CITY OF FAIRHOPE

BID ADVERTISEMENT **October 5, 2011**

Sealed proposals will be received by the City of Fairhope of Baldwin County, Alabama, in the City of Fairhope offices, 555 South Section St. Fairhope, Alabama, until 2:00P.M. October 25, 2011 and then publicly opened thereafter, for furnishing all labor and materials, and performing all work required by the City of Fairhope and described as follows:

Bid Number 038-11, THEATRE 98 BUILDING
Project No. PW006-11

Questions or comments pertaining to this bid must be presented in writing, sent as e-mail or faxed to the attention of the Purchasing Manager, Daniel P. Ames, P.O. Drawer 429, 555 South Section St., Fairhope, Al 36532, e-mail: dan.ames@cofairhope.com, fax number: 251-990-0125, Seventy Two (72) hours prior to the bid opening or will be forever waived.

All bids must be on blank forms provided in the Bid Documents. Bids shall be accompanied by a Bid Security equal to 5% (percent) of the bid price, but in no event more than $10,000.00. Bid Security shall be in the form of a Bid Bond or a cashier's check payable to The City of Fairhope. No Bid Security is required on bids less than $10,000.00.

THERE WILL BE A MANDATORY PRE-BID MEETING AT 10:00AM, October 11, 2011 at te city offices at 555 South Section Street, Fairhope, Alabama .

The City of Fairhope is an Equal Opportunity Employer and requires that all contractors comply with the Equal Employment Opportunity laws and the provisions of the Contract Documents in this regard. The City also encourages and supports the utilization of Minority Business Enterprises on this and all public bids.

All bids, with their guarantee (when required), must be enclosed in a sealed, opaque envelope, clearly identified on the outside as a "**Sealed Bid" with Item Name, Bid Number, City of Fairhope's Name and Address, Bidder's Name and Address, and Bidder's State of Alabama Contractor's License Number**. Each bid must be in a separate envelope. Bids made out in pencil will not be accepted.

Failure to observe the instructions contained herein will constitute grounds for rejection of your bid. The City reserves the right to accept or reject all bids or any portion thereof whichever is in the best interest of the City of Fairhope.

The company that is awarded the bid must have Workman's Compensation Insurance on all of its employees if work is done on City premises. General Liability Insurance must be maintained to hold the City harmless in the event of an accident. Proof of Workman's Compensation Insurance if work is done on City premises and General Liability Insurance specifying coverage must accompany this bid packet. See specifications for details.

No bids will be considered unless the bidder, whether resident or non-resident of Alabama, is properly qualified to submit a proposal for this type of work in accordance with all applicable laws of the State of Alabama. Where applicable, this shall include evidence of holding a current license from the State Licensing board for General Contractors, Montgomery, Alabama, as required by Chapter 8 of Title 34, of the Code of Alabama, 1975. In addition, non-residents of the State if a corporation, shall show evidence of having qualified with the Secretary of State to do business in the State of Alabama. Bidder must have a current business license or purchase a business license with the City of Fairhope prior to bid being awarded.

Daniel P. Ames,
Purchasing Manager
Posted: 10-5-2011

CONTRACT DOCUMENTS
BID FORM AND SPECIFICATIONS
FOR
BID NO. 038-11
PROJECT NO. PW006-11
THEATRE 98 BUILDING

FAIRHOPE CITY COUNCIL

Timothy M. Kant, Mayor
Lonnie L. Mixon, Council President

Set Number _____

Bid Posted: 10-05-2011

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ITEM I

INVITATION AND INSTRUCTIONS TO BIDDERS

1.00 BID INVITATION

Notice is hereby given that the City of Fairhope ("Owner") will receive bids on the project described herein. Qualified bidders are invited to bid on this contract.

1.01 **BID NO. 038-11**

PROJECT NAME: THEATRE 98 BUILDING

PROJECT LOCATION: 350 Morphy Avenue, Fairhope, Al 36532

PROJECT NO. PW-006-11

1.02 SUMMARY:

Construct building and accoutrements as detailed in the attached Scope of Work and Specifications.

1.03 BID DEADLINE

Bids will be received until 2:00 p.m. local time, Tuesday, October 25, 2011, at the City of Fairhope Offices, 555 South Section St., Fairhope, Alabama, and publicly opened shortly thereafter.

1.04 AVAILABILITY OF DOCUMENTS

Bid documents (including plans and drawings) are available at Hutchinson, Moore & Rauch, LLC., 2039 Main Street, Suite D, Daphne, Al., 251 626-2626 upon request of a refundable {if plans are returned in reusable condition within ten (10) days of bid opening} deposit of $80.00. Checks should be made payable to Hutchinson, Moore & Rauch, LLC. Bid documents will be mailed only upon receipt of deposit. No bid documents will be distributed later than 24 hours prior to the scheduled bid opening.

Bid Documents may be viewed at the City of Fairhope Offices, 555 South Section St., Fairhope, Alabama.

1.05 INQUIRIES

Questions or comments pertaining to this bid must be presented in writing, sent as e-mail or faxed to the attention of the Purchasing Manager, Daniel P. Ames, P.O. Drawer 429, 555 South Section St., Fairhope, Al 36532, e-mail: dan.ames@cofairhope.com, Seventy Two (72) hours prior to the bid opening or will be forever waived.

1.06 SITE EXAMINATION

Mandatory Pre-bid conference to be held at 10:00AM on Tuesday, October 11, 2011, at Fairhope City offices at 555 S. Section St., Fairhope, Al 36532.

The City of Fairhope will not furnish any labor, material, or supplies unless specifically stated in the Contract Documents.

Contractor must be properly licensed to perform the work as outlined in the Scope of Work. Bidder must have a current business license or purchase a business license with the City of Fairhope after bid being awarded, prior to start of work. State Contractor's license is required.

Except for contracts funded in whole or in part by funds received from a federal agency, preference shall be given to resident contractors on the same basis as the nonresident bidder's state awards contract to Alabama contractors bidding under similar circumstances. Therefore, non-resident bidders shall submit with their bid a written opinion of an attorney at law licensed to practice law in the non-resident bidder's state of domicile as to preferences granted by that state to entities doing business in that state when letting public contracts.

1.07 BID SECURITY

Bids shall be accompanied by a Bid Security equal to 5% (percent) of the bid price, but in no event more than $10,000.00. Bid Security shall be in the form of a Bid Bond or a cashier's check payable to The City of Fairhope. No Bid Security is required on bids less than $10,000.00.

1.08 PERFORMANCE ASSURANCE AND INSURANCE

The bidder to whom award is made shall provide a Performance Bond equal to 100% of the Contract Amount and a Labor and Material Bond equal to 50% of the contract amount. The accepted Bidder shall also provide insurance as required in section 1.20.

1.09 DURATION OF OFFER

Bids maybe withdrawn in written or telegraphic request received from bidder prior to the time fixed for opening. No bid shall be withdrawn for a period of thirty (30) days subsequent to the opening of bids without the consent of the City Council of the City of Fairhope.

1.10 EQUAL OPPORTUNITY

The City of Fairhope is an Equal Opportunity Employer and requires that all contractors comply with the Equal Employment Opportunity laws and the provisions of the Contract Documents in this regard. The City of Fairhope also encourages and supports the utilization of Minority Business Enterprises on this and all public bids.

1.11 BID SUBMISSION AND PREPARATION

Sealed Bids, signed, executed, and dated, will be received by The City of Fairhope as noted in section 1.03 above.

Submit one copy of the executed offer on the Bid Form provided, signed, and with the required Bid Security. The bid shall be enclosed in a sealed opaque envelope approximately 9x12 inches or larger, clearly identified on the outside as a **SEALED BID** with **PROJECT NAME, PROJECT NUMBER, OWNER'S NAME AND ADDRESS, BIDDER'S NAME, ADDRESS, AND ALABAMA CONTRACTOR'S LICENSE NUMBER.**

Forms furnished, or copies thereof, shall be used, and strict compliance with the requirements of the invitation, these instructions, and the instructions printed on the forms is necessary. Special care should be exercised in the preparation of bids. Bidders must make their own estimates of the facilities
and difficulties attending the performance of the proposed contract, including local conditions, uncertainty of weather, and all other contingencies. All designations and prices shall be fully and clearly set forth. The proper space in the bid and guaranty forms shall be suitably filled in.

Fill in all blanks on the bid form with non-erasable ink or type. Erasers or other changes must be explained or noted over the signature of the bidder.

The Bid Form may have a Contingency Allowance listed. Add this amount to the Base Bid to derive the Total Bid. The Contingency Allowance covers unforeseen conditions and shall not be used by the Contractor without the written authorization of the City of Fairhope. At the conclusion of the project, the unused portion of the Contingency Allowance shall revert to the City of Fairhope.

Each bid must give the full business address of the bidder and must be signed by him with his usual signature. Bids by partnerships must furnish the full names of all partners and must be signed with the partnership

name by one of the members of the partnership, or by an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the State of Incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person shall also be typed or printed below the signature. A bid by a person who affixes to this signature the word “president,” “secretary,” “agent,” or other designation without disclosing his principal, may be held to be the bid of the individual signing. When requested by the City of Fairhope satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished. Be sure Bid Form has this format

Each project will be bid separately unless otherwise expressly requested in the contract document. Combination bids, that is bids on separate projects lumped together as a single bid or on all or none basis, will not be accepted unless the contract document expressly requests or permits same. Alternate bids will not be considered unless requested.

1.12 BID INELIGIBILITY

Bids that contain irregularities of any kind may be declared unacceptable at the discretion of the City. The City may waive any irregularities and may reject any or all bids. Bids received after the deadline will be returned to the bidder unopened.

1.13 CONTRACT TIME

The Contractor agrees to perform the work within the time stated in the Bid Form. The bidder in submitting an offer accepts the conditions of the contract period stated for performing the work.

1.14 CONSTRUCTION DOCUMENT IDENTIFICATION

The Construction Documents are the Project Manual, Drawings, Addenda, and all other related documents bearing the Project Title and Number.

Bidders shall use complete sets of Construction Documents in preparing their Bids. The City of Fairhope will not assume responsibility for errors or misinterpretation resulting from the use of incomplete sets of Construction Documents.

1.15 INQUIRIES/ADDENDA

Direct questions to the Purchasing Manager.

All Addenda are part of the Contract Documents. Include resultant costs in the Bid. Addenda will be issued by E-MAIL to all plan holders on records, and posted on the City's website www.cofairhope.com . It is the responsibility of the bidder to verify that all addenda have been received.

1.16 BID ACCEPTANCE

Bid with lowest Total Bid amount from a responsive and responsible bidder may be accepted if within the Contract Budget. In the event that alternates
are listed on the Bid Form, the lowest combination of Total Bid and Alternate Bids accepted by the City shall be the accepted bid. Alternates shall be awarded in the order in which they are listed on the Bid Form.

1.17 BIDDERS INTERESTED IN MORE THAN ONE BID

If more than one bid is offered by any one party, by or in a name of his clerk, partner, corporation in which he has a substantial interest, or in

which he is an officer, or other person, all such bids may be rejected. A party who has quoted prices on materials to a bidder is not thereby disqualified from quoting prices to other bidders or from submitting a bid directly for the materials or work. The City reserves the right to determine in its discretion whether the provisions of this clause have been violated by any bidder.

1.18 ERRORS IN BIDS

Bidders or their authorized agents are expected to examine the maps, drawings, specifications and all other instructions pertaining to the work, which will be open to their inspection. Failure to do so will be at the bidder's own risk. In case of error, in the extension of prices, the unit price will govern.

1.19 CONTRACT AND BOND

The bidder to whom award is made must, when requested, enter into written contract on the standard form as set out herein, with satisfactory security in the amount required, within the period specified, or, if no period be specified, within 15 days after the required forms are presented to him for signature.

1.20 INSURANCE REQUIREMENTS

1. Awarded bidder, at its sole expense, shall obtain and maintain in full force the following insurance to protect the awarded bidder and the City of Fairhope at limits and coverages specified herein. The City of Fairhope will be listed as “additionally insured” on all applicable policies and certificates of insurance. These limits and coverages specified are the minimum to be maintained and are not intended to represent the correct insurance needed to fully and adequately protect the awarded bidder.
2. All insurance will be provided by insurers by admitted carriers in the State of Alabama, shall have a minimum A.M. Best rating of A-VII and must be acceptable to the City. Self-insured plans and/or group funds not having an A.M. Best rating must be submitted to the City for prior approval.

3. **NO WORK IS TO BE PERFORMED UNTIL PROOF OF COMPLIANCE WITH THE INSURANCE REQUIREMENTS HAVE BEEN RECEIVED BY THE CITY.**

4. Worker's Compensation and Employers Liability

Part One: Statutory Benefits as required by the State of Alabama	
Part Two: Employers Liability	$100,000 Each Accident
	$100,000 Each Employee
	$500,000 Policy Limit

5. U.S. Longshoreman & Harbor workers Act (USL&H)-

Required if contract involves work near a navigable Waterway that may be subject to the USL&H law.

6. Maritime Endorsement (Jones Act)-

Endorsement required if contract involves the use of a Vessel. Or include coverage for "Master or Members or Crew" under "Protection and Indemnity" coverage (P&I), unless crew is covered under Workers Compensation.

Bodily injury by accident	$1,000,000 Each Accident
Bodily injury by disease	$1,000,000 Aggregate

7. Commercial General Liability

Coverage on an Occurrence form with a combined single limit of (Bodily Injury and Property Damage combined as follows:

Each Occurrence	$1,000,000
Personal and Advertising Injury	$1,000,000
Products/Completed Operation Aggregate	$2,000,000
General Aggregate	$2,000,000

- Coverage to include
  - Premises and operations
  - Personal Injury and Advertising Injury
  - Products/Completed Operations
  - Independent Contractors
  - Blanket Contractual Liability
  - Explosion, Collapse and Underground hazards
  - Broad Form Property Damage
  - Railroad Protective Liability Insurance if work involves construction, demolition or maintenance operations on or within 50 feet of a railroad.

8. Automobile Liability

Covering all Owned, Non-Owned, and Hired vehicles with a limit of no less than $1,000,000 combined single limit of Bodily Injury and property damage per occurrence.

9. Certificate of Insurance

A Certificate of Insurance evidencing the above minimum requirements must be provided to and accepted by the City **PRIOR** to commencement of any work on the contract. Each policy shall be endorsed to provide ten (10) days written notice of cancellation to the City.

1.21 COLLUSION

If there is any reason for believing that collusion exists among the Bidders any or all bids may be rejected, and those participating in such collusion may be barred from submitting bids on the same or other work with the City.

1.22 SUBLETTING OR ASSIGNING OF CONTRACT

Limitations: The Contractor shall not sublet, assign, transfer, convey, sell, or otherwise dispose of any portion of the contract, his right, title or interest therein, or his power to execute such contract, to any person, firm or corporation without written consent of the City, and such written consent shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract. Unless otherwise stipulated in the proposal or special provisions, the Contractor shall perform with his own organization, and with the assistance of workmen under his immediate superintendence and reported on his payroll, all contract work of a value not less than 50 percent of the total contract amount, except that any items designated in the contract as "Specialty Items" so performed by subcontract may be deducted from the total contract amount before computing the amount of work required to be performed by the Contractor with his own organization.

Subcontractor's Status: A Subcontractor shall be recognized only in the capacity of an employee or agent of the Contractor and the Contractor will be responsible to the City for all of the subcontractor's work, including failures or omissions; and his removal may be required by the Project Manager, as in the case of an employee.

1.23 PROSECUTION OF WORK

The Contractor shall commence work within 10 days of issuance of the

Notice to Proceed (NTP) by the Project Manager or as otherwise directed in writing.

The Contractor shall prosecute the work continuously and diligently in the order and manner set out in his schedule as approved by the Project Manager. He shall provide sufficient satisfactory materials, labor, and equipment to insure that the work will be completed in a satisfactory manner within the time specified in the contract.

Should the Contractor fail to maintain a satisfactory rate of progress, the Project Manager may require that additional forces and/or equipment be placed on the work to bring the project up to schedule and maintain it at that level.

Should the Contractor fail to furnish sufficient satisfactory equipment and/or labor for maintaining the quality and progress of the work at satisfactory level, the Project Manager may withhold all estimates that may become due until satisfactory quality and progress are maintained; or the contract may be annulled.

ITEM II

BID FORM

Date: _____

Bid No. 038-11
Project No. PW006-11
Project Name Theatre 98 Building

Base bid will include all labor, materials, equipment, shipping, overhead, profit, bonds, insurance and all other costs necessary to provide the complete services outlined within this contract and scope of work.

The owner agrees to provide the following materials: NONE

Base Bid $ _____

Allowance $ _____none_____

Total Bid $ _____

ITEM #	DESCRIPTION	UNIT	QTY	UNIT PRICE	AMOUNT
1	BUILDING *(includes plumbing rough in, electrical, end wall facade)*	LS	1		
2	BUILDING SLAB *(includes termite treatment, forms, footings and reinforcement)*	CY	38		
3	CONCRETE SIDEWALK, 4" THICK	SY	32		
4	CONCRETE CURB REMOVAL	LF	10		
5	NYLOPLAST YARD INLET	EA	3		
6	10" PVC STORM DRAIN	LF	140		
7	3/4" PVC WATER LINE	LF	50		
8	4" PVC SEWER LATERAL	LF	50		
9	ASPHALT PATCHING AND BASE COURSE *(minimum 1 1/2" overlay)*	SY	5		
10	JUNCTION BOX	EA	1		
11	UNCLASSIFIED EXCAVATION (TBM)	CY	84		
12	SOLID SODDING (ST. AUGUSTINE)	SY	400		
13	FOUNDATION BACKFILL *(for slab)*	CY	108		
14	MOBILIZATION	LS	1		
15	CONCRETE REMOVAL	SY	8		
16	EROSION CONTROL	LS	1		
17	BONDS/INSURANCE	LS	1		
				TOTAL AMOUNT	

The contractor agrees to complete all the work within One Hundred Twenty (120) calendar days from date given in the *Notice to Proceed* (NTP) unless other arrangements are approved by the Project Manager.

Receipt of the following Addenda to these documents is hereby acknowledged by the undersigned (bidder to complete below):

ADDENDUM NO.	DATE ISSUED	ADDENDUM NO.	DATE ISSUED
_____	_____	_____	_____
_____	_____	_____	_____

Each bid must give the full business address of the bidder and must be signed by him with his usual signature. Bids by partnerships must furnish the full names of all partners and must be signed with the partnership name by one of the members of the partnership, or by an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation followed by the name of the State of Incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person shall also be typed or printed below the signature. A bid by a person who affixes to this signature the word "president," "secretary," "agent," or other designation without disclosing his principal, may be held to be the bid of the individual signing. When requested by the City of Fairhope, Baldwin County, Alabama, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.

The undersigned agrees to furnish the goods/services as requested by you for the City of Fairhope, Baldwin County, Alabama in your invitation to bid, and certifies that they will meet or exceed the specifications called for. The undersigned has read all information pertaining to this bid and has resolved all questions. It is also understood and agreed that all prices quoted are F.O.B. described in the bid documents and specifications.

If Individual

_____ _____

(Name of Individual or Partnership) **(Name of Partner Print)**

_____ _____

(Name of Representative Authorized to sign Bids and Contracts for the firm Print) **(Name of Partner Print)**

_____

(Name of Representative Authorized to sign Bids and Contracts for the firm Signature)

_____

(Address)

_____

(Address)

_____

(Address)

Phone Number ( )_____

Fax Number ( )_____

Primary e-mail address _____

Alabama Contractor's License No. _____

If Corporation or LLC

Company_____

State of Incorporation _____

Company Representative_____
(Name of Representative Authorized to sign Bids and Contracts for the firm Print)

Company Representative_____
(Name of Representative Authorized to sign Bids and Contracts for the firm Signature)

Address_____

_____

_____

Phone Number ( )_____
Fax Number ( )_____
Primary e-mail address _____
Alabama Contractor's License No. _____

ITEM III

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That the contractor, as Principal, and _____
(Name of Surety)
_____as Surety, are held and firmly bound unto

CITY OF FAIRHOPE

As Obligee in the full amount and just sum of five percent (5%) of amount bid (Maximum amount - $10,000.00), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is herewith submitting its proposal for **CITY OF FAIRHOPE BID NO. 038-11, PROJECT NO. PW-006-11, THEATRE 98 BUILDING**, County of Baldwin.

The condition of this obligation is such that:

If the aforesaid Principal shall be awarded the contract and said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation will be void: otherwise, the Principal and the Surety will pay unto the Obligee the difference in money between the amount of the contract as awarded and the amount of the proposal of the next lowest acceptable bidder, but not to exceed the total amount of the proposal guaranty. If no other bids are received, the full amount of the proposal guaranty shall be retained and/ or recovered as liquidated damages for such default.

Witness our hands and seals this _____ day of _____, 20_____.
(Day) **(Month)** **(Year)**

_____, Doing Business As, _____
(Signature of Individual Bidder) **(Business Name)**

Business Mailing Address:_____

_____

Name of Corporation, Partnership, or Joint Venture

BY: _____ (L.S.)
(Signature of Officer Authorized to sign Bids and Contracts for the Firm

_____
Position or Title

Attest:

_____
(Secretary)

_____
Name of State under the laws of which incorporated

_____
(Name of Surety)

BY: _____
(Attorney in Fact)

PROPOSAL WILL NOT BE ACCEPTED UNLESS THIS FORM FOR BID BOND IS USED AND SIGNED BY PRINCIPAL AND SURETY OR A CASHIER'S CHECK (DRAWN ON AN ALABAMA BANK) IN THE PROPER AMOUNT IS FURNISHED.
PLEASE LEAVE ATTACHED IN YOUR BIDDING FORM.

LEAVE ATTACHED IN YOUR BIDDING PROPOSAL

PERFORMANCE BOND

KNOW ALL MEN: That we _____
(Insert here the name & address of legal title of the Contractor)
_____ hereinafter called the Principal, and

_____
_ (Insert here the name and address of legal title of one or more sureties)

and

and

_____
hereinafter called the Surety or Sureties, are held and firmly bound unto The City of Fairhope. hereinafter called the Owner in the sum of Dollars
($_____) for the payment whereof the Principal and the Surety or Sureties bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal has, by means of a written agreement, dated _____ entered into a contract with the Owner for**: PROJECT NO. PW-006-11, THEATRE 98 BUILDING** which agreement is by reference made a part hereof,

NOW THEREFORE, The conditions of this obligation is such that if the Principal shall faithfully perform the Contract on his part, and satisfy all claims and demands, incurred for the same, and shall fully indemnify and save harmless the Owner from all cost and damage which he may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good for any such default thence this obligation shall be null and void; otherwise, it shall remain in full force and effect.

PROVIDED, HOWEVER, that no suit, action or proceedings, by reason of any default whatever be brought on his Bond after twelve months from the day on which the final payment under the Contract falls due.

PROVIDED, further, that the said surety or sureties, for value received hereby stipulate and agree that no change, extension of time, or addition to the terms of the Contract or to the work to be performed thereunder of the Specifications thereof shall in any way effect their obligations on this bond, and they do hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work, or to the Specifications.

Signed and Sealed this _____ day of _____, 20_____.

Witness our hands and seals this _____ day of _____, 20_____.
(Day) **(Month)** **(Year)**

_____, Doing Business As, _____
(Signature of Individual Bidder) **(Business Name)**
Business Mailing Address:_____

_____

_____

_____
Name of Corporation, Partnership, or Joint Venture

BY: _____ _____
(Signature of Officer Authorized to sign Bids and Contracts for the Firm) **(Position or Title)**

_____
(GENERAL CONTRACTOR'S LICENSE NUMBER)

_____
CONTRACTOR'S STATE OF ALABAMA FOREIGN VENDOR REGISTRATION NUMBER (Required of out-of-state-vendors)

Attest:

_____ _____
(Secretary) **(Name of State under the laws of which incorporated)**

_____ BY:_____
(Name of Surety) **(Attorney in Fact)**

LABOR AND MATERIALS BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____ _____as Principal, and _____ as Surety, are held and firmly bound unto said City of Fairhope hereinafter called the Obligee, in the penal sum of _____Dollars ($ _____) lawful money of the United States, for the payment of which sum and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, said principal has entered into a certain Contract with said Obligee, dated _____ 20 _____. (Hereinafter called the Contract) for **PW-006-11, THEATRE 98 BUILDING** which Contract and the Specifications for said work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT if the said Principal and all subcontractors to whom any portion of the work in said contract is sublet and all assignees of said Principal and of such subcontractors shall promptly make payments to all persons supplying him or them with labor, materials, or supplies for or in the prosecution of the work provided for in such Contract, or any amendment or extension of or addition to said Contract, and for the payment of reasonable attorney's fees incurred by the successful claimant or plaintiffs in suits or claims against the contractor arising out of or in connection with the said contract, then the above obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is subject to the following conditions and limitations.

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

(b) The Principal and Surety hereby designate and appoint the Mayor of the City of Fairhope or his successor or representative as the agent of each of them to receive and accept services of process or other pleading issued, or filed in any proceeding instituted on this bond and hereby consent that such service shall be the same as personal service on the Principal and/or Surety.

(c) The Surety shall not be liable hereunder for any damages or compensation recoverable under Workmen's Compensation or Employer's Liability Statute.

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

(e) This Bond is given pursuant to the terms of an Act of the Legislature of the State of Alabama approved February 8, 1935, entitled: "An Act to further provide for Bonds and Contractors on State and other public works and suits thereon".

Witness our hands and seals this _____ day of _____, 20_____.
(Day) **(Month)** **(Year)**

_____, Doing Business As, _____
(Signature of Individual Bidder) **(Business Name)**

Business Mailing Address:_____

_____

_____

_____
Name of Corporation, Partnership, or Joint Venture

BY: _____ _____
(Signature of Officer Authorized to sign Bids and Contracts for the Firm) **(Position or Title)**

_____
(GENERAL CONTRACTOR'S LICENSE NUMBER)

_____
CONTRACTOR'S STATE OF ALABAMA FOREIGN VENDOR REGISTRATION NUMBER (Required of out-of-state-vendors)

Attest:

_____	_____
(Secretary)	**(Name of State under the laws of which incorporated)**
_____	BY: _____
(Name of Surety)	**(Attorney in Fact)**

ITEM IV

CERTIFICATE OF CONTRACTOR'S & SUBCONTRACTOR'S INSURANCE

FORM FOR CERTIFICATE OF CONTRACTORS AND SUBCONTRACTORS INSURANCE TO THE CITY OF FAIRHOPE, ALABAMA

Date _____

This is to certify that the policies designated below have been issued by the _____ and are in force on the date borne by this certificate.

1. Location and designation of project:

_____

2. Name and address of insured for whom this certificate is issued:

_____

3. Type of insurance:

Limits of Liability

(a) Workmen's Compensation:

_____

(policy number) (exp. date) (coverage) (aggregate)

(one person)

(one accident)

(b) Contractor's Public Liability:

1. Bodily Injury:

_____

(each person) (each occurrence) (total coverage)

2. Property Damage:

_____

(each accident) (aggregate)

(c) Automobile (Motor Vehicle):

1. Bodily Injury:

(Each Person)	(Each Occurrence)	(Total Coverage)

2. Property Damage:

(Each Accident)	(Aggregate)

(d) Owner's Protective Liability:

(Each Occurrence) (Bodily Injury)	(Each Occurrence) (Property Damage)

Such insurance as is afforded by the above policies covers the operations undertaken by the insured with respect to the construction of the project above designated. The insurance afforded by the above-designated policies, specimen copies of which have been filed with the City , and to each of which is attached for following endorsement.

The insurer agrees with the insured as follows:

1. That it will furnish to said City of Fairhope a certificate of insurance in triplicate on a form approved for such purpose by said City, setting forth the pertinent information regarding the policy to which this endorsement is attached, for each project of said City to which the policy applies.

2. That it will attach to each said certificate of insurance executed copies of any endorsement other than this endorsement which are attached to said policy at the time said policy is issued, provided only that said endorsements affect the coverage of said policy in respect of operations involved in the construction of the projects of said City to which the policy applies.

3. That it will mail to the City Council of the City of Fairhope three executed copies of each endorsement subsequently issued to become a part of said policy provided only that endorsement affects the coverages of said policy in respect of operations involved in the construction of the project of said City which the policy

applies, and provided further that such endorsement shall not be effective unless such notice is given to the City at the same time that notice thereof is given to the insured.

4. That it will mail to the City Council of the City of Fairhope at least ten days before the effective date thereof notice of cancellation of said policy, provided no cancellation shall be effective unless such notice is given to the City.

Insurer_____

BY: _____
Authorized Representative

ITEM V

CONTRACT

This **CONTRACT** is made this _____ day of _____,_____, by and between the **CITY OF FAIRHOPE** (hereinafter "**OWNER"**) and_____(hereinafter "**CONTRACTOR**"), on the

PROJECT NO.: PW006-11

PROJECT NAME: Theatre 98 Building

The **OWNER** and the **CONTRACTOR** agree as set forth below:

1. The contract consists of all of the items contained within this contract, bid package, Project Manual, Drawings and all addenda and amendments..

2. The **CONTRACTOR** shall perform all the **WORK** described herein, as awarded by the Fairhope City Council.

3. The **WORK** to be performed under this **CONTRACT** shall be commenced upon execution of this **CONTRACT** within **TEN (10)** days of the date specified in a *Notice to Proceed* (NTP) to be issued to the Contractor by the Owner, or its authorized representative. The work shall be completed, subject to authorized adjustments, within **ONE HUNDRED TWENTY (120)** CALENDAR days from and after the commencement date stipulated in said *Notice to Proceed*. Liquidated damages for non-completion of the work within this time limit will be assessed at the rate of $200 per working day.

4. The **OWNER** shall pay the **CONTRACTOR** in current funds for the performance of the **WORK**, the **CONTRACT SUM** of **_____($_____)**. The **CONTRACTOR** shall submit to the **OWNER,** on or before the 5th day of each month, an estimated total for work performed in the previous month. The **OWNER** will

hold back 5% of each monthly estimate until 50% completion of the work. The contractor shall, immediately after the completion of the contract, give notice of the completion by an advertisement in a newspaper of general circulation published within the city or county in which the work has been done, for a period of four successive weeks. A final settlement shall not be made upon the contract until the expiration of 30 days after the completion of the notice. Proof of the publication of the notice shall be made by the **CONTRACTOR** to the **OWNER** by affidavit of the publisher and a printed copy of the notice published.

5. The **CONTRACTOR** shall not commence work under this **CONTRACT** until it has purchased **INSURANCE** for protection from any and all claims that may arise out of or result from the **CONTRACTOR'S** operations under the **CONTRACT**. The **CONTRACTOR** shall maintain the required insurance in the minimum amounts as described in Item I, 1.20.

6. To the fullest extent permitted by law, the **CONTRACTOR** shall indemnify and hold harmless the **OWNER**, and its agents and employees from and against all claims, damages, losses and expenses, including, but not limited to, attorneys' fees arising out of or resulting from the performance of the **WORK**.

7. The **CONTRACTOR** has thoroughly and completely inspected the premises, and hereby agrees to perform the **WORK** for the **CONTRACT SUM.**

8. The **CONTRACTOR** warrants to the **OWNER** that all materials furnished under this **CONTRACT** will be new, and that all work will be of a good quality, free from faults and defects and in conformance with the **CONTRACT DOCUMENTS**. All **WORK** not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the **OWNER,** the

CONTRACTOR shall furnish satisfactory evidence as to the kind and quality of materials.

9. The **CONTRACTOR** shall promptly correct all **WORK** rejected by the **OWNER** as defective or failing to conform to the **CONTRACT DOCUMENTS**. The **CONTRACTOR** shall bear all costs of correcting such rejected **WORK,** regardless of whether the **WORK** is fabricated, installed or completed.

10. The **CONTRACTOR** shall remove from the site all portions of the **WORK** which are defective or non-conforming and which have not been corrected, unless removal is waived by the **OWNER**.

11. If the **CONTRACTOR** fails to correct defective or nonconforming **WORK** within a reasonable time fixed by written notice from the **OWNER**, the **OWNER** may correct and the **CONTRACTOR** shall bear the cost of making good all work of the **OWNER** or separate contractors.

12. If the **OWNER** prefers to accept the defective or nonconforming **WORK**, the **OWNER** may do so instead of requiring its removal and correction, in which case a reduction in the **CONTRACT SUM** shall be effected whether or not final payment has been made. The reduction shall be equitable and appropriate.

13. If the **CONTRACTOR** fails to correct defective **WORK** as set forth above or persistently fails to carry out the **WORK** in accordance with the **CONTRACT DOCUMENTS**, or fails to supply enough properly trained workers or proper materials or disregards laws, ordinances, rules or regulations, the **OWNER**, by a written order signed by its authorized agent, may order the **CONTRACTOR** to stop the **WORK**. If the **CONTRACTOR** fails within the seven (7) days after receipt of written notice to commence corrective action, the **OWNER** may, after those seven (7) days, without

prejudice to any other remedy of the **OWNER**, terminate employment of the **CONTRACTOR** and take possession of the site and of all materials thereon, and may finish the work by whatever methods the **OWNER** finds expedient.

14. If, within one (1) year after acceptance of the **WORK** by the **OWNER**, or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the **CONTRACT DOCUMENT**, any of the **WORK** is found to be defective or not in conformity with the **CONTRACT DOCUMENTS**, the **CONTRACTOR** shall correct it promptly after receipt of a written notice from the **OWNER** to do so unless the **OWNER** has previously given the **CONTRACTOR** a written acceptance of such condition. This obligation shall survive both final payment for the **WORK** and termination of the **CONTRACT**. The **OWNER** shall give such notice promptly after discovery of the condition.

15. If the **CONTRACTOR** is delayed at any time in the progress of the **WORK** by any act or neglect of the **OWNER**, any of its employees, labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the **CONTRACTOR'S** control, the **CONTRACT** time shall be extended to such reasonable time as the **OWNER** may determine.

16. The **CONTRACTOR** shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the **WORK**. The **CONTRACTOR** shall perform the **WORK** in a manner that allows the **OWNER** to the maximum extent possible to continue its daily operations on the premises.

17. The **CONTRACTOR** shall at all time keep the premises free from accumulation of waste materials or rubbish caused by the **CONTRACTOR'S**

operations. At the completion of the **WORK**, the **CONTRACTOR** shall remove all the **CONTRACTOR'S** waste materials and rubbish from and about the **PROJECT** as well as all the **CONTRACTOR'S** tools, construction equipment, machinery and surplus materials. If the **CONTRACTOR** fails to clean up at the completion of the **WORK**, the **OWNER** may do so and the cost thereof shall be charged to the **CONTRACTOR**.

18. **WRITTEN NOTICE** shall be deemed to have been duly served if delivered in person to the individual or member of the firm or entity or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving the notice.

19. The duties and obligations imposed by the **CONTRACT DOCUMENTS** and the **RIGHTS AND REMEDIES** available there under shall be in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

20. Should either party to the **CONTRACT** suffer injury or damage to person or property because of any act or omission of the other party or of any of the other party's employees or agents, claim shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

21. The **OWNER** and **CONTRACTOR**, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assign and legal representatives of such other party with respect to all covenants, agreements and obligations contained in the **CONTRACT DOCUMENTS**. Neither party to the **CONTRACT** shall assign the **CONTRACT** or sublet it as a whole without the written consent of the other.

ATTEST:

THE CITY OF FAIRHOPE, ALABAMA

_____

LISA A. HANKS
City Clerk

_____
BY: **TIMOTHY M. KANT**
ITS: Mayor

ATTEST:

_____

_____
(Name of Contractor)

BY: _____
(Contractor's Representative)

ITS: _____
(Representative's Title)

GENERAL CONTRACTOR'S LICENSE NUMBER (Required):

_____
CONTRACTOR'S STATE OF ALABAMA
FOREIGN VENDOR REGISTRATION
NUMBER (Required of out-of-state-vendors)

_____

OTARY FOR CONTRACTOR

STATE OF ALABAMA }
COUNTY OF _____}

I, the undersigned authority in and for said State and County, hereby certify that , as_____ respectively, of _____ , whose name is signed to the foregoing document and who are known to me, acknowledged before me on this day, that, being informed of the contents of the document they executed the same voluntarily on the day the same bears date.
Given under my hand and Notaries Seal on this _____ day of _____, _____.

NOTARY PUBLIC_____

MY COMMISSION EXPIRES:_____

NOTARY FOR OWNER (CITY OF FAIRHOPE)

STATE OF ALABAMA}
COUNTY OF BALDWIN}

I, the undersigned authority in and for said State and County, hereby certify that TIMOTHY M. KANT as Mayor of the City of Fairhope and LISA A. HANKS as City Clerk whose names are signed to the foregoing document and who are known to me, acknowledged before me on this day, that, being informed of the contents of the document they executed the same voluntarily on the date the same bears date.

Given under my hand and Notaries Seal on this _____ day of _____,

NOTARY PUBLIC_____

MY COMMISSION EXPIRES:_____

STANDARD TERMS AND CONDITIONS
CITY OF FAIRHOPE, ALABAMA

ACCEPTANCE OF AGREEMENT

This Agreement contains all terms and conditions agreed upon by the Owner and Winning bidder. No other agreement, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind either party hereto. The Winning Bidder shall not employ Subcontractors without the express written permission of the Owner. No waiver, alteration, consent or modification of any of the provisions of the Agreement shall be binding unless in writing and signed by the Owner and Contractor. This Agreement shall not be construed against the party or parties preparing it. It shall be construed as if all the parties and each of them jointly prepared this Agreement, and any uncertainty or ambiguity shall not be interpreted against one or more parties.

ACCEPTANCE OF WORK

The City of Fairhope will be deemed to have accepted the Work after the City of Fairhope agrees the Work is completed by signature on delivery or service tickets. In the event Work furnished under the Contract / Agreement / Purchase Order is found to be defective or does not conform to the intent of the Contract / Agreement / Purchase Order, the awarded vendor shall, after receipt of notice from the City of Fairhope, correct the deficiencies. Failure on the part of the awarded vendor to properly correct the deficiencies within the time period allowed will constitute the City of Fairhope's right to cancel the Contract / Agreement / Purchase Order immediately, upon written notice to the awarded vendor.

ADDENDA

All Addenda are part of the Contract Documents. Include resultant costs in the Bid. Addenda will be issued by FAX or Email to all Bidders on record, and posted to the City of Fairhope website www.cofairhope.com. It is the responsibility of the bidder to verify that all addenda have been received, and to include all signed addenda in the bid submission

ADDITIONAL ORDERS

Unless it is specifically stated to the contrary in the bid response, the City of Fairhope reserves the option to place additional orders against a contract awarded as a result of this solicitation at the same terms and conditions; to extend the renewal date until a new bid is in place, if it is mutually agreeable.

APPLICABLE LAW

This Agreement is deemed to be under and shall be governed by and construed according to the laws of the State of Alabama. Any litigation arising out of the Agreement shall be heard in the Courts of Baldwin County, Alabama.

ASSIGNMENT

The awarded vendor shall not assign the Contract / Agreement /Purchase Order or sublet it as a whole without the express written permission of the City of Fairhope. The awarded vendor shall not assign any payment due them hereunder, without the express written permission of City of Fairhope. The City of Fairhope may assign the Contract / Agreement / Purchase Order, or sublet it as a whole, without the consent of the awarded vendor.

ASSURANCE OF NON-CONVICTION OF BRIBERY

The bidder hereby declares and affirms that, to its best knowledge, none of its officers, directors, or partners and none of its employees directly involved in obtaining contracts has been convicted of bribery, attempted bribery or

conspiracy to bribe under the laws of any state or Federal government.

AWARD CONSIDERATION

The following factors will be considered in determining the lowest responsible bidder: Overall quality, Conformity with specifications both general and specific, Purposes for which materials or services are required, Delivery dates and time required for delivery, Unit acquisition cost, financial ability to meet the contract, previous performance, facilities and equipment, availability of repair parts, experience, delivery promise, terms of payments, compatibility as required, other costs, and other objective and accountable factors which are reasonable.

AWARD OR REJECTION OF BIDS

The Bid will be awarded to the lowest responsible bidder complying with conditions of the invitation for bids, provided his bid is reasonable and it is in the interest of the City of Fairhope to accept it. The bidder to whom the award is made will be notified at the earliest possible date. The City of Fairhope, however, reserves the right to reject any and all bids and to waiver any informality in bids received whenever such rejection or waiver is in the interest to the City of Fairhope.

BACK ORDERS

If it is necessary to back order any items, the vendor must notify the Purchasing Department and advice as to the expected shipping or delivery date. If this date is not acceptable, the City of Fairhope may seek remedies for default.

BID AND PERFORMANCE SECURITY

If bid security is required, a bid bond or cashier's check in the amount indicated on the bid cover must accompany the bid and be made payable to The City of Fairhope of Baldwin County, Al. Corporate or certified checks are not acceptable. Bonds must be in a form satisfactory to the City and underwritten by a company licensed to issue bonds in the State of Alabama. If bid security fails to accompany the bid, it shall be deemed unresponsive, unless the Purchasing Manager deems the failure to be non-substantial. All checks will be returned to the bidders after the contract has been approved. If a performance bond is required, the successful bidder will be notified after the awarding of the contract.

BRAND NAMES

Reference to brand names and numbers is descriptive, but not restrictive, unless otherwise specified. Bids on equivalent items meeting the standards of quality thereby indicated will be considered, providing the bid clearly describes the article offered and indicates how it differs from the referenced brands. Descriptive literature or manufacturers specifications plus any supplemental information necessary for comparison purposes should be submitted with the bid or the bid on that item may be rejected. Reference to literature submitted with a previous bid or on file with the Division of Purchasing will not satisfy this requirement. The burden is on the bidder to demonstrate that the item bid is equivalent to the item specified in the ITB. Bids without sufficient documentation to fully support equality, may be considered non-responsive.

Reference by the City of Fairhope in the ITB to available existing specifications shall be sufficient to make the terms of such specifications binding

on the bidder. Unless the bidder specifies otherwise in its bid, it is understood the bidder is offering a referenced brand item as specified in the ITB or is bidding as specified when no brand is referenced. Failure to examine drawings, specifications and instructions will be at the bidder's risk.

BUSINESS LICENSE

The vendor selected to enter into a Contract / Agreement with the City of Fairhope must be licensed to do business in the City of Fairhope prior to commencement of any work under the contract. Delivery of goods or services to the City of Fairhope by Purchase Order have detailed and varied Business License requirements. In all instances that require a business license. Awarded vendor will provide proof of possessing a current City of Fairhope Business License. Prospective bidders will not be required to possess a City of Fairhope Business License prior to award.

CANCELLATION OF / CONTRACT / AGREEMENT / PURCHASE ORDER / LEASE

A purchase order can be canceled in whole or in part when awarded vendor fails to deliver or perform as specified. Cancellation of a purchase order can only be made by a written purchase order change (POC) from the City of Fairhope. A term contract, lease or agreement can be canceled by the City of Fairhope, for justifiable cause, or convenience, by written notice.

CERTIFICATION PURSUANT TO ACT NO. 2006-557

Alabama law (section 41-4-116, code of Alabama 1975) provides that every bid submitted and contract executed shall contain a certification that the vendor, contractor, and all of its affiliates that make sales for delivery into Alabama or leases for use in Alabama are registered, collecting, and remitting Alabama state and local sales, use, and/or lease tax on all taxable sales and leases into Alabama. By submitting this bid, the bidder is hereby certifying that they are in full compliance with act no. 2006-557, they are not barred from bidding or entering into a contract pursuant to 41-4-116, and acknowledges that the awarding authority may declare the contract void if the certification is false. All corporations must register to do business in Alabama with the Office of the Secretary of State. Their address is:

Office of the Secretary of State
P.O. Box 5616
Montgomery, AL 36103
(334) 242-5324
Fax: (334) 240-3138
://www.sos.state.al.us/index.aspx

The Foreign Corporation form is online at ://www.sos.state.al.us/downloads/dl1.cfm.

COST OF REMEDYING DEFECTS

All defects, indirect and consequential costs of correcting, removing or replacing any or all of the defective materials or equipment will be charged against the awarded vendor.

DELIVERY OF BID

Bids must be received in the Purchasing Office by the date and time specified on the bid cover. All bids will be accepted until the time and date stated on the bid cover. No bids will be accepted that extend past the time and date on the bid cover. The time of receipt shall be determined by the time clock stamp in the Purchasing Department. Bids submitted by U.S. Mail must be received by the City of Fairhope of Baldwin County, Alabama, in the City of Fairhope offices,

555 South Section St., Fairhope, Al., unless otherwise specified.

DELIVERY
The number of calendar days required for delivery after receipt of a purchase order shall be stated in the RFQ / ITB / RF and/or Purchase Orders. When no time is stated in the document, the time shall be fourteen (14) calendar days after receipt of order. If a shipment is not made within the time period specified, the Purchase Order may be canceled.

ENVIRONMENTAL REQUIREMENTS
All products will be clearly labeled for their intended use. Each delivery of product or materials will include a Material Safety Data Sheet (MSDS) for all materials that require an MSDS. All manufacturers/distributors of hazardous substances, including any of the items listed on this bid/quote/contract and subsequent award must include completed material safety data sheet (MSDS) for each hazardous material. Additionally, each container of hazardous materials must be appropriately labeled with:
a) The identity of the hazardous material,
b) Appropriate hazard warnings, and
c) Name and address of the chemical manufacturer, importer, or other responsible party.

EQUIPMENT DEMONSTRATION
The City of Fairhope may require equipment/ product materials or service techniques to be demonstrated at a time, date and location to be specified by the City of Fairhope.

EQUIPMENT ELECTRICAL CERTIFICATION
All electrical equipment purchased shall conform to, and be identified in, the applicable standard(s), or otherwise be certified as applicable, as of the bid opening date and time, by Underwriters Laboratories, Inc. or other recognized laboratory facility. Bidder must provide satisfactory documentation with returned bid that all such equipment meets the applicable product standard or has otherwise been certified as outlined above. Unless indicated in the bid document, the above certification shall apply to the equipment itself, not the individual components of that equipment.

ERRORS IN BID
Bidders are assumed to be informed regarding conditions, requirements and specifications prior to submitting bids. Failure to do so will be at the bidder's risk. Bids already submitted may be withdrawn without penalty prior to bid opening. Errors discovered after the bid opening may not be corrected.

FORCE MAJEURE
Neither the City nor the awarded vendor shall be deemed in breach of any contract / Purchase Order or Agreement which may result from this proposal submission if it is prevented from performing any of the obligations hereunder by reason of Acts of God, acts of the public enemy, acts of superior governmental authority, strikes or labor disputes, floods, riots, rebellion, sabotage, or any similar other unforeseeable causes beyond its control and not due to its fault or negligence. Each party shall notify the other immediately in writing of the cause of such after the beginning period thereof. The awarded

vendor may request cancellation and the City of Fairhope may grant the request if performance is prevented by any of the above referenced causes, or other unavoidable circumstances not attributable to the fault or negligence of the vendor. The burden of proof for such relief rests with the vendor. All correspondence pertaining to cancellation of a purchase order or term contract must be addressed to the City of Fairhope Purchasing Manager.

HAZARDOUS AND TOXIC SUBSTANCES

Bidder must comply with all applicable Federal, State, County and City laws, ordinances and regulations relating to hazardous and toxic substances, including such laws, ordinances and regulations pertaining to information hazardous and toxic substances, and as amended from time to time. Bidder shall provide the City of Fairhope with a "Material Safety Data Sheet" for all goods that carry one.

INDEMNITY

Indemnity: The awarded vendor hereby agrees to indemnify and save harmless the City of Fairhope, its officers, agent, and employees, from and against any and all liabilities, claims, demands, damages, fines, fees, expenses, penalties, suits, proceedings, actions and cost of actions, including reasonable attorneys fees for trial and on appeal, of any kind and nature, arising or growing out of, or in any way connected with the performance of this Contract / Agreement / Purchase Order, to the extent caused by a negligent act or omission of the awarded vendor, their agents, servants, employees, Subcontractors, or others associated with the awarded vendor. The awarded vendor shall be responsible for damage to any equipment excluded from this agreement, or damage or injury caused by any equipment excluded from this agreement, only to the extent that the damage or injury is caused by a negligent act or omission of the awarded vendor, or caused by failure of the awarded vendor's supplied product to perform as specified.

INSPECTION

All materials, workmanship, equipment, and supplies are subject to inspection and test at any source or time. Final inspection, acceptance or rejection will be made at delivery destination. Goods that do not meet specifications will be rejected unless substitutions have been approved by the City of Fairhope. Failure to inspect or to reject upon receipt, however, does not relieve the awarded vendor of liability. When subsequent tests, after receipt, are conducted and when such tests reveal a failure to meet specifications, the City of Fairhope will reject the goods and the awarded vendor shall immediately supply goods meeting specifications or the City of Fairhope may seek damages including but not limited to the testing expense, regardless of whether a part of or all of the goods have been consumed through the testing process. Rejected goods shall be removed by the awarded vendor promptly after rejection, at his expense. If not removed in fourteen (14) calendar days, they may be disposed of at the discretion of the City of Fairhope. Disposal costs will be the awarded vendor's responsibility.

INSPECTION OF PREMISES

At reasonable times, the City may inspect those areas of the awarded vendor's place of business

that are related to the performance of a Contract / Agreement / Purchase Order. If the City makes such an inspection, the awarded vendor must provide reasonable assistance. The City of Fairhope reserves the right on demand and without notice all the vendor's files associated with a subsequent Contract / Agreement / Purchase Order where payments are based on the awarded vendor's record of time, salaries, materials, or actual expenses. This same clause will apply to any subcontractors assigned to the Contract / Agreement / Purchase Order.

INSURANCE

If a Contract / Agreement / Purchase Order results from this RFQ /ITB /RFP, or other form of solicitation, the awarded vendor shall maintain such insurance as will indemnify and hold harmless the City of Fairhope from Workmen's Compensation and Public Liability claims from property damage and personal injury, including death, which may arise from the awarded vendor's operations under this Contract / Agreement / Purchase Order, or by anyone directly or indirectly employed by him/her.

INVITATION TO BID

Any provisions made in the RFQ / ITB / RFP, or other form of solicitation, supersedes any provisions outlined here in the General Terms and Conditions.

INVOICING, DELIVERY, PACKAGING

Invoices shall be prepared only after ordered materials have been delivered. All invoices must show the purchase order number. Unless otherwise specified in writing, vendors shall not ship any material without an authorized Purchase Order from the City of Fairhope Purchasing Department. All packages delivered must show the purchase order number. The awarded vendor will be required to furnish all materials, equipment and/or service called for at the bid price quoted. In the event the awarded vendor fails to deliver within a reasonable period of time, as determined by the City of Fairhope, the right is reserved to cancel the award and subsequent purchase order and purchase from the next lowest responsible bidder the items needed. The original awarded vendor will be back charged the difference between the original contract price and the price the City of Fairhope has to pay as a result of the failure to perform by the original awarded vendor. All bids will remain firm for acceptance for 60 days from the date of bid opening. Prices shall be net F.O.B., Prepaid and Allow, City of Fairhope chosen site, Baldwin County, Al. The title and risk of loss of the goods will not pass to the City of Fairhope until receipt and acceptance takes place at the F.O.B. point.

LABELING

Individual shipping cartons shall be labeled with the name "City of Fairhope", Purchase Order Number, and where applicable, Contract Number, date of manufacture, batch number, storage requirements, conditions, and recommended shelf life. Bidders are encouraged to offer product packaging with recycled content.

LOSS OR DAMAGE IN TRANSIT

Delivery by a vendor to a common carrier does not constitute delivery to the City of Fairhope. Any claim for loss or damage incurred during delivery shall be between the vendor and the carrier. The City of Fairhope accepts title only after satisfactory receipt at the delivery point. The City of Fairhope shall note all visible damages on the freight bill and may refuse the damaged goods. The vendor shall make immediate replacement of the damaged merchandise or be subject to damages for breach of contract. If damage is to a small portion of a total shipment

and the City of Fairhope will not be inconvenienced because of the shortage, the vendor may be permitted by the Purchasing Manager to deduct the amount of damage or loss from its invoice, in lieu of replacement. Risk of loss during delivery is borne by the vendor until the goods have been accepted by the City of Fairhope, unless otherwise specified in the RFQ / ITB / RFP or other form of solicitation.

MANDATORY SITE VISIT
If the RFQ / ITB /RFP or other form of solicitation requires a mandatory site visit, bidders must inspect the site where installation or service is to take place to obtain a full understanding of scope of work outlined therein. Date of site visit will be determined by the City of Fairhope.

MONITORING OF SERVICES
Performance of services will be monitored by the requisitioning department and/or the Purchasing Department, and evaluation reports may be filed with the Purchasing Department. Performance not meeting specifications will result in cancellation of Contract / Agreement / Purchase Order and may result in vendor being removed from the vendor list.

NONCONFORMING MERCHANDISE
When merchandise received from the lowest responsible bidder is not in accordance with the purchase order, it will be returned to the bidder, at bidder's expense.

NON-DESCRIMINATION
The City of Fairhope is an Equal Opportunity Employer and requires that all contractors comply with the Equal Employment Opportunity laws and the provisions of the Contract / Agreement / Purchase Order Documents in this regard. The City also encourages and supports the utilization of Minority Business Enterprises on this and all public bids.

NON EXCLUSIVE
Unless otherwise specified, this Contract / Agreement / Purchase Order is considered a non-exclusive Contract /Agreement / Purchase Order between the parties.

NOTIFICATION AND ACCIDENT REPORTS
In the event of accidents of any kind, in the performance of a Contract / Agreement / Purchase Order, the awarded vendor shall notify the City of Fairhope immediately and furnish, without delay, copies of all such accident reports to the City of Fairhope. If in the performance of their Work, the awarded vendor fails to immediately report an accident to the City of Fairhope, of which the awarded vendor has knowledge of and which results in a fine levied against the City of Fairhope then the awarded vendor shall be responsible for all fines levied against the City of Fairhope.

PACKAGING
All goods must be packaged in new packing containers. Packing that meets the requirements of common carriers is acceptable, unless otherwise required. A packing slip or invoice must accompany all shipments and must reference the purchase order number.

PAYMENT
Invoices -- Upon completion of service and delivery of materials specified in the applicable purchase order, awarded vendor will submit an

invoice and signed delivery ticket to:
City of Fairhope
Accounts Payable Department
P.O. Box 429
Fairhope, Al. 36533

All invoices must reference appropriate Purchase Order Numbers

Payment Of Invoice: All invoices received by the City of Fairhope are payable within thirty (30) days from the date of receipt by the City of Fairhope, provided they are approved by the City of Fairhope.

PAYMENT WITHHELD
Payment may be withheld until all items have been delivered and all requirements of the Contract / Agreement / Purchase Order have been fulfilled.

RECEIPT BY CITY OF FAIRHOPE
If not otherwise stated in the order, the City of Fairhope will be said to have received goods when they have been delivered, unloaded and placed on the agency's dock or if there is no dock, inside an accessible building, and signed for by an authorized City employee. Shipments will be checked against the receiving copy of the Purchase Order. If the purchase order requires grading certificates, USDA Stamps, or any proof of quality, such proof must accompany the shipment.

SET-UP AND INSTALLATION
Unless otherwise specified, bid / quotation to include cost of all uncrating, disposal of shipping materials, set-up, testing and initial instruction to agency personnel.

SPILL CLEAN UP
The awarded vendor shall be responsible for spillage caused by their negligence, which occurs during transit or unloading operations. The awarded vendor shall immediately report and clean up any spillage. Upon failure to do so, the awarded vendor shall remain responsible for all actual related costs.

PRODUCT TESTING
Vendor shall incur all cost involved in obtaining an Independent Laboratory Test if the City deems necessary during the term of the Contract / Agreement / Purchase Order. The City of Fairhope reserves the right to request a demonstration of any and all items bid before making the award.

PATENTS
Awarded Vendor guaranties that the sale and / or use of goods will not infringe upon any U.S. or foreign patent. Awarded vendor will at his / her own expense, indemnify, protect and save harmless the City of Fairhope, on any patent claims arising from the purchase of goods or services.

PACKAGING
Unless otherwise specified, goods are to be packaged in cartons meeting federal specifications and shipped on non-returnable pallets.

PERMITS LICENSES AND CERTIFICATES
The awarded vendor is to procure all permits, licenses, and certificates, or any approvals of plans or specifications as may be required by

Federal, State, Local Laws, ordinances, rules, and regulations, for the proper execution and completion of Work covered under the Contract / Agreement / Purchase Order.

PREPARATION OF BID

All bids / proposals shall be typewritten or in ink on the form(s) prepared by the City of Fairhope. Bids / proposals prepared in pencil will not be accepted. All bids / proposals must be signed by officials of the corporation or company duly authorized to sign bids / proposals. Any bid / proposal submitted without being signed will automatically be rejected. All corrections or erasures shall be initialed and dated by the person authorized to sign quotations /bids / proposals. If there are discrepancies between unit prices quoted and extensions, the unit price will prevail.

QUESTIONS / CONTACT

Commencing with the issuance of the RFQ / ITB / RFP, or other form of solicitation, no vendor or anyone acting on a vendor's behalf, shall make direct or indirect contact with City personnel or undertake any activities or take any action to otherwise promote its quotation / bid / proposal to the City or its personnel. All communications shall be made to the contact identified in the quotation / bid / proposal documents. Violation of this requirement may, at the City's sole and absolute discretion, be grounds for disqualifying a vendor from further consideration.

REJECTION OF BIDS

The City of Fairhope reserves the right to accept or reject any or all bids in whole or in part for any reason, to waive technicalities or informalities, or to advertise for new proposals, if, in the judgment of the awarding authority, the best interest of the City of Fairhope will be promoted thereby. Bidders may be disqualified and rejection of proposals may be recommended for any of (but not limited to) the following causes: Failure to use the bid forms furnished by the City of Fairhope, Lack of signature by an authorized representative on the bid form, Failure to properly complete the bid form and vendor compliance, Evidence of collusion among bidders, Unauthorized alteration of the bid form.

RIGHT TO AUDIT

The awarded vendor shall maintain documentation of all work performed. The awarded vendor shall make any and all documentation available to the City of Fairhope at all reasonable times, for inspections and audit by the City of Fairhope, during the entire term of the Contract / Agreement / Purchase Order and for a period of Three (3) years after the expiration of the Contract / Agreement / Purchase Order.

SAMPLES

Bidders will not be required to furnish samples at the time of bid opening, unless specifically called for. The City of Fairhope reserves the right to request samples after bid opening to assist in the evaluation of proposals submitted.

SAFETY MEASURES

The awarded vendor shall take all necessary precautions for the safety of the City of Fairhope's and awarded vendor's employees at the Work site, and shall erect and properly maintain at all times, all necessary safeguards for the protection of the workmen and the public. The awarded vendor shall post signs warning against hazards in and around the Work site.

SUBSTITUTIONS

Substitutions on a purchase order shall require the approval of the Originating Buyer. The City of Fairhope reserves the right to reject at destination and hold at the vendor's risk and expense any goods supplied by the vendor which do not conform to the specification or description embodied in the order or are inferior in any respect to the good specified. Any good bought by sample which is inferior in quality to the sample submitted by vendor will be rejected. Any goods delivered that do not meet specifications may be returned to the vendor at its expense. When a good is returned, the vendor must make immediate replacement with acceptable merchandise or the City of Fairhope may seek remedies for default.

TABULATION

Bid results are posted on The City of Fairhope's web site: www.cofairhope.com . The awarded vendor will be sent a written notification via mail.

TAXES

Prices quoted shall be delivered prices, exclusive of all federal or state excise, sales, and manufacturer's taxes. The City will assume no transportation or handling charges other than specified in the RFQ, ITB, RFP or other form of solicitation. The City is tax exempt by law – Code of Alabama 1975.

TERMINATION FOR CONVENIENCE

Any Contract / Agreement / Purchase Order may be terminated for convenience by the City of Fairhope, in whole or in part, by written notification to the awarded vendor.

TERMINATION FOR DEFAULT

Performance of Work under the Contract / Agreement / Purchase Order Agreement may be terminated by the City of Fairhope, in whole or in part, in writing, whenever the City of Fairhope determines that the awarded vendor has failed to meet the requirements of the Contract / Agreement / Purchase Order.

TERMINATION FOR NON-APPROPRIATION

Termination for Non-appropriation – The continuation of any financial obligation beyond the current fiscal year is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the local source, State Legislature and/or federal sources. The City of Fairhope may terminate any financial obligation, and awarded vendor waives any and all claim(s) for damages, effective immediately upon receipt of written notice (or any date specified therein) if for any reason the City of Fairhope's funding from local, State and/or federal sources is not appropriated, withdrawn or limited.

TIME IS OF THE ESSENCE

The City of Fairhope and awarded vendor agree that time is of the essence in the performance of Work called for under this Contract / Agreement / Purchase Order. The awarded vendor agrees that all work will be accomplished regularly, diligently and uninterrupted at such a rate of progress as will ensure full completion thereof within reasonable time periods.

TITLE

All titles, fees, as well as other charges, are to be paid by awarded vendor. Awarded vendor is to furnish prepaid certificate of title in the name of the City of Fairhope, Title shall change upon acceptance of delivery at the City of Fairhope approved delivery location.

VENDOR LIST

A vendor may be removed from the City of Fairhope's Bidders List if a vendor fails to respond to three (3) consecutive ITB's. A properly submitted "No Bid" is considered as a response and the vendor will receive credit for the response.

WARRANTY

The awarded vendor expressly warrants that all articles, materials, and work offered shall conform to each and every specification, drawing, sample, or other description which is furnished to or adopted by the City of Fairhope, and that it will be fit and sufficient for the purpose intended, merchantable, of good material and workmanship, and free from defects. The awarded vendor further warrants all items for a period of one year, unless otherwise stated, from the date of acceptance of the items delivered and installed or work completed. All repairs, replacements, or adjustments during the warranty period will be at the awarded vendor's sole expense. Awarded vendor will provide written warranty for all parts and labor for a period of (1) one year commencing from date of written acceptance of delivery by City of Fairhope. Awarded vendor will provide written copies of all other applicable warranties, such as, Manufacturer's warranty. Those warranties, if any, will be in addition to the awarded vendor's warranty, and the terms of which will not be altered by the awarded vendor's warranty.

CONTRACT SPECIFICATIONS

CITY OF FAIRHOPE

THEATRE 98 - PW005-11

SEPTEMBER 2011

Prepared by:

HUTCHINSON, MOORE & RAUCH, LLC
Engineers • Surveyors • Land Planners

CONTRACT SPECIFICATIONS

CITY OF FAIRHOPE
THEATRE 98

I N D E X

PROJECT DESCRIPTION

The general scope and intent of this project is for a Contractor to furnish all materials, labor and equipment necessary to complete earth work (which includes all underground utilities), site clearing and demolition, finish grading, excavation support and protection, sodding, drainage structures and systems, sidewalks, construct a slab on grade and erect a single story 1,500 square foot pre-engineered metal building as shown on HMR Engineering drawings entitled "Theatre 98 – Building Addition" City of Fairhope – PW005-11. There are nine (9) sheets contained in this set of drawings. The Contractor is also required to adhere to all specifications as specified in the HMR document package named "CONTRACT SPECIFICATIONS", CITY OF FAIRHOPE, THEATRE 98 – PW005-11".

The existing building & property, located at 350 Morphy Avenue, Fairhope, Alabama, is owned by the City of Fairhope, and is leased to the Theatre 98 organization. The new 1500 square foot building will be used as a storage area for stage props, etc.

EARTHWORK

PART 1 - GENERAL SCOPE

It is the intent to construct the described work on the plans and in accordance with these specifications and the State of Alabama Standard Specifications for Highway Construction 2008 Edition, Section 210. This specification is exclusive for the work for the parking lot, building slab, and all other work that changes the existing features of the site.

1.1 RELATED DOCUMENTS
- A. Drawings and general provisions of the Contract.

1.2 SUMMARY
- A. This Section includes the following:
  1. Excavating and backfilling for structures, building slab and sidewalk/aprons.
  2. Excavating and backfilling trenches for buried utilities and pits for buried utility structures.

1.3 DEFINITIONS
- A. Backfill: Soil materials 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. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- C. Excavation: Removal of material encountered above subgrade elevations.
  1. Additional Excavation: Excavation below subgrade elevations as directed by Owner. 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 dimensions without direction by Owner. Unauthorized excavation, as well as remedial work directed by Owner, shall be without additional compensation.
- D. Fill: Soil materials used to raise existing grades.
- E. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material ¾ cu. yd. (0.57 cu.m) or more in volume that cannot be removed by a trackhoe.
- F. 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.
- G. Subbase Course: Layer placed between the subgrade and base course for asphalt paving, or layer placed between the subgrade and a concrete pavement or walk.
- H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- I. Utilities include underground pipes, conduits, ducts, and cables.

1.4 PROJECT CONDITIONS
- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Owner and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify the Owner not less than two days in advance of proposed utility interruptions.
    2. Do not proceed with utility interruptions without Owner's written permission.
    3. Contact utility-locator service for area where Project is located before excavating.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Satisfactory Soils: ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, and SM, or a combination of these group symbols; free of rock or gravel larger than 3 inches (75 mm) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
    1. Unsatisfactory Soils: ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT, or a combination of these group symbols.

B. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

C. Backfill and Fill: Satisfactory soil materials.

D. Subbase: 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 (38-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.

E. Base: 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 (38-mm) sieve and not more than 8 percent passing a No. 200 (0.075-mm) sieve.

F. Bedding: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, ASTM D 2940, except with 100 percent passing a 1-inch (25-mm) sieve and not more than 5 percent passing a No. 8 (0.075-mm) sieve.

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 earthwork operations.

B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.

C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.2 DEWATERING

A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
    1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
    2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.
    3. Meet the requirements of Alabama Department of Environmental Management for stormwater discharge from construction-related activities.

3.3 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavation to subgrade elevations regardless of the character of surface and subsurface conditions encountered, including rock, soil materials, and obstructions.
   1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.4 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

3.5 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

3.6 EXCAVATION FOR UTILITY TRENCHES

A. Excavate trenches to indicated gradients, lines, depths, and elevations.
B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (300 mm) higher than top of pipe or conduit, unless otherwise indicated.
   1. Clearance: 6 inches (150 mm) on each side of pipe or conduit.
C. Trench Bottoms: In soil excavate trenches to required elevation. Hand excavate for bell of pipe.
   1. Excavate trenches 6 inches (150 mm) deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.7 STORAGE OF SOIL MATERIALS

A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile 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.

3.8 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:
   1. Surveying locations of underground utilities for record documents.
   2. Inspecting underground utilities.
   3. Removing concrete formwork.
   4. Removing trash and debris.
   5. Removing temporary shoring and bracing, and sheeting.

3.9 UTILITY TRENCH BACKFILL

A. 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.
B. Provide a complete stone backfill for piping within driveways, roadways, and parking areas.
C. Place and compact initial backfill of material, free of particles larger than 2 inches (51 mm), to a height of 12 inches (300 mm) over the utility pipe.

1. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping to avoid damage or displacement of utility system.

D. Coordinate backfilling with utilities testing.
E. If in roadway or paved area backfill entire trench with No. 67 stone to a height 12 inches below road surface. Final 12 inches shall be filled with compacted road base stone.
F. Fill voids with approved backfill materials while shoring and bracing, and as sheeting is removed. Maximum dimension of individual rock in backfill from 12 inches above pipe to top of ground shall not exceed 6 inches.
G. Place and compact final backfill of satisfactory soil material to final subgrade.
H. Whenever excavation has been made within easements on private property, the top 1 inch of backfill material shall consist of fine, loose earth, free from large clods, vegetable matter, debris, stone, or other objectionable material.
I. Whenever trenches cut across or along paved areas, temporarily pave the top 12 inches of trenches with 825-B Base.

3.10 MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
B. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
C. 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.

3.11 COMPACTION OF BACKFILLS AND FILLS

A. Place backfill and fill materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
B. Compact soil to not less than the following percentages of 95 percent density according to ASTM D 698:
C. Under pavements, compact each layer of backfill or fill material at 95 percent.
D. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 92 percent.
E. Under lawn or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 85 percent.

3.12 GRADING

A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
B. Provide a smooth transition between adjacent existing grades and new grades.
C. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

3.13 SUBBASE AND BASE COURSES

A. Under pavements and walks, place subbase course on prepared subgrade and as follows:
   1. Place base course material over subbase.

2. Compact sub-base and base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
3. Shape subbase and base to required crown elevations and cross-slope grades.
4. When thickness of compacted subbase or base course is 6 inches (150 mm) or less, place materials in a single layer.
5. When thickness of compacted subbase or base course exceeds 6 inches (150 mm), place materials in equal layers, with no layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick when compacted.

3.14 FIELD QUALITY CONTROL

A. Testing Agency: Contractor will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing. Contractor to pay for testing services.
B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
C. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
   1. Trench Backfill: At each compacted initial and final backfill layer, at least one test for each 150 feet or less of trench length, but no fewer than two tests.
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 to depth required; recompact and retest until specified compaction is obtained.

3.15 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.
   1. Scarify or remove and replace soil material to depth as directed by Owner; reshape and recompact.
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 the greatest extent possible.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

SITE CLEARING

PART 1 - GENERAL SCOPE

It is the intent to construct the described work on the plans and in accordance with these specfications and the State of Alabama Standard Specifications for Highway Construction 2008 Edition, Sections 201 and 206, Clearing and Grubbing and Removal and Relocation of Structures. These specifications are exclusive for the removal of trees, concrete pavement, structures, and all other existing features that impede the proposed improvements.

1.1 SECTION INCLUDES

A. Extent of site clearing and demolition as shown on the drawings.
B. Site clearing and demolition includes, but is not limited to:
   1. Protection of existing trees.
   2. Removal of trees and other vegetation.
   3. Clearing and grubbing.
   4. Removing above-grade improvements.
   5. Removing below-grade improvements.

1.2 JOB CONDITIONS

A. Traffic: Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.
B. Protection of Existing Improvements: Provide protections necessary to prevent damage to existing improvements indicated to remain in place.
   1. Protect improvements on adjoining properties and on Owner's property.
   2. Restore Contractor caused damage to improvements to their original or better condition, as acceptable to parties having jurisdiction, at no additional cost to the Owner.
C. Protection of Existing Trees and Vegetation: Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary guards to protect trees and vegetation to be left standing.
   1. Water trees and other vegetation to remain within limits of contract work as required to maintain their health during course of construction operations.
   2. Provide protection for roots over 1-1/2" diameter. Tree roots shall be neatly cut with a utility trenching machine. Coat cut faces with a tree pruning compound or other acceptable coating, formulated for use on damaged plant tissues. Temporarily cover exposed roots with wet burlap to prevent roots from drying out; cover with earth as soon as possible.
   3. Repair or replace trees and vegetation indicated to remain which are damaged by construction operations.
D. Improvements on Adjoining Property: Authority for performing removal and alteration work on property adjoining Owner's property will be obtained by Owner prior to award of contract.
   1. Extent of work on adjacent property is indicated on Drawings.
E. Salvageable Improvements: Carefully remove items indicated to be salvaged, and store on Owner's premises where indicated or directed.

F. Protect existing utilities from damage. Location of existing utilities shall be verified by Contractor prior to commencing work. Repair Contractor caused damage to existing utilities at no additional cost to the Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 SITE CLEARING

A. General: Remove only trees, shrubs, grass and other vegetation, improvements, or obstructions interfering with installation of new construction. Remove such items elsewhere on site or premises as specifically indicated. Removal includes digging out stumps and roots.

B. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction.

C. Clearing and Grubbing: Clear site of trees, shrubs and other vegetation, except for those indicated to be left standing.

1. Completely remove stumps, roots, and other debris within the limits of grading.
2. Use only hand methods for grubbing inside drip line of trees indicated to be left standing.
3. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.
4. Place fill material in horizontal layers not exceeding 8" loose depth and thoroughly compact to density per Specifications Section 31 2300 "Site Excavation, Backfilling and Compaction" or Section 31 0000 “Earthwork”.

3.2 SITE DEMOLITION

A. Removal of Improvements: Remove existing above-grade and below-grade improvements necessary to permit construction and other work as indicated.

1. Abandonment or removal of certain underground pipe or conduits may be shown on the drawings. Accomplish removal and replacement of existing utility service which will interfere with the work using those who will perform the work of the new utility service installation.

B. Closing Abandoned Utilities: Close open ends of abandoned underground utilities which are indicated to remain in place. Provide sufficiently strong closures to withstand hydrostatic and earth pressure which may result after ends of abandoned utilities have been closed.

1. Close open ends of concrete or masonry utilities with not less than 8" thick brick masonry bulkheads.
2. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods for size and type material being closed. Wood plugs are not acceptable.

C. In proposed lawn/landscape areas, all pavement shown to be removed shall have a neat saw cut edge and shall be removed full depth, to include aggregate base. Aggregate base may remain under proposed parking and building pads.

3.3 DISPOSAL OF WASTE MATERIALS

A. Burning on Owner's Property: Burning will not be permitted.
B. Transport waste materials to designated spoil areas on Owner's property and dispose of as directed. Provide as-built drawing of spoil area to Engineer.
C. Remove all waste materials from Owner's property and transport and dispose of off Owner's property in legal manner at Contractor expense.

END OF SECTION 31 1000

FINISH GRADING

PART 1 - GENERAL SCOPE

It is the intent to construct the described work on the plans and in accordance with these specifications and the State of Alabama Standard Specifications for Highway Construction 2008 Edition, Sections 210 and 650, Excavation and Embankment and Topsoil. These specifications are exclusive for the work for the grading for parking lot, building slab, drainage structures, and all other work to meet the proposed improvements to the site.

1.1 SECTION INCLUDES

A. The work called for by this section shall include, but not necessarily be limited to, finish grading and the spreading and shaping of topsoil to the finished contour elevations indicated by the drawings.

B. Refer to other sections for work related to that specified under this heading. Coordinate this work with that specified by other sections for timely execution.

PART 2 - PRODUCTS

2.1 TOPSOIL

A. Use stripped topsoil that has been stockpiled as specified elsewhere. If the quantity of topsoil on the job is inadequate, furnish enough additional topsoil. Topsoil furnished shall be natural, fertile, friable soil possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well drained areas. It shall not be excessively acid or alkaline nor contain toxic substances that may be harmful to plant growth. Topsoil shall be without admixture of subsoil and shall be cleaned and reasonably free from clay lumps, stones, stumps, roots, or similar substances 2 inches or more in diameter, debris, or other objects that are a hindrance to planting operations. Such material shall be subject to testing.

PART 3 - EXECUTION

3.1 GRADING

A. Do not begin work until the earth is dry enough to be tillable.

B. Inspect subgrades to see that they generally conform to the standards called for elsewhere in these specifications, particularly with regard to the approximate depths required for the work. After work is completed, inspect it to ensure that all finish grading complies with design requirements.

C. Place finished grade stakes wherever necessary to bring the work accurately to the elevations required by the drawings.

D. Finish grade all areas outside the building line to the depths required for the work as follows:

1. Grade uniformly with rounded surfaces at the tops and bottom of abrupt changes of planes.
2. Hand grade steep slopes and areas that are inaccessible for machine work.
3. Protect graded areas from undue erosion, and repair and re-grade areas where erosion does occur.

4. Refill areas where noticeable settlement has occurred.
5. Finish grade areas that are to receive topsoil up to 4 inches below the finished contour elevations called for by the drawings or, over rock, to 12 inches below these elevations.

E. Place topsoil uniformly over disturbed areas that do not receive other work as follows:
1. Obtain approval of the finish grading from the Engineer before starting to place topsoil.
2. Scarify subgrade to a depth of 3 inches.
3. Place the topsoil to a depth of 4 inches when lightly rolled or, on rock, to a depth of 12 inches.
4. Level the topsoil so that it slopes uniformly and has no water pockets.
5. Carefully rake the topsoil by hand to remove all clods, roots, sticks, stones over 1 inch in diameter, and other foreign materials from the surface.

F. Dispose of excess excavated materials and debris away from the site.

END OF SECTION 31 2000

EXCAVATION SUPPORT AND PROTECTION

PART 1 - GENERAL SCOPE

1.1 SUMMARY

A. This Section includes temporary excavation support and protection systems. Careful consideration and protection should be given to the location of the existing Theatre 98 Building.

1.2 PERFORMANCE REQUIREMENTS

A. Design, furnish, install, monitor, and maintain excavation support and protection system capable of: supporting excavation sidewalls, resisting soil and hydrostatic pressure, and supporting superimposed and construction loads.

1. Provide professional engineering services to assume engineering responsibility, including preparation of Shop Drawings and a comprehensive engineering analysis by a qualified professional engineer.

1.3 SUBMITTALS

A. Shop Drawings for Information: Prepared by or under the supervision of a qualified professional engineer for excavation support and protection systems.

1.4 PROJECT CONDITIONS

A. Survey adjacent structures and improvements, employing a qualified professional engineer or land surveyor; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.

1. During installation of excavation support and protection systems, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations and positions for comparison with original elevations and positions. Promptly notify Owner if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.

PART 2 - PRODUCTS – NOT USED

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 that could develop during excavation support and protection system operations.

B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.

C. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
D. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

3.2 REMOVAL AND REPAIRS

A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.

END OF SECTION 31 3000

CONCRETE PAVING

PART 1 - GENERAL SCOPE

It is the intent to construct the described work on the plans and in accordance with these specifications and the State of Alabama Standard Specifications for Highway Construction 2008 Edition. These specifications are exclusive for the work for the driveway, concrete curb and walkways.

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. This Section includes exterior cement concrete pavement for the following:
   1. Driveways and roadways.
   2. Parking lots.
   3. Curb and gutter.
   4. Walkways.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, expansive hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume.

1.4 SUBMITTALS

A. Design Mixes: For each concrete pavement mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed pavement work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
B. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.
C. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant and each aggregate from one source.
D. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by the requirements of the Contract Documents.
E. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests.

1.6 PROJECT CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for facility operations and construction activities.

PART 2 - PRODUCTS

2.1 FORMS

A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
B. Use flexible or curved forms for curves of a radius 100 feet or less.
C. 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.

2.2 STEEL REINFORCEMENT

A. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
B. Deformed-Steel Welded Wire Fabric: ASTM A 497, flat sheet.
C. Reinforcement Bars: ASTM A 615/A 615M, Grade 60, deformed.
D. Steel Bar Mats: ASTM A 184/A 184M; with ASTM A 615/A 615M, Grade 60, deformed bars; assembled with clips.
E. Plain Steel Wire: ASTM A 82, as drawn.
F. Joint Dowel Bars: Plain steel bars, ASTM A 615/A 615M, Grade 60. Cut bars true to length with ends square and free of burrs.
G. Tie Bars: ASTM A 615/A 615M, Grade 60, deformed.
H. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded wire fabric, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete.

2.3 CONCRETE MATERIALS

A. General: Use the same brand and type of cementitious material from the same manufacturer throughout the Project.
B. Portland Cement: ASTM C 150, Type I or II.
    1. Fly Ash: ASTM C 618, Class F or C.
    2. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
C. Aggregate: ASTM C 33, uniformly graded, from a single source, with coarse aggregate as follows:
    1. Maximum Aggregate Size: 1-1/2 inches nominal.
    2. Do not use fine or coarse aggregates containing substances that cause spalling.
D. Exposed Aggregate: Selected, hard, and durable; washed; free of material that reacts with cementitious material or causes staining; from a single source, with gap graded coarse aggregate as follows:
    1. Aggregate Sizes: 3/4 to 1 inch nominal.
    2. Water: ASTM C 94.

2.4 ADMIXTURES

A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cement and to be compatible with other admixtures.
B. Air-Entraining Admixture: ASTM C 260.

2.5 FIBER REINFORCEMENT

A. Synthetic Fiber: Fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, 1/2 to 1-1/2 inches(13 to 38 mm) long.
B. Products: Subject to compliance with requirements, provide one of the following:
    1. Fibrillated Fibers:
        a. Fibrasol F; Axim Concrete Technologies.
        b. Fibermesh; Fibermesh, Div. of Synthetic Industries.
        c. Forta; Forta Corporation.
        d. Grace Fibers; W. R. Grace & Co., Construction Products Div.
    2. Monofilament Fibers:
        a. Fibrasol IIP; Axim Concrete Technologies.
        b. Fiberstrand 100; Euclid Chemical Co.
        c. Fibermix Stealth; Fibermesh, Div. of Synthetic Industries.
        d. Forta Mono; Forta Corporation.
        e. Grace MicroFiber; W. R. Grace & Co., Construction Products Div.
        f. Polystrand 1000; Metalcrete Industries.

2.6 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) dry.
B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
C. Water: Potable.

2.7 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber, or ASTM D 1752, cork or self-expanding cork, or ASTM D 1752-84, recycled rubber.
B. Pavement-Marking Paint: Alkyd-resin type; ready mixed; complying with FS TT-P-115, Type I, or AASHTO M 248, Type N.
C. Pavement-Marking Paint: Latex, water-base emulsion; ready mixed; complying with FS TT-P-1952.
    1. Color: Blue for handicapped requirements, yellow for fire lanes, white elsewhere.
D. Thermoplastic Traffic Markings: Provide in accordance with the Alabama local Department of Transportation Specifications, Sections 701 and 703. Symbols and crosswalks to be extruded; striping to be sprayed.
E. Glass Beads: AASHTO M 247.
F. Wheel Stops:
    1. Precast, air-entrained concrete; 2500-psi minimum compressive strength; approximately 6 inches high, 9 inches wide, and 84 inches long. Provide chamfered corners and drainage slots on underside, and provide holes for dowel-anchoring to substrate.

2. Solid, integrally colored, 96 percent recycled HDPE or commingled postconsumer and postindustrial recycled plastic; UV stabilized; 4 inches high by 6 inches wide by 72 inches long. Provide chamfered corners and drainage slots on underside and holes for anchoring to substrate.
3. Dowels: Steel, diameter of 3/4 inch.

G. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

H. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class and grade to suit requirements, and as follows:
1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

I. Detectable Warning Surface: Raised truncated domes with a nominal diameter of 0.9 inch (23 mm), a nominal height of 0.2 inch (5 mm), a center-to-center spacing of 1.7 inches (43 mm) and with a visually-contrasting color (light-on-dark or dark-on-light or color selected by Architect). The material used to provide contrast shall be an integral part of the walking surface.
1. Acceptable Products:
a. Whitacre-Greer or Pavestone (or equal) solid brick or concrete paving units.
b. Armor-Tile vitrified polymer composite cast-in-place tiles.

2.8 CONCRETE MIXES

A. Prepare design mixes, proportioned according to ACI 211.1 and ACI 301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.

B. Proportion mixes to provide concrete with the following properties:
1. Minimum Compressive Strength (28 Days): 3000 psi, unless noted otherwise on the Drawings.
2. Maximum Water-Cementitious Materials Ratio: 0.45.
3. Slump Limit: 4 inches.
a. Slump Limit for Concrete Containing High-Range Water-Reducing Admixture: Not more than 8 inches after adding admixture to plant- or site-verified, 2- to 3-inch slump.
4. Air Content: 4-1/2 percent plus or minus 1.5 percent.

C. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
1. Fly Ash: 25 percent.
2. Combined Fly Ash and Pozzolan: 25 percent.
3. Ground Granulated Blast-Furnace Slag: 50 percent.
4. Combined Fly Ash or Pozzolan, and Ground Granulated Blast-Furnace Slag: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.

D. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 2.5 to 4.5 percent.

E. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.0 lb/cu. yd.

2.9 CONCRETE MIXING

A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94.
   1. When air temperature is between 85 deg F (30 deg C) and 90 deg F (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 PREPARATION

A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction. Proceed with pavement only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.
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 for pavement 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 reinforcement and with recommendations in CRSI's "Placing Reinforcing Bars" for placing and supporting reinforcement.
B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
E. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

3.4 JOINTS

A. General: Construct construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
   1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour, unless pavement terminates at isolation joints.
   1. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.

2. Provide tie bars at sides of pavement strips where indicated.
3. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Expansion Joints: Form expansion joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
1. Locate expansion joints at intervals of 50 feet for each pavement lane and curbs, unless otherwise indicated. Locate expansion joints at maximum 30 feet o.c. for sidewalks. Locate expansion joints at all curb returns.
2. Extend joint fillers full width and depth of joint.
3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

D. 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.

E. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as follows: In vehicular pavements, place contraction joints to form squares and to not exceed 12 feet on any side. In sidewalks, place contraction joints to form squares and to not exceed 6 feet on any side. In curbs, place contraction joints at 10 feet on center. See drawings for additional information.

F. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with groover tool to the following radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces.
a. Radius: 1/4 inch.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.

G. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to the following radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.
1. Radius: 1/4 inch.

3.5 CONCRETE PLACEMENT

A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.

B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
C. Moisten subbase to provide a uniform dampened condition at the time concrete is placed. Do not place concrete around manholes or other structures until they are at the required finish elevation and alignment.
D. Comply with requirements and with recommendations in ACI 301 for measuring, mixing, transporting, and placing concrete.
E. Do not add water to concrete during delivery, at Project site, or during placement.
F. 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.
G. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete according to recommendations in ACI 301.
    1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand-spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
H. Screed pavement surfaces with a straightedge and strike off. Commence initial floating using bull floats or darbies to form 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 dry-shake surface treatments.
I. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove and replace with formed concrete.
J. Slip-Form Pavers: When automatic machine placement is used for pavement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce pavement to required thickness, lines, grades, finish, and jointing as required for formed pavement.
    1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.
K. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.
L. 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 air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
    2. Do not use frozen materials or materials containing ice or snow.
    3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.
M. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows when hot-weather conditions exist:

1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg F. 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. Cover reinforcement steel with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, reinforcement steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.6 CONCRETE FINISHING

A. General: Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and the 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. 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.
    2. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch (1.6 to 3 mm) deep with a stiff-bristled broom, perpendicular to line of traffic.

3.7 SPECIAL FINISHES

A. Monolithic Exposed Aggregate Finish: Expose coarse aggregate to pavement surfaces as follows:
    1. Immediately after floating, spray-apply chemical surface retarder to pavement according to manufacturer's written instructions.
    2. Cover with plastic sheeting, sealing laps with tape, and remove when ready to continue finishing operations.
    3. Without dislodging aggregate, remove excess mortar by lightly brushing surface with a stiff, nylon bristle broom.
    4. Fine-spray surface with water and brush. Repeat water flushing and brushing cycle until cement film is removed from aggregate surfaces to depth required.
B. Detectable Warning Surface: A detectable warning surface shall be installed the full width of all sidewalk ramps, and a continuous band along all sidewalks which are flush with vehicle areas.
    1. Unless noted otherwise, provide truncated dome detectable warning surfaces.

3.8 CONCRETE PROTECTION 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 follow recommendations in ACI 305R for hot-weather protection during curing.
B. Begin curing after finishing concrete, but not before free water has disappeared from concrete surface.

C. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:

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 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, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
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.

3.9 PAVEMENT TOLERANCES

A. Comply with tolerances of ACI 117 and as follows:
   1. ADA Paths, Ramps, etc.: Slopes shall not exceed maximums noted on the Drawings.

3.10 PAVEMENT MARKING

A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
B. Allow concrete pavement to cure for 28 days and be dry before starting pavement marking.
C. Sweep and clean surface to eliminate loose material and dust.
D. Apply paint with mechanical equipment to produce pavement markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils
   1. Broadcast glass spheres uniformly into wet pavement markings at a rate of 6 lb/gal. (0.72 kg/L).

3.11 WHEEL STOPS

A. Securely attach wheel stops into pavement with not less than two steel dowels embedded in holes cast into wheel stops. Firmly bond each dowel to wheel stop and to pavement. Extend upper portion of dowel 5 inches into wheel stop and lower portion a minimum of 5 inches into pavement.

3.12 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified independent testing and inspection agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Article.
B. Testing Services: Testing shall be performed according to the following requirements:
   1. Sampling Fresh Concrete: Representative samples of fresh concrete shall be obtained according to ASTM C 172, except modified for slump to comply with ASTM C 94.

2. Slump: ASTM C 143; one test at point of placement for each compressive-strength test, but not less than one test for each day's pour of each type of concrete. Additional tests will be required when concrete consistency changes.
3. Air Content: ASTM C 231, pressure method; one test for each compressive-strength test, but not less than one test for each day's pour of each type of air-entrained concrete.
4. Concrete Temperature: ASTM C 1064; 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 set of compressive-strength specimens.
5. Compression Test Specimens: ASTM C 31/C 31M; one set of four standard cylinders for each compressive-strength test, unless otherwise indicated. Cylinders shall be molded and stored for laboratory-cured test specimens unless field-cured test specimens are required.
6. Compressive-Strength Tests: ASTM C 39; one set for each day's pour of each concrete class exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. One specimen shall be tested at 7 days and two specimens at 28 days; one specimen shall be retained in reserve for later testing if required.
7. When frequency of testing will provide fewer than five compressive-strength tests for a given class of concrete, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
8. When total quantity of a given class of concrete is less than 50 cu. yd., Architect may waive compressive-strength testing if adequate evidence of satisfactory strength is provided.
9. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, current operations shall be evaluated and corrective procedures shall be provided for protecting and curing in-place concrete.
10. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive compressive-strength test results equal or exceed specified compressive strength and no individual compressive-strength test result falls below specified compressive strength by more than 500 psi.

C. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 24 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
D. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as the sole basis for approval or rejection.
E. Additional Tests: Testing agency shall make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Architect. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

3.13 REPAIRS AND PROTECTION

A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements in this Section.
B. Drill test cores where directed by Architect when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 32 4000

STORM DRAINAGE

PART 1 - GENERAL SCOPE

It is the intent to construct the described work on the plans and in accordance with these specifications and the State of Alabama Standard Specifications for Highway Construction 2008 Edition. These specifications are exclusive to the installation of the proposed underdrain, PVC storm sewer, yard inlets, junction boxes, and other connections to the existing drainage system.

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. This Section includes storm drainage outside the building.

1.3 DEFINITIONS
- A. PE: Polyethylene plastic.
- B. PVC: Polyvinyl Chloride.

1.4 SUBMITTALS
- A. Shop Drawings: Include plans, elevations, details, and attachments for the following:
  1. Precast concrete manholes and other structures, including frames, covers, and grates.

1.5 DELIVERY, STORAGE, AND HANDLING
- A. Protect pipe, pipe fittings, and seals from dirt and damage.
- B. Handle precast concrete manholes and other structures according to manufacturer's written instructions.

1.6 PROJECT CONDITIONS
- A. Site Information: Perform site reconnaissance, research public utility records, and verify existing utility locations.
- B. Locate existing structures and piping to be closed and abandoned.
- C. 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 Engineer and Owner not less than three days in advance of proposed utility interruptions.
  2. Do not proceed with utility interruptions without Engineer's written permission.

PART 2 - PRODUCTS

2.1 PIPES AND FITTINGS
- A. Provide pipe and pipe fitting materials that are compatible with one another.
- B. Corrugated HDPE Drainage Tubing and Fittings: AASHTO M 252, Type S, with smooth waterway for coupling joints.

1. **Silt-tight Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings to form silttight joints.**

C. Corrugated PVC Pipe and Fittings: Contech, A-2000 PVC or Approved Equal, AASHTO Sec 12 & ASTM F949, with smooth waterway for coupling joints.

1. **Watertight Couplings: Sleeve with ASTM D 3212, gasket material that mates with pipe and fittings to form silttight joints.**

D. Reinforced-Concrete Sewer Pipe and Fittings: ASTM C 76 (ASTM C 76M), Class III, Wall B, for gasketed joints.

1. **Gaskets: ASTM C 443 (ASTM C 443M), rubber.**

2.2 STORM DRAINAGE STRUCTURES

A. Normal-Traffic Precast Concrete: *ASTM C 478 (ASTM C 478M)*, precast, reinforced concrete, of depth indicated, with provision for rubber gasketed joints.
   1. Dimensions: *48 inches* minimum, unless otherwise indicated.
   2. Base Section: 8-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.
   3. Riser Sections: 5-inch minimum thickness and lengths to provide depth indicated.
   4. Manhole Top Section: Eccentric-cone type, unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
   5. Gaskets: ASTM C 443(ASTM C 443M), rubber, or as noted.
   6. Grade Rings: Include reinforced-concrete rings, of 9-inch maximum thickness, that match 24-inch diameter frame and cover. Brick may be used for grade rings.
   7. Steps: Fiberglass or polypropylene individual steps. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast or anchor into base, riser, and top section sidewalls with steps at 12- to 16-inch intervals. Omit steps for manholes less than 60 inches deep.
   8. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.

B. Cast-in-Place Concrete: Construct of reinforced-concrete bottom, walls, and top; designed according to ASTM C 890 for A-16, heavy-traffic, structural loading; of depth, shape, dimensions, and appurtenances indicated.
   1. Grade Rings: Include reinforced-concrete rings, of *9-inch* maximum total thickness, that match *24-inch* diameter frame and cover. Brick may also be used for grade rings.
   2. Steps: Fiberglass or polypropylene individual steps. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast or anchor into sidewalls with steps at 12- to 16-inch intervals. Omit steps for manholes less than 60 inches deep.

C. Manhole Frames, Grates, and Covers: ASTM A 48, Grade 60-40-18, gray-iron castings designed for heavy-duty service. Include *24-inch* ID by *7- to 9-inch* riser with *4-inch* minimum width flange, and *26-inch* diameter cover. Include indented top design with lettering "STORM SEWER" cast into cover.

D. Frames and Grates: ASTM A 48, Grade 60-40-18, gray iron designed for heavy-duty service. Include *24-inch* ID by *7- to 9-inch* riser with *4-inch* minimum width flange, and *26-inch* diameter flat grate with small square or short-slotted drainage openings.
   1. Grate Free Area: Approximately 50 percent, unless otherwise indicated.

2.3 STORMWATER INLETS

A. Yard Inlets (Nyoplast): Shall meet the dimensions, size, and depth as shown in the plans and be in accordance with installation, performance and material specifications of Advance Drainage Systems (ADS).
B. Area Inlets: Made with horizontal opening, of materials and dimensions according to utility standards when appropriate. Include heavy-duty frames and grates.
C. Frames and Grates: Heavy-duty frames and grates according to utility standards when appropriate.
D. Frames and Grates and Covers: Dimensions, opening pattern, free area, and other attributes indicated.
    1. Material: *ASTM A 48, Class 30 (ASTM A 48M, Class No. 200A)* minimum, gray-iron casting.
    2. Grate Free Area: Approximately 50 percent, unless otherwise indicated.

2.4 CONCRETE

A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
    1. Cement: ASTM C 150, Type II.
    2. Fine Aggregate: ASTM C 33, sand.
    3. Coarse Aggregate: ASTM C 33, crushed gravel.
    4. Water: Potable.
B. Portland cement Design Mix: *3000 psi* minimum, with 0.45 maximum water-cementitious ratio.
    1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
    2. Reinforcement Bars: ASTM A 615/A 615M, Grade 60, deformed steel.
C. Structure Channels and Benches: Factory or field formed from concrete. Portland cement design mix, *3000 psi* minimum, with 0.45 maximum water-cementitious ratio.
    1. Include channels and benches in manholes.
        a. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
            1) Invert Slope: 1 percent minimum through manhole.
        B. Benches: Concrete, sloped to drain into channel.
            1) Slope: 8 percent minimum.
    2. Include channels in catch basins.
        a. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
            1) Invert Slope: 1 percent minimum through catch basin.
D. Ballast and Pipe Supports: Portland cement design mix, *3000 psi (20.7 MPa)* minimum, with 0.58 maximum water-cementitious ratio.
    1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
    2. Reinforcement Bars: ASTM A 615/A 615M, *Grade 60*, deformed steel.

2.5 CLEANOUTS

A. PVC Cleanouts: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.

2.6 TRENCH DRAINS

A. Gray-Iron Trench Drains: ASME A112.21.1M, *6-inch* wide top surface, rectangular body with anchor flange or other anchoring device, and rectangular, secured grate. Include units of total lengths indicated and number of bottom outlets with inside calk or spigot connections, of sizes indicated. Use units with top-loading classifications according to the following applications:
   1. Medium Duty: In paved foot-traffic areas.
   2. Heavy Duty: In vehicle-traffic service areas.
   3. Extra-Heavy Duty: In roads.

2.7 PIPE OUTLETS

A. Head Walls: Precast reinforced concrete, with apron and tapered sides.
B. Riprap Apron: Broken, irregular size and shape, uniform graded stone.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.2 PIPING APPLICATIONS

A. General: Include silt-tight joints, unless watertight joints are indicated.
B. Refer to Part 2 of this Section for detailed specifications for pipe and fitting products listed below. Use pipe, fittings, and joining methods according to applications indicated.
C. Gravity-Flow Piping: Use the following:
   1. Reinforced-concrete sewer pipe and fittings, gaskets, and gasketed joints. Do not use non-reinforced pipe instead of reinforced concrete pipe.
   2. PVC sewer pipe and fittings, solvent-cemented joints, or gaskets and gasketed joints.
   3. Corrugated PE drainage tubing and fittings, silt-tight couplings, and coupled joints.

3.3 INSTALLATION, GENERAL

A. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
B. Use structures for changes in direction and size, unless fittings are indicated. Use fittings for branch connections, unless direct tap into existing sewer is indicated.
C. Extend storm drainage piping and connect to building's storm drains, of sizes and in locations indicated. Terminate piping as indicated.
D. For streets or other obstructions that cannot be disturbed, install pipe by tunneling, jacking, or a combination of both.

3.4 PIPE JOINT CONSTRUCTION AND INSTALLATION

A. General: Join and install pipe and fittings according to installations indicated.
B. Install with top surfaces of components, except piping, flush with finished surface.
C. Corrugated-Steel Pipe: Join and install according to ASTM A 798. Use soil-tight joints made with coupling bands and gaskets, unless otherwise indicated.
D. PE Pipe and Fittings: As follows:
    1. Join pipe, tubing, and fittings with couplings for silt-tight joints according to manufacturer's written instructions.
    2. Install according to ASTM D 2321 and manufacturer's written instructions.
    3. Install corrugated piping according to the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings" or Manufacturer's Recommended Practices.
E. Concrete Pipe and Fittings: Install according to ACPA's "Concrete Pipe Installation Manual." Use the following seals:
    1. Round Pipe and Fittings: ASTM C 443 (ASTM C 443M), rubber gaskets.
    2. Elliptical Pipe: ASTM C 877 (ASTM C 877M), Type I, sealing bands.
    3. Arch Pipe: ASTM C 877 (ASTM C 877M), Type I, sealing bands.
F. System Piping Joints: Make joints using system manufacturer's couplings, unless otherwise indicated.
G. Join piping made of different materials or dimensions with couplings made for this application. Use couplings that are compatible with and that fit both systems' materials and dimensions.

3.5 CONCRETE STRUCTURE INSTALLATION

A. General: Install manholes and structures, complete with appurtenances and accessories indicated.
B. Form continuous concrete channels and benches between inlets and outlet.
C. Set tops of frames and covers flush with finished surface of structures that occur in pavements. Set tops 3 inches above finished surface elsewhere, unless otherwise indicated.
D. Install precast concrete sections with gaskets according to ASTM C 891.
E. Construct cast-in-place structures as indicated.

3.6 STORM DRAINAGE INLET AND OUTLET INSTALLATION

A. Construct inlets to sizes and shapes indicated.
B. Set frames and grates to elevations indicated.
C. Construct inlet head walls, aprons, and sides of reinforced concrete, as indicated.
D. Install outlets that spill onto grade with flared end sections that match pipe where indicated.

3.7 CONCRETE PLACEMENT

A. Place cast-in-place concrete according to ACI 318 and ACI 350R.

3.8 PLASTIC TRENCH DRAIN SYSTEM INSTALLATION

A. Assemble and install components according to manufacturer's written instructions.
B. Install with top surfaces of components, except piping, flush with finished surface.
C. Assemble channel sections to form slope down toward drain outlets. Use sealants, adhesives, fasteners, and other materials recommended by system manufacturer.

D. Embed channel sections and drainage specialties in 4-inch minimum concrete around bottom and sides.
E. Fasten grates to channel sections if indicated.
F. Assemble trench sections with flanged joints.
G. Embed trench sections and drainage specialties in 4-inch minimum concrete around bottom and sides.

3.9 CLEANOUT INSTALLATION

A. Install cleanouts and riser extension from pipe to cleanout at grade. Use cast-iron soil pipe fittings in pipes at branches for cleanouts and cast-iron soil pipe for riser extensions to cleanouts. Install piping so cleanouts open in direction of flow in pipe.
B. Set cleanout frames and covers in earth in cast-in-place concrete block, 18 by 18 by 12 inches deep. Set with tops flush with surrounding finished grade.
C. Set cleanout frames and covers in concrete pavement with tops flush with pavement surface.

3.10 TRENCH DRAIN INSTALLATION

A. Install type of drains in locations indicated.
B. Embed drains in *4-inch* minimum depth of concrete around bottom and sides.
C. Fasten grates to drains if indicated.
D. Set drain frames and covers with tops flush with pavement surface.

3.11 TAP CONNECTIONS

A. Make connections to existing piping and underground structures so finished Work complies as nearly as practical with requirements specified for new Work.
B. Protect existing piping and structures to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.
C. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe; install wye fitting into existing piping; and encase entire wye fitting, plus 6-inch overlap, with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
D. Make branch connections from side into existing piping, NPS 4 to NPS 20. Remove section of existing pipe; install wye fitting into existing piping; and encase entire wye with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
E. Make branch connections from side into existing piping, NPS 21 or larger, or to underground structures by cutting opening into existing unit large enough to allow 3 inches of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of and be flush with inside wall, unless otherwise indicated. On outside of pipe or structure wall, encase entering connection in 6 inches of concrete for minimum length of 12 inches to provide additional support of collar from connection to undisturbed ground.
    1. Use concrete that will attain minimum 28-day compressive strength of *3000 psi*, unless otherwise indicated.
    2. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.

3.12 CLOSING ABANDONED STORM DRAINAGE SYSTEMS

A. Abandoned Piping: Close open ends of abandoned underground piping indicated to remain in place. Include closures strong enough to withstand hydrostatic and earth pressures that may result after ends of abandoned piping have been closed. Use either procedure below:
   1. Close open ends of piping with at least 8-inch thick, brick masonry bulkheads.
   2. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods suitable for size and type of material being closed. Do not use wood plugs.

B. Abandoned Structures: Excavate around structure as required and use one procedure below:
   1. Remove structure and close open ends of remaining piping.
   2. Remove top of structure down to at least 36 inches below final grade. Fill to within 12 inches of top with stone, rubble, gravel, or compacted dirt. Fill to top with concrete.
   3. Backfill to grade according to Division 2 Section "Earthwork."

3.13 FIELD QUALITY CONTROL

A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
   1. In large, accessible piping, brushes and brooms may be used for cleaning.
   2. Place plug in end of incomplete piping at end of day and when work stops.
   3. Flush piping between manholes and other structures to remove collected debris, if required by authorities having jurisdiction.

B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately *24 inches* of backfill is in place, and again at completion of Project.
   1. Defects requiring correction include the following:
      a. Alignment: Less than full diameter of inside of pipe is visible between structures.
      b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
      c. Crushed, broken, cracked, or otherwise damaged piping.
      d. Infiltration: Water leakage into piping.
      e. Exfiltration: Water leakage from or around piping.
   2. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
   3. Re-inspect and repeat procedure until results are satisfactory.

C. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
   1. Do not enclose, cover, or put into service before inspection and approval.
   2. Test completed piping systems according to authorities having jurisdiction.
   3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
   4. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

END OF SECTION 33 6000

METAL BUILDING SYSTEM

PART 1 – GENERAL SCOPE

1.1. SCOPE

A. The Contractor shall provide a designed engineered and fabricated metal building system that meets the dimensional representation in the drawings and the following design criteria.
   1. International Building Code 2006
   2. Wind Speed 130 mph (3 second gust).
      - Exposure “B”
      - Importance Factor 1.0
      - Enclosure Classification “Enclosed”
      - Drift Deflection: Standard
      - Additional Loads 2 psi
   3. Roof Design Live loads 20 psf
   4. 30’ (w) X 50’ (l) X 12’ (ht)
      26 GA Galvalune Plus “PBR” Rof (3:12)
      26 GA Standard Color “PBR” Wall Panels
   5. Symmetrical Gable
   6. Wall System – 2 HR Fire Rated, all sides (IBC 2006, Chapter 7, Section 705)

1.2. BASIC BUILDING TYPES

A. Symmetrical Gable is a continuous frame building with the ridge in the center of the building, consisting of tapered or straight columns and tapered or straight rafters. Sidewall and endwall girts typically by-pass the columns, but they may be flush in the column line. The building may or may not have interior columns.

PART 2 – DRAWINGS

2.1 The Contractor shall furnish the following: drawings with all metal building systems for the proper identification and assembly of building components.

A. Anchor Bolt Plan: Shows the diameter, length location and projection of all anchor bolts for the components of the metal building system. Column reactions will also be shown.

B. Erection Drawings: Roof and wall erection (framing) drawings that identify individual components and accessories in sufficient detail to permit proper erection of the metal building system.

C. Certifications: All standard drawings sets will contain summarized engineering data and will bear the seal of a registered professional engineer. Detailed design calculations will be kept on file and will be available on request.

PART 3 - STRUCTURAL STEEL DESIGN

3.1 GENERAL

A. The metal building design shall use standards, specifications, recommendations, findings

and/or interpretations of professionally recognized groups such as American Institute of Steel Construction (AISC), American Iron and Steel Institute (AISI), American Welding Society (AWS), ASTM International (formerly the American Society for Testing and Materials, ASTM), Metal Building Manufacturer's Association (MBMA), and the Society for Protective Coatings (SSPC) as the basis for establishing engineering, design, fabrication, and quality criteria, practices, and tolerances. The engineering, design, fabrication and quality criteria, practices, and tolerances shall govern, unless specifically stated otherwise in the contract documents.

B. Structural mill, or welded up plate components shall be designed in accordance with AISC's "Specification for Structural Steel for Buildings," latest edition using ASD or LRFD method.
C. Cold-formed steel structural members will be designed in accordance with AISI's "Specification for the Design of Cold-formed Steel Structural Members," latest edition.

3.2 DESIGN LOADS

Design loads shall be as specified on the drawings and set forth in the contract documents. Design loads typically include dead load, live loads; seismic loads wind loads collateral loads, auxiliary loads, floor loads, and other specified loads. Loads are also affected by importance factors based on the intended use of the building and deflection limits based on materials used in the building.

3.3 DEFLECTION AND DRIFT

The design shall incorporate serviceability limits from the applicable building codes and professional standards. Owner requirements that exceed standards must be included in the building contract documents. The applicable building code may also provide deflection limitations. "Flexible Ceiling" schedule will be used for buildings that have suspended or sheet rock ceilings. "Flexible Wall" schedule will be used for buildings that have some type of flexible exterior wall material (e.g., wood or HardiePlank®). "Brittle Ceiling" schedule will be used for buildings that have plaster ceilings. "Brittle Wall" schedule will be used for buildings that have masonry, glass, stucco, EIFS, or similar type materials.

SEE NEXT PAGE

Metal Roof & Wall Panels	
Endwall Column	*L/120*
Endwall Rafter (live)	*L/180*
Endwall Rafter (wind)	*L/180*
Wall Girt	*L/90*
Roof Purlins (live)	*L/150*
Roof Purlins (wind)	*L/150*
Wall Panel	*L/60*
Roof Panel (live)	*L/60*
Roof Panel (wind)	*L/60*
Rigid Frame (horizontal)	*H/60*
Rigid Frame (vertical)	*L/180*
Wind Framing	*H/60*

Flexible Walls	
Endwall Column	*L/120*
Endwall Rafter (live)	*L/180*
Endwall Rafter (wind)	*L/180*
Wall Girt	*L/120*
Roof Purlins (live)	*L/150*
Roof Purlins (wind)	*L/150*
Wall Panel	*L/60*
Roof Panel (live)	*L/60*
Roof Panel (wind)	*L/60*
Rigid Frame (horizontal)	*H/60*
Rigid Frame (vertical)	*L/180*
Wind Framing	*H/60*

Brittle Walls	
Endwall Column	*L/240*
Endwall Rafter (live)	*L/180*
Endwall Rafter (wind)	*L/180*
Wall Girt	*L/240*
Roof Purlins (live)	*L/150*
Roof Purlins (wind)	*L/150*
Wall Panel	*L/60**
Roof Panel (live)	*L/60*
Roof Panel (wind)	*L/60*
Rigid Frame (horizontal)	*H/120*
Rigid Frame (vertical)	*L/180*
Wind Framing	*H/120*

PART 4 - BASIC MATERIAL SPECIFICATIONS

4.1 PRIMARY FRAMING STEEL

A. Steel for Wide-Flange Beams shall conform to the requirements of ASTM Specification A992 Grade 50, with a minimum yield of 50 ksi. All other hot-rolled shapes, including Channels and S-Beams, shall conform to ASTM A-36 or A-572, with a minimum yield of 36 ksi.

B. Steel for the web and flange portions of built-up sections shall conform to ASTM A-1011, A 529, A 572 or ASTM A-36 as applicable, with minimum yield of from 42 to55 ksi as indicated by the design requirements.

C. Pipe shall conform to the requirements of ASTM A 53 Grade B with a minimum yield strength of 35 ksi.

D. X-Bracing shall conform to ASTM A 36 for rod bracing and ASTM A 475 for cable bracing.

4.2. SECONDARY FRAMING STEEL

A. Steel for purlins, girts, eave struts, and “C” sections shall conform to the requirements of ASTM A-1011 Grade 55. Minimum yield shall be 55 ksi.

B. Steel used to form galvanized purlins, girts, eave struts, and “C” sections shall conform to the requirements of ASTM A-653 G90 Grade 55. Minimum yield shall be 55 ksi.

4.3 ROOF AND WALL PANEL MATERIAL

A. Panel material specified as 26 gauge (.0185 min.) shall be Galvalume® or Galvalume® Plus material conforming to the requirements of ASTM A792 Grade 80. Minimum yield stress shall be 80 ksi (industry standard Grade E.)

PART 5 - STRUCTURAL FRAMING SPECIFICATIONS

5.1 GENERAL

A. All framing members shall be shop fabricated for field bolted assembly. The surfaces of the bolted connections shall be smooth and free from burrs or distortions.

B. All shop-welded connections shall be in accordance with the American Welding Society (AWS) Code for Building Construction.

C. All framing members, where necessary, shall have an identifying mark.

D. Visual inspection methods will be used for verification of weld quality as outlined by the AWS Structural Steel Welding Code, Visual Inspection Acceptance Criteria, Table 6.1

5.2. PRIMARY FRAMING

A. Rigid Frame: All rigid frames shall be welded built-up sections or mill shapes as required by design specifications. The built-up columns and rafters may be either constant or tapered depth. Flanges shall be connected to webs by means of a continuous fillet weld on one side.

B. Endwall Frames: All endwall roof beams and endwall columns shall be mill-rolled sections, or built-up “I” sections depending on design requirements.

C. Plates, Stiffeners, etc.: All base plates splice plates, cap plates, and stiffeners shall be factory welded into place on the structural members.

D. Bolt Holes: All base plates, splices, and flanges shall be shop fabricated to include bolt connection holes. Webs shall be shop fabricated to include bracing holes.

5.3 SECONDARY FRAMING

A. Minimum decimal equivalent thicknesses for gauges are as follows:
   16 Gauge 0.059 inches
   14 Gauge 0.070 inches
   12 Gauge 0.105 inches
B. Purlins and Girts: Purlins and girts shall be cold-formed "Z" sections with stiffened flanges. They shall be pre-punched at the factory to provide for field bolting to. They shall be flush or by-pass as required by design and the contract documents. Connection bolts will install through the webs and flanges as necessary.
C. Eave Struts: Eave Struts shall be unequal flange cold-formed "C" sections.
D. Base Angle: A base member will be supplied by which the base of the wall covering may be attached to the perimeter of the slab. Base angle shall be secured to the concrete slab with expansion anchors.

5.4. BRACING

A. Diagonal Bracing: Diagonal bracing in the roof and sidewalls shall be used to remove longitudinal loads (wind, crane, etc.) from the structure. This bracing will be furnished to length and equipped with a bevel washer, flat washer, and nut at each end. It may consist of rods threaded at each end or galvanized cable with suitable threaded-end eyebolts. If load requirements so dictate, bracing may be of structural angle and/or pipe, bolted in place.
B. Flange Bracing: The compression flange of all primary framing shall be braced laterally with angles connecting to the webs of purlins or girts so that the flange compressive stress is within allowable limits for any combination of loadings.
C. Special Bracing: When load requirements or window and door placements do not allow diagonal bracing, a wind bent frame, wind column, or fixed base columns will be used.

PART 6 - ROOF AND WALL COVERING

6.1 GENERAL

A. Standard roof and wall panels shall be "PBR" profile.

6.2 STANDARD PANEL DESCRIPTION

A. "PBR" profile panels shall have major ribs 1 ¼" high spaced 12" on center, with a purlin bearing leg. In the flat area between the major ribs are two smaller ribs. Each panel shall provide 36" net coverage in width. All sidelaps shall be at least one major rib.
B. Panel Length: All wall panels shall be continuous from sill to roofline and all roof panels shall be continuous from eave to ridge except where lengths become prohibitive for handling purposes. All end laps shall be at least 6" on roof, 4" on walls, and 3" on wall lights.
C. Endwall Edge Cuts: All endwall panels for buildings with 1:12, or less, roof slope shall be square cut. All endwall panels for buildings with more than a 1:12 roof slope shall be bevel cut in the field by the building erector if necessary.

PART 7 - MISCELLANEOUS MATERIAL SPECIFICATIONS

7.1 FASTENERS

A. Structural Bolts:
   1. All bolts used in frame splices shall comply with ASTM A325 or A325T. The nuts used shall comply with ASTM 563, and the washers, when specified, shall comply with ASTM A436.
   2. All bolts used in connections of secondary framing to primary framing shall be zinc plated ANSI Grade 2, ASTM A307. The nuts used shall comply with ASTM 563, and the washers, when specified, shall comply with ASTM 844.

B. Fasteners for Roof Panels: All panels shall be attached to the secondary framing members by means of #12-14 x 1-1/4" self-drilling structural carbon steel screws with a long-life zinc-alloy head, with or without paint, assembled with an EPDM washer. These fasteners are applicable for use with fiberglass blanket insulation up to 4" thick. If no roof insulation is present, #12 x 1 self-drilling screws with a long-life zinc alloy head and EPDM washers will be used. All self-drilling lap screws are ¼"-14 x 7/8" with a long-life zinc alloy head and EPDM washer, regardless of structural screw length.

C. Fasteners for Wall Panels: Wall panels shall be attached to the secondary framing members by means of a self-drilling fastener made of carbon steel, #12 x 1-1/4" hex washer head with EPDM washers for fiberglass insulation up to 3" thick and #12 x 1-1/2" for fiberglass insulation 4" to 6" thick. If no wall insulation is present, #12 x 3/4" hex washer head screws with EPDM washers will be used. Screws for panel laps shall be with self-drilling ¼"-14 x 7/8" hex washer head with EPDM washers.

D. Anchor Bolts: All anchor bolts shall comply with ASTM F1554.

7.2 SEALANTS AND CLOSURES

A. Closure Strips: The corrugations of the roof and wall panels shall be filled with solid or closed-cell, preformed rubber, neoprene or polyethylene closures where required.

B. Sealants: Roof panels shall be installed with a tape sealer. This material shall be a butyl base elastic compound with a minimum solid content of 99%, and shall be Schnee-Morehead #5227 or equal. The sealer shall have good adhesion to metal and be non-staining, non-corrosive, non-shrinking, non-oxidizing, nontoxic and non-volatile.

7.3 GUTTER, FLASHING & DOWNSPOUTS

A. Gutters and Flashing: Gutters and rake shall be 26 (.0185 min.) gauge Galvalume® or Galvalume® Plus steel conforming to ASTM A792, with a minimum yield of 50 ksi (industry standards Grade D).

B. Downspouts: All downspouts shall be rectangular in shape and shall be 26 gauge (.0185 min.) Galvalume® or Galvalume® Plus steel conforming to ASTM A792, with a minimum yield of 50 ksi (industry standards Grade D).

PART 8 - PAINTING

8.1 STRUCTURAL PAINTING

A. All uncoated structural steel shall be cleaned and primed as required by the Society for Protective Coatings (SSPC) as follows:
   1. Primary framing steel preparation specification shall be SSPC-SP 2
   2 Primary framing will be painted with standard red oxide primer.

B. Pre-coated cold-form members shall be cleaned according to SSPC-SP 8 or SSPC-SP 6, and then chemically pretreated before being coated with a minimum of .5 mils of polyester based red primer. The primer contains a “wax” type lubricant to facilitate roll-forming and deter marring during these operations. Hairline crazing, which may occur during forming operations, is considered normal. Special preparation is required before a finish coat can be applied over this “wax” finish.
   Note: Primer systems are not intended as finish coat paint systems and do not offer the uniformity of appearance, durability or corrosion resistance of a top coat applied over a primer. Primers are designed to promote the wetting action and adhesion of a top coat and offer only short-term corrosion protection from ordinary atmospheric exposure. Primer is compatible only for top coating with solvent-based alkyd and modified alkyd top coat paints. Abrasions caused by handling after paintings as well as the flaking of tight mill scale are to be expected.

8.2 PAINTED PANELS

A. The painted panel exterior finish shall be either Siliconized Polyester, or Kynar 500 as specified in the contract documents.
B. The exterior panel shall match the existing color on the Theatre 98 Building.
C. Interior Finish: The painted panel interior finish shall have a white or parchment top coat over epoxy primer or an epoxy base coat, white or parchment, with a clear polyester top coat.

PART 9 - ACCESSORIES

9.1 WINDOWS

Standard windows shall be self-framing horizontal slide, vertical single hung or fixed narrow lite units. They are available in a variety of sizes (by others).

9.2 PERSONNEL DOORS

A. Personnel door shall be 3’ x 7’ single leaf, 4’ x 7’ single leaf or 6’ x 7’ double leaf manufactured from 20 gauge galvanized steel.
B. Door leafs shall have an embossed finish with a white prime coat.
C. Door leafs shall be solid, half glass, or side vision (narrow lite).
D. Doors shall be constructed for non-hand installation.
E. The standard lockset shall have a lever passage handle.

9.3 OVERHEAD DOORS

A. Doors will be Overhead Door Corporation Model 790 unless otherwise specified.
B. Doors shall be designed to resist applicable wind loads and are available in a variety of sizes.
C. Door Framing: Overhead door support framing shall be designed to resist applicable wind loads and shall typically consist of cold-formed “C” jambs with a cold-formed “C” header at the top of the opening. Cold-formed “C” framing will be galvanized unless specified otherwise If wind loads are sufficiently high or other factors warrant it, mill-rolled channels will be used in lieu of cold-rolled “C” sections. Mill-rolled channels will be primer painted unless otherwise specified.

9.4 GRAVITY VENTILATORS

A. Gravity ridge ventilators shall be manufactured from Galvalume® A792 Grade 50 pre-painted or bare. The ventilator body shall be 26 gauge (.0185 min.) with flat skirts and shall be pre-formed for a 1:12 pitch. Ventilators shall be equipped with birdscreens, dampers, and riveted end caps. Ventilators shall be 10' long and have a 9" throat. Twelve inch throat ventilators are available as an option.
B. Round ventilators shall be 24 gauge and shall have an adjustable base for ridge mounting or a pitched base for on-slope mounting.

9.5 LOUVERS

Louver frames shall be 18 gauge galvanized steel frame with 20 gauge blades, and shall be self-framing and self-flashing. The color shall be as specified by the customer. They shall be equipped with adjustable or fixed blades as specified.

9.6 LIGHT TRANSMITTING PANELS

High Strength light transmitting panels are fiberglass reinforced polyester and shall comply with ASTM D3841, Type CC2, and Grade 2. Standard light transmitting panels will match "PBR" roof panels.

9.7 INSULATION

A. Fiberglass Blanket Insulation shall conform to ASTM specification C991 NAIMA 404. Standard insulation shall be 3" and 4" thick. (R-10 and R-13 respectively). Other insulation systems with higher R values are available.
B. The standard facing for fiberglass insulation shall be reinforced white vinyl – WMP-VR. Other facings are available.

PART 10 - ERECTION AND INSTALLATION

A. Building erection and the installation of accessories shall be performed in accordance with erection drawings or an otherwise qualified erector using proper tools and equipment. Erection practices shall conform to MBMA's Metal Building Systems Manual, latest edition
B. There shall be no field modifications to primary structural members.

PART 11 - BUILDING ANCHORAGE AND FOUNDATION

A. The building anchor bolts shall be designed to resist the maximum column reactions resulting from the specified combinations of loadings. These designs and sizes of the anchor bolts will be supplied by the metal building manufacturer.
B. Foundations shall be adequately designed by a qualified foundation engineer to support the building reactions and other loads that may be imposed by the building use. The design shall be based on the specific soil conditions of the building site.

END OF SECTION

SODDING

PART 1 - GENERAL SCOPE

Refer to Alabama Department of Transportation Standard Specifications for Highway Construction 2008 Edition. Section 654 (Solid Sodding); Section 651 (Ground Preparation). Disturbed areas shall be covered with St. Augustine solid sod in accordance with these specifications.

1.1 SUMMARY
- A. Section Includes:
  1. Sod installation.
  2. Maintenance.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT
- A. Sodded Areas:
  1. Basis of Measurement: By square yard.
  2. Basis of Payment: Includes preparation of subsoil, sodding, pinning where needed, watering and maintenance until accepted. Acceptance of sodded areas will be based on verification of the establishment of a well knitted, living, growing sod covering the areas designated to be sodded. If an acceptable stand of living and growing sod is not obtained, the area shall be resodded without additional cost to the owner. A “living and growing sod” shall be interpreted to include sod that is seasonally dormant during the cold or dry season with roots that have taken hold on the sod and capable of growing off after the dormant period.

1.3 REFERENCES
- A. ASTM International:
  1. ASTM C602 - Standard Specification for Agricultural Liming Materials.
- B. Turfgrass Producers International:
  1. TPI - Guideline Specifications to Turfgrass Sodding.

1.4 DEFINITIONS
- A. Weeds: Vegetative species other than specified species to be established in given area.

1.5 SUBMITTALS
- A. Product Data: Submit data for sod grass species, fertilizer, mulch, and other accessories.

1.6 QUALITY ASSURANCE
- A. Sod: Root development capable of supporting its own weight without tearing, when suspended vertically by holding upper two corners.

1.7 QUALIFICATIONS
- A. Sod Producer: Company specializing in manufacturing Products specified in this section with minimum three years experience.
- B. Installer: Company specializing in performing work of this section with minimum three years experience.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver sod in rolls. Protect exposed roots from dehydration.
B. Do not deliver more sod than can be laid within 24 hours.

PART 2 - PRODUCTS

2.1 SOD

A. Sod: Approved Field grown; cultivated grass sod; type as directed by Owner; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 10 weeds per 1000 sq ft.

2.2 SOIL MATERIALS

A. Topsoil: Excavated from site and free of weeds.

2.3 ACCESSORIES

A. Fertilizer: Commercial grade; recommended for specified grass, with fifty percent of elements derived from organic sources; of proportion necessary to eliminate deficiencies of topsoil. Apply in accordance with manufacturer's recommendation.
B. Water: Clean, fresh and free of substances or matter capable of inhibiting vigorous growth of grass.
C. Wood Pegs: Softwood, sufficient size and length to anchor sod on slope.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verify prepared soil base is ready to receive the Work of this section.

3.2 LAYING SOD

A. Moisten prepared surface immediately prior to laying sod.
B. Lay sod within 24 hours after harvesting to prevent deterioration.
C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
D. After sod and soil have dried, roll sodded areas to bond sod to soil and to remove minor depressions and irregularities.