same...	3	☒	4 - 5 - 5	10	20.8				>4.0		
10	...same...	4	☒	7 - 10 - 14	24					>4.0		
	...same... (Residual)	5	☒	8 - 9 - 13	22					>4.0		GNE
15	Boring Terminated at 15.5'											
20												
25												
30												

☒ Split Spoon Sample
○ No Recovery
▽ Water Table Encountered @ Time of Drilling
GNE = Groundwater Not Encountered
Grab Sample
Rock Coring
▼ Delayed Water Table Level
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

LOG OF BORING

BORING LOCATION: P-1

Project Name: Glen Addie Addition
Project Number: G21-042
Drilling Method: HSA
Equipment Used: Truck-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Drilling Date: Aug-23-2021
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

APPROX. SURFACE ELEV: n/a-ft

DEPTH (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	Asphalt = 2"											
	Medium stiff, dark red-brown, sandy clay	1	☒	3 - 3 - 3	6	14.8						
5	Loose, dark red-brown, clayey sand with trace rock fragments (Fill)	2	☒	2 - 3 - 4	7							GNE
	Boring Terminated at 5.5'											
10												
15												
20												
25												
30												

Split Spoon Sample
Grab Sample
No Recovery
Rock Coring
Water Table Encountered @ Time of Drilling
Delayed Water Table Level

GNE = Groundwater Not Encountered
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical- engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply this report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by*: the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold- prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical- engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you GBC-Member geotechnical engineer for more information.

GEOTECHNICAL BUSINESS COUNCIL
of the Geoprofessional Business Association

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

Supplementary Report of Subsurface Exploration and Geotechnical Engineering Evaluation

Glen Addie Slope Evaluation
Anniston, Alabama

MBA Project Number: G22-012.00
March 18, 2022

Prepared for:
City of Anniston
Mr. Steve Folks
4309 McClellan Blvd
Anniston, AL 36201

CITY OF Anniston
The Model City

MBA Engineers Inc. – Geotechnical Department
2717 6th Avenue South, Birmingham, AL 35233

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL
MBA Engineers Inc – Geotechnical Department
2717 6th Avenue South, Birmingham, AL 35233

March 18, 2022

City of Anniston
Attn: Mr. Steve Folks
4309 McClellan Blvd
Anniston, AL 36201

Subject: Letter Report of Subsurface Exploration and Geotechnical Engineering Evaluation
Glen Addie Slope Evaluation
Anniston, Alabama
MBA Reference Number: G22-012.00

Dear Mr. Folks:

MBA Engineers has completed the authorized subsurface exploration and geotechnical engineering evaluation of the existing slope located to the west of the Glen Addie Community Center in Anniston, Alabama. Our services were performed in general accordance with the scope of services outlined in our Proposal Number G9109-21 dated October 21, 2021.

An initial geotechnical study was conducted by MBA Engineers (dated September 22, 2021) for the proposed Glenn Addie Community Center building addition; however, a supplementary geotechnical study was requested to determine the general subsurface conditions at widely spaced boring locations and provide a slope stability analysis of the slope located to the west of the Glen Addie Community Center. As design of the site grading progresses, we suggest our office be contacted regarding geotechnical-related design, earthwork specifications and contract documents so we may provide additional input related to construction-specific subsurface conditions.

1.0 SITE AND PROJECT DESCRIPTION

Glen Addie Community Center is located at 426 Mulberry Avenue in Anniston, Alabama, and a proposed building addition is proposed to the south side of the building. Part of the redevelopment process of the Glenn Addie Center is addressing potential grading issues including addressing the slope located to the west of the building. The objective of our exploration was to determine the overall stability of the slope and provide potential recommendations for slope stabilization. Figure 1 shows the approximate location of the subject slope.

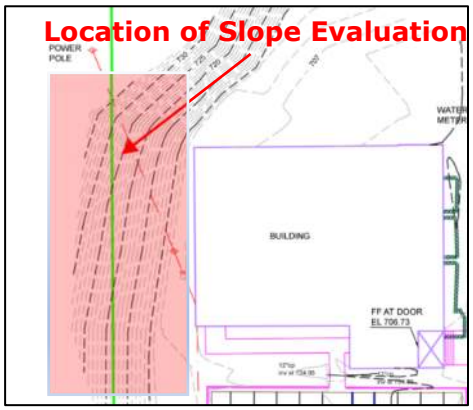

Figure 1: Approximate Location of Subject Slope

The subject slope is located to the west of the Community Center. The slope increases in elevation from the Community Center to the west up to Palmetto Avenue. At the time of our exploration, the existing slope area consists of dense vegetation including thick brush and scattered trees. Additionally, there is some evidence of slope creep in the area of the subject slope and the overall steep slope inclination is likely indicating an unstable slope.

In view of the Site Survey (dated 9-17-2021) provided by Tom Callison with MBA Engineers, the site grades range from 707' at the existing Glen Addie Building to approximately 750' near Palmetto Avenue. The existing slope elevations range from 708' to 737' where the steepest slope inclination is on the order of a 1.42 (H) to 1 (V) slope. At the crest of the steep slope, the slope inclination flattens to a 4.6 (H) to 1 (V) slope to Palmetto Avenue. The overall slope height of the steepest portion of the slope appears to be on the order of 29' in height.

2.0 SITE GEOLOGY

Published geologic maps (*Geologic Map of Calhoun County,* Alabama, 1962) indicate that the subject slope is underlain by the **Shady Dolomite Formation** and located near the contact with the **Weisner Formation**.

The **Weisner Formation** typically consists of sandstone, conglomerate, and lesser mudstone. The Weisner Formation forms ridges in which the unit is tightly cemented and impermeable. In addition, the Weisner typically weathers to a sandy porous subsoil that holds and transmits water effectively.

The **Shady Dolomite Formation** typically consists of limestone and dolomite and exposures are composed of reddish-brown sandy clay containing limonite granules and pebbles. The Shady Dolomite Formation is also susceptible to vertical clay filled slots and seams in addition to the development of sinkholes. Figure 2 is an excerpt from the referenced map and the approximate subject slope limits are outlined in red.

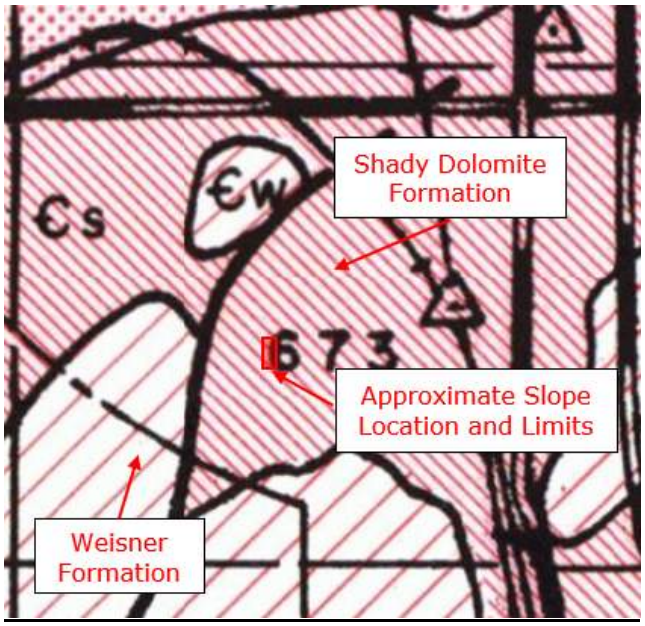

Figure 2: Excerpt from Geology Map of Calhoun County, Alabama, dated 1962

2.1 SINKHOLE POTENTIAL

Because the Shady Dolomite Formation is a carbonate rock formation, it is subject to dissolution; particularly along fractures, joints, and bedding planes. The rock dissolution is a very slow process and occurs over tens of thousands of years. The dissolution process tends to initially form vertical or steeply dipping slots in the carbonate rock. As water enters the slots and continues to dissolve the rock, the slots widen and can form sizeable cavities in the rock. Sinkholes may result when the overburden collapses or erodes into such voids.

Our scope of services did not include specific exploration to determine the presence of subsurface cavities or to determine sinkhole risk beneath the overall study area. Should the client so desire, a more comprehensive evaluation could be conducted in a separate exploratory program. However, even after an extensive exploration, the risk of a sinkhole developing during the service life of the development cannot be eliminated.

3.0 FIELD EXPLORATION

On February 18, 2022, a field exploration was conducted within the area of the subject slope consisting of two (2) soil test borings. Boring B-1 was drilled at the base of the slope, located north of the Community Center, and was extended to a depth of 15.5' below the existing ground surface. Boring B-2 was drilled near the crest of the slope and was extended to a depth of 45.5' below the existing ground surface. The boring locations were determined by measuring and angling from existing site features, and the boring locations should be considered approximate.

The approximate boring locations are shown on the boring location plan in the Appendix. Conditions encountered at the boring locations represent conditions at the specific test locations at the time of exploration. It should be expected that conditions at other locations or at other times could differ from those observed and reported herein.

3.1 SOIL TEST BORINGS

Within each soil test boring, split-tube sampling, and Standard Penetration tests (SPT) were performed in accordance with ASTM D1586. The soil test borings were advanced by mechanically twisting continuous, hollow-stem auger flights into the ground. In the soil test borings, soil samples were obtained with a standard 2-inch O.D., 1.4-inch I.D., split-tube sampler. The sampler was first seated six inches to penetrate any loose cuttings and then driven one additional foot with blows of a mechanical hammer. The number of blows (N) required to drive the sampler the final foot of penetration is the standard penetration resistance. The penetration resistance, when properly evaluated, is an index to the soil's strength, density, and ability to support foundations.

Representative portions of the samples obtained from the split-tube sampler were sealed in relatively airtight containers and transported to our laboratory. In the laboratory, the geotechnical engineer classified the samples. The Logs of Boring in the Appendix indicate the soil descriptions and penetration resistances.

Groundwater levels were measured during and immediately after the borings were drilled and are indicated on the attached Logs of Boring. The completed boreholes were backfilled promptly for safety reasons. Consequently, groundwater levels were evaluated for only a very short time.

3.2 LABORATORY TESTING

In addition to the field exploration, a laboratory-testing program was conducted to obtain data regarding the engineering characteristics of subsurface materials. Results of laboratory testing may be found on the attached boring logs. The following laboratory procedures were conducted:

- Atterberg Limits (ASTM D4318) were determined on select samples to evaluate how the soil characteristics change upon variations in moisture content. The soil Plasticity Index (PI) is representative of these characteristics and is the difference between the Liquid Limit (LL) and the Plastic Limit (PL).

- Materials in Soil Finer than the No. 200 Sieve (ASTM D1140) was determined on select samples to determine the percentage of fine-grained soils. The No. 200 sieve represents the break point between a material classified as coarse grained versus fine grained.

- Natural Soil Moisture Contents (ASTM D2216) were conducted on selected samples to determine the natural moisture content, which is the ratio, expressed as a percentage, of the weight of water in each amount of soil to the weight of solid particles.

4.0 SURFACE AND SUBSURFACE CONDITIONS

Details of the subsurface conditions encountered by the borings are shown on the attached logs in the Appendix. The boring logs represent our interpretation of the subsurface conditions based upon examination of the split-spoon samples. Stratification lines on the logs represent approximate boundaries between soil types; however, the actual transition between soil types may be gradual.

Conditions represented by the logs should be considered applicable only at the boring locations on the dates shown, and it should be assumed that the conditions may be different at other locations or at other times. The general subsurface conditions encountered, and their pertinent characteristics are described in the following subsections.

4.1 SURFACE CONDITIONS

At the time of our exploration, the existing slope area consisted of dense vegetation including thick brush and scattered trees. The topsoil observed within borings B-1 and B-2 was measured to be approximately 2 inches thick. Topsoil thickness in areas of thick underbrush is expected to range from 6” to 12” in thickness.

4.2 RESIDUAL SOILS

Residual soils, or those soils formed by in-place weathering of the parent rock, were encountered directly below the topsoil at each boring location located within the slope area. The residual soils extended to boring termination depths at each of the tested locations. The residual soils encountered generally consisted of stiff to very stiff, tan and brown sandy to clayey silt. Standard penetration test (SPT) N-values in the residuum ranged from 9 to over 50 bpf; however, typical values ranged from 12 to 26 bpf, indicating a high consistency soil. SPT N-values generally increased with depth.

Medium to stiff silts with SPT N-values ranging from 9 to 13 were observed at B-1 at a depth from 0’ to 5’ and at B-2 from a depth of 18’ to 27’. The medium consistency N-values are

likely a result of residual soils located at a geologic contact between the Weisner and Shady Dolomite geologic formations.

Laboratory Testing: Laboratory test results of selected residual soil samples showed moisture contents ranged from approximately 18.1 percent to 45.5 percent; however, the majority were below 30 percent. Typically, the moisture content percentage increased with increasing depth.

Classification testing was also performed on selected residual soil samples and the classification testing results are displayed in Table 1.

Table 1: Classification Testing Results

Boring Location	Sample Description	Sample Depth (ft)	Natural Moisture (%)	Liquid Limit	Plastic Limit	Plasticity Index	Fine Grained Soils (%)
B-1	Tan Sandy Silt	5	31.9	59	36	23	57.3
B-2	Red Brown Sandy Silt	5	21.9	59	34	25	63.4
B-2	Tan Clayey Silt w/ Sand	20	39.1	71	47	24	67.4
B-3*	Red Brown Sandy Clay	3	19.0	42	23	19	55.0

**Boring B-3 from initial MBA geotechnical report dated September 2021*

Based on classification testing, results indicate a predominantly fine-grained material that would be considered moderately to highly moisture sensitive. In accordance with USCS standards, the majority of onsite soils would be classified as a sandy elastic silt (MH).

4.3 GROUNDWATER

During our exploration, groundwater was not encountered at any boring location. The absence of water in the borings during our exploration does not necessarily mean that groundwater would or would not be present at other times. Groundwater levels fluctuate seasonally and are related to the amount of rainfall during months prior to observations. Water is often trapped slightly above subsurface interfaces and should be expected during mass grading. Groundwater is also typically trapped above the rock surface and between rock pinnacles in carbonate rock formations.

5.0 GLOBAL STABILITY ANALYSIS AND SLOPE CONSTRUCTION CONSIDERATIONS

The following considerations and recommendations are based on our understanding of the existing slope and the subsurface conditions encountered during our limited subsurface exploration. We have developed our recommendations under the assumption that the sampling we performed on the subject site accurately portrays conditions that are otherwise concealed by earth, rock, water, and time. Responsible geo-professionals cannot finalize such recommendations until they confirm that the conditions they inferred to exist do exist, a process they perform in the field through observation of excavations. *Accordingly, if we do not observe excavation to see what actually exist, we cannot accept responsibility for these recommendations, given that – if we observe conditions we did not expect to see – we would modify the recommendations.*

5.1 GLOBAL STABILITY ANALYSIS

In view of the Site Survey (dated 9-17-2021) provided by Tom Callison with MBA Engineers, the site grades range from 707' at the existing Glen Addie Building to approximately 750' near Palmetto Avenue. The existing slope elevations range from 708' to 737' where the steepest slope inclination is on the order of a 1.42 (H) to 1 (V) slope. At the crest of the steep slope, the slope inclination flattens to a 4.6 (H) to 1 (V) slope to Palmetto Avenue. The overall slope height of the steepest portion of the slope appears to be on the order of 29' in height.

GEO5 Slope Stability software was used to assess the rotational and translational stability of the existing global stability of the slope configuration. The strength characteristics of the in-situ materials were derived from the boring and laboratory data conducted during our exploration, typical properties based on USCS classifications provided by NAVFAC, and our experience with similar soil types. Design soils properties used for the global analysis are provided in Table 2. Note: Design parameters are assuming all slope grading recommendations including are followed.

Table 2: Soil Strength Parameters

Soil Description	Total Unit Weight (pcf)	c' (psf)	Φ'(degrees)
Upper Red-Brown Clay	125	300	22
Intermediate Tan Clayey Silt	125	200	22
Deeper High Consistency Clayey Silt	125	200	25

Army Corp of Engineers guidelines (EM 1110-2-1902) recommends a factor of safety (FOS) of at least 1.5 for long-term stability of slopes. Therefore, critical slopes were analyzed to determine if they met the minimum FOS.

Existing Slope Analysis: The critical slope analyzed included a 29' tall slope with an inclination of a 1.42 (H) to 1 (V). Results from our global stability analysis of the critical slope indicate a factor of safety of 1.30 which does not meet the recommended factor of safety of 1.5 for long-term stability. In addition, the slope conditions indicate erosion issues and the presence of slope sloughing; therefore, we recommend stabilizing or re-designing the existing slope. Figure 3 shows the slope analysis of the existing slope 1.42 (H) to 1 (V) slope.

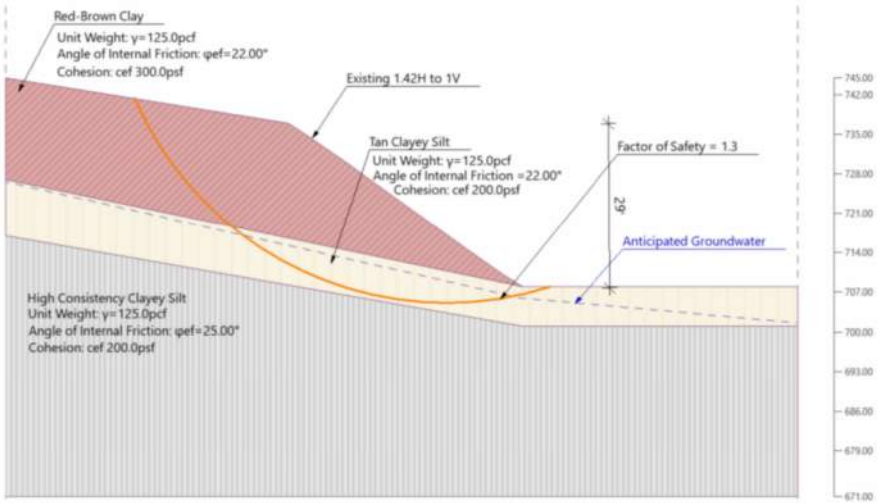

Figure 3: Global Stability Analysis of Existing Slope

Stabilization Recommendations: Based on the provided survey, the Glen Addie property line runs through the existing slope; however, we understand the City of Anniston is not restrained from accessing the property to the west of the Glen Addie. Therefore, the most economical method of stabilization is flattening the slope inclination. If the design is limited to the constraints of the existing property, slope stabilization would likely require installation of a retaining wall.

Additional Stabilization Analysis: Additionally, global stability analyzes were performed on a proposed 2(H) to 1(V) slope and a 2.25(H) to 1(V) slope to verify stabilization of flatter slope inclinations. The results from our global stability analysis are displayed below in Table 3. Figures 4 and 5 shows the slope analysis of the 2H to 1V slope and the 2.25H to 1V slopes. The 2.25(H) to 1(V) slope meets the recommended Army Corp of Engineers factor of safety of over 1.5; however, the factor of safety of the 2.0(H) to 1(V) slope is slightly less at 1.48.

Table 3: Global Stability Analysis Results

Planned Slope Inclination	Estimated Factor of Safety
1.42H to 1V	1.30
2H to 1V	1.48
2.25H to 1V	1.52

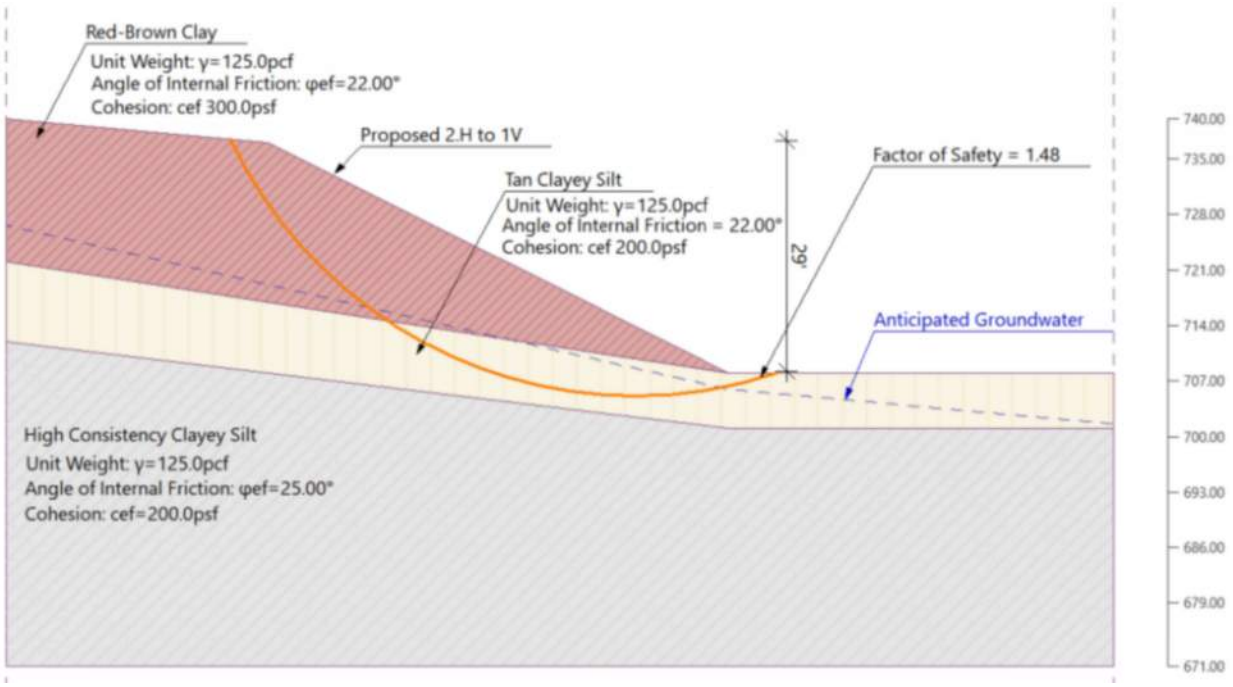

Figure 4: Global Stability Analysis of 2H to 1V Slope

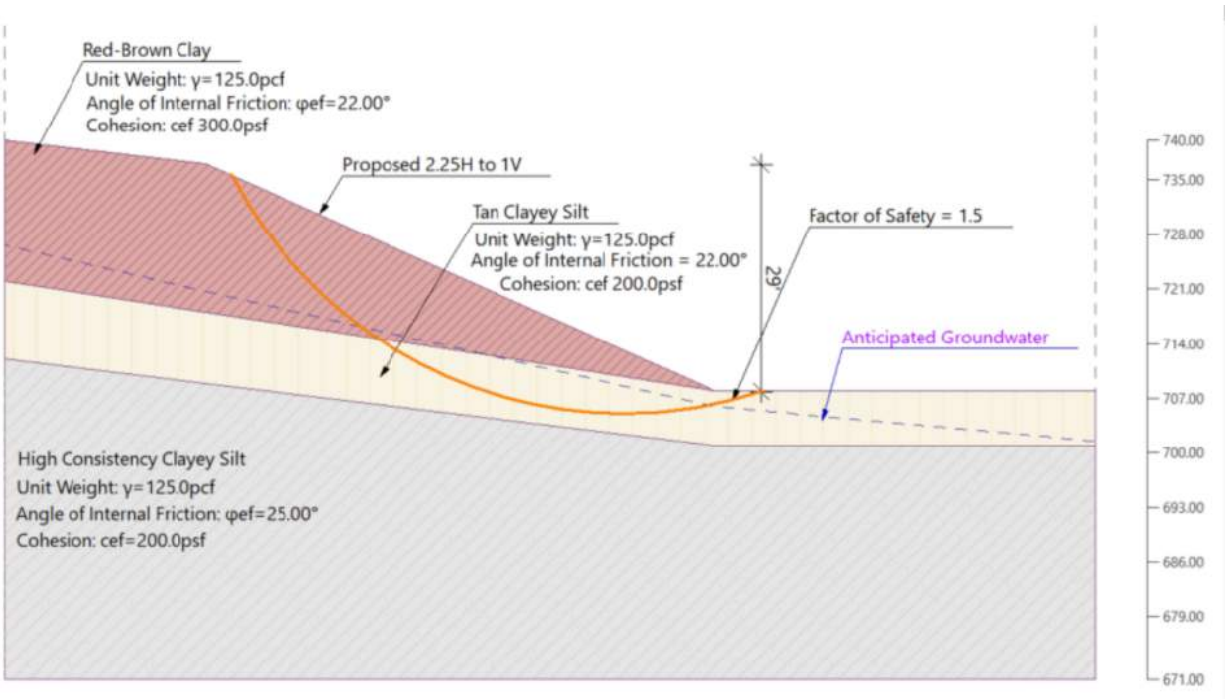

Figure 5: Global Stability Analysis of 2.25H to 1V Slope

5.2 ADDITIONAL SLOPE RECOMMENDATIONS AND COMMENTS

Site Clearing: At the time of our exploration, the existing slope area consisted of dense vegetation including thick brush and scattered trees. The topsoil thickness is expected to range from 6" to 12". Site preparation of the slope area should include stripping of all topsoil, vegetation, and soil containing organic matter. Deeper pockets of root systems are anticipated at or near mature trees. Deeper root systems are expected to reach depths of up to 24".

Proofrolling (Subgrade Evaluation): Global stability of slopes are largely dependent on the stability and consistency of the subgrade located at the toe of the slope; therefore, the base or foundation of the slope should be evaluated by a geotechnical engineer. This evaluation should include proofrolling with a loaded dump truck or other heavy pneumatic-tire mounted construction equipment in order to reveal pockets of soft or loose soil. The geotechnical engineer can then determine the amount of undercutting or stabilization, if any, that will be necessary to prepare a suitable foundation subgrade. As a minimum, we recommend the contract documents include unit rates for undercutting and replacing and moisture conditioning and recompacting.

Cut Slope Considerations: Stability of cut slopes is dependent on the subsurface profile (soil, rock, or a transition from soil to rock) that would be exposed after the cut slope is formed; including the earth *material* properties and the properties of the earth *mass*. Discontinuities such as bedding planes, joints, and fractures and groundwater seepage are all factors that can reduce slope stability.

If subsurface conditions, including soil type or groundwater conditions are different than those we encountered or inferred it would be necessary to re-evaluate the actual in-field condition and make revised recommendations if warranted. In most cases, enhanced subsurface or surface drainage, installation of reinforcement such as soil nail, flatter slopes, or construction

of retaining walls near the toes of slopes (to permit the retained slope to be constructed to a flatter inclination) would be necessary if actual subsurface conditions do not comply with the design conditions. Regardless of the amount of subsurface exploration conducted, all subsurface conditions cannot be identified and evaluated, and consequently the level of uncertainty when designing tall cut slopes, and the possibility of design changes being required should be acknowledged by the owner and design team.

The most common type of slope failure we observe on construction sites is a dish-shaped failure associated with topsoil slippage. We recommend the project civil engineer and landscape consultant determine the most appropriate erosion control netting and vegetation in order to reduce the potential for shallow "surface" failures as well as erosion on the slope face. Surface-type failures are most common when topsoil is placed over rock slopes or slopes steeper than 2H:1V.

It will be important to observe the cut slopes during and immediately after site grading in an effort to determine whether areas exhibiting unexpected conditions (particularly groundwater seepages) are exposed.

Excavation of the cut slopes must be done in a way such that a tall unsupported cut face steeper than the design inclination is not formed. Instead, the excavation should take place in a manner such that the design inclination is not exceeded during construction. Some large trees may be exposed at the crest of cut slopes at the completion of slope excavation. Measures to stabilize such trees, or removing the trees a sufficient distance from the slope crest should be implemented to prevent toppling, particularly where slope cutting will extend close to property lines

Effect of Groundwater and Surface Runoff on Grading: The contractor should provide drainage during the construction period. Surface water should be diverted away permanently from the slope foundation. It may be necessary to install temporary interceptor ditches to collect and divert surface water away from the construction area.

Excessive twisting and turning of construction equipment has the potential to disturb the subgrade soils and may cause the need for near-surface soil remediation. Consequently, preparing/protecting the exposed subgrade prior to rain events will be particularly important if backfilling cannot be completed promptly and the upper soil would be vulnerable to strength loss from water ponding. We recommend the project specification address the contractor's responsibility to maintain controlled site drainage during construction.

6.0 RETAINING WALL RECOMMENDATIONS

Based on conversations with Tom Callison with MBA, we understand there is an option to construct a retaining wall at the base of the existing slope located to the north and west of the community center. Any structural walls that also function as retaining walls and are restricted from lateral movement should be designed for an "*at rest*" pressure condition. When retaining walls are not restrained from horizontal movements, then the walls should be designed for "*active*" pressure conditions.

"*Active*" and "*at-rest*" design pressures are provided below. Our retaining wall design input is based on the assumption that a "wedge" of open-graded, free-draining gravel would be placed as backfill behind permanent below-grade walls. In order to achieve relatively low lateral pressures acting on the walls, the wedge of gravel backfill should extend up from the wall foundation at a 45 degree angle. The following are ultimate lateral earth pressures without factors of safety FOR WALLS BACKFILLED WITH SYSTEMATICALLY-COMPACTED GRANULAR MATERIAL:

- Backfill behind walls should be compacted by at least five passes of equipment suitable to compact in limited spaces and behind permanent walls. Backfill placed within three (3) feet of the walls should be compacted by light or manually-operated equipment. The recommended zone of free-draining granular material should be included in the wall details. Under such a condition, the following equivalent fluid pressures may be used during design.

Active Pressure	30 pcf
At-Rest Pressure	50 pcf
Soil Unit Weight	105 pcf (ALDOT # 57 Stone)

- We strongly recommend that once the design concept is finalized, the geotechnical engineer should be contacted to review the geotechnical aspects of retaining wall design with the structural engineer. Additional geotechnical design parameters can be provided following such a review, if necessary.

- Post-Construction Wall Movements: Retaining walls designed for "*Active Pressure*" conditions are anticipated to move after backfill is placed.

  - In order to achieve the active state in granular soils the top-of-wall displacement must be about 1-inch horizontally for every 20 feet of wall height.

  - In the event cantilever-type walls that are free to deflect are designed to connect into a rigid structure, special provisions should be made at the juncture between the wall and the building structure.

  - Improperly compacted backfills can also cause vertical movements due to fill settlement causing damage to structural elements constructed on them.

  - Proper construction quality control is essential to minimize post-construction problems with retaining walls.

- Wall design should incorporate drainage measures to prevent the buildup of water in the retained soil behind the retaining wall. Water collecting behind a retaining wall can more than double the lateral forces acting on the wall and can cause failure of the wall. Placement of the gravel wedge behind walls is intended to prevent the buildup of hydrostatic pressure. In addition to the presence of a gravel wedge, a drainage pipe should be placed at the base of the wedge to allow proper drainage of any water behind the retaining wall.

- **MSE Walls**: We emphasize that recommendations in this report are not intended for use in the design of segmental or MSE walls and should not be used for that purpose. In the event such walls are part of the final site development concept, a geotechnical study specific to the proposed wall alignment, addressing all design parameters, should be conducted by the wall designer/builder. In addition, the wall designer should determine all necessary input parameters (such as backfill and foundation strength) necessary to permit him to complete a turnkey design, including settlement, global stability, bearing capacity, etc.

  We recommend MBA be allowed the opportunity to review final wall plans to confirm all aspects of MSE wall design have been addressed prior to construction.

7.0 CONSTRUCTION OBSERVATION AND TESTING

Because geotechnical engineering is an inexact science due to the variability of natural processes, we recommend the owner retain MBA Engineers to provide a comprehensive construction-testing program to assist in determining that certain aspects of construction are being carried out in general conformance with the project plans and specifications. Construction testing commonly includes testing of construction materials such as compacted fill and engineering observations and testing during the earthwork construction portions of the project.

Observation and testing by the design geotechnical engineer during the earthwork and foundation construction phases is particularly important because inferences and recommendations have been made based on data obtained from a limited number of soil test borings. Confirmation by the design geotechnical engineer that actual subsurface conditions are comparable to the inferred conditions is an essential part of the overall geotechnical evaluation. Failure to engage the geotechnical engineer during the earthwork and building foundation phases of the project would result in an incomplete geotechnical evaluation being conducted and could increase the owner's risk of delays, disputes, or change orders.

Inspection and testing would be done solely for the owner's benefit and would not relieve the contractor of his contractual obligation to meet the project specification requirements. The contractor would be responsible for his own quality control function, regardless of whether independent testing is conducted by the owner's representative.

8.0 GENERAL REMARKS AND LIMITATIONS

This report has been prepared for the exclusive use of **Mr. Steve Folks with the City of Anniston** for specific application to the subject project and is non-transferable to any third party without prior consent from MBA Engineers. All recommendations contained in this report have been made in accordance with generally accepted soil and foundation engineering practices in the area where the services were performed. No other warranties are implied or expressed.

At the time this report was prepared the site grading plan had not been finalized, and consequently the report may not address all geotechnical-related design issues. In addition, the analysis and recommendations submitted in this report are based, in part, upon the data obtained from a limited number of borings. The nature and extent of variations in soil conditions between the borings may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report

It is important that the geotechnical engineer be provided the opportunity to review the final geotechnical related plans and specifications to provide a level of confidence that the recommendations in this report were properly interpreted and incorporated in the design. It will be the client's responsibility to furnish the final grading and foundation plans for the retaining wall to MBA Engineers for the necessary review. *If the geotechnical engineer is not accorded the privilege of making this recommended review, he can assume no responsibility for misinterpretation of the recommendations in this report.*

The information contained in this report is for the benefit of the client and to aid the other project professionals in planning and design of the subject project. The report is not intended to serve as a contract document and should not be used as a substitute for a project-specific earthwork or foundation specification. Instead, the input herein should be interpreted and applied to the appropriate specification sections.

An article published by the Geoprofessional Business Association (GBA), titled Important Information About Your Geotechnical Report, has been included in the Appendix. We encourage all individuals to become familiar with the article to help manage risk.

We appreciate the opportunity to work with you on this project. If you have any questions or need any additional information, please call us.

Respectfully submitted,
MBA ENGINEERS, INC

Drew Thornbury, P.E.
Senior Geotechnical Principal

Tucker Thomas
Geotechnical Project Manager

LEGEND

INDICATES APPROXIMATE LOCATION OF SOIL TEST BORINGS

NOTES

1. THIS DRAWING HAS BEEN ADAPTED FROM GOOGLE EARTH SATELLITE IMAGERY AND THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY.

PROJECT NAME:	Glen Addie Slope Analysis
PROJECT NO:	G22-012
LOCATION:	Anniston, AL
SCALE:	N/A
DATE:	16-Mar-2022
DRAWN BY:	RTT

BORING LOCATION PLAN

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

LOG OF BORING

BORING LOCATION: B-1

Project Name: Glen Addie Slope Analysis
Project Number: G22-012
Drilling Method: HSA
Equipment Used: Track-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Date Drilled: 2/18/2022
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

SURFACE ELEV (FT): 707

DEPTH (feet)	ELEV. (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	707	2" Topsoil											
	705	Stiff, tan, sandy silt	1	SS	3 - 6 - 7	13	28.7						
5		...same...	2	SS	2 - 6 - 6	12	31.9	59	36	23			Percent Passing #200 Sieve = 57.3%
	700	Very stiff, red-brown, clayey silt, some sand	3	SS	7 - 12 - 14	26	33.3				2.00		
10		...same...	4	SS	17 - 10 - 13	23	29.4				4.00		
	695	Very stiff, light tan, clayey silt	5	SS	6 - 8 - 11	19	29.8				2.00		
15		Decomposed sandstone	6	SS	50/4	50+	31.6						GNE
	690	Boring Terminated at 15.5'											
20	685												
25	680												

Split Spoon Sample
Grab Sample
No Recovery
Rock Coring
Water Table Encountered @ Time of Drilling
Delayed Water Table Level

GNE = Groundwater Not Encountered
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

MBA ENGINEERS, INC.
STRUCTURAL CIVIL GEOTECHNICAL

LOG OF BORING

BORING LOCATION: B-2

Project Name: Glen Addie Slope Analysis
Project Number: G22-012
Drilling Method: HSA
Equipment Used: Track-Mount
Hammer Type: Automatic

Project Location: Anniston, AL
Date Drilled: 2/18/2022
Weather: Clear
Logged By: TT
Drill Crew: South Brothers

SURFACE ELEV (FT): 732

DEPTH (feet)	ELEV. (feet)	MATERIAL DESCRIPTION	SAMPLE NO.	TYPE	BLOWS/ FOOT	N-VALUE	MOISTURE (%)	LL (%)	PL (%)	PI (%)	PPqu (tsf)	WATER LEVEL	NOTES:
0	732	2" Topsoil											
	730	Stiff, red-brown, sandy silt	1	☒	2 - 5 - 7	12	21.2						
5		...same...	2	☒	4 - 6 - 8	14	21.9	59	34	25			Percent Passing #200 Sieve = 63.4 %
	725	Very stiff...	3	☒	5 - 7 - 8	15	22.1				4.00		
10		Stiff, red-brown, sandy clay	4	☒	4 - 5 - 6	11	19.0				3.25		
	720	Very stiff...	5	☒	6 - 7 - 10	17	18.1				4.00		
15		...same...	6	☒	7 - 9 - 10	19	18.2				4.00		
	715	...trace rock fragments	7	☒	8 - 10 - 14	24	20.9						
20		Stiff, moist, red-brown, clayey silt, with sand	8	☒	5 - 5 - 5	10	39.1	71	47	24			Percent Passing #200 Sieve = 67.4 %
	710												
25		Stiff, tan, clayey silt	9	☒	3 - 4 - 5	9	45.5				2.50		
	705												
30		...same...	10	☒	4 - 5 - 7	12	36.9				2.50		
	700												
35		Very stiff...	11	☒	6 - 8 - 11	19	32.4				2.75		
	695												
40		Very stiff, tan, clayey silt	12	☒	10 - 8 - 9	17	37.5				2.50		
	690												
45		...same...	13	☒	4 - 6 - 7	13	36.8				2.00		
	685	Boring Terminated at 45.5'											GNE
50													

☒ Split Spoon Sample
○ No Recovery
▽ Water Table Encountered @ Time of Drilling
GNE = Groundwater Not Encountered
Grab Sample
Rock Coring
▼ Delayed Water Table Level
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical- engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply this report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by*: the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold- prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical- engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you GBC-Member geotechnical engineer for more information.

GEOTECHNICAL BUSINESS COUNCIL
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