EASTERWOOD AIRPORT
TERMINAL IMPROVEMENTS – PHASE 1
COLLEGE STATION, TEXAS

ADDENDUM NO. 1
May 22, 2015

RS&H, Inc.
Houston, Texas

The following changes shall be made to the Construction Documents, which bear the above title and project number and the cover page dated 5/1/15.

CHANGES TO PROJECT MANUAL (Vol 1)

Item No. 1: All Locations:
A. Change all instances of AIP No. to 3-48-0047-036-2015

Item No. 2: Table of Contents
A. Replace Pages TOC-1 thru TOC-7 with attached pages TOC-1 thru TOC-7

Item No. 3: Bid Information:
A. Invitation to Bid: Change sentence in paragraph 4 from … he will enter into a contract and furnish the necessary bids and insure certificates within twenty (20) days from date of notice of award… to … he will enter into a contract and furnish the necessary bids and insure certificates within fifteen (15) days from date of notice of award…
B. Instruction to Bidders: Section VII, Part D - Remove Proposal Form 6: Bid Bond from the list of forms required at time of proposal submittal.
C. Change the sentence in the second to last paragraph in Section X Surety Bond from The additional premium cost shall be defined on Bid Schedule, TOTAL ADDITIONAL PREMIUM COSTS and that amount shall be inserted in Bid Item I-1, page P-32 to The additional premium cost shall be defined on Proposal Form 2: Bid Schedule, Bid Schedule A Item No P-001-4 - TOTAL ADDITIONAL PREMIUM COSTS.
D. Change Section XI Third Party Coverage to the following:
A. The bidding documents require the Bidder to name the Architect/Engineer and the Owner as additional insureds. The bidder shall show the premium cost for the additional insureds on Proposal Form 2: Bid Schedule, Bid Schedule A Item No P-001-5 – INSURANCE REQUIREMENTS FOR THIS PROJECT.

The Bidder shall submit documentation for actual premium costs as part of the proposal submittal which do not reflect any overhead, profit, or other hidden costs.

Item No. 4: Proposal Forms:
A. Delete Proposal Form 6: Bind Bond from the Project Manual
B. Replace Proposal Form 2 Bid Schedule pages P-3 thru P-4 with attached Proposal Form 2 Bid Schedule pages P-3 thru P-6.
C. Change page number of Proposal Forms 3 thru SSC Bid Form and Bid Schedule from P-5 to P-7
D. Change page number of Proposal Form 4 Proposal Affidavit from P-6 to P-8
E. Change page number of Proposal Form 5 Proposal Bond from P-7 to P-9
F. Increase page numbers of Proposal Forms 7 thru 18 by 1 number (Match TOC).
G. Proposal Form 1: Change sentence in paragraph 3 from The Bidder agrees that, upon receipt of notice of to award, he will, within 20 calendar days… to The Bidder agrees that, upon receipt of notice of to award, he will, within 15 calendar days…
H. Proposal Form 3: Add following note to bottom of the last page of Proposal Form 3 SSC Bid Form and Bid Schedule: Division costs are not required to be included in the Total Price Column on pages 3 & 4; however, a Total Contract Cost on Page 4 shall be included.
I. Proposal Form 5: Change sentence in item #2 from …within (20) days after notice that the said Proposal is accepted,… to …within (15) days after notice that the said Proposal is accepted,…

J. Replace Proposal Form 17: Non-Collusion Affidavit with attached Proposal Form 17: Non-Collusion Affidavit

Item No. 5: General Conditions:
A. Replace Uniform General and Supplementary Conditions (UGSC) pages 1 thru 57 with attached Uniform General and Supplementary Conditions (UGSC) pages 1 thru 52.

Item No. 6: FAA General Conditions:
A. Section 60-05: Strikeout Section 60-05 in its entirety.

Item No. 7: Special Conditions:
B. Replace SSC Special Conditions pages 1 thru 11 dated 7-9-14 with attached SSC Special Conditions pages 1 thru 8 dated 9-18-14.

CHANGES TO PROJECT MANUAL (Vol 2)

Item No. 1: All Locations:
A. Change all instances of AIP No. to 3-48-0047-036-2015

Item No. 2: Table of Contents
A. Replace Pages TOC-1 thru TOC-7 with attached pages TOC-1 thru TOC-7

Item No. 3: Specification P-001 – Terminal Improvements
A. Add the following to Specification P-001 Section 2.2-B

   Section P-001-4 TOTAL ADDITIONAL PREMIUM COSTS – Per Lump Sum
   Section P-001-5 INSURANCE REQUIREMENTS FOR THIS PROJECT – Per Lump Sum

Item No. 4: Specification 01.03.00 – Alternates
A. Add the following to Specification 01.03.00 Section 3.1:

   Alternate No. 2 – Pre-Cast Concrete Stair:

   1. The stairs on the southeast corner of the limits of work shall be metal stairs in the base bid. Alternate No 2 shall be pre-cast concrete stairs as detailed on the drawings. Only the Stair costs and additional foundation requirements shall be part of the Alternate. Minor differences in the remainder of project due to different types of stair systems shall be considered incidental to the project.

Item No. 5: Specification - P-152 Excavation, Subgrade and Embankment
A. Strikeout Section 152.2-10 in its entirety.

Item No. 6: Specification - P-605 Joint Sealants for Concrete Pavements
A. Add Specification “Section P-605 Joint Sealants for Concrete Pavements” in the Contract Documents

Item No. 7: Specification - P-610 Structural Portland Cement Concrete
A. Add Specification “Section P-610 Structural Portland Cement Concrete” in the Contract Documents

Item No. 8: Specification - 06.40.20 Interior Architectural Woodwork:
A. Add Specification “Section 06.40.20 Interior Architectural Woodwork” in the Contract Documents.
Item No. 9: Specification - 10.15.50 Toilet and Compartments:
A. Add Specification “Section 10.15.50 Toilet and Compartments” in the Contract Documents.

Item No. 10: Specification - 10.42.50 Signs:
A. Add Specification “Section 10.42.50 Signs” in the Contract Documents.

Item No. 11: Specification - 10.80.10 Toilet and Bath Accessories:
A. Add Specification “Section 10.80.10 Toilet and Bath Accessories” in the Contract Documents.

Item No. 12: Specification – 32.16.13 Concrete Curb and Gutter:
A. Change all references from Section 03.30.00—Cast-in-Place Concrete to Section P-610 Structural Portland Cement Concrete.

Item No. 13: Specification – 32.16.14 Concrete Sidewalk:
A. Change all references from Section 03.30.00—Cast-in-Place Concrete to Section P-610 Structural Portland Cement Concrete.

CHANGES TO DRAWINGS
Item No. 1: Drawing sheet C-002
A. Shift Contact Information text to be directly under Note 9. Fines
B. Add Josh Abramson – Airport Manager (979) 845-8511 to contact information list.
C. Modify Safety Note #1 Sentence 2 from The Contractor shall designate to the RPR, Airport Construction Manager… to The Contractor shall designate to the Resident Project Representative (RFP), Airport Construction Manager…
D. Modify Safety Note #8 Last Sentence from … the safety requirements defined Federal Aviation Regulations (FAR) Part 139… to … the safety requirements defined in Federal Aviation Regulations (FAR) Part 139…

Item No. 2: Drawing sheet C-003
A. Modify General Contract Notes #1 Sentence 1 from Location of Haul Routes on the Airport Site shall be as specified on the plans or as approved by the RPR, Location of Haul Routes on the Airport Site shall be as specified on the plans or as approved by the Resident Project Representative (RFP).

Item No. 3: Drawing sheet C-004
A. Change Phasing Notes numbering from 1 thru 5 to 2 thru 6.
B. Add the following to the Phasing Notes: 1. All Exterior Construction Work for this Project will be done in One Phase.

Item No. 4: Drawing sheet C-100
A. Replace Drawings sheet C-100 with the attached revised Drawing sheet with “ADD-1/C-100” in the title block leader.

Item No. 5: Drawing sheet C-200
A. Plan View:
   a. Change leader note Proposed Communication Handhole to Communication Handhole. See Note #6
   b. Change leader note from Proposed 2-2” Communication conduits. See Technology Plan for more information to 2-2” Communication conduits. See Note #6.
   c. Add the following to Notes: 6. Communication Handhole shall be 16”x22” Quazite Enclosure (embedded in walk-Tier 15) or equal. Run 2-2” empty conduits (PVC rigid below ground/ rigid steel above ground) as indicated on plan. Run shall run vertical up stair column and below stair riser/ upper landing (conceal from view), thru building wall (provide watertight opening/maintain wall rating), route to Comm Room 108. Label handhole cover “COMM”.

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ADDENDUM NO.1
May 22, 2015
Item No. 6: Drawing sheet C-201
A. Change the Leader Note between columns B-7.1 & A.1-9 from Expansion Joint to Expansion Joint (See Detail this Sheet)

Item No. 7: Drawing sheet A-121
A. Replace Drawings sheet A-121 with the attached revised Drawing sheet with “ADD-1/A-121” in the title block.

Item No. 8: Drawing sheet A-220

Item No. 9: Drawing sheet A-221
A. Replace Drawings sheet A-221 with the attached revised Drawing sheet with “ADD-1/A-221” in the title block.

Item No. 10: Drawing sheet A-300
A. Replace Drawings sheet A-300 with the attached revised Drawing sheet with “ADD-1/A-300” in the title block.

Item No. 11: Drawing sheet A-400
A. Delete note “BOLLARD BEYOND” on Section 1/A-400. (No Bollards required at stairs).

Item No. 12: Drawing Sheet A-503
A. Revise Drawings sheet A-503 as indicated on the attached sketch with “ADD-01/A-A503” in the title block.

Item No. 13: Drawing sheet A-510

Item No. 14: Drawing sheet A-601

Item No. 15: Drawing sheet A-700

Item No. 16: Drawing sheet S-110
A. Add the following to the sheet notes: 5 New Work Shown this Sheet East of Column Line C shall be included as part of Alternate #2 – Precast Concrete Stairs.

Item No. 17: Drawing sheet S-120
A. Add the following to the sheet notes:

4. Maximum Allowable Core Size for Electrical Conduits serving Holdroom seating chairs shall be 3”∅. Contractor shall not cut Prestressed Hollow Core Plank Reinforcement. One core per Hollow Core Plank permitted. Electrical Equipment shall be surface floor mounted and not recessed into Hollow Core Planks.

5. New Work Shown this Sheet East of Column Line C and south of Column line 9 shall be include as part of Alternate #2 – Precast Concrete Stairs.
Item No. 18: Drawing sheets S-201
A. Split Section 1/S-201 into two sections where the column splits. The top half of the column shall become 11/S-201, the lower portion of the column and pier remain 1/S-201.
B. Change leader note on 1/S-201 from Column to Column, See 11/S-201 or 3/S-202 for continuation
C. Add the following to 11/S-201: Note: See 1/S-201 for Continuation

Item No. 19: Drawing sheets S-202
A. Add Drawing sheets S-202 with the attached Drawing sheet with “ADD-1/S-202” in the title block.

Item No. 20: Drawing sheet E1
A. Replace Drawings sheet E1 with the attached revised drawing sheet with “ADD-1/E1” in the title block.

Item No. 21: Drawing sheet E2
A. Replace Drawings sheet E2 with the attached revised drawing sheet with “ADD-1/E2” in the title block.

Item No. 22: Drawing sheet T-121
A. Add a TV to wall along column line M at column line 8. Add leader note pointing to TV stating Display-4 and add hex note #1 to leader note.
B. Add a TV to wall along column line “10.4” at column line “D.5” (At chase wall). Add leader note pointing to TV stating Display-5 and add hex note #1 to leader note.
C. Add a TV to wall along column line “10.4” at column line “C.6” (At chase wall). Add leader note pointing to TV stating Display-6 and add hex note #1 to leader note
D. Change Hex Note pointing to TV along column line J and column line “6.5” from Hex Note 1 to Hex Note 7
E. Add the following to Notes: 7. Provide 46” LED TV. LCD Shall be 1080P, 120Hz, LED backlit and thin depth frame. Display shall be Samsung ME46C, NEC P463-DRD or equal. Provide ceiling mount. Mount shall be Peerless, Chief or Equal. Coordinate final mounting height with owner. Display shall be securely mounted per manufacturer’s recommendations and shall utilize existing structure for support (Brace for sway as required). Provide Brightsign HD1022 Networked color interactive player for all monitors. Provide (2) port cat6 to comm room 108. Refer to architectural plans for details.
F. Note #2: Change note from Provide 40” LCD Monitor. Provide 42” LED TV. to Provide 55” LED TV.

Item No. 23: Drawing sheet T-122
A. Change Hex Note pointing to TV along column line R and column line “6.5” from Hex Note 1 to Hex Note 7
B. Add the following to Notes: 7. Provide 46” LED TV. LCD Shall be 1080P, 120Hz, LED backlit and thin depth frame. Display shall be Samsung ME46C, NEC P463-DRD or equal. Provide ceiling mount. Mount shall be Peerless, Chief or Equal. Coordinate final mounting height with owner. Display shall be securely mounted per manufacturer’s recommendations and shall utilize existing structure for support (Brace for sway as required). Provide Brightsign HD1022 Networked color interactive player for all monitors. Provide (2) port cat6 to comm room 108. Refer to architectural plans for details.
C. Note #2: Change note from Provide 40” LCD Monitor. Provide 42” LED TV. to Provide 55” LED TV.

END OF ADDENDUM NO. 1

Attachments:
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Proposal Form 17: Non-Collusion Affidavit
Uniform General and Supplementary Conditions (UGSC)
SSC Special Conditions (dated 9-18-14)
Specification Section P-605 Joint Sealants
Specification Section P-610 Structural Portland Cement Concrete
Specification Section 06.40.20 Interior Architectural Woodwork
Specification Section 10.15.50 Toilet and Compartments
Specification Section 10.42.50 Signs
Specification Section 10.80.10 Toilet and Bath Accessories

ADD-1/C-100
ADD-1/A-121
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ADD-1/A-300
ADD-1/A-503
ADD-1/A-510
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Clarification to Bidder’s Questions: Bidding Clarification No 1.
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Addendum 001
# Terminal Improvements – Phase 1
## Easterwood Airport
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None
1. Price: Includes all labor, materials, and equipment, etc. required to complete project.

2. In submitting this bid, I certify:
   a. Items bid are in exact accordance with specifications, unless noted in bid.
   b. Prices in this bid have been arrived at independently, without consultation or agreement with any competitor for purpose of restricting competition.

3. The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal, which includes initials on each bid form sheet, shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications.

**EASTERWOOD AIRPORT - BID SCHEDULE**

Airport: Easterwood Airport  
Project: Terminal Improvement - Phase 1  
RS&H Project No. 212-0226-000

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description and Unit Price in Words</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Unit Price in Numbers</th>
<th>Total Amount Per Item</th>
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<tr>
<td>P-001-1</td>
<td>TERMINAL IMPROVEMENT - PHASE 1 excluding work under ITEM NOs P-001-2 &amp; P-001-3 at______________________dollars and______________________cents</td>
<td>LS</td>
<td>1</td>
<td>$_______________</td>
<td>$_______________</td>
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<tr>
<td>P-001-2</td>
<td>WORK REQUIRED BY SPECIFICATION 31.63.29 - SHAFT UNIT PRICE at______________________dollars and______________________cents</td>
<td>LF</td>
<td>24'-1&quot;</td>
<td>$_______________</td>
<td>$_______________</td>
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<tr>
<td>P-001-3</td>
<td>WORK REQUIRED BY SPECIFICATION 31.63.29 - BELL UNIT PRICE at______________________dollars and______________________cents</td>
<td>LF</td>
<td>2'-3&quot;</td>
<td>$_______________</td>
<td>$_______________</td>
</tr>
<tr>
<td>P-001-4</td>
<td>TOTAL ADDITIONAL PREMIUM COSTS at______________________dollars and______________________cents</td>
<td>LS</td>
<td>1</td>
<td>$_______________</td>
<td>$_______________</td>
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<tr>
<td>P-001-5</td>
<td>INSURANCE REQUIREMENTS FOR THIS PROJECT at______________________dollars and______________________cents</td>
<td>LS</td>
<td>1</td>
<td>$_______________</td>
<td>$_______________</td>
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<tr>
<td>Item No.</td>
<td>Item Description and Unit Price in Words</td>
<td>Unit</td>
<td>Estimated Quantity</td>
<td>Unit Price in Numbers</td>
<td>Total Amount Per Item</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------</td>
<td>------</td>
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</table>

**TOTAL AMOUNT OF BID SCHEDULE A - TERMINAL IMPROVEMENT - PHASE 1 (IN WORDS)**

$ ___________________________ $

Dollars

$ ___________________________ $

Cents

**Total Bid Schedule Amount** $ ___________________________
### Bid Schedule B - Furniture (Allowance No. 1)

<table>
<thead>
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<th>Item No.</th>
<th>Item Description and Unit Price in Words</th>
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<th>Estimated Quantity</th>
<th>Unit Price in Numbers</th>
<th>Total Amount Per Item</th>
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<td>01.21.00-1</td>
<td>Furniture Allowance at TWO HUNDRED THOUSAND dollars and ZERO cents</td>
<td>ALLOW</td>
<td>1</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
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**Total Amount of Bid Schedule B - Furniture (in Words)**

Dollars

Cents

Total Bid Schedule Amount $_________________________

### Bid Schedule C - Roofing of Existing Building (Alternate No. 1)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description and Unit Price in Words</th>
<th>Unit</th>
<th>Estimated Quantity</th>
<th>Unit Price in Numbers</th>
<th>Total Amount Per Item</th>
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</thead>
<tbody>
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<td>01.03.00-1</td>
<td>Roofing of Existing Building (Alternate No 1) at dollars and cents</td>
<td>LS</td>
<td>1</td>
<td>$___________</td>
<td>$___________</td>
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**Total Amount of Bid Schedule C - Roofing of Existing Building (in Words)**

Dollars

Cents

Total Bid Schedule Amount $_________________________
**PROPOSAL FORM 2: BID SCHEDULE**

**EASTERWOOD AIRPORT - BID SCHEDULE**

Airport: Easterwood Airport  
Project: Terminal Improvement - Phase 1  
RS&H Project No. 212-0226-000

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description and Unit Price in Words</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price in Numbers</th>
<th>Total Amount Per Item</th>
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<td>01.03.00-2</td>
<td>PRE-CAST CONCRETE STAIRS (Alternate No 2) at________________dollars and________________cents</td>
<td>LS</td>
<td>1</td>
<td>$_______________</td>
<td>$_______________</td>
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**TOTAL AMOUNT OF BID SCHEDULE D - PRE-CAST CONCRETE STAIRS (IN WORDS)**

Dollar amount of Alternate No 2 shall be an add/deduct value from Total Bid Schedule A amount.

<table>
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<tr>
<th></th>
<th>Dollars</th>
<th>Cents</th>
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<tr>
<td>Total Bid Schedule Amount</td>
<td>$___________</td>
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COLLEGE STATION, TEXAS – EASTERWOOD AIRPORT

PROPOSAL FORM 17: NON-COLLUSION AFFIDAVIT

STATE OF TEXAS
COUNTY OF BRAZOS

__________________________________________, being first duly sworn, deposes and says that:

1. (S)He is _______________________ of ________________________, the Bidder that has submitted the attached Bid;

2. (S)He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

3. Such Bid is genuine and is not a collusive or sham Bid;

4. Neither the Bidder nor anyone acting on behalf of the Bidder, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the College Station, Texas or any person interested in the proposed Contract; and,

5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or anyone acting on his/her/its behalf.

________________________________
(Signature)

________________________________
(Title)

Subscribed and Sworn to before me of this _____ day of __________, 20___.

________________________________
(Notary’s Signature)

________________________________
(Notary’s Stamped or Printed Name)

Notary Public, in and for

______________________________
County,

My commission expires:___________________
## Uniform General and Supplementary Conditions

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Uniform General and Supplementary Conditions

These GENERAL CONDITIONS shall be used for contracts in support of the contract between The Texas A&M University System through Texas A&M University ("TAMU") and Texas A&M __________________________ (collectively, "Texas A&M") ("Owner") and Southeast Service Corporations d/b/a SSC Service Solutions ("SSC").

Article 1. Definitions

Unless the context clearly requires another meaning, the following terms have the meaning assigned herein:

1.1 Architect/Engineer ("A/E") means a person registered as an architect pursuant to Tex. Occ. Code Ann., Chapter 1051, as a landscape architect pursuant to Tex. Occ. Code Ann., Chapter 1052, a person licensed as a professional engineer pursuant to Tex. Occ. Code Ann., Chapter 1001 and/or a firm employed by ODR or a design-build contractor to provide professional architectural or engineering services and to exercise overall responsibility for the design of a Project or a significant portion thereof, and to perform the contract administration responsibilities set forth in the Contract.

1.2 Change Order means a written modification of the Contract between the ODR and Contractor, signed by the ODR and the Contractor.

1.3 Change Order Proposal means a Contractor-generated document in response to a Change Order Request ("COR").

1.4 Close-out documents means the product brochures, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, as-built record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.

1.5 Contract means the entire agreement between the ODR and the Contractor, including all of the Contract Documents.

1.6 Contract Date is the date when all the Contract Documents between the ODR and the Contractor are executed by both parties.
1.7 **Contract Documents** means those documents identified as a component of the agreement/contract between the ODR and the Contractor. These may include, but are not limited to, drawings, specifications, these Uniform General and Supplementary Conditions, Special Conditions, Change Orders, Master Contract for Job Order Work, scope of work and all pre-bid and/or pre-proposal addenda.

1.8 **Contract Revision** means a document which informs the Contractor of a proposed change in the Work, and appropriately describes or otherwise documents such change.

1.9 **Contractor** means the individual, corporation, company, partnership, firm or other entity contracted to perform the Work, regardless of the type of construction contract used, so that the term as used herein includes a Construction Manager-at-Risk or a Design-Build firm as well as General or Prime Contractor. The Contract Documents refer to Contractor as if singular in number.

1.10 **Contract Sum** means the total compensation payable to the Contractor for completion of the Work in accordance with the terms of the Contract.

1.11 **Contract Time** means the period between the Date of Commencement (“Start Date”) identified in the Notice to Proceed with Construction and the Substantial Completion date identified in the Notice to Proceed or as subsequently amended by Change Order.

1.12 **Date of Commencement** means the date designated in the Notice to Proceed for the Contractor to commence the Work.

1.13 **Day** means a calendar day, unless otherwise specifically stipulated.

1.14 **Drawings** means that product of the A/E which graphically depicts the Work.

1.15 **Final Completion** means the date determined and certified by the ODR and, if applicable, A/E on which the Work is fully and satisfactorily complete in accordance with the Contract.

1.16 **Owner** means identified in the Contract as the Owner.

1.17 **Owner’s Designated Representative (“ODR”)** means the individual assigned by the Owner to act on its behalf, and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time of the Contract. The “ODR” is SOUTHEAST SERVICE CORPORATION d/b/a SSC Service Solutions, and is herein referred to as “SSC.”

1.18 **Project** means all activities necessary for realization of the Work. This includes design, contract award(s), execution of the Work itself, and fulfillment of all contract
and warranty obligations.

1.19 **Samples** mean representative physical examples of materials, equipment or workmanship, used to confirm compliance with requirements and/or to establish standards for use in execution of the Work.

1.20 **Schedule of Values** means the detailed breakdown of the cost of the materials, labor and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by ODR and, if applicable the A/E.

1.21 **Shop Drawings** means the drawings, diagrams, illustrations, schedules, performance charts, brochures and other data prepared by the Contractor or its agents, which detail a portion of the Work.

1.22 **Site** means the geographical area of the location of the Work.

1.23 **Special Conditions** means the documents containing terms and conditions, which may be unique to the Project. Special Conditions are a part of the Contract Documents and have precedence over these Uniform General and Supplementary Conditions.

1.24 **Specifications** mean the written product of the ODR or A/E that establishes the quality and/or performance of products utilized in the Work and processes to be used, including testing and verification for producing the Work.

1.25 **Subcontractor** means a business entity that enters into an agreement with the Contractor to perform part of the Work or to provide services, materials or equipment for use in the Work.

1.26 **Substantial Completion** means the date determined and certified by the Contractor, and ODR and, if applicable, the A/E when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.

1.27 **Unit Price Work** means Work or a portion of the Work paid for based on incremental units of measurement.

1.28 **Unilateral Change Order** means a Change Order issued by the ODR without the agreement of the Contractor. A Unilateral Change Order has the same effect as a contract modification.

1.29 **Work** means the administration, procurement, materials, equipment, construction and all services necessary for the Contractor, and/or its Subcontractors, agents, etc. to fulfill the Contractor’s obligations under the Contract Documents.

**Article 2. Laws Governing Construction**
2.1. **Environmental Regulations.** The Contractor shall conduct activities in compliance with applicable laws and regulations and other requirements of the Contract relating to the environment and its protection at all times. Unless otherwise specifically determined, the Owner is responsible for obtaining and maintaining permits related to stormwater run-off. The Contractor shall conduct operations consistent with stormwater run-off permit conditions. Contractor is responsible for all items it brings to the Site, including hazardous materials, and all such items brought to the Site by its Subcontractors and suppliers, or by other entities subject to direction of the Contractor. The Contractor shall not incorporate hazardous materials into the Work without prior approval of ODR, and shall provide an affidavit attesting to such in association with the request for the Substantial Completion Inspection.

2.2. **Wage Rates.** The Contractor shall not pay less than the wage scale of the various classes of labor (“Prevailing Wage Schedule”), as applicable. The specified wage rates are minimum rates only. The ODR is not bound to pay any claims for additional compensation made by any contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. Any “Prevailing Wage Schedule” is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.

2.2.1 **Notification to Workers.** The Contractor shall notify each worker, in writing, of the following as they commence work on the Contract: the worker’s job classification, the established minimum wage rate requirement for that classification, as well as the worker’s actual wage. The notice must be delivered to and signed in acknowledgement of receipt by the worker and must list both the wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by the ODR, the Contractor shall furnish evidence of compliance with the applicable state Prevailing Wage Law.

2.2.1.1 The Contractor shall submit a copy of each worker wage-rate notification to the ODR with the application for progress payment for the period during which the worker was engaged in activities on behalf of the Project.

2.2.1.2 The “Prevailing Wage Schedule” is determined by compliance with Tex. Gov’t Code, Chapter 2258. Should the Contractor at any time become aware that a particular skill or trade not reflected on the Prevailing Wage Schedule will be or is being employed in the Work, whether by the Contractor or by a Subcontractor, the Contractor shall promptly inform the ODR of the proposed wage to be paid for the skill along with a justification for same. The Contractor is responsible for
determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the Prevailing Wage Schedule. In no case shall any worker be paid less than the wage indicated for laborers.

2.2.1.3 Penalty for Violation. The Contractor and any Subcontractor will pay a penalty of sixty dollars ($60) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the Prevailing Wage Schedule.

2.2.1.4 Complaints of Violations.

2.2.1.4.1 ODR’s Determination of Good Cause. Upon receipt of information concerning a violation of Tex. Gov’t Code, Chapter 2258, the ODR will, within 31 days, make an initial determination as to whether good cause exists that a violation occurred. The ODR will send documentation of the initial determination to the Contractor against whom the violation was alleged, and to the worker involved. Upon making a good-cause finding, the ODR will retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the Prevailing Wage Schedule and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

2.2.1.4.2 If the Contractor and claimant worker reach an agreement concerning the claim, the Contractor shall promptly notify the ODR in a written document countersigned by the worker.

2.2.1.4.3 Arbitration Required. If the violation is not resolved within 14 days following initial determination by the ODR, the Contractor and the claimant worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Tex. Civ. Prac. & Rem. Code, Chapter 171. If the Contractor and the claimant...
worker do not agree on an arbitrator within 10 days, after the date arbitration is required, a district court may be petitioned by any of the parties to the arbitration to appoint an arbitrator whose decision will be binding on all parties. (See Tex. Gov’t Code, § 2258.053)

2.2.1.4.4 Arbitration Award. If an arbitrator assesses an award against the Contractor, the Contractor shall promptly furnish a copy of said award to the ODR. The ODR may use any amounts retained under Article 2.2.1.4.1 to pay the worker the amount as designated in the arbitration award. If the retained funds are insufficient to pay the worker in accordance with the arbitration award, the worker has a right of action against the Contractor, and/or the surety to receive the amount owed, plus attorneys’ fees and court costs. The ODR has no duty to release any funds to either the claimant or the Contractor until it has received the notices of agreement or the arbitration award.

2.2.1.4.5 No Extension of Time. If the ODR’s determination proves valid that good cause existed to believe a violation had occurred, the Contractor is not entitled to an extension of time for any delay arising directly or indirectly from the arbitration procedures set forth herein.

2.3. Venue for Suits. The venue for any suit arising from the Contract will be in a court of competent jurisdiction in county the Site is location.

2.4. Licensing of Trades. The Contractor shall comply with all applicable provisions of state law related to license requirements for skilled tradesmen, contractors, suppliers and/or laborers, as necessary to accomplish the Work. In the event the Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, the Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to the ODR.

2.4.1 Partial list of licenses required. Listed by Texas Statute:

2.5. Royalties, Patents & Copyrights. The Contractor shall pay all royalties and license fees, defend all suits or claims for infringement of any patent rights, and shall save the Owner and ODR harmless from loss on account thereof.

2.6. State Sales and Use Taxes. The Owner qualifies for exemption from certain State and Local Sales and Use Taxes pursuant to the provisions of Tex. Tax Code, Chapter 151. The Contractor may claim exemption from payment of applicable State taxes by complying with such procedures as prescribed by the State Comptroller of Public Accounts. Contractor shall not be entitled to reimbursement for taxes paid on items that are exempt from taxation.

Article 3. General Responsibilities of ODR and Contractor

3.1. ODR’s General Responsibilities. The ODR is the entity identified as such in the Contract and referred to throughout the Contract Documents as if singular in number.

3.1.1 Preconstruction Conference. Prior to, or concurrent with, the issuance of the Notice to Proceed with Construction, a conference will be convened for attendance by the ODR, Owner, Contractor, if applicable A/E and appropriate Subcontractors. The purpose of the conference is to establish a working understanding among the parties as to the Work, the operational conditions at the Project Site, and general administration of the Project. Topics include communications, schedules, procedures for handling Shop Drawings and other submittals, processing applications for payment, maintaining required records and all other matters of importance to the administration of the Work and effective communications between the project team members.
3.1.2 **Owner’s Designated Representative.** Prior to the start of construction, Owner will identify the ODR, who has the express authority to act and bind the Owner to the extent and for the purposes described in the Contract, including responsibilities for general administration of the Contract.

3.1.2.1 Unless otherwise specifically defined elsewhere in the Contract Documents, the ODR is the single point of contact between the Owner and Contractor. Notice to the ODR, unless otherwise noted, constitutes notice to the Owner under the Contract.

3.1.2.2 All directives on behalf of the Owner will be conveyed to the Contractor by the ODR in writing.

3.1.3 **Owner Supplied Materials and Information.**

3.1.3.1 The Owner and/or ODR will furnish to the Contractor those surveys describing the physical characteristics, legal description, limitations of the Site, site utility locations, and other information used in the preparation of the Contract Documents.

3.1.3.2 The Owner and/or ODR will provide information, equipment, or services under the Owner’s control to the Contractor with reasonable promptness. The Owner or ODR makes no representation as to the accuracy or completeness of the Site information furnished to the Contractor by the Owner, and is not responsible for any interpretations or conclusions reached by the Contractor with respect to the information.

3.1.4 **Availability of Lands.** The Owner will furnish, as indicated in the Contract, all required rights to use the lands upon which the Work occurs. This includes rights-of-way and easements for access and such other lands that are designated for use by the Contractor. The Contractor shall comply with all Owner-identified encumbrances or restrictions specifically related to use of lands so furnished. The Owner will obtain and pay for easements for permanent structures or permanent changes in existing facilities, unless otherwise required in the Contract Documents.

3.1.5 **Limitation on ODR’s Duties.**

3.1.5.1 The ODR will not supervise, direct, control or have authority over or be responsible for Contractor’s means, methods, technologies, sequences or procedures of construction or the safety precautions and programs incident thereto. The ODR is not responsible for any failure of Contractor to comply with laws and regulations applicable to the Work. The ODR is not
responsible for the failure of Contractor to perform or furnish the Work in accordance with the Contract Documents. ODR is not responsible for the acts or omissions of Contractor, or any of its Subcontractors, suppliers or of any other person or organization performing or furnishing any of the Work on behalf of the Contractor.

3.1.5.2 The ODR will not take any action in contravention of a design decision made by the A/E in preparation of the Contract Documents, when such actions are in conflict with statutes under which the A/E is licensed for the protection of the public health and safety.

3.2 Role of A/E (if applicable). Unless specified otherwise in the Contract between the ODR and the Contractor, the A/E shall provide general administration services for the Owner during the construction phase of the Project. Written correspondence, requests for information, and Shop Drawings/submittals shall be directed to the A/E for action. The A/E has no authority to change material specifications, contract cost or contract time unless approved by the ODR.

3.2.1 Site Visits

3.2.1.1 The A/E will make visits to the Site at intervals as provided in the A/E’s contract agreement with the ODR, to observe the progress and the quality of the various aspects of Contractor’s executed Work and report findings to the ODR.

3.2.1.2 The A/E has the authority to interpret Contract Documents and inspect the Work for compliance and conformance with the Contract. Except as referenced in Article 3.1.5.2, the ODR retains the sole authority to accept or reject Work and issue direction for correction, removal, or replacement of Work.

3.2.2 Clarifications and Interpretations. It may be determined that clarifications or interpretations of the Contract Documents are necessary. Upon direction by the ODR such clarifications or interpretations will be provided by the A/E consistent with the intent of the Contract Documents. The A/E will issue these clarifications with reasonable promptness to the Contractor as Architect’s Supplemental Instruction ("ASI") or similar instrument. If Contractor believes that such clarification or interpretation justifies an adjustment in the Contract Sum or the Contract Time, the Contractor shall so notify the ODR in accordance with the provisions of Article 11.

3.2.3 Limitations on A/E Authority. The A/E is not responsible for:
3.2.3.1 The Contractor’s means, methods, techniques, sequences, procedures, safety, or programs incident to the Project, nor will the A/E supervise, direct, control or have authority over the same.

3.2.3.2 The failure of Contractor to comply with laws and regulations applicable to furnishing or performing the Work.

3.2.3.3 The Contractor’s failure to perform or furnish the Work in accordance with the Contract Documents.

3.2.3.4 Acts or omissions of the Contractor, or of any other person or organization performing or furnishing any of the Work.

3.3 Contractor’s General Responsibilities. The Contractor is solely responsible for implementing the Work in full compliance with all applicable laws and the Contract Documents and shall supervise and direct the Work using the best skill and attention to assure that each element of the Work conforms to the Contract requirements. The Contractor is solely responsible for all construction means, methods, techniques, safety, sequences, coordination and procedures. The Contractor is responsible for having visited the Site and having ascertained all pertinent local conditions such as existing subsurface concealed conditions, location, accessibility and general character of the Site or building, the character and extent of existing work, the character and extent of existing work within adjacent sites, and any other work being performed thereon at the time Contractor’s bid or proposal is submitted.

3.3.1 Project Administration. The Contractor shall provide project administration for all Subcontractors, vendors, suppliers, and others involved in implementing the Work and shall coordinate administration efforts with those of the A/E, if applicable, and ODR in accordance with these Uniform General and Supplementary Conditions, and as outlined in the Pre-construction Conference.

3.3.2 Contractor’s Superintendent. The Contractor shall employ a competent resident superintendent who will be present at the Project Site during the progress of the Work. The superintendent is subject to the approval of the ODR. The Contractor shall not change approved superintendents during the course of the Project without the written approval of the ODR unless the superintendent leaves the employ of the Contractor.

3.3.3 Labor. The Contractor shall provide competent, suitably qualified personnel to survey, lay-out, and construct the Work as required by the Contract Documents, and maintain good discipline and order at the Site at all times.

3.3.4 Services, Materials, and Equipment. Unless otherwise specified, the
Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities, incidentals, and services necessary for the construction, performance, testing, start-up, inspection and completion of the Work.

3.3.5 **Non-Compliant Work.** Should the A/E and/or the ODR identify Work as non-compliant with the Contract Documents, the ODR will communicate the finding to the Contractor and the Contractor will correct such Work at its expense. The approval of Work by either the A/E or ODR does not relieve the Contractor from the obligation to comply with all requirements of the Contract Documents.

3.3.6 **Subcontractors.** The Contractor shall not employ any Subcontractor, supplier or other person or organization, whether initially or as a substitute, against whom the Owner or ODR may have reasonable objection. The ODR will communicate such objections in writing. The Contractor is not required to employ any Subcontractor, supplier or other person or organization to furnish any of the Work to whom the Contractor has reasonable objection. The Contractor will not substitute Subcontractors without the acceptance of the ODR.

3.3.6.1 All Subcontracts and supply contracts shall be consistent with and bound to the terms and conditions of the Contract Documents including provisions of the agreement between the Contractor and the ODR.

3.3.6.2 The Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with the Contractor. The Contractor shall require all Subcontractors, suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner only through the Contractor and ODR. The Contractor shall furnish to the ODR a copy of each first-tier subcontract promptly after its execution. The Contractor agrees that the ODR has no obligation to review or approve the content of such contracts and that providing the ODR such copies in no way relieves the Contractor of any of the terms and conditions of the Contract, including, without limitation, any provisions of the Contract which require the Subcontractor to be bound to the Contractor in the same manner in which the Contractor is bound to the ODR.

3.3.7 **Continuing the Work.** The Contractor shall carry on the Work and adhere to
the progress schedule during all disputes, disagreements or alternative resolution processes with the ODR. The Contractor shall not delay or postpone any Work because of the pending resolution of any disputes, disagreements or processes, except as the ODR and the Contractor may agree in writing.

3.3.8 **Cleaning.** At all times, the Contractor shall keep the Site and the Work clean and free from accumulation of waste materials or rubbish caused by the construction activities under the Contract. The Contractor shall ensure that the entire Project is thoroughly cleaned prior to requesting Substantial Completion Inspection and, again, upon completion of the Project prior to the Final Completion Inspection.

3.3.9 **Acts and Omissions of Contractor, its Subcontractors and Employees.** The Contractor is responsible for acts and omissions of its employees and all its Subcontractors, their agents and employees. The ODR may, in writing, require the Contractor to remove from the Project any of Contractor’s or its Subcontractor’s employees that the ODR finds to be careless, incompetent, or otherwise objectionable.

3.3.10 **Ancillary Areas.** The Contractor shall operate and maintain operations and associated storage areas at the Site of the Work in accordance with the following:

3.3.10.1 The Contractor shall confine all Contractor operations, including storage of materials and employee parking upon the Site of the Work, to areas designated by the Owner or ODR.

3.3.10.2 With prior written approval of the Owner and ODR, the Contractor may erect, at its own expense, temporary buildings that will remain its property. The Contractor shall remove such buildings and associated utility service lines upon completion of the Work, unless the Contractor requests and the Owner and ODR provide written consent that it may abandon such buildings and utilities in place.

3.3.10.3 The Contractor shall use only established roadways or construct and use such temporary roadways as may be authorized by the Owner. The Contractor shall not allow load limits of vehicles to exceed the limits prescribed by appropriate regulations or law. The Contractor shall provide protection to road surfaces, curbs, sidewalks, trees, shrubbery, sprinkler systems, drainage structures and other like existing improvements to prevent damage, and shall repair any damage, thereto at the expense of
the Contractor.

3.3.10.4 The Owner or ODR may restrict the Contractor's entry to the Site to specifically assigned entrances and routes.

3.3.11 Separate Contracts. Additional Contractor responsibilities when the ODR awards separate contracts:

3.3.11.1 The ODR reserves the right to award other contracts in connection with other portions of the Project under these or similar contract conditions.

3.3.11.2 The ODR reserves the right to perform operations related to the Project with the ODR’s own forces.

3.3.11.3 Under a system of separate contracts, the conditions described herein continue to apply except as may be amended by Change Order.

3.3.11.4 The Contractor shall cooperate with other contractors employed on the Project by the Owner or ODR, including providing access to the Site and project information as requested.

Article 4. Historically Underutilized Business (HUB) Subcontracting Plan

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Article 5. Bonds & Insurance

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Article 6. Contract Documents

6.1. Drawings and Specifications.

6.1.1 Copies Furnished. The Contractor will be furnished one (1) digital copy of Drawings and Specifications free of charge.

6.1.2 Ownership of Drawings and Specifications. If Applicable, all Drawings, Specifications and copies thereof furnished by the A/E are to remain A/E’s property. These documents are not to be used on any other project, and with the exception of one contract set for each party to the Contract, are to be returned to the A/E, upon request, following completion of the Work.

6.1.3 Interrelation of Documents. The Contract Documents as referenced in the
agreement between the ODR and the Contractor are complimentary, and what is required by one shall be as binding as if required by all.

6.1.4 Resolution of Conflicts in Documents. Where conflicts may exist between and/or within the Contract Documents, the higher quality, greater quantity, more restrictive, and/or more expensive requirement shall be required and shall be the basis of Contractor pricing. The Contractor shall notify the A/E and ODR for resolution of the issue prior to executing the Work in question.

6.1.5 Contractor's Duty to Review Contract Documents. In order to facilitate its responsibilities for completion of the Work in accordance with and as reasonably inferable from the Contract Documents, prior to pricing or commencing the Work, the Contractor shall examine and compare the Contract Documents, information furnished by the ODR, relevant field measurements made by the Contractor and any visible or reasonably anticipated conditions at the Site affecting the Work. This duty extends throughout the construction phase prior to commencing each particular work activity and/or system installation.

6.1.6 Discrepancies and Omissions in Drawings and Specifications

6.1.6.1 The Contractor shall promptly report to the ODR and to the A/E the discovery of any apparent error, omission or inconsistency in the Contract Documents prior to execution of the Work.

6.1.6.2 It is recognized that the Contractor is not acting in the capacity of a licensed design professional, unless it is performing as a Design-Build firm.

6.1.6.3 It is further recognized that the Contractor's examination of Contract Documents is to facilitate construction and does not create an affirmative responsibility to detect errors, omissions or inconsistencies or to ascertain compliance with applicable laws, building codes or regulations, unless it is performing as a Design-Build firm.

6.1.6.4 When performing as a Design-Build firm, the Contractor has sole responsibility for discrepancies, errors, and omissions in the Drawings and Specifications.

6.1.6.5 When performing as a Construction Manager-at-Risk, the Contractor has a shared responsibility for discovery and resolution of discrepancies, errors, and omissions in the Contract Documents. In such case, the Contractor’s responsibility pertains to review, coordination, and recommendation of resolution strategies within
budget constraints, but does not establish a liability for design.

6.1.6.6 The Contractor has no liability for errors, omissions, or inconsistencies in the Drawings and Specifications unless the Contractor knowingly failed to report a recognized problem to the ODR or the Work is executed under a Design-Build contract as outlined above. Should the Contractor fail to perform the examination and reporting obligations of these provisions, the Contractor is responsible for avoidable costs, direct, and/or consequential damages.

6.1.6.7 The ODR makes no representations, express or implied, about the adequacy or accuracy of the Drawings, Specifications or other Construction Documents provided or their suitability for their intended use. ODR expressly disclaims any implied warranty that the Construction Documents are adequate, accurate or suitable for their intended use.

6.2 Requirements for Record Documents.

The Contractor shall maintain at the Site one copy of all Drawings, Specifications, addenda, approved submittals, contract modifications, and all Project correspondence. The Contractor shall keep current and maintain Drawings and Specifications in good order with postings and markings to record actual conditions of Work and show and reference all changes made during construction. The Contractor shall provide ODR and A/E access to these documents.

6.2.1 The Contractor shall maintain the record set of Drawings and Specifications which reflect the "As Constructed" conditions and representations of the Work performed, whether it be directed by addendum, Change Order or otherwise. The Contractor shall make available all records prescribed herein for reference and examination by the ODR and its representatives and agents.

6.2.2 The Contractor shall update the "As-Constructed" Drawings and Specifications monthly prior to submission of periodic partial pay estimates. Failure to maintain such records constitutes cause for denial of a progress payment otherwise due.

6.2.3 Prior to requesting the Substantial Completion Inspection by the ODR and, if applicable A/E, the Contractor shall furnish the ODR a complete set of the marked up “As-Constructed” set maintained at the Site and one photocopy of same. Concurrently with furnishing these record drawings, the Contractor shall furnish a preliminary copy of each operating and maintenance manual (“O&M”) required by the Contract Documents, for review by the A/E and the ODR.
6.2.4 Once determined acceptable, the Contractor shall provide to ODR mylar prints of professionally drafted “As-Constructed” drawings, along with an electronic copy on CD, “As-Constructed” specifications in bound volume(s) along with an electronic copy on CD, two sets of photocopies or prints of the mylar “As-Constructed” drawings, two sets of operating and maintenance manuals, two sets of approved submittals, and other record documents as required elsewhere in the Contract Documents. All electronic copies shall be provided in a format acceptable to the ODR.

Article 7. Safety

7.1. General. It is the duty and responsibility of the Contractor and all of its Subcontractors to be familiar with, enforce and comply with all requirements of Public Law 91-596, 29 U.S.C. §§651 et. seq., the Occupational Safety and Health Act of 1970 (OSHA), and all amendments thereto. The Contractor shall prepare a safety plan specific to the Project and submit it to the ODR and, if applicable, A/E prior to commencing Work. In addition, the Contractor and all of its Subcontractors shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property to protect them from damage, injury or loss, and erect and maintain all necessary safeguards for such safety and protection.

7.2. Notices. The Contractor shall provide notices as follows:

7.2.1 Notify owners of adjacent property including those that own or operate utility services and/or underground facilities, and utility owners, when prosecution of the Work may affect them or their facilities, and cooperate with them in the protection, removal, relocation and replacement of their facilities, and with respect to access to their facilities and/or utilities.

7.2.2 Coordinate the exchange of material safety data sheets (“MSDS”) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in connection with laws and regulations. Maintain a complete file of MSDS for all materials in use on Site throughout the construction phase and make such file available to the Owner, ODR and its agents as requested.

7.3. Emergencies. In any emergency affecting the safety of persons or property, the Contractor shall act to minimize, mitigate, and prevent threatened damage, injury or loss.

7.3.1 Have authorized agents of Contractor respond immediately upon call at anytime of day or night when circumstances warrant the presence of Contractor to protect the Work or adjacent property from damage or to take such action pertaining to the Work as may be necessary to provide for the safety of the public.
7.3.2 Give the ODR and, if applicable A/E prompt notice of all such events.

7.3.3 If Contractor believes that any changes in the Work or variations from Contract Documents have been caused by its emergency response, promptly notify the ODR within 72 hours of the emergency response event.

7.3.4 Should Contractor fail to respond, ODR is authorized to direct other forces to take action as necessary and Owner may deduct any cost of remedial action from funds otherwise due the Contractor.

7.4. In the event of an incident or accident involving outside medical care for an individual on or near the Work, Contractor shall notify the ODR and other parties as may be directed within 24 hours of the event.

7.4.1 Record the location of the event and the circumstances surrounding it, by using photography or other means, and gather witness statements and other documentation which describes the event.

7.4.2 Supply the ODR and, if applicable A/E with an incident report no later than 36 hours after the occurrence of the event. In the event of a catastrophic incident (one fatality or three workers hospitalized), barricade and leave intact the scene of the incident until all investigations are complete. A full set of incident investigation documents, including facts, finding of cause, and remedial plans shall be provided by Contractor to Owner and SSC within one week after occurrence, unless otherwise directed by SSC's legal counsel. Contractor shall provide the ODR with written notification within one week of such catastrophic event if legal counsel delays submission of a full report.

7.5. Environmental Safety. Upon encountering any previously unknown potentially hazardous material, or other materials potentially contaminated by hazardous material, Contractor shall immediately stop work activities impacted by the discovery, secure the affected area, and notify the ODR immediately.

7.5.1 The Contractor shall bind all Subcontractors to the same duty.

7.5.2 Upon receiving such notice, the ODR will promptly engage qualified experts to make such investigations and conduct such tests as may be reasonably necessary to determine the existence or extent of any environmental hazard. Upon completion of this investigation, the ODR will issue a written report to the Contractor identifying the material(s) found and indicate any necessary steps to be taken to treat, handle, transport or dispose of the material.

7.5.3 The ODR may hire third-party contractors to perform any or all such steps.
7.5.4 Should compliance with the ODR’s instructions result in an increase in the Contractor’s cost of performance, or delay the Work, the Owner may make an equitable adjustment to the Contract Sum and/or the Contract Time, and modify the Contract in writing accordingly.

7.6. Trenching Plan. When the Project requires excavation which either exceeds a depth of four feet, or results in any worker’s upper body being positioned below grade level, the Contractor is required to submit a trenching plan to the ODR prior to commencing trenching operations. The plan is required to be prepared and sealed by a professional engineer registered in the Site, and employed by the Contractor. Said engineer cannot be anyone who is otherwise either directly or indirectly engaged on this Project.

**Article 8. Quality Control**

8.1. **Materials & Workmanship.** The Contractor shall execute Work in a good and workmanlike manner in accordance with the Contract Documents. The Contractor shall develop and provide a quality control plan for the performance of the Work specific to this Project and acceptable to the Owner. Where Contract Documents do not specify quality standards, the Contractor shall complete and construct all Work in compliance with generally accepted construction industry standards. Unless otherwise specified, the Contractor shall incorporate all new materials and equipment into the Work under the Contract.

8.2. **Testing**

8.2.1 **Contractor Testing.** The Contractor is responsible for coordinating and paying for all routine and special tests required to confirm compliance with quality and performance requirements of the Contract Documents. This “quality control” testing shall include any particular testing required by the Specifications and the following general tests:

8.2.1.1 Any test of basic material or fabricated equipment included as part of a submittal for a required item in order to establish compliance with the Contract Documents.

8.2.1.2 Any test of basic material or fabricated equipment offered as a substitute for a specified item on which a test may be required in order to establish compliance with the Contract Documents.

8.2.1.3 Routine, preliminary, start-up, pre-functional and operational testing of building equipment and systems as necessary to confirm operational compliance with requirements of the Contract Documents.
8.2.1.4 All subsequent tests on original or replaced materials conducted as a result of prior testing failure.

8.2.2 Additional Testing. The ODR reserves the right to subject materials and systems incorporated into the Project to routine tests as may be specified or as deemed necessary by the ODR or, if applicable, the A/E to insure compliance with the quality and/or performance requirements of the Contract Documents and/or with laws, ordinances, rules, regulations and/or orders of any public authority having jurisdiction. The results of such “quality assurance” testing will be provided to the Contractor and, to the extent provided, the Contractor may rely on findings.

8.2.3 All testing shall be performed in accordance with standard test procedures by an accredited laboratory, or special consultant as appropriate, acceptable to the ODR. Results of all tests shall be provided promptly to the ODR, if applicable, A/E and the Contractor.

8.2.4 Non-Compliance of Test Results. Should any of the tests indicate that a material and/or system does not comply with the Contract requirements, the burden of proving compliance remains with the Contractor. The tests are subject to the following conditions:

8.2.4.1 The Contractor’s selected laboratory must be acceptable to the ODR.

8.2.4.2 The quality and nature of the tests must be acceptable to the ODR.

8.2.4.3 All tests must be taken in the presence of the A/E and/or ODR, or their representatives.

8.2.4.4 If tests confirm that the material/systems comply with Contract Documents, the ODR will pay the cost of the test.

8.2.4.5 If tests reveal noncompliance, the Contractor will pay the laboratory fees and costs of that particular test and all future tests of that failing Work, necessary to eventually confirm compliance with Contract Documents.

8.2.4.6 Proof of noncompliance with the Contract Documents will make the Contractor liable for any corrective action which the ODR determines appropriate, including complete removal and replacement of non-compliant work or material.

8.2.5 Notice of Testing. The Contractor shall give the ODR and, if applicable, the
A/E timely notice of its readiness and the date arranged so the ODR and A/E may observe such inspection, testing or approval.

8.2.6 Test Samples. The Contractor is responsible for providing samples of sufficient size for test purposes and for coordinating such tests with the Work Progress Schedule (as defined in Section 9.3) to avoid delay.

8.2.7 Covering Up Work. If the Contractor covers up any Work without providing the ODR an opportunity to inspect, the Contractor shall, if requested by the ODR, uncover and recover the Work at Contractor’s expense.

8.3 Submittals

8.3.1 Contractor’s Submittals. The Contractor shall submit with reasonable promptness consistent with the Project Work schedule and in orderly sequence all Shop Drawings, Samples, or other information required by the Contract Documents, or subsequently required by Change Order. Prior to submitting, the Contractor shall review each submittal for compliance with the Contract Documents and certify its approval by an approval stamp affixed to each copy. Submittal data presented without the Contractor’s certification will be returned without review or comment, and any delay resulting from such certification is the Contractor's responsibility.

8.3.1.1 Within twenty-one (21) calendar days of the effective date of the Notice to Proceed with construction, the Contractor shall submit to the ODR, and the A/E, a submittal schedule/register, organized by specification section, listing all items to be furnished for review and approval by the A/E and ODR. The list shall include Shop Drawings, manufacturer's literature, certificates of compliance, materials samples, materials colors, guarantees, and all other items identified throughout the Specifications.

8.3.1.2 The Contractor shall indicate the type of item, contract requirements reference, and Contractor’s scheduled dates for submitting the item along with the requested dates for approval answers from the A/E, if applicable, ODR and Owner. The submittal register shall indicate the projected dates for procurement of all included items and shall be updated at least monthly with actual approval and procurement dates. The Contractor shall show and allow a minimum of thirty (30) calendar days duration after receipt by the A/E and ODR for review and approval. If re-submittal is required, allow a minimum of an additional fifteen (15) calendar days for review. Submit the updated submittal register with each request for
progress payment. The ODR may establish routine review procedures and schedules for submittals at the preconstruction conference and/or elsewhere in the Contract Documents. Failure to update and provide the submittal schedule/register as required shall constitute cause for ODR to withhold payment otherwise due.

8.3.1.3 The Contractor shall coordinate the submittal register with the Work Progress Schedule (defined below). Work requiring a submittal and approval should not begin prior to its scheduling review and approval. The Contractor shall revise and/or update both schedules monthly to ensure consistency and current project data. The Contractor shall provide to the ODR the updated submittal register and schedule with each application for progress payment. The Contractor shall refer to the requirements for the Work Progress Schedule for inclusion of procurement activities therein. Regardless, the submittal register shall identify dates submitted and returned and shall be used to confirm status and disposition of particular items submitted, including approval or other action taken and other information not conveniently tracked through the Work Progress Schedule.

8.3.1.4 By submitting Shop Drawings, samples or other required information, the Contractor represents and certifies that it has determined and verified all applicable field measurements, field construction criteria, materials, catalog numbers and similar data; and has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and the Contract Documents.

8.3.2 Review of Submittals. A/E and/or ODR review is only for conformance with the design concept and the information provided in the Contract Documents. Responses to submittals will be in writing. The approval of a separate item does not indicate approval of an assembly in which the item functions. The approval of a submittal does not relieve the Contractor of responsibility for any deviation from the requirements of the Contract unless the Contractor informs, if applicable the A/E and ODR of such deviation in a clear, conspicuous, and written manner on the submittal transmittal and at the time of submission, and obtains the A/E’s and ODR’s written specific approval of the particular deviation.

8.3.3 Correction and Resubmission. The Contractor shall make any corrections required to a submittal and resubmit the required number of corrected copies promptly so as to avoid delay, until submittal approval is obtained. When applicable, the Contractor shall direct attention of the A/E and the ODR in
writing to any new revisions other than the corrections requested on previous submissions.

8.3.4 **Limits on Shop Drawing Approvals.** The Contractor shall not commence any Work requiring a submittal until approval of the submittal. The Contractor shall construct all such Work in accordance with approved submittals. Approval of Shop Drawings and Samples is not authorization to Contractor to perform extra Work or changed Work unless authorized through a Change Order. The A/E’s and ODR’s approval, if any, does not relieve Contractor from responsibility for defects in the Work resulting from errors or omissions of any kind on the submittal, regardless of any approval action.

8.3.5 **No Substitutions Without Approval.** The ODR and the A/E may receive and consider the Contractor’s request for substitution when the Contractor agrees to reimburse the ODR for review costs and satisfies 8.3.5.1, 8.3.5.2, and 8.3.5.3 in combination with one or more of the items in 8.3.5.4 through 8.3.5.11 of the following conditions, as determined by the ODR. If the Contractor does not satisfy these conditions, the ODR and A/E will return the request without action except to record noncompliance with these requirements. The request will not be considered if the Contractor cannot provide the product or method because of failure to pursue the Work promptly or coordinate activities properly.

8.3.5.1 The Contract Documents do not require extensive revisions.

8.3.5.2 Proposed changes are in keeping with the general intent of the Contract Documents and the design intent of the A/E and do not result in an increase in cost to the Project.

8.3.5.3 The request is timely, fully documented, and properly submitted.

8.3.5.4 The Contractor cannot provide the specified product, assembly or method of construction within the Contract Time (as defined below).

8.3.5.5 The request directly relates to an "or-equal" clause or similar language in the Contract Documents.

8.3.5.6 The request directly relates to a "product design standard" or "performance standard" clause in the Contract Documents.

8.3.5.7 The requested substitution offers the ODR a substantial advantage in cost, time, energy conservation or other considerations, after deducting additional responsibilities the ODR must assume.
8.3.5.8 The specified product or method of construction cannot receive necessary approval by an authority having jurisdiction, and the ODR can approve the requested substitution.

8.3.5.9 The Contractor cannot provide the specified product, assembly or method of construction in a manner that is compatible with other materials and the Contractor certifies that the substitution will overcome the incompatibility.

8.3.5.10 The Contractor cannot coordinate the specified product, assembly or method of construction with other materials and the Contractor certifies it can coordinate the proposed substitution.

8.3.5.11 The specified product, assembly or method of construction cannot provide a warranty required by the Contract Documents and the Contractor certifies that the proposed substitution provides the required warranty.

8.3.6 Unauthorized Substitutions at Contractor’s Risk. The Contractor is financially responsible for any additional costs or delays resulting from using materials, equipment or fixtures other than those specified. The Contractor shall reimburse the ODR for any increased design or contract administration costs resulting from such unauthorized substitutions.

8.4 Field Mock-up.

8.4.1 Mock-ups shall be constructed prior to commencement of a specified scope of work to confirm acceptable workmanship.

8.4.1.1 As a minimum, field mock-ups shall be constructed for roofing systems, exterior veneer/finish systems, glazing systems, and any other Work requiring a mock-up as identified throughout the Contract Documents. Mock-ups for systems not part of the Project scope shall not be required.

8.4.1.2 Mock-ups may be incorporated into the Work if allowed by the Contract Documents and if acceptable to the ODR. If mock-ups are freestanding, they shall remain in place until otherwise directed by the ODR.

8.4.1.3 The Contractor shall include field mock-ups in their Work Progress Schedule and shall notify the ODR and A/E of readiness for review sufficiently in advance to coordinate review.
without delay.

8.5 **Inspection During Construction.**

8.5.1 The Contractor shall provide sufficient, safe, and proper facilities, including equipment, as necessary for safe access at all reasonable times for observation and/or inspection of the Work by the Owner, ODR and its agents.

8.5.2 The Contractor shall not cover up any work with finishing materials or other building components prior to providing the Owner, ODR or its agents an opportunity to perform an inspection of the Work.

8.5.2.1 Should corrections of the Work be required for approval, the Contractor shall not cover up corrected Work until the Owner indicates approval.

8.5.2.2 The Contractor shall provide notification of at least fourteen (14) calendar days or otherwise as mutually agreed, to the ODR of the anticipated need for a cover-up inspection. Should the ODR fail to make the necessary inspection within the agreed period, the Contractor may proceed with cover up Work, but is not relieved of responsibility for Work to comply with requirements of the Contract Documents.

**Article 9. Construction Schedules**

9.1. **Contract Time.** TIME IS AN ESSENTIAL ELEMENT OF THE CONTRACT. The Contract time is the time between the dates indicated in the Notice to Proceed for the Date of Commencement (defined below) and for achieving Substantial Completion (“Contract Time”). The Contract Time can be modified only by Change Order. Failure to achieve Substantial Completion within the Contract Time, and Final Completion within thirty (30) days following Substantial Completion or as otherwise agreed to in writing will cause damage to the Owner and may subject the Contractor to Liquidated Damages as provided in Article 9.11.

9.2. **Notice to Proceed.** The Owner will issue a notice to proceed (“Notice to Proceed”) which shall state the Date of Commencement for the beginning of the Work and for achieving Substantial Completion and Final Completion of the Work, after all Contract Documents have been executed by both parties.

9.3. **Work Progress Schedule.** Refer to Special Conditions (if applicable) for additional schedule requirements. Unless indicated otherwise in those documents, Contractor shall submit to the ODR and the A/E its initial Work Progress Schedule for the Work in relation to the entire Project not later than twenty-one (21) days after the effective
date of the Notice to Proceed. Unless otherwise indicated in the Contract Documents, the Work Progress Schedule shall be based upon a computerized Critical Path Method ("CPM") with full reporting capability. This initial schedule shall indicate the dates for starting and completing the various aspects required to complete the Work, including mobilization, procurement, installation, testing, inspection, and acceptance of all the Work under the Contract. When acceptable to the Owner, the initially accepted schedule shall be the baseline schedule ("Baseline Schedule") for comparison to actual conditions throughout the Contract duration.

9.3.1 **Schedule Requirements.** The Contractor shall submit an electronic and a paper copy of the initial Work Progress Schedule reflecting accurate and reliable representations of the planned progress of the Work, the Work to date if any, and of the Contractor’s actual plans for its completion. The Contractor shall organize and provide adequate detail so the Work Progress Schedule is capable of measuring and forecasting the effect of delaying events on completed and uncompleted activities.

9.3.1.1 The Contractor shall re-submit the Baseline Schedule as required to address review comments from A/E and ODR until such Baseline Schedule is accepted as the final Baseline Schedule.

9.3.1.2 Submittal of a Baseline Schedule, or revisions or updates constitutes the Contractor’s representation to the Owner of the accurate depiction of all progress to date and that the Contractor will follow the Baseline Schedule as submitted in performing the Work.

9.3.2 **Schedule Updates.** The Contractor shall update the Work Progress Schedule monthly, as a minimum, to reflect progress to date and current plans for completing the Work, and submit a paper and electronic copy of the update Work Progress Schedule to the A/E and ODR as directed. The Owner has no duty to make progress payments unless accompanied by the updated Work Progress Schedule. The Contractor shall show the anticipated date of completion reflecting all extensions of time granted through any Change Order as of the date of the update. The Contractor may revise the Work Progress Schedule logic only with the Owner’s or ODR’s concurrence when in the Contractor’s judgment it becomes necessary for the management of the Work. The Contractor shall identify all proposed changes to the Work Progress Schedule logic to the ODR and to the A/E via an executive summary accompanying the updated schedule for review prior to implementation of revisions.

9.3.3 **The Work Progress Schedule.** The Work Progress Schedule is for the Contractor’s use in managing the Work, and submittal of the Work Progress Schedule and successive updates or revisions, is for the information of the Owner and its ODR and to demonstrate that the Contractor has complied
with requirements for planning the Work. The ODR's acceptance of a Work Progress Schedule, Work Progress Schedule update or revision, constitutes the ODR's agreement to coordinate its own activities with the Contractor's activities as shown on the Work Progress Schedule.

9.3.3.1 Acceptance of the Work Progress Schedule, or an update and/or revision thereto does not indicate any approval of the Contractor's proposed sequences and duration.

9.3.3.2 Acceptance of a Work Progress Schedule update or revision indicating early or late completion does not constitute the ODR's consent, alter the terms of the Contract, or waive either the Contractor's responsibility for timely completion or the ODR's or Owners right to damages for the Contractor's failure to do so.

9.3.3.3 The Contractor's scheduled dates for completion of any activity or the entire Work do not constitute a change in terms of the Contract. Change Orders are the only method of modifying the completion date(s) and Contract Time.

9.4 Ownership of Float. Unless indicated otherwise in the Contract Documents, the Contractor shall develop the Work Progress Schedule and its execution plan to include a minimum of ten (10%) percent float of work days (work days shall be defined as Monday through Friday 8:00 to 5:00) at the project level in the baseline schedule. Float time contained in the Work Progress Schedule is not for the exclusive benefit of the Contractor or the ODR, but belongs to the Project and may be consumed by either party as needed on a first-used basis.

9.5 Completion of Work. The Contractor is accountable for completing the Work in the time stated in the Contract, or as otherwise amended by Change Order.

9.5.1 If, in the judgment of the ODR, the Work is behind schedule and the rate of placement of Work is inadequate to regain scheduled progress to insure timely completion of the entire Work or a separable portion thereof, the Contractor, when so informed by the ODR, shall immediately take action to increase the rate of work placement by:

9.5.1.1 An increase in working forces.

9.5.1.2 An increase in equipment or tools.

9.5.1.3 An increase in hours of work or number of shifts.

9.5.1.4 Expediting delivery of materials.
9.5.1.5 Other action proposed if acceptable to ODR.

9.5.2 Within ten (10) calendar days after such notice from the ODR, the Contractor shall notify the ODR in writing of the specific measures taken and/or planned to increase the rate of progress. The Contractor shall include an estimate as to the date of scheduled progress recovery and an updated Work Progress Schedule illustrating the Contractor’s plan for achieving timely completion of the Project. Should the ODR deem the plan of action inadequate, the Contractor shall take additional steps or make adjustments as necessary to its plan of action until it meets with the ODR’s approval.

9.6 Modification of the Contract Time

9.6.1 Delays and extension of time as hereinafter described are valid only if executed in accordance with provisions set forth in Article 11.

9.6.2 When a delay defined herein as excusable prevents the Contractor from completing the Work within the Contract Time, the Contractor is entitled to an extension of time. The ODR will make an equitable adjustment and extend the number of calendar days lost because of excusable delay, as measured by the Contractor’s Work Progress Schedule. All extensions of time will be granted in calendar days. In no event, however, will an extension of time be granted for delays that merely extend the duration of non-critical activities, or which only consume float time without delaying the project completion date.

9.6.2.1 “A Weather Day” is a day on which the Contractor’s current schedule indicates Work is to be done, and on which inclement weather and related Site conditions prevent the Contractor from performing seven continuous hours of Work between the hours of 7:00 a.m. and 6:00 p.m. Weather days are excusable delays. When weather conditions at the Site prevent Work from proceeding, the Contractor shall immediately notify the ODR for confirmation of the conditions. At the end of each calendar month, the Contractor shall submit to the ODR and A/E a list of Weather Days occurring in that month along with documentation of the impact on critical activities. Based on confirmation by the ODR, any time extension granted will be issued by Change Order for those weather days during that any month rain days actually exceed the number expected, as shown in the Rainfall Table below. If the Contractor and ODR cannot agree on the time extension, the ODR may issue a unilateral Change Order for a fair and reasonable time extension.
### Rainfall Table: Rain Days Greater than .10” (Days Inclement Weather)

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#### 9.6.2.2 Excusable Delay.

The Contractor is entitled to an equitable adjustment of time, issued via Change Order, for delays caused by the following:

- **9.6.2.2.1** Errors, omissions and imperfections in design which the A/E corrects by means of changes in the Drawings and Specifications.

- **9.6.2.2.2** Unanticipated physical conditions at the Site which the A/E corrects by means of changes to the Drawings and Specifications or for which the ODR directs changes in the Work identified in the Contract Documents.

- **9.6.2.2.3** Changes in the Work that affect activities identified in the Contractor’s schedule as “critical” to completion of the entire Work, if such changes are ordered by the ODR or the A/E.

- **9.6.2.2.4** Suspension of Work for unexpected natural events (sometimes called “acts of God”), civil unrest, strikes or other events which are not within the reasonable control of the Contractor.

- **9.6.2.2.5** Suspension of Work for convenience of the ODR, which prevents Contractor from completing the Work within the Contract Time.

#### 9.6.3 The Contractor’s relief in the event of such delays, as identified above, is the time impact to the critical path as determined by analysis of the Contractor’s Work Progress Schedule. In the event that the Contractor incurs additional direct costs because of the delay, they are to be determined pursuant to the provisions of Article 11.

#### 9.7 No Damages for Delay.

The Contractor has no claim for monetary damages for delay or hindrances to the Work from any cause, including without limitation any act or omission of the ODR.

#### 9.8 Concurrent Delay.

When the completion of the Work is simultaneously delayed by
an excusable delay and a delay arising from a cause not designated as excusable, the Contractor may not be entitled to a time extension for the period of concurrent delay.

9.9 Other Time Extension Requests. Time extensions requested in association with changes to the Work directed or requested by the ODR shall be included with the Contractor’s proposed costs for such change. Time extensions requested for inclement weather are covered by paragraph 9.6.2.1 above. If the Contractor believes that the completion of the Work is delayed by a circumstance other than for changes directed to the Work or weather, it shall give the ODR written notice, stating the nature of the delay and the activities potentially affected, within five (5) calendar days after the onset of the event or circumstance giving rise to the delay. The Contractor shall provide sufficient written evidence to document the delay. In the case of a continuing cause of delay, only one notice of delay is necessary. The Contractor shall state claims for extensions of time in numbers of whole or half calendar days.

9.9.1 Within ten (10) calendar days after the cessation of the delay, the Contractor shall formalize its request for extension of time in writing to include a full analysis of the impact of the delay on the Work Progress Schedule and substantiation of the excusable nature of the delay. All changes to the Contract Time or made as a result of such claims is by Change Order, as set forth in Article 11.

9.9.2 No extension of time releases the Contractor or the surety furnishing a performance or payment bond from any obligations under the Contract or such bond. Those obligations remain in full force until the discharge of the Contract.

9.9.3 Contents of Time Extension Requests. The Contractor shall provide with each time extension request (“Time Extension Request”) a quantitative demonstration of the impact of the delay on project completion time, based on the Work Progress Schedule. The Contractor shall include with each Time Extension Requests a reasonably detailed narrative setting forth:

9.9.3.1 The nature of the delay and its cause; the basis of the Contractor’s claim of entitlement to a time extension.

9.9.3.2 Documentation of the actual impacts of the claimed delay on the critical path indicated in the Contractor’s Work Progress Schedule, and any concurrent delays.

9.9.3.3 Description and documentation of steps taken by the Contractor to mitigate the effect of the claimed delay, including, when appropriate, the modification of the Work Progress Schedule.
9.9.4 **ODR’s Response.** The ODR will respond to the Time Extension Request by providing to the Contractor written notice of the number of days granted, if any, and giving its reason if this number differs from the number of days requested by the Contractor.

9.9.4.1 The ODR will not grant time extensions for delays that do not affect the Contract Completion Date.

9.9.4.2 The ODR will respond to each properly submitted Time Extension Request within fifteen (15) calendar days following receipt. If the ODR cannot reasonably make a determination about the Contractor’s entitlement to a time extension within that time, the ODR will notify the Contractor in writing. Unless otherwise agreed by the Contractor, the ODR has no more than fifteen (15) additional calendar days to prepare a final response.

9.10 **Failure to Complete Work Within the Contract Time.** The Contractor’s failure to substantially complete the Work within the Contract Time or to achieve Final Completion (as defined below) as required will cause damage to the Owner and ODR. These damages are liquidated by agreement of the Contractor, Owner and the ODR, as set forth in Article 9.11 below.

9.11 **Liquidated Damages.** For each consecutive calendar day after the date of Substantial Completion, plus any extensions of time granted by Change Order, that the Work is not substantially completed, Contractor shall pay to ODR, within ten (10) days following written demand, an amount determined by the following schedule:

| Project Work – Actual Cost of Construction (ACCC) |
|-----------------|-----------------|-----------------|
| From | To | Per Day |
| $0 | $2999,999,999 | $250.00 |
| $300,000 | $999,999,999 | $500.00 |
| $1,000,000 | $4,999,999,999 | $2,500.00 |
| $5,000,000 | $10,000,000 | $5,000.00 |

Liquidated Damages shall be applied not as a penalty but as liquidated damages representing the parties' estimate at the time of contract execution of the damages that Owner or ODR will sustain for late completion. ODR may also recover the liquidated damages from any money due or that becomes due Contractor.

The parties stipulate and agree that the actual damages sustained by Owner or ODR for late completion of the Project will be uncertain and difficult to ascertain, that calculating Owner’s or ODR’s actual damages would be impractical, unduly
burdensome, and cause unnecessary delay, and that the amount of daily liquidated damages set forth above is a reasonable estimate.

Payment of the liquidated damages does not preclude recovery by Owner or ODR of other damages or losses under other provisions of the Contract, except for claims related to delays in Substantial Completion (as defined below) or Final Completion. Owner’s right to receive liquidated damages shall not affect Owner’s right to terminate the Contract as provided in these UGSC or elsewhere in the Contract Documents, nor shall termination of the Contract release Contractor from the obligation to pay the liquidated damages.

**Article 10. Payments**

10.1. **Schedule of Values.** The Contractor shall submit to the ODR and, if applicable the A/E for acceptance a breakdown or specific values accurately itemizing material and labor for the various classifications of the Work based on the organization of the specification sections and using the same activity names and terms as the Work Progress Schedule (“Schedule of Values”). The accepted Schedule of Values will be the basis for the progress payments under the Contract.

10.1.1 No progress payments will be made prior to receipt and acceptance of the Schedule of Values, which shall be provided in such detail as required by the ODR, and submitted not less than twenty-one calendar (21) days prior to the first request for payment. The Schedule of Values shall follow the order of trade divisions of the Work and include costs for general conditions, fees, contingencies, and Owner cash allowances, if applicable, so that the sum of the items will equal the contract sum (“Contract Sum”). As appropriate, the Contractor shall assign labor and/or material values to each item, the subtotal thereof equaling the value of the Work in place when complete.

10.1.2 The Contractor shall retain a copy of all worksheets used in preparation of its bid or proposal, supported by a notarized statement that the worksheets are true and complete copies of the documents used to prepare the bid or proposal, and make the worksheets available to the ODR at the time of Contract execution. Thereafter the Contractor shall grant the ODR during normal business hours access to said notarized copy of worksheets at any time during the period commencing upon execution of the Contract and ending one year after final payment.

10.2. **Progress Payments.** The Contractor will receive periodic progress payments for Work performed, materials in place, suitably stored on site, or as otherwise agreed to by the ODR and the Contractor. Payment is not due until receipt by the ODR or his designee of a correct and complete pay application in electronic and/or hard copy format (“Pay Application”) as set forth in the Contract, and certified by the A/E, if applicable. Progress payments are made provisionally and do not constitute
acceptance of Work not in accordance with the Contract Documents. The ODR will not process progress payment applications for Change Order work until all parties execute the Change Order.

10.2.1 Preliminary Pay Worksheet. Once each month that a progress payment is to be requested, the Contractor shall submit to the A/E and the ODR a complete, clean copy of a preliminary pay worksheet (“Preliminary Pay Worksheet”), to include the following:

10.2.1.1 The Contractor’s estimate of the amount of Work performed, labor furnished and materials incorporated into the Work, using the established Schedule of Values.

10.2.1.2 An updated Work Progress Schedule including the executive summary and all required schedule reports.

10.2.1.3 Such additional documentation as ODR may require as set forth elsewhere in the Contract Documents.

10.2.2 Contractor’s Application for Progress Payment. As soon as practicable, but in no event later than seven days after receipt of the Preliminary Pay Worksheet, the ODR will meet with the Contractor to review the Preliminary Pay Worksheet and to observe the condition of the Work. Based on this review, the ODR may require modifications to the Preliminary Pay Worksheet prior to the submittal of an application for progress payment, and will promptly notify the Contractor of revisions necessary for approval. As soon as practicable, the Contractor shall submit its invoice on the appropriate and completed form, reflecting the required modifications to the Schedule of Values required by the ODR. The Contractor shall attach all additional documentation required by the ODR, as well as an affidavit affirming that all payrolls, bills for labor, materials, equipment, subcontracted work and other indebtedness connected with the Contractor’s invoice are paid or will be paid within the time specified herein. No invoice is complete unless it fully reflects all required modifications, and attaches all required documentation including the Contractor’s affidavit.

10.3 ODR’s Duty to Pay. The ODR has no duty to pay the Contractor except on receipt by the ODR of: 1) a complete Progress Invoice, 2) the Contractor’s updated Work Progress Schedule, and 3) confirmation that the Contractor’s as-built documentation at the Site is kept current.

10.3.1 Payment for stored materials and/or equipment confirmed by the ODR to be on-site or otherwise properly stored is limited to 85 percent (85%) of the invoice price or 85 percent (85%) of the scheduled value for the materials or equipment, whichever is less.
10.3.2 **Retainage.** The Owner will withhold from each Progress Invoice, as retainage, Five percent (5%) of the Progress Invoice earned amount, or the amount authorized by law. Retainage is managed in conformance with Tex. Gov’t Code, Chapter 2252, Government Code, subchapter B.

10.3.2.1 The Contractor shall provide written consent of its Surety for any request for reduction or release of retainage.

10.3.2.2 At least sixty-five percent (65%) of the total Contract must be completed before the ODR can consider a retainage reduction or release.

10.3.3 **Price Reduction to Cover Loss.** The ODR may reduce any Progress Invoice, or application for a progress payment, prior to payment to the extent necessary to protect the ODR from loss on account of actions of the Contractor including, but not limited to:

10.3.3.1 Defective or incomplete Work not remedied.

10.3.3.2 Damage to Work of a separate Contractor.

10.3.3.3 Failure to maintain scheduled progress or reasonable evidence that the Work will not be completed within the Contract Time.

10.3.3.4 Persistent failure to carry out the Work in accordance with the Contract Documents.

10.3.3.5 Reasonable evidence that the Work cannot be completed for the unpaid portion of the Contract Sum.

10.3.3.6 Assessment of fines for violations of Prevailing Wage Rate law; or

10.3.3.7 Failure to include the appropriate amount of retainage for that Progress Invoice.

10.3.4 Title to all material and Work covered by Progress Invoice transfers to the Owner upon payment.

10.3.4.1 Transfer of title to Owner does not relieve the Contractor of the sole responsibility for the care and protection of materials and Work upon which payments have been made until final acceptance of the entire Work, or the restoration of any damaged Work, or waive the right of the ODR to require the
fulfillment of all the terms of the Contract.

10.4 Progress payments to the Contractor do not release the Contractor or its surety from any obligations under the Contract.

10.4.1 Upon the ODR’s request, the Contractor shall furnish manifest proof of the status of Subcontractor’s accounts in a form acceptable to the ODR.

10.4.2 Pay estimate certificates must be signed by a corporate officer or a representative duly authorized by the Contractor.

10.4.3 The Contractor shall provide copies of bills of lading, invoices, delivery receipts or other evidence of the location and value of such materials in requesting payment for materials.

10.4.4 For purposes of Tex. Gov’t Code § 2251.021(a)(2), the date the performance of service is complete is the date when the ODR’s representative approves the application for payment.

10.5 Off-Site Storage. With prior approval by the ODR and in the event Contractor elects to store materials at an off-site location, abide by the following conditions, unless otherwise agreed to in writing by the ODR.

10.5.1 Store materials in a bonded commercial warehouse.

10.5.2 Provide separate insurance coverage adequate not only to cover materials while in storage, but also in transit from the off-site storage areas to the Project Site. Copies of duly authenticated certificates of insurance, made out to insure the Owner and ODR must be filed with the ODR.

10.5.3 Inspection by Owner’s representative is allowed at any time. The Owner’s inspectors must be satisfied with the security, control, maintenance, and preservation measures.

10.5.4 Materials for the Project are physically separated and marked for the Project in a sectioned-off area. Only materials which have been approved through the submittal process are to be considered for payment.

10.5.5 ODR reserves the right to reject materials at any time prior to final acceptance of the complete Project if they do not meet Contract requirements regardless of any previous progress payment made.

10.5.6 With each monthly payment estimate, submit a report to the ODR, A/E, and ODR’s Inspector listing the quantities of materials already paid for and still stored in the off-site location.
10.5.7 Make warehouse records, receipts and invoices available to ODR’s representatives, upon request, to verify the quantities and their disposition.

10.5.8 In the event of Contract termination or default by Contractor, the items in storage off-site, upon which payment has been made, will be promptly turned over to the ODR at a location near the Site as directed by the ODR. The full provisions of performance and payment bonds on this Project cover the materials off-site in every respect as though they were stored on the Project Site.

**Article 11. Changes**

11.1. **Change Orders.** A Change Order issued after execution of the Contract is a written order to the Contractor, signed by the ODR, the Contractor, and the A/E, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time can only be changed by Change Order. A Change Order signed by the Contractor indicates his agreement therewith, including the adjustment in the Contract Sum and/or the Contract Time. The ODR may issue written authorization for the Contractor to proceed with work of a Change Order in advance of final execution by all parties. In the absence of an agreement with the Contractor on a Change Order, the ODR may issue a unilateral Change Order (“Unilateral Change Order”) that will have the full force and effect of a contract modification. The issuance of a Unilateral Change Order does not prejudice the Contractor’s rights to make claims or to appeal disputed matters under terms of the Contract.

11.1.1 The ODR, without invalidating the Contract, and without prior approval of the surety, may order Changes Order to the Work within the general scope of the Contract consisting of additions, deletions or other revisions, and the Contract Sum and the Contract Time will be adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. If such changes cause an increase or decrease in the Contractor’s cost of, or time required for, performance of the Contract, an equitable adjustment shall be made and confirmed in writing in a Change Order.

11.1.2 It is recognized by the parties hereto and agreed by them that the Drawings and Specifications may not be complete or free from errors, omissions and imperfections or that they may require changes or additions in order for the Work to be completed to the satisfaction of ODR and that, accordingly, it is the express intention of the parties, notwithstanding any other provisions in this Contract, that any errors, omissions or imperfections in such Drawings and Specifications, or any changes in or additions to same or to the Work ordered by ODR and any resulting delays in the Work or increases in Contractor’s costs and expenses, shall not constitute or give rise
to any claim, demand or cause of action of any nature whatsoever in favor of Contractor, whether for breach of contract, *quantum meruit*, or otherwise; provided, however, that ODR shall be liable to Contractor for the sum stated to be due Contractor in any Change Order approved and signed by both parties, it being agreed hereby that such sum, together with any extension of time contained in said Change Order, shall constitute full compensation to Contractor for all costs, expenses and damages to Contractor, whether direct, consequential or otherwise in any wise incident to, arising out of, or resulting directly or indirectly from the work performed by Contractor under such Change Order.

11.1.3 Procedures for administration of Change Orders shall be established by the ODR and as stated herein.

11.1.4 Except as provided above, no order, oral statement, or direction of the ODR or his duly appointed representative shall be treated as a Change Order under this article or entitle the Contractor to an adjustment.

11.1.5 The Contractor agrees that the ODR or any of its duly authorized representatives shall have access and the right to examine any directly pertinent books, documents, papers, and records of the Contractor. Further, the Contractor agrees to include in all its subcontracts a provision to the effect that the Subcontractor agrees that the ODR or any of its duly authorized representatives shall have access to and the right to examine any directly pertinent books, documents, papers and records of such Subcontractor relating to any claim arising from this Contract, whether or not the Subcontractor is a party to the claim. The period of access and examination described herein which relates to appeals under the disputes article of the Contract, litigation, or the settlement of claims arising out of the performance of the Contract shall continue until final disposition of such claims, appeals or litigation.

11.2 Unit Prices. If the quantity of a unit priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the ODR within 10 days from the beginning of the delay, or within such further period as may be granted by the ODR before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the ODR shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the ODR, is justified.
11.3 **Claims for Additional Costs.**

11.3.1 If the Contractor wishes to make a claim for an increase in the Contract Sum not related to a requested Change Order, it shall give the ODR and the A/E written notice thereof within twenty-one (21) days after the occurrence of the event giving rise to such claim, but, in any case before proceeding to execute the work considered to give rise to the additional cost or time, except in an emergency endangering life or property in which case the Contractor shall act in accordance with Article 7.2.1. No such claim shall be valid unless so made. If the ODR and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined as set forth under the dispute resolution process in the Contract Documents. Any change in the Contract Sum resulting from such claim shall be authorized by Change Order.

11.3.2 If the Contractor claims that additional cost is involved because of, but not limited to: 1) any written interpretation of the Contract Documents, 2) any order by the ODR to stop the Work pursuant to Article 14 where the Contractor was not at fault, or 3) any written order for a minor change in the Work issued pursuant to Article 11.4, the Contractor shall make such claim as provided in Article 11.3.1.

11.3.3 Should the Contractor or its Subcontractors fail to call attention of obvious discrepancies or omissions to the A/E or ODR in the Bid/Proposal Documents during the pre-bid/pre-proposal period, but claim additional costs for corrective work after contract award, the ODR may assume intent to circumvent competitive bidding for necessary corrective work. In such case, the ODR may choose to let a separate contract for the corrective work, or issue a Unilateral Change Order to require performance by the Contractor. Claims for time extensions or for extra cost resulting from delayed notice of contract document discrepancies or omissions will not be considered by the ODR.

11.4 **Minor Changes.** The A/E, with concurrence of the ODR, will have authority to order minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time. Such changes shall be effected by written order which the Contractor shall carry out promptly and record on as-built record documents.

11.5 **Concealed Site Conditions.** If, in the performance of the Contract, subsurface, latent or concealed conditions at the Site are found to be materially different from the information included in the bid/proposal documents, or if unknown conditions of an unusual nature are discovered differing materially from the conditions usually inherent in work of the character shown and specified, the ODR and the A/E shall be notified in writing of such conditions before they are disturbed. Upon such notice, or
upon its own observation of such conditions, the A/E, with the approval of the ODR, will promptly make such changes in the Drawings and Specifications as they deem necessary to conform to the different conditions, and any increase or decrease in the cost of the Work, or in the time within which the Work is to be completed, resulting from such changes will be adjusted by Change Order, subject to the prior approval of the ODR.

11.6. **Extension of Time.** All Changes to the Contract Time shall be made as a consequence of requests as required under Article 9.6, and as documented by Change Order as provided under Article 11.1.

11.7 **Administration of Change Orders.** All changes in the Contract shall be administered in accordance with procedures approved by the ODR, and when required make use of such electronic information management system(s) as the ODR may employ.

11.7.1 Routine changes in the Contract shall be formally initiated by the ODR or A/E by means of a contract revision (“Contract Revision”) form detailing requirements of the proposed change for pricing by the Contractor. This action may be preceded by communications between the Contractor, A/E and ODR concerning the need and nature of the change, but such communications shall not constitute a basis for beginning the proposed Work by the Contractor. Except for emergency conditions described below, approval of the Contractor’s cost proposal by the ODR will be required for authorization to proceed with the Work being changed. The ODR will not be responsible for the cost of Work changed without prior approval and the Contractor may be required to remove Work so installed.

11.7.2 All proposed costs for Change Order Work must be supported by itemized accounting of material, equipment and associated itemized installation costs in sufficient detail, following the outline and organization of the established Schedule of Values, to permit analysis by the A/E and ODR using current estimating guides and/or practices. Photocopies of Subcontractor and vendor proposals shall be furnished unless specifically waived by the ODR. Contractor shall provide written response to a Contract Revision within twenty-one (21) calendar days of receipt.

11.7.3 Any unexpected circumstance which necessitates an immediate Change Order to avoid a delay in progress of the Work may be expedited by written communication and authorization between the Contractor and ODR or Owner. A limited scope not-to-exceed estimate of cost and time will be requested prior to authorizing Work to proceed. Should the estimate be impractical for any reason, the ODR may authorize the use of detailed cost records of such Work to establish and confirm the actual costs and time for documentation in a formal Change Order.
11.7.4 Emergency changes to save life or property may be initiated by the Contractor alone (see Article 7.3) with the claimed cost and/or time of such Work to be fully documented as to necessity and detail of the reported costs and/or time.

11.7.5 The method of incorporating approved changes into the parameters of the accepted Schedule of Values must be coordinated and administered in a manner acceptable to the ODR.

11.8 Pricing Change Order Work. The amounts that the Contractor and/or its Subcontractors add to a Contract Revision for profit and overhead will also be considered by the ODR before approval is given and a Change Order issued. The amounts established hereinafter are the maximums that are acceptable to the ODR.

11.8.1 For work performed by its forces, the Contractor will be allowed its actual costs for materials, equipment charges, the total amount of wages paid for labor, the total cost of Federal Old Age Benefit ("Social Security Tax") and of Worker's Compensation and Comprehensive General Liability Insurance, plus bond cost if the change results in an increase in the bond premium paid by the Contractor. To the total of the above costs, the Contractor will be allowed to add a percentage as noted below to cover overhead and profit combined. Overhead shall be considered to include insurance other than mentioned above, field and office supervisors and assistants, including safety and scheduling personnel, use of small tools, incidental job burdens and general home office expenses, and no separate allowance will be made therefore. Allowable percentages for overhead and profit on changes will not exceed 15 percent if the total of self-performed work is less than or equal to $10,000, 10 percent (10%) if the total of self-performed work is between $10,000 and $20,000 and 7.5 percent (7.5%) if the total of self-performed work is over $20,000, for any specific change priced.

11.8.2 For subcontracted Work each affected Subcontractor shall figure its costs, overhead and profit as described above for Contractor's work, all subcontractor costs shall be combined, and to that total subcontractor cost the Contractor will be allowed to add a maximum mark-up of 10 percent (10%) if the total of all subcontracted work is less than or equal to $10,000, 7.5 percent (7.5%) if the total of all subcontracted work is between $10,000 and $20,000 and 5 percent (5%) if the total of all subcontractor work is over $20,000.

11.8.3 On changes involving both additions and deletions, percentages for overhead and profit will be allowed only on the net addition. The ODR does not accept and will not pay for additional contract cost identified as indirect,
consequential, or as damages caused by delay.

11.8.4 On contracts based on a Guaranteed Maximum Price ("GMP"), the Construction Manager-at-Risk or Design Build Firm shall NOT be entitled to a percentage mark-up on any change order work unless the Change Order increases the Guaranteed Maximum Price.

Article 12. Project Completion and Acceptance

12.1. Closing Inspections

12.1.1 Substantial Completion Inspection. When the Contractor considers the entire Work or part thereof Substantially Complete, it shall notify the ODR in writing that the Work will be ready for Substantial Completion Inspection on a specific date. The Contractor shall include with this notice the Contractor’s punch list ("Punch List") to indicate that it has previously inspected all the Work associated with the request for inspection, has corrected items where possible, and includes all items scheduled for completion or correction prior to final inspection. The failure to include any items on the Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. If any of the items on the Punch List prevents the facility from being used as intended, the Contractor shall not request a Substantial Completion Inspection. The Owner, ODR and its representatives will review the Punch List of items and schedule the requested inspection, or inform the Contractor in writing that such an inspection is premature because the Work is not sufficiently advanced or conditions are not as represented on the Contractor’s Punch List.

12.1.1.1 Prior to the Substantial Completion Inspection, the Contractor shall furnish a copy of its marked-up As-Built Drawings and a preliminary copy of each instructional manual, maintenance and operating manual, parts catalog, wiring diagrams, spare parts, specified written warranties and like publications or parts for all installed equipment, systems and like items. Delivery of these items is a prerequisite for requesting the Substantial Completion Inspection.

12.1.1.2 On the date requested by Contractor, or as mutually agreed upon pending the status of the open items list, the A/E, ODR, the Contractor and other Owner representatives as determined by the Owner, will jointly attend the Substantial Completion Inspection, which shall be conducted by the ODR or their delegate. If the ODR determines that the Work is Substantially Complete, the ODR will issue a Certificate of Substantial Completion to be signed by, if applicable, the A/E, Owner and
Contractor, establishing the date of Substantial Completion, and identifying responsibilities for security, maintenance, and insurance. If applicable the A/E or ODR will provide with the Certificate of Substantial Completion a final punch list items (the “Pre-Final Punch List”) for completion prior to final inspection. This list may include items in addition to those on the Contractor’s Punch List, which the inspection team deems necessary to correct or complete prior to final inspection. If the Owner occupies the facility upon determination of Substantial Completion, the Contractor shall complete all corrective Work at the convenience of the Owner, without disruption to Owner’s use of the facility for its intended purposes.

12.1.2 Final Inspection. The Contractor shall complete the list of items identified on the Final Punch List prior to requesting a final inspection. Unless otherwise specified, or otherwise agreed in writing by the parties as documented on the Certificate of Substantial Completion, the Contractor shall correct all Work within thirty (30) days of the Substantial Completion date. Upon completion of the Final Punch List, the Contractor shall give written notice to the ODR and, if applicable A/E that the Work will be ready for final inspection on a specific date. The Contractor shall accompany this notice with a copy of the updated Final Punch List indicating resolution of all items. On the date specified or as soon thereafter as is practicable, the ODR, A/E and the Contractor will inspect the Work. The ODR will submit to the Contractor a Final Punch List of open items that the inspection team requires corrected or completed before final acceptance of the Work.

12.1.2.1 The Contractor must correct or complete all items on the Final Punch List before requesting Final Payment. Unless otherwise agreed to in writing by the parties, complete this Work within seven (7) days of receiving the Final Punch List. Upon completion of the Final Punch List, the Contractor shall notify the A/E and ODR in writing stating the disposition of each Final Punch List item. The ODR, if applicable A/E, Owner and Contractor shall promptly inspect the completed items. When the Final Punch List is complete, and the Contract is fully satisfied according to the Contract Documents the ODR will issue a certificate establishing the date of final completion. Completion of all Work is a condition precedent to the Contractor’s right to receive final payment.

12.1.3 Annotation. Any certificate issued under this Article may be annotated to indicate that it is not applicable to specified portions of the Work, or that it is subject to any limitation as determined by the Owner or ODR.
12.1.4 **Purpose of Inspection.** Inspection is for determining the completion of the Work, and does not relieve the Contractor of its overall responsibility for completing the Work in a good and competent fashion, in compliance with the Contract. Work accepted with incomplete Punch List items or failure of the Owner, ODR or other parties to identify Work that does not comply with the Contract Documents or is defective in operation or workmanship does not constitute a waiver of the Owner's rights under the Contract or relieve the Contractor of its responsibility for performance or warranties.

12.1.5 **Additional Inspections**

12.1.5.1 If the ODR's inspection team determines that the Work is not Substantially Complete at the substantial completion inspection, the ODR or, if applicable A/E will give the Contractor written notice listing cause(s) of the rejection. The ODR will set a time for completion of incomplete or defective work. The Contractor must complete or correct all work so designated prior to requesting a second Substantial Completion inspection.

12.1.5.2 If the ODR's inspection team determines that the Work is not complete at the Substantial Completion inspection, the ODR or, if applicable the A/E will give the Contractor written notice listing the cause(s) of the rejection. The ODR will set a time for completion of incomplete or defective Work. The Contractor shall complete or correct all Work so designated prior to again requesting a final Inspection.

12.1.5.3 The Contract contemplates three (3) comprehensive inspections: the Substantial Completion Inspection, the Final Completion Inspection, and the Inspection of Completed Final Punch List Items. The cost to the ODR of additional inspections resulting from the Work not being ready for one or more of these inspections is the responsibility of the Contractor. The ODR may issue a Unilateral Change Order deducting these costs from Final Payment. Upon the Contractor's written request, the ODR will furnish documentation of any costs so deducted. Work added to the Contract by Change Order after Substantial Completion Inspection is not corrective work for purposes of determining timely completion, or assessing the cost of additional inspections.

12.1.6 **Phased Completion.** The Contract may provide, or Project conditions may warrant, as determined by the ODR, that designated elements or parts of the Work be completed in phases. Where phased completion is required or
specifically agreed to by the parties, the provisions of the Contract related to
closing inspections, occupancy and acceptance apply independently to each
designated element or part of the Work. For all other purposes, unless
otherwise agreed by the parties in writing, Substantial Completion of the
Work as a whole is the date on which the last element or part of the Work
completed receives a Substantial Completion certificate. Final Completion of
the Work as a whole is the date on which the last element or part of the
Work completed receives a Final Completion certificate.

12.2 **Owner’s Right of Occupancy.** The Owner may occupy or use all or any portion of
the Work following Substantial Completion, or at any earlier stage of completion.
Should the Owner wish to use or occupy the Work, or part thereof, prior to
Substantial Completion, the ODR will notify the Contractor in writing. Work performed
on the premises by third parties on the Owner’s behalf does not constitute occupation
or use of the Work by the Owner for purposes of this Article. All Work performed by
the Contractor after occupancy, whether in part or in whole, shall be at the
convenience of the Owner so as to not disrupt Owner’s use of, or access to, occupied
areas of the Project.

12.3 **Acceptance & Payment**

12.3.1 **Request for Final Payment.** Following the certified completion of all Work,
including all Punch List items, cleanup, and the delivery of record documents,
the Contractor shall submit a certified Application for Final Payment. The
Contractor must include in the Application of Final Payment all sums held as
retainage and forward to the ODR for review and approval.

12.3.2 **Final Payment Documentation.** The Contractor shall submit, prior to or with
the Application for Final Payment, final copies of all Close-Out Documents,
maintenance and operating instructions, guarantees and warranties,
certificates, record documents and all other items required by the Contract.
The Contractor shall submit consent of surety to final payment and an
affidavit that all payrolls, bills for materials and equipment, subcontracted
work and other indebtedness connected with the Work, except as
specifically noted, are paid, will be paid, or otherwise satisfied within the
period of time required by Tex. Gov’t Code, Chapter 2251. The Contractor
shall furnish documentation establishing payment or satisfaction of all such
obligations, such as receipts, releases and waivers of claims and liens arising
out of the Contract. The Contractor may not subsequently submit a claim on
behalf of a Subcontractor or vendor unless the Contractor’s affidavit notes
that claim as an exception.

12.3.3 **ODR Approval.** The ODR will review a submitted Application for Final
Payment promptly but in no event later than ten (10) days after its receipt.
Prior to the expiration of this deadline, the ODR will either 1) return the
Application for Final Payment to Contractor with corrections for action and resubmission or 2) accept it, note its approval and send to Owner for payment.

12.3.4 Offsets and Deductions. The ODR may deduct from the Final Payment all sums due from the Contractor. If the Certificate of Final Completion notes any Work remaining, incomplete, or any defects not remedied, the ODR may deduct the cost of remedying such deficiencies from the Final Payment. On such deductions, the ODR will identify each deduction, the amount, and the explanation of the deduction on or by the 21st day after ODR's receipt of an approved Application for Final Payment. Such offsets and deductions shall be incorporated via a final Change Order, including a Unilateral Change Order as may be applicable.

12.3.5 Final Payment Due. Final Payment is due and payable by the ODR, subject to all allowable offsets and deductions, on the 31st day following the ODR’s approval of the final application for payment. If the Contractor disputes any amount deducted by the ODR, the Contractor shall give notice of the dispute on or before the thirtieth (30th) day following receipt of final payment. Failure to do so will bar any subsequent claim for payment of amounts deducted.

12.3.6 Effect of Final Payment. Final Payment constitutes a waiver of all claims by the Owner and ODR, relating to the condition of the Work except those arising from:

12.3.6.1 Faulty or defective Work appearing after Substantial Completion (latent defects); and/or

12.3.6.2 Failure of the Work to comply with the requirements of the Contract Documents; and/or

12.3.6.3 Terms of any warranties required by the Contract, or implied by law; and/or

12.3.6.4 Claims arising from personal injury or property damage to third parties.

12.3.7 Waiver of Claims. Final payment constitutes a waiver of all claims and liens by the Contractor except those specifically identified in writing and submitted to the ODR prior to the application for Final Payment.

12.3.8 Effect on Warranty. Regardless of approval and issuance of Final Payment, the Contract is not deemed fully performed by the Contractor and closed until the expiration of all warranty periods.
Article 13. Warranty and Guarantee

13.1. Contractor's General Warranty and Guarantee. Contractor warrants to the ODR that all Work is executed in accordance with the Contract, complete in all parts and in accordance with approved practices and customs, and of the best finish and workmanship. The Contractor further warrants that unless otherwise specified, all materials and equipment incorporated in the Work under the Contract are new. The ODR may, at its option, agree in writing to waive any failure of the Work to conform to the Contract, and to accept a reduction in the Contract Sum for the cost of repair or diminution in value of the Work by reason of such defect. Absent such a written agreement, the Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute and is not waived by any inspection or observation by the ODR, if applicable A/E or others, by making any progress payment or final payment, by the use or occupancy of the Work or any portion thereof by the ODR, at any time, or by any repair or correction of such defect made by the ODR.

13.2. Warranty Period. Except as may be otherwise specified or agreed, the Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Work. If Substantial Completion occurs by phase, then the warranty period for that particular Work begins on the date of such occurrence, or as otherwise stipulated on the Certificate of Substantial Completion for the particular Work.

13.3. Limits on Warranty. Contractor’s warranty and guarantee hereunder excludes defects or damage caused by:

13.3.1 Modification or improper maintenance or operation by persons other than Contractor, Subcontractors, or any other individual or entity for whom Contractor is responsible, unless ODR is compelled to undertake maintenance or operation due to the neglect of the Contractor.

13.3.2 Normal wear and tear under normal usage after acceptance of the Work by the ODR and Owner.

13.4. Events Not Affecting Warranty. Contractor’s obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor’s obligation to perform the Work in accordance with the Contract Documents:

13.4.1 Observations by Owner, ODR or A/E;
13.4.2 Recommendation to pay any progress or final payment by A/E;
13.4.3 The issuance of a Certificate of Substantial Completion or any payment by ODR to Contractor under the Contract Documents;

13.4.4 Use or occupancy of the Work or any part thereof by Owner;

13.4.5 Any acceptance by ODR or any failure to do so;

13.4.6 Any review of a Shop Drawing or Sample submittal; or

13.4.7 Any inspection, test or approval by others.

13.5 Separate Warranties. If a particular piece of equipment or component of the Work for which the Contract requires a separate warranty is placed in continuous service before Substantial Completion, the Warranty Period for that equipment or component will not begin until Substantial Completion, regardless of any warranty agreements in place between suppliers and/or Subcontractors and the Contractor. The ODR will certify the date of service commencement in the Certificate of Substantial Completion.

13.5.1 In addition to the Contractor’s warranty and duty to repair, the Contractor expressly assumes all warranty obligations required under the Contract for specific building components, systems and equipment.

13.5.2 The Contractor may satisfy any such obligation by obtaining and assigning to the Owner a complying warranty from a manufacturer, supplier, or Subcontractor. Where an assigned warranty is tendered and accepted by the ODR which does not fully comply with the requirements of the Contract, the Contractor remains liable to the ODR on all elements of the required warranty not provided by the assigned warranty.

13.6 Correction of Defects. Upon receipt of written notice from the Owner, or the ODR, of the discovery of a defect, the Contractor shall promptly remedy the defect(s), and provide written notice to the Owner and ODR indicating action taken. In case of emergency where delay would cause serious risk of loss or damage to the ODR or Owner, or if the Contractor fails to remedy within 30 days, or within another period agreed to in writing, the ODR may correct the defect and be reimbursed the cost of remedying the defect from the Contractor or its Surety.

13.7 Certification of No Asbestos Containing Materials or Work. The Contractor shall ensure compliance with the Asbestos Hazard Emergency Response Act (AHERA—40 CFR 763-99 (7)) from all Subcontractors and materials suppliers, and shall provide a notarized certification to the ODR and Owner that all equipment and materials used in fulfillment of its contract responsibilities are non-Asbestos Containing Building Materials (“ACBM”). This certification must be provided no later than the Contractor’s application for Final Payment.
Article 14. Suspension and Termination

14.1 Suspension of Work for Cause. The ODR may, at any time without prior notice, suspend all or any part of the Work, if after reasonable observation and/or investigation, the ODR determines it is necessary to do so to prevent or correct any condition of the Work, which constitutes an immediate safety hazard, or which may reasonably be expected to impair the integrity, usefulness or longevity of the Work when completed.

14.1.1 The ODR will give the Contractor a written notice of suspension for cause, setting forth the reason for the suspension and identifying the Work suspended. Upon receipt of such notice, the Contractor shall immediately stop the Work so identified. As soon as practicable following the issuance of such a notice, the ODR will initiate and complete a further investigation of the circumstances giving rise to the suspension, and issue a written determination of the findings.

14.1.2 If it is confirmed that the cause was within the control of the Contractor, the Contractor will not be entitled to an extension of time or any compensation for delay resulting from the suspension. If the cause is determined not to have been within the control of the Contractor, and the suspension has prevented the Contractor from completing the Work within the Contract Time, the suspension is an Excusable Delay and a Time Extension will be granted through a Change Order.

14.1.3 Suspension of work under this provision will be no longer than is reasonably necessary to remedy the conditions giving rise to the suspension.

14.2 Suspension of Work for ODR Convenience. Upon seven (7) calendar day’s written notice to the Contractor, the ODR may at any time without breach of the Contract suspend all or any portion of the Work for a period of up to thirty days for its own convenience. The ODR will give the Contractor a written notice of suspension for convenience, which sets forth the number of suspension days for which the Work, or any portion of it, will be suspended and the date on which the suspension of Work will cease. When a suspension prevents the Contractor from completing the Work within the Contract Time, it is an Excusable Delay. A notice of suspension for convenience may be modified by the ODR at any time on seven (7) calendar day’s written notice to the Contractor. If the ODR suspends the Work for its convenience for more than sixty (60) consecutive calendar days, the Contractor may elect to terminate the Contract pursuant to the provisions of the Contract.

14.3 Termination by ODR for Cause.

14.3.1 The ODR may, without prejudice to any right or remedy, terminate the
employment of the Contractor and take possession of the Site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, under any of the following circumstances:

14.3.1.1 Persistent or repeated failure or refusal, except during complete or partial suspensions of work authorized under the Contract, to supply enough properly skilled workmen or proper materials; and/or

14.3.1.2 Persistent disregard of laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, including the ODR; and/or

14.3.1.3 Persistent failure to prosecute the Work in accordance with the Contract, and to insure its completion within the time, or any approved extension thereof, specified in this Contract; and/or

14.3.1.4 Failure to remedy defective work condemned by the ODR; and/or

14.3.1.5 Failure to pay Subcontractors, laborers, and material suppliers pursuant to Tex. Gov’t Code Chapter 2251; and/or

14.3.1.6 Persistent endangerment to the safety of laborers or of the Work; and/or

14.3.1.7 Failure to supply or maintain statutory bonds or to maintain required insurance, pursuant to the Contract; and/or

14.3.1.8 Any material breach of the Contract; and/or

14.3.1.9 The Contractor’s insolvency, bankruptcy, or demonstrated financial inability to perform the Work.

14.3.2 Failure by the ODR to exercise the right to terminate in any instance is not a waiver of the right to do so in any other instance.

14.3.3 Should the ODR decide to terminate the employment of the Contractor under the provisions of Article 14.3.1, it will provide to the Contractor and its Surety thirty (30) days prior written notice.

14.3.4 Should the Contractor or its Surety, after having received notice of termination, remedy to the satisfaction of the ODR the condition(s) upon which the notice of termination was based, the notice of termination shall be rescinded in writing by the ODR. If so rescinded, the Work may continue without an extension of time.

14.3.5 If the Contractor or its Surety fails to remedy the condition(s) to the
satisfaction of the ODR within thirty (30) days following receipt of notice, the ODR may immediately terminate the Contract, make arrangements for completion of the Work, and deduct the cost of completion from the unpaid Contract Sum.

14.3.5.1 Cost of completion includes additional ODR costs such as A/E services, the cost of other consultants, and contract administration.

14.3.5.2 The ODR will make no further payment to the Contractor or its Surety until all costs of completing the Work are paid. If the unpaid balance of the Contract Sum exceeds the costs of administering and finishing the Work, the Contractor will receive the excess funds. If such costs exceed the unpaid balance, the Contractor or its Surety will pay the difference to the ODR.

14.3.5.3 This obligation for payment survives the termination of the Contract.

14.3.5.4 The ODR reserves the right in termination for cause to take assignment of all contracts between the Contractor and its Subcontractors, vendors and suppliers. The ODR will promptly notify the Contractor of the contracts the ODR elects to assume. Upon receipt of such notice, the Contractor shall promptly take all steps necessary to effect such assignment.

14.4 Termination for Convenience of ODR. The ODR reserves the right, without breach, to terminate the Contract prior to, or during the performance of the Work, for any reason. Upon such an occurrence, the following shall apply:

14.4.1 The ODR will immediately notify the Contractor and the A/E in writing, specifying the reason for and the effective date of contract termination. Such notice may also contain instructions necessary for the protection, storage or decommissioning of incomplete work or systems, and for safety.

14.4.2 Upon receipt of the notice of termination, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due at that point in the Contract:

14.4.2.1 Stop all work.

14.4.2.2 Place no further subcontracts or orders for materials or service.
14.4.2.3 Terminate all subcontracts.

14.4.2.4 Cancel all materials and equipment orders as applicable.

14.4.2.5 Take action that is necessary to protect and preserve all property related to this Contract which is in the possession of the Contractor.

14.4.3 When the Contract is terminated for the ODR’s convenience, the Contractor may recover from the ODR payment for all Work executed before the notice of termination along with the actual and reasonable cost of any additional work required to secure the Project and property related to the Contract following the notice of termination. The Contractor will not be entitled to recover any other costs or damages arising from the termination for convenience of the ODR including, but not limited to, claims for lost business opportunities.

14.5 Termination By Contractor. If the Work is stopped for a period of ninety (90) days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, then the Contractor may, upon thirty (30) additional days’ written notice to the ODR, terminate the Contract and recover from the ODR payment for all Work executed before the work stoppage along with the actual and reasonable cost of securing the Project and property related to the Contract during the period of work stoppage. The Contractor will not be entitled to recover any other costs or damages arising from the work stoppage including, but not limited to, claims for lost business opportunities. If the cause of the work stoppage is removed prior to the end of the thirty (30) day notice period, the Contractor may not terminate the Contract but may be entitled to an equitable adjustment in the Contract Sum and Contract Time.

14.6 Settlement on Termination. When the Contract is terminated for any reason, at any time prior to 180 days after the effective date of termination, the Contractor shall submit a final termination settlement proposal to the ODR based upon recoverable costs as provided under the Contract. If the Contractor fails to submit the proposal within the time allowed, the ODR may determine the amount due to the Contractor because of the termination and pay the determined amount to the Contractor.

**Article 15. Miscellaneous**

15.1 Special Conditions. When the Work contemplated by the ODR is of such a character that the foregoing Uniform General and Supplementary Conditions of the Contract...
cannot adequately cover necessary and additional contractual relationships, the Contract may include Special Conditions. Special Conditions shall not weaken the character or intent of the Uniform General and Supplementary Conditions.

15.2 **Federally Funded Projects.** On Federally funded projects, the ODR may waive, suspend or modify any Article in these Uniform General and Supplementary Conditions which conflicts with any Federal statute, rule, regulation or procedure, where such waiver, suspension or modification is essential to receipt by the Owner of such Federal funds for the Project. In the case of any project wholly financed by Federal funds, any standards required by the enabling Federal statute, or any Federal rules, regulations or procedures adopted pursuant thereto, shall be controlling.

15.3 **Internet-based Project Management Systems.** At its option, the ODR may administer its design and construction management through an Internet-based management system. In such cases, the Contractor shall conduct communication through this media and perform all project related functions utilizing this database system. This includes correspondence, submittals, requests for information, vouchers or payment requests and processing, amendment, change orders and other administrative activities.

15.3.1 **Accessibility and Administration.**

16.3.1.1 When used, the ODR will make the software accessible via the Internet to all Project team members.

16.3.1.2 The ODR shall administer the software.

15.3.2 **Training.** When used, the ODR shall provide training to the Project team members.

**END OF UNIFORM GENERAL AND SUPPLEMENTARY CONDITIONS**
1. **GENERAL COORDINATION**

1.1 **GENERAL:** These specifications shall be used for contracts in support of the contract (“Prime Contract”) between The Texas A&M University System, Texas A&M University (collectively, “TAMU”) (“Customer”) and Southeast Service Corporation (“SSC”).

1.2 **OWNER’S DESIGNATED REPRESENTATIVE:** is SSC, (“ODR”). The ODR is the only party authorized to direct changes to the scope, cost, or time of any Contract Document as defined below.

1.3 **RELATED DOCUMENTS:** Collectively, this Special Conditions For Use on All Projects (“SC”), The Uniform General and Supplemental Conditions (“UGSC”) and the Master Contract for Job Order Work (“JOC”) and any scopes of work, specifications addenda or other documents (collectively, the UGSC, SC and the JOC shall be the “Contract Documents”).

1.4 **PROJECT LOCATION:**

Texas A&M University

____________________
____________________
____________________

2. **WORK HOURS, UTILITY OUTAGES AND COORDINATION**

2.1 **WORK HOURS:** Normal work hours at TAMU are 8:00 a.m. to 5:00 p.m., Monday through Friday, exclusive of TAMU holidays. Project Work may be permitted on holidays at the option of TAMU at no additional cost to the ODR or TAMU, with prior written approval from the ODR at least 48 hours before the start of the holiday work.

2.1.1 The Contractor may be allowed additional, or varied work hours, with prior written approval by the ODR or TAMU.

2.1.2 The Contractor shall limit use of the premises to the Project Work indicated and allow for TAMU occupancy and use during the construction.

3. **UTILITIES**

3.1 **Utility Outage:** When a utility outage affecting occupied facilities is necessary to perform the Project Work, the outage shall be performed during non-work hours at no additional cost to TAMU or the ODR. The Contractor shall give written notice to ODR fourteen (14) days in advance of a scheduled outage. TAMU or ODR personnel will perform disconnection and reconnection of utilities. Fourteen days advance notice is also required for connection and disconnection of temporary utilities by TAMU or ODR personnel including but not limited to temporary water taps, electrical taps and other temporary site utilities.

3.2. All information and documents regarding existing underground utilities, known to the ODR, will be made available to the Contractor. Contractor will be responsible for locating, marking and protecting all underground utility lines during construction.

3.2.1 **Utility Excavation:** Before performing any excavation, grading, trenching or other operations whereby existing underground utilities may be disturbed or damaged, contact the Texas Excavation Safety System (“Texas 811”) at 811 to have utilities marked. Also, coordinate with TAMU Utilities and Energy Services (“UES”) and TAMU Telecommunications for marking of any TAMU utilities. In accordance with Texas Utilities Code, Title 5, Chapter 251 - Underground Facility Damage Prevention And Safety, a person who intends to excavate shall notify Texas 811 not earlier than the 14th day before the date the excavation is to begin or later than the 48th hour before the time the excavation is to begin, excluding...
Saturdays, Sundays, and legal holidays. The Contractor shall allow sufficient time for Texas 811 and TAMU to accomplish marking of utilities at no additional cost to the ODR or TAMU. Once utilities are marked, the Contractor shall be responsible for maintaining the flags/paint at their proper location(s). No excavation will be permitted until all utilities existing in the area have been marked. If no utilities are marked during the utility locate process, Contractor shall confirm and notify the ODR’s project manager that locates have in fact been accomplished before performing any excavation. The Contractor shall be responsible for the repair of underground utilities damaged as a result of its operations at no additional cost to TAMU or the ODR.

3.3 Damage occurring to these lines, during construction, shall be repaired and/or replaced by Contractor or ODR, at the expense of the Contractor. Subsequent expenses incurred by TAMU Staff or personnel, resulting from the interruption of service caused by the damaging of underground utilities, shall be borne by the Contractor.

3.4 ODR’s personnel shall be notified for inspection of all buried utilities upon discovery. Damage and repairs shall be recorded by inspectors prior to approval of backfilling.

3.5 Should Contractor discover “Unknown Utilities”, promptly notify the ODR’s personnel for direction. Such piping systems and lines shall be treated as charted lines discussed above.

3.6 Procedures for notification if utility lines or piping systems are damaged during construction:
   3.6.1 Facilities Services Communications Center@ 845-4311 and 9-911 if gas lines are damaged
   3.6.2 ODR Project Manager
   3.6.3 If unavailable, notify SSC/EDCS General Manager at 979-845-5317.

4. COMMUNICATIONS AND DATA. Work on telephone, fiber optic lines, data lines and other communication systems must be performed by TAMU personnel and/or the telephone contractor. The Contractor shall coordinate his work with these agencies through the ODR.

5. COORDINATION WITH OTHER WORK

5.1 Coordination: Contractor shall coordinate work with the ODR, prior to beginning any Project Work. Additionally, prior to starting work each day, the Contractor’s superintendent shall inform and coordinate with the ODR and others as may be required.

5.2 Contractor will be required to coordinate construction activities with other contractors and agencies under the direction of the ODR or TAMU personnel. This will include but is not limited to telephone, custodial, fire alarm, equipment maintenance, and grounds maintenance.

6.0. CRANES. When a crane is necessary to perform the contract work, the crane delivery, placement and lift dates shall be coordinated with the ODR, TAMU Environmental Health and Safety and others as may be required such as Texas Department of Transportation and City of College Station. The Contractor shall give written notice to TAMU fourteen (14) days in advance of a required crane placement and lift. The Contractor shall submit a crane lift plan (“Crane Lift Plan”) with the written notice of crane placement and lift. The Crane Lift Plan shall show the proposed crane location during the lift, the area of boom swing proposed for the lift, location and type of barricades, and affected streets, sidewalks, parking areas and buildings. The area of boom swing shall be depicted as the arc of the boom for the proposed swing with a radius of the boom length if the boom were in the horizontal. Contractor shall comply with OSHA and ANSI safety standards for cranes.

7. TAMU OCCUPANCY. TAMU Occupancy: TAMU may occupy the adjacent spaces or facilities during the entire period of any work. Cooperate fully with the TAMU representative during performance of work to minimize conflicts and to facilitate TAMU usage.

8. PARKING, STORAGE AND SITE RESTRICTIONS

8.1 Parking, Storage and Site Restrictions: Confine operations at the site to the areas permitted under the Contract Documents. Portions of the site beyond areas for which work is indicated are not to be disturbed. Comply with the Owner’s requirements concerning the Contractor’s operations and use of the premises, parking, loading and unloading.
8.1.1 Keep existing driveways and entrances serving the adjacent TAMU facilities and parking spaces clear and available to the visitors, staff and service vehicles at all times. Do not use these areas for parking or storage of materials.

8.1.2 Keep all storage areas free of debris, refuse, spills, leaks, stains, splashes and excess materials. All storage areas shall be maintained in a neat, clean, and safe condition. Do not unreasonably encumber the site with materials or equipment. Stockpiling of materials and the locations of storage sheds, trailers or temporary field offices shall be confined to the area designated by TAMU. If additional storage is necessary obtain and pay for such storage off site. Use of designated area(s) shall be coordinated with TAMU.

8.1.3 Contractor storage and parking are at the job site in an area to be designated by TAMU. Parking is not allowed on sidewalks, drives, or roadways. Do not block parking spaces.

8.1.4 Lock automobiles and other mechanized or motorized construction equipment, when parked and unattended, to prevent unauthorized use. Do not leave vehicles or equipment unattended with the motor running or the ignition key in place. Contractor shall not allow any construction equipment to be parked on adjacent streets at night.

8.1.5 Designated roads shall be used for construction traffic. Contractor shall not close, block, or otherwise obstruct roads at any time without written permission of TAMU and where required the City of College Station. Contractor shall keep all debris and mud off all sidewalks and streets. Immediately clean all debris and mud that is a result of contract operations.

9. EXISTING FACILITIES AND CONDITIONS

Maintain the existing facilities in a safe condition throughout the period work is being performed.

9.1 If available, areas designated around, or near the building will be made available for contractor staging and dumpsters. Coordinate with the ODR.

9.2 Prior to commencement of Project work, inspect areas in which work will be performed. Document and photograph existing conditions of structure, surfaces, equipment, and condition of surrounding properties, which could be misconstrued as damage resulting from demolition work or other contract operations. Inspection shall be verified, signed by, and filed with the Owner or ODR prior to starting work.

9.3 Any damage to the existing grounds or facilities caused by construction traffic or any construction operations shall be repaired or replaced by the Contractor to match or exceed existing undamaged conditions at no additional cost to the ODR or TAMU.

9.4 Contractor shall ensure that all building plumbing systems are protected from freeze damage during periods of temperatures at or below freezing.

9.5 Structural Building Components: Unless indicated on the Contract Documents, do not cut or modify any structural building component (e.g. column, beam, floor slab) without prior approval of the ODR structural engineer. If an existing structural component is accidentally cut, the remedial design work shall be by a professional structural engineer licensed in Texas. The Contractor is responsible for engaging the structural engineer and for payment of all design fees. The structural engineer shall be acceptable to the ODR and all structural designs shall be submitted to the ODR for review and approval.

9.5.1 Core Drilling: Contractor shall x-ray or use ground penetrating radar ("GPR") to locate rebar, post tensioned cables, conduits and other embedded items prior to core drilling slabs. Survey floor and pilot drill to locate all embedded items, rebar, conduits and post tensioned cables prior to core drilling slabs. Items damaged as a result of core drilling shall be repaired as specified in paragraph 10.5, structural building components at no additional cost to the ODR or TAMU.
10. FIRE REGULATIONS

10.1 Comply with National Fire Protection Association, NFPA 241 guidelines. The Contractor shall use no explosives or fire in performing the work. Contractor shall understand and comply with OSHA welding and cutting requirements. If hot work is required, a hot work permit shall be obtained by coordination with TAMU Environmental Health and Safety.

10.2 Coordinate all work on existing fire alarm and fire suppression systems with the ODR prior to the start of Project Work. Any work that could cause dust or fumes must be coordinated with the ODR prior to commencing so the fire alarm system can be modified and protected as necessary.

11. CLEANUP. The Contractor shall dispose of all trash, debris, refuse, garbage, etc., which is generated by the Contractor during the Project Work. Building sites shall be cleaned on a daily basis and disposal shall be outside the limits of TAMU property. Contractor shall routinely empty dumpsters to prevent windblown debris. Disposal shall be by sanitary landfill or other approved methods and shall conform to all local, state, and federal guidelines, criteria, and regulations.

12. ENERGY CONSERVATION. The Contractor shall use good judgment in the conservation of utilities. Prevailing energy conservation practices shall be adhered to and enforced by the contractor.

13. SPECIAL STORAGE The following shall apply when required to perform contract operations.

13.1 Petroleum Storage:

13.1.1 The Contractor shall store all fuel or petroleum products, whether new or used, in appropriate containers and within a berm area with an impermeable liner (40 mil) or other approved containment measures. All storage areas shall be marked with appropriate signage (i.e., Flammable Storage - No Smoking Within 50 ft). All fuel tanks and petroleum storage containers shall be structurally sound and in good condition, be kept sealed when not in use, and be grounded and bonded according to NFPA Requirements.

13.1.2 The containment area shall be sized to hold fluid volume equal to 110% of the largest storage container, with a minimum of one foot of freeboard for earthen berms. The Contractor shall immediately clean up and dispose of any evidence of a fuel or oil spill in conformance with all federal and state regulations at no additional cost to the ODR or Owner. Any areas that incur contamination by any hazardous substance shall be immediately remediated by the contractor at no additional expense to ODR. Any fuel or oil spill shall immediately be reported to the ODR and TAMU Environmental Health and Safety. Costs of all soil tests as a result of spills shall be a responsibility of the contractor.

13.1.3 The Contractor shall remove earthen berms at the completion of the job and restore the area to its original condition.

13.1.4 The Contractor shall keep all other storage areas free of debris, leaks, stains, or splashes. All storage areas shall be maintained in a neat, clean, and safe condition. Remediation may include subsequent soil analysis if directed by TAMU or the ODR. Any contamination by any hazardous substance shall immediately be reported to the ODR and TAMU Environmental Health and Safety. The Contractor shall store all paints, thinners, solvents and other hazardous materials in a contractor supplied trailer or storage unit, which shall be secured when not in use.

14. TESTING PARAGRAPHS Testing indicated in these Contract Documents to be performed by TAMU or the ODR will be performed at the option of TAMU.

15. SAFETY

15.1 Comply with all applicable Occupational Safety and Health Act (OSHA) Standards and Regulations.
15.2 Furnish and install all necessary safeguards to provide safety and protection of the public and TAMU property adjacent to the contract work area. Comply with all Applicable Laws related to the safety of the public and TAMU property while performing contract operations.

15.3 Speed Limit: Contractor shall notify all employees and subcontractors of the speed limit of the adjacent streets and ensure all personnel understand and comply with this requirement.

15.4 Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate to support loads and to withstand exposure to traffic during contract operations.

15.5 Temporary Traffic Controls: Furnish and install Temporary Traffic Controls ("TTC") in accordance with the Texas Manual on Uniform Traffic Control Devices ("TMUTCD"). Submit a TTC plan for vehicular and pedestrian traffic to the ODR and project engineer for approval prior to the start of construction operations. Pedestrian traffic control plans shall provide a safe, convenient and accessible travel path that replicates as nearly as possible the most desirable characteristics of the existing sidewalks or footpaths throughout all phases of construction. Provide for continuous operation of signs and barricades designating restricted or dangerous conditions including but not limited to: illuminated barricades, danger signals, warning signs and obstructions.

15.6 Accessible Routes: Accessible routes for the disabled shall be kept accessible and safe at all times or alternate routes shall be constructed and signed in accordance with the Texas Accessibility Standards. Revised alternate routes shall require approval by the ODR.

15.7 Site Safety: Do not leave the work areas in an unsecured or unsafe condition at any time during operations. Contractor personnel and equipment operators shall monitor their surroundings at all times and be alert for people moving in or adjacent to contract work areas. Contractor shall use spotters when moving vehicles through the construction sites and no construction vehicles (i.e. backhoes, bobcats, etc.) shall be left unsecured on site. Contractor shall furnish and install temporary fences, barricades, signs and other required items to:

   15.7.1 Warn/notify adjacent building occupants
   15.7.2 Protect construction materials
   15.7.3 Prevent unauthorized personnel from entering the construction site.
   15.7.4 Redirect vehicular and pedestrian traffic flow when required to perform Work; comply with paragraph 15.5 above, Temporary Traffic Controls TTC.

15.8 Prior to spraying paint, coatings or power washing exterior structures the following criteria shall be met:

   15.8.1 Contractor shall provide ODR and TAMU forty eight (48) hours’ notice prior to spraying any material, including primer, paint or coatings.
   15.8.2 Consider use of dryfall paint when spray painting large areas of structure (e.g. metal building frames) or materials by conventional or airless spray.
   15.8.3 The Contractor shall provide all necessary barricades, signs, warning of spray area as determined in the preconstruction conference. The Contractor shall set these signs out the night before spraying begins.
   15.8.4 The Contractor shall be responsible for the removal of signs and barricades at the completion of the job.
   15.8.5 The Contractor shall protect any automobile, bicycle, vehicle or other property which is located in a warning area where contact with the property owner has not been made before the commencement of work.
   15.8.6 The Contractor shall employ approved wind screens, protective shrouds and other protection methods during all paint and coating applications. The Contractor is responsible for all overspray and shall have sole liability where damage occurs as a result of this work.
15.8.7 Spray equipment shall be as recommended by the materials manufacturer. Spray operations shall be performed only during adequate period of calm weather with winds not exceeding 15 miles per hour. Protect all property from overspray or other damage.

15.8.8 To prevent sparking a flammable substance, smoking and other sources of flame near spray painting operations are prohibited and tools shall be properly rated and grounded for work in a spray painting area.

16. TREES, SHRUBS, AND HEDGES. Take appropriate measures to prevent injury to plants in or near the work site unless designated to be removed. Do not remove or prune any plants without approval from the ODR and TAMU. No tree, shrub or hedge, or portion of a tree, shrub or hedge shall be removed that contains actively nesting birds unless approved by the ODR and TAMU. Actively nesting migratory birds will also require a permit be obtained from the U.S. Fish and Wildlife Service. Plants which are damaged during work shall be replaced at no expense to TAMU or the ODR. Contractor shall remove all trees, tree branches, shrubs and plants that will interfere, encroach upon, or otherwise obstruct the Project Work and site operations at no additional cost to TAMU or the ODR. The ODR will normally accomplish all pruning; obtain approval from the ODR prior to removal of any trees, tree branches, or plants.

17. ENVIRONMENTAL REQUIREMENTS

17.1 Compliance with Environmental Laws: The Contractor shall comply, and assure that all subcontractors comply, with any and all applicable federal, state, and local laws, regulations, ordinances, policies and standards ("Applicable Laws") related to environmental matters. The Contractor shall also comply, and assure that all subcontractors comply with all Applicable Laws and any specific instructions, policies, or references of TAMU or contained herein.

17.2 Contractors involved in projects that include the removal and/or disposal of polychlorinated biphenyl ("PCB") contaminated light ballasts shall comply with the requirements of 40 CFR 761. PCB containing ballasts are a special waste and must be managed as such. The Contractor shall immediately notify ODR when activities involving the removal of PCB light ballasts begin.

17.3 Contractors involved in projects that include the removal and/or disposal of fluorescent, mercury vapor, or HID Sodium Vapor lamps shall comply with the requirements of this section. Fluorescent lamps have been determined, by the TCEQ to be hazardous waste and must be managed in accordance with 40 CFR 260-279, and 30 TAC 330-335. The Contractor shall immediately notify the ODR when activities involving the removal of the aforementioned lamps begin.

17.4 Nuisance and Polluting Activity Prohibited: Polluting, dumping, or discharging of any harmful, nuisance, or regulated materials (such as concrete truck washout, vehicle maintenance fluids, residue from saw cutting operations, solid waste and hazardous substances) into building drains, site drains, streams, waterways, holding ponds or to the ground surface shall not be permitted. The Contractor shall be held responsible for any damages that may result. Further, the Contractor shall conduct activities in such a fashion to avoid creating any legal nuisance, including but not limited to, suppressing noise and dust, controlling erosion, and implementing other measures as necessary to minimize off-site impacts of work activities.

17.5 Should the Contractor encounter previously unidentified and suspect asbestos-containing materials ("ACM"), mold, hazardous or potentially hazardous material or suspected lead containing paint which must be disturbed to comply with the Contract Documents, the Contractor shall cease all work that would disturb the suspect material and shall immediately notify the ODR. The ODR shall take steps, as appropriate, to ascertain the material’s composition and determine any remedial action necessary. The Contractor will remove work crews from the work site area affected by the suspect materials and continue work on other parts of the Project Work as feasible. Contractor shall return to abandoned work site after the ODR has determined the composition of the suspect material and completed any required remedial action.
17.6 Contractor is responsible for all materials brought on site, including hazardous materials. All hazardous waste or special waste generated by the Contractor as a result of its operations shall be identified, characterized, containerized and transported to a permitted disposal facility in strict accordance with the requirements of 40 CFR 260-279 (Hazardous waste and used oil regulations), 30 TAC 324, 330-335 (TCEQ Hazardous and Industrial Waste Regulations).

18. WARRANTY PERIOD. Except as may be otherwise specified in the Contract Documents, the Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Project Work. If Substantial Completion occurs by phase, then the warranty period for that particular Project Work begins on the date of such occurrence, or as otherwise stipulated on the Certificate of Substantial Completion for the particular Project Work.

19. COLOR AND MATERIAL SELECTIONS

19.1 No color selections and no material selections will be made by the ODR until the Contractor submits all samples of all materials requiring color selections to the ODR. In addition, prior to the ODR selecting colors, the Contractor shall certify in writing that all colors and samples submitted are current and are acceptable to the Contractor for TAMU’s selection.

19.2 Any samples that are not applicable to the work shall be carefully removed from the submittal by the Contractor. The Contractor shall submit the manufacturer’s full range of applicable colors, patterns, and textures for the various materials that are required by the contract and within the guidelines hereinbefore stated.

19.3 In the event that discontinued, non-current, or non-applicable colors, textures, or samples are submitted by the Contractor and their selection is made by the ODR, the Contractor shall bear all labor and material correction costs for fabrication, shipping, restocking, removal, repair of damaged materials, and installing of all materials required by the ODR and TAMU to correct the project.

20. WARRANTY AND GUARANTEE

20.1 Contractor’s General Warranty and Guarantee: Contractor warrants to the ODR that all work will be performed in accordance with the Contract Documents, complete in all parts and in accordance with approved practices and customs, and of the best finish and workmanship. The Contractor further warrants that unless otherwise specified, all materials and equipment incorporated in the Project Work under the Contract Documents are new. The ODR may, at its option, agree in writing to waive any failure of the Project Work to conform to the Contract Documents, and to accept a reduction in the Contract Sum for the cost of repair or diminution in value of the Project Work by reason of such defect. Absent such a written agreement, the Contractor’s obligation to perform and complete the Project Work in accordance with the Contract Documents is absolute and is not waived by any inspection or observation by the ODR, or others, by making any progress payment or final payment, by the use or occupancy of the Project Work or any portion thereof by the Owner, at any time, or by any repair or correction of such defect made by the Owner.

20.2 Warranty Period: Except as may be otherwise specified or agreed, the Contractor shall repair all defects in materials, equipment, or workmanship appearing within one year from the date of Substantial Completion of the Project Work. If Substantial Completion occurs by phase, then the warranty period for that particular Project Work begins on the date of such occurrence, or as otherwise stipulated on the Certificate of Substantial Completion for the particular Project Work.

20.3 Limits on Warranty: Contractor’s warranty and guarantee hereunder excludes defects or damage caused by:

20.3.1 Modification, improper maintenance or improper operation by persons other than Contractor, its subcontractors, or any other individual or entity for whom Contractor is responsible, unless ODR and or Owner is compelled to undertake maintenance or operation due to the neglect of the Contractor.

20.3.2 Normal wear and tear under normal usage after acceptance of the Project Work by the ODR.

20.4 Separate Warranties: If a particular piece of equipment or component of the Project Work for which the
Contract Documents requires a separate warranty is placed in continuous service before Substantial Completion, the Warranty Period for that equipment or component will not begin until Substantial Completion, regardless of any warranty agreements in place between suppliers and/or subcontractors and the Contractor.

20.5 Correction of Defects: Upon receipt of written notice from the ODR, or any agent of the ODR designated as responsible for management of the warranty period, of the discovery of a defect, the Contractor shall promptly remedy the defect(s), and provide written notice to the ODR and designated agent indicating action taken. In case of emergency where delay would cause serious risk of loss or damage to the ODR, or if the Contractor fails to remedy within 30 days, or within another period agreed to in writing, the ODR may correct the defect and be reimbursed the cost of remedying the defect from the Contractor or its Surety.

21. RIGHT TO AUDIT. The ODR shall have the right to verify and audit the details of Contractor’s and subcontractor’s billings, certificates, accountings, cost data, and statements, either before or after payment, by (1) inspecting the books and records of the Contractor and subcontractor’s during normal business hours; (2) examining any reports with respect to the Project Work; (3) interviewing Contractor’s and subcontractor’s employees; and (4) any other reasonable action. Contractor’s and subcontractor’s records shall be kept on the basis of generally accepted accounting principles in accordance with cost accounting standards issued by the Federal Office of Management and Budget Cost Accounting Standards Board and organized by each Application for Payment period.

22. BUSINESS ETHICS EXPECTATION.

22.1 During the course of pursuing work with the ODR and while performing contract work in accordance with the Contract Documents, Contractor agrees to maintain business ethics standards aimed at avoiding any impropriety or conflict of interest which could be construed to have an adverse impact on the ODR or TAMU’s best interests.

22.2 Contractor shall take reasonable actions to prevent any actions or conditions which could result in a conflict with the ODR or TAMU’s best interests. These obligations shall apply to the activities of Contractor’s employees, agents, subcontractors, subcontractors’ employees and other persons under their control.

22.3 Contractor’s employees, agents, subcontractors (and their representatives) shall not make or offer, or cause to be made or offered, any cash payments, commissions, employment, gifts valued at $50 dollars or more, entertainment, free travel, loans, free work, substantially discounted work, or any other considerations to the ODR’s representatives, employees or their relatives.

22.4 Contractor’s employees, agents and subcontractors (and their relatives) shall not receive or accept any cash payments, commissions, employment, gifts valued at $50 dollars or more, entertainment, free travel, loans, free work, or substantially discounted work or any other considerations from representatives of Contractors, subcontractors, or material suppliers or any other individuals, organizations, or businesses receiving funds in connection with the Project Work.

22.5 Contractor agrees to notify SSC’s Divisional President or Vice President within 48 hours of any instance where the Contractor becomes aware of a failure to comply with the provisions of this section.

22.6 Upon request by the ODR, Contractor agrees to provide a certified management representation letter executed by a Contractor representative selected by the ODR in a form agreeable to the ODR stating that the representative is not aware of any situations violating the business ethics expectations outlined in the Contract Documents or any similar potential conflict of interest as listed in the Compass Group “Code of Business Conduct” or “Code of Ethics” which can be found on the Compass Group website (http://compass-usa.com/pages/code-of-ethics.aspx).

22.7 Contractor agrees to include provisions similar to the aforementioned in all contracts with subcontractors receiving more than $25,000 in funds in connection with the Project Work.

END SECTION
TERMINAL IMPROVEMENTS – PHASE 1
EASTERWOOD AIRPORT
COLLEGE STATION, TEXAS

ITEM P-605 – JOINT SEALANTS FOR CONCRETE PAVEMENTS

DESCRIPTION

605-1.1 This item shall consist of providing and installing a resilient and adhesive joint sealing material capable of effectively sealing joints and cracks in rigid pavements.

MATERIALS

605-2.1 Joint sealants. Joint sealant materials shall meet the requirements of ASTM D5893.

Each lot or batch of sealant shall be delivered to the jobsite in the manufacturer’s original sealed container. Each container shall be marked with the manufacturer’s name, batch or lot number, the safe heating temperature, and shall be accompanied by the manufacturer’s certification stating that the sealant meets the requirements of this specification.

605-2.2 Backer rod. The material furnished shall be a compressible, non-shrinking, non-staining, non-absorbing material that is non-reactive with the joint sealant. The material shall have a water absorption of not more than 5% when tested in accordance with ASTM C509. The backer-rod material shall be 25% ± 5% larger in diameter than the nominal width of the crack.

605-2.3 Backup materials. Provide backup material that is a compressible, nonshrinking, nonstaining, nonabsorbing material, nonreactive with the joint sealant. The material shall have a melting point at least 5°F (3°C) greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The material shall have a water absorption of not more than 5% of the sample weight when tested in accordance with ASTM C509. The backup material shall be 25 ±5% larger in diameter than the nominal width of the crack.

605-2.4 Bond breaking tapes. Provide a bond breaking tape or separating material that is a flexible, nonshrinkable, nonabsorbing, nonstaining, and nonreacting adhesive-backed tape. The material shall have a melting point at least 5°F (3°C) greater than the pouring temperature of the sealant being used when tested in accordance with ASTM D789. The bond breaker tape shall be approximately 1/8 inch (3 mm) wider than the nominal width of the joint and shall not bond to the joint sealant.

CONSTRUCTION METHODS

605-3.1 Time of application. Joints shall be sealed as soon after completion of the curing period as feasible and before the pavement is opened to traffic, including construction equipment. The pavement temperature shall be 50°F (10°C) and rising at the time of application of the poured joint sealing material. Do not apply sealant if moisture is observed in the joint.

605-3.2 Equipment. Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and maintained in satisfactory condition at all times. Submit a list of proposed equipment to be used in performance of construction work including descriptive data, [14] days prior to use on the project.
a. **Tractor-mounted routing tool.** Provide a routing tool, used for removing old sealant from the joints, of such shape and dimensions and so mounted on the tractor that it will not damage the sides of the joints. The tool shall be designed so that it can be adjusted to remove the old material to varying depths as required. The use of V-shaped tools or rotary impact routing devices will not be permitted. Hand-operated spindle routing devices may be used to clean and enlarge random cracks.

b. **Concrete saw.** Provide a self-propelled power saw, with water-cooled diamond or abrasive saw blades, for cutting joints to the depths and widths specified or for refacing joints or cleaning sawed joints where sandblasting does not provide a clean joint.

c. **Sandblasting equipment.** Include with the sandblasting equipment an air compressor, hose, and long-wearing venturi-type nozzle of proper size, shape and opening. The maximum nozzle opening should not exceed 1/4 inch (6 mm). The air compressor shall be portable and capable of furnishing not less than 150 cfm (71 L/s) and maintaining a line pressure of not less than 90 psi (621 kPa) at the nozzle while in use. Demonstrate compressor capability, under job conditions, before approval. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water. The nozzle shall have an adjustable guide that will hold the nozzle aligned with the joint approximately one inch (25 mm) above the pavement surface. Adjust the height, angle of inclination and the size of the nozzle as necessary to secure satisfactory results.

d. **Waterblasting equipment.** Include with the waterblasting equipment a trailer-mounted water tank, pumps, high-pressure hose, wand with safety release cutoff control, nozzle, and auxiliary water resupply equipment. Provide water tank and auxiliary resupply equipment of sufficient capacity to permit continuous operations. The nozzle shall have an adjustable guide that will hold the nozzle aligned with the joint approximately one inch (25 mm) above the pavement surface. Adjust the height, angle of inclination and the size of the nozzle as necessary to obtain satisfactory results. A pressure gauge mounted at the pump shall show at all times the pressure in psi (kPa) at which the equipment is operating.

e. **Hand tools.** Hand tools may be used, when approved, for removing defective sealant from a crack and repairing or cleaning the crack faces.

f. **Hot-poured sealing equipment.** The unit applicators used for heating and installing ASTM D6690 joint sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer; a direct-connected pressure-type extruding device with a nozzle shaped for inserting in the joint to be filled; positive temperature devices for controlling the temperature of the transfer oil and sealant; and a recording type thermometer for indicating the temperature of the sealant. The applicator unit shall be designed so that the sealant will circulate through the delivery hose and return to the inner kettle when not in use.

g. **Two-component, cold-applied, machine mix sealing equipment.** Provide equipment used for proportioning, mixing, and installing Federal Specification SS-S-200 Type M joint sealants designed to deliver two semifluid components through hoses to a portable mixer at a preset ratio of one (1) to one (1) by volume using pumps with an accuracy of ±5% for the quantity of each component. The reservoir for each component shall be equipped with mechanical agitation devices that will maintain the components in a uniform condition without entrapping air. Incorporate provisions to permit thermostatically controlled indirect heating of the components, when required. However, immediately prior to proportioning and mixing, the temperature of either component shall not exceed 90°F (32°C). Provide screens near the top of each reservoir to remove any foreign particles or partially polymerized material that could clog fluid lines or otherwise cause misproportioning or improper mixing of the two components.
Provide equipment capable of thoroughly mixing the two components through a range of application rates of 10 to 60 gallons (37.8 to 189 L) per hour and through a range of application pressures from 50 to 1500 psi (345 kPa to 10.3 MPa) as required by material, climatic, or operating conditions. Design the mixer for the easy removal of the supply lines for cleaning and proportioning of the components. The mixing head shall accommodate nozzles of different types and sizes as may be required by various operations. The dimensions of the nozzle shall be such that the nozzle tip will extend into the joint to allow sealing from the bottom of the joint to the top. Maintain the initially approved equipment in good working condition, serviced in accordance with the supplier’s instructions, and unaltered in any way without obtaining prior approval.

**h. Two-component, cold-applied, hand-mix sealing equipment.** Mixing equipment for Federal Specification SS-S-200 Type H sealants shall consist of a slow-speed electric drill or air-driven mixer with a stirrer in accordance with the manufacturer’s recommendations. Submit printed copies of manufacturer’s recommendations [days prior to use on the project where installation procedures, or any part thereof, are required to be in accordance with those recommendations. Installation of the material will not be allowed until the recommendations are received. Failure to furnish these recommendations can be cause for rejection of the material.

**i. Cold-applied, single-component sealing equipment.** The equipment for installing ASTM D5893 single component joint sealants shall consist of an extrusion pump, air compressor, following plate, hoses, and nozzle for transferring the sealant from the storage container into the joint opening. The dimension of the nozzle shall be such that the tip of the nozzle will extend into the joint to allow sealing from the bottom of the joint to the top. Maintain the initially approved equipment in good working condition, serviced in accordance with the supplier’s instructions, and unaltered in any way without obtaining prior approval. Small hand-held air-powered equipment (i.e., caulking guns) may be used for small applications.

### 605-3.3 Preparation of joints.

**a. Sawing.** All joints shall be sawed in accordance with specifications and plan details. Immediately after sawing the joint, the resulting slurry shall be completely removed from joint and adjacent area by flushing with a jet of water, and by use of other tools as necessary.

**b. Sealing.** Immediately before sealing, the joints shall be thoroughly cleaned of all remaining laitance, curing compound, filler, protrusions of hardened concrete, old sealant and other foreign material from the sides and upper edges of the joint space to be sealed. Cleaning shall be accomplished by [sandblasting] [tractor-mounted routing equipment] [concrete saw] [waterblaster] as specified in paragraph 605-3.2. The newly exposed concrete joint faces and the pavement surface extending a minimum of 1/2 inch (12 mm) from the joint edge shall be sandblasted clean. Sandblasting shall be accomplished in a minimum of two passes. One pass per joint face with the nozzle held at an angle directly toward the joint face and not more than 3 inches (75 mm) from it. After final cleaning and immediately prior to sealing, blow out the joints with compressed air and leave them completely free of debris and water. The joint faces shall be surface dry when the seal is applied.

**c. Back-up material.** When the joint opening is of a greater depth than indicated for the sealant depth, plug or seal off the lower portion of the joint opening using a back-up material to prevent the entrance of the sealant below the specified depth. Take care to ensure that the backup material is placed at the specified depth and is not stretched or twisted during installation.


d. **Bond-breaking tape.** Where inserts or filler materials contain bitumen, or the depth of the joint opening does not allow for the use of a backup material, insert a bond-breaker separating tape to prevent incompatibility with the filler materials and three-sided adhesion of the sealant. Securely bond the tape to the bottom of the joint opening so it will not float up into the new sealant.

**605-3.4 Installation of sealants.** Joints shall be inspected for proper width, depth, alignment, and preparation, and shall be approved by the Engineer before sealing is allowed. Sealants shall be installed in accordance with the following requirements:

Immediately preceding, but not more than 50 feet (15 m) ahead of the joint sealing operations, perform a final cleaning with compressed air. Fill the joints from the bottom up to \( \frac{1}{8} \text{ inch (3 mm)} \) \( \pm \frac{1}{16} \text{ inch (2 mm)} \) below the pavement surface. Remove and discard excess or spilled sealant from the pavement by approved methods. Install the sealant in such a manner as to prevent the formation of voids and entrapped air. In no case shall gravity methods or pouring pots be used to install the sealant material. Traffic shall not be permitted over newly sealed pavement until authorized by the Contracting Officer. When a primer is recommended by the manufacturer, apply it evenly to the joint faces in accordance with the manufacturer's instructions. Check the joints frequently to ensure that the newly installed sealant is cured to a tack-free condition within the time specified.

**605-3.5 Inspection.** The Contractor shall inspect the joint sealant for proper rate of cure and set, bonding to the joint walls, cohesive separation within the sealant, reversion to liquid, entrapped air and voids. Sealants exhibiting any of these deficiencies at any time prior to the final acceptance of the project shall be removed from the joint, wasted, and replaced as specified at no additional cost to the airport.

**605-3.6 Clean-up.** Upon completion of the project, remove all unused materials from the site and leave the pavement in a clean condition.

### METHOD OF MEASUREMENT

**605-4.1** There will be no separate measurement for any work, materials, labor, or incidentals associated with this item. Joint sealing material shall be measured by the \[ \text{gallon (liter)} \] \[ \text{pound (kg)} \] \[ \text{linear foot (meter)} \] of sealant in place, completed, and accepted.

### BASIS OF PAYMENT

**605-5.1** There will be no separate payment for any materials, equipment, labor, or incidentals associated with this work. Compensation for the work under this item shall be included in the Lump Sum Cost for this Contract. Payment for joint sealing material shall be made at the contract unit price per \[ \text{gallon (liter)} \] \[ \text{pound (kg)} \] \[ \text{linear foot (meter)} \]. The price shall be full compensation for furnishing all materials, for all preparation, delivering, and placing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

- **Item P-605-5.1** Joint Sealing Filler, per gallon (liter)
- **Item P-605-5.2** Joint Sealing Filler, per pound (kg)
- **Item P-605-5.3** Joint Sealing Filler, per linear foot (meter)
### TESTING REQUIREMENTS

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM D412</td>
<td>Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension</td>
</tr>
<tr>
<td>ASTM D1644</td>
<td>Standard Test Methods for Nonvolatile Content of Varnishes</td>
</tr>
</tbody>
</table>

### MATERIAL REQUIREMENTS

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 150/5340-30</td>
<td>Design and Installation Details for Airport Visual Aids</td>
</tr>
<tr>
<td>ASTM D789</td>
<td>Standard Test Method for Determination of Relative Viscosity of Polyamide (PA)</td>
</tr>
<tr>
<td>ASTM D6690</td>
<td>Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements</td>
</tr>
</tbody>
</table>

**END ITEM P-605**
TERMINAL IMPROVEMENTS – PHASE 1
EASTERWOOD AIRPORT
COLLEGE STATION, TEXAS

ITEM P-610 – STRUCTURAL PORTLAND CEMENT CONCRETE

DESCRIPTION

610-1.1 This item shall consist of [ _plain_] [ _plain or reinforced_] structural portland cement concrete (PCC), prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans. This specification shall be used for all structural and miscellaneous concrete including signage bases.

MATERIALS

610-2.1 General. Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Engineer before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them. The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

a. Reactivity. Fine and Coarse aggregates to be used in all concrete shall be evaluated and tested by the Contractor for alkali-aggregate reactivity in accordance with both ASTM C1260 and C1567. Aggregate and mix proportion reactivity tests shall be performed for each project.

(1) Coarse and fine aggregate shall be tested separately in accordance with ASTM C1260. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.10% at 28 days (30 days from casting).

(2) Combined coarse and fine aggregate shall be tested in accordance with ASTM C1567, modified for combined aggregates, using the proposed mixture design proportions of aggregates, cementitious materials, and/or specific reactivity reducing chemicals. If lithium nitrate is proposed for use with or without supplementary cementitious materials, the aggregates shall be tested in accordance with Corps of Engineers (COE) CRD C662. If lithium nitrate admixture is used, it shall be nominal 30% ±0.5% weight lithium nitrate in water.

(3) If the expansion of the proposed combined materials test specimens, tested in accordance with ASTM C1567, modified for combined aggregates, or COE CRD C662, does not exceed 0.10% at 28 days, the proposed combined materials will be accepted. If the expansion of the proposed combined materials test specimens is greater than 0.10% at 28 days, the aggregates will not be accepted unless adjustments to the combined materials mixture can reduce the expansion to less than 0.10% at 28 days, or new aggregates shall be evaluated and tested.

610-2.2 Coarse aggregate. The coarse aggregate for concrete shall meet the requirements of ASTM C33. Crushed stone aggregate shall have a durability factor, as determined by ASTM
C666, greater than or equal to 95. The Engineer may consider and reserve final approval of other State classification procedures addressing aggregate durability.

Coarse aggregate shall be well graded from coarse to fine and shall meet the following gradation shown in the table below when tested per ASTM C136.

**Gradation For Coarse Aggregate**

<table>
<thead>
<tr>
<th>Sieve Designation (square openings)</th>
<th>Percentage by Weight Passing Sieves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2&quot; (50 mm)</td>
</tr>
<tr>
<td>No. 4 to 3/4 in. (4.75-19 mm)</td>
<td>100</td>
</tr>
<tr>
<td>No. 4 to 1 in. (4.75-25 mm)</td>
<td>100</td>
</tr>
<tr>
<td>No. 4 to 1-1/2 in. (4.75-38 mm)</td>
<td>100</td>
</tr>
</tbody>
</table>

610-2.2.1 Aggregate susceptibility to durability (D) cracking. [---Aggregates that have a history of D-cracking shall not be used.---]

[ Coarse aggregate may be accepted from sources that have a 20 year service history for the same gradation to be supplied with no durability issues.

a. Material currently being produced shall have a durability factor ≥ 95 using ASTM C666. Coarse aggregates that are crushed granite, calcite cemented sandstone, quartzite, basalt, diabase, rhyolite or trap rock are considered to meet the D-cracking test but must meet all other quality tests. Aggregates meeting State Highway Department material specifications may be acceptable with concurrence of the FAA.

b. The Contractor shall submit a current certification that the aggregate does not have a history of D-cracking and that the aggregate meets the state specifications for use in PCC pavement for use on interstate highways. Certifications, tests and any history reports must be for the same gradation as being proposed for use on the project. Certifications which are not dated or which are over one (1) year old or which are for different gradations will not be accepted. Test results will only be accepted when tests were performed by a State Department of Transportation (DOT) materials laboratory or an accredited laboratory. ]

610-2.3 Fine aggregate. The fine aggregate for concrete shall meet the requirements of ASTM C33.

The fine aggregate shall be well graded from fine to coarse and shall meet the requirements of the table below when tested in accordance with ASTM C136:

**Gradation For Fine Aggregate**

<table>
<thead>
<tr>
<th>Sieve Designation (square openings)</th>
<th>Percentage by Weight Passing Sieves</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 inch (9 mm)</td>
<td>100</td>
</tr>
<tr>
<td>Sieve Designation (square openings)</td>
<td>Percentage by Weight Passing Sieves</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>No. 4 (4.75 mm)</td>
<td>95-100</td>
</tr>
<tr>
<td>No. 16 (1.18 mm)</td>
<td>45-80</td>
</tr>
<tr>
<td>No. 30 (0.60 mm)</td>
<td>25-55</td>
</tr>
<tr>
<td>No. 50 (0.30 mm)</td>
<td>10-30</td>
</tr>
<tr>
<td>No. 100 (0.15 mm)</td>
<td>2-10</td>
</tr>
</tbody>
</table>

Blending will be permitted, if necessary, to meet the gradation requirements for fine aggregate. Fine aggregate deficient in the percentage of material passing the No. 50 mesh sieve may be accepted, if the deficiency does not exceed 5% and is remedied by the addition of pozzolanic or cementitious materials other than Portland cement, as specified in paragraph 610-2.6, Admixtures, in sufficient quantity to produce the required workability as approved by the Engineer.

610-2.4 Cement. Cement shall conform to the requirements of [ASTM C 150] Type [I or II]. If aggregates are deemed innocuous when tested in accordance with paragraph 610-2.1.a.1 and accepted in accordance with paragraph 610-2.1.a.3, higher equivalent alkali content in the cement may be allowed if approved by the Engineer and FAA. If cement becomes partially set or contains lumps of caked cement, it shall be rejected. Cement salvaged from discarded or used bags shall not be used.

The Contractor shall furnish vendors’ certified test reports for each carload, or equivalent, of cement shipped to the project. The report shall be delivered to the Engineer before use of the cement is granted. All test reports shall be subject to verification by testing sample materials received for use on the project.

610-2.5 Water. The water used in concrete shall be fresh, clean and potable; free from injurious amounts of oils, acids, alkalies, salts, organic materials or other substances deleterious to concrete.

610-2.6 Admixtures. The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the Engineer may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the Engineer from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.

- **a. Air-entraining admixtures.** Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.

- **b. Water-reducing admixtures.** Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

- **c. Other chemical admixtures.** The use of set retarding, and set accelerating admixtures shall be approved by the Engineer. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.
d. Lithium nitrate. The lithium admixture shall be a nominal 30% aqueous solution of Lithium Nitrate, with a density of 10 pounds/gallon (1.2 kg/L), and shall have the approximate chemical form as shown below:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Limit (Percent by Mass)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LiNO3 (Lithium Nitrate)</td>
<td>30 ±0.5</td>
</tr>
<tr>
<td>SO4 (Sulfate Ion)</td>
<td>0.1 (max)</td>
</tr>
<tr>
<td>Cl (Chloride Ion)</td>
<td>0.2 (max)</td>
</tr>
<tr>
<td>Na (Sodium Ion)</td>
<td>0.1 (max)</td>
</tr>
<tr>
<td>K (Potassium Ion)</td>
<td>0.1 (max)</td>
</tr>
</tbody>
</table>

Provide a trained representative to supervise the lithium nitrate admixture dispensing and mixing operations.

610-2.7 Premolded joint material. Premolded joint material for expansion joints shall meet the requirements of ASTM [D 1751].

610-2.8 Joint filler. The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.

610-2.9 Steel reinforcement. Reinforcing shall consist of [Grade 60 deformed bars conforming to] conforming to the requirements of [ASTM A615, ASTM A706, ASTM A775, ASTM A934].

610-2.10 Materials for curing concrete. Curing materials shall conform to [ASTM C309].

CONSTRUCTION METHODS

610-3.1 General. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the Engineer.

610-3.2 Concrete composition. The concrete shall develop a compressive strength of [4,000] psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cement per cubic yard (280 kg per cubic meter). The concrete shall contain 5% of entrained air, ±1%, as determined by ASTM C231 and shall have a slump of not more than 4 inches (100 mm) as determined by ASTM C143.

610-3.3 Acceptance sampling and testing. Concrete for each structure will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The concrete shall be sampled in accordance with ASTM C172. Concrete cylindrical compressive strength specimens shall be made in accordance with ASTM C31 and tested in accordance with ASTM C39. The Contractor shall cure and store the test specimens under such conditions as directed by the Engineer. The Engineer will make the actual tests on the specimens at no expense to the Contractor.
610-3.4 Qualifications for concrete testing service. Perform concrete testing by an approved laboratory and inspection service experienced in sampling and testing concrete. Testing agency must meet the requirements of ASTM C1077 or ASTM E329.

610-3.5 Proportioning and measuring devices. When package cement is used, the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so the required, exact weight of aggregates is obtained.

610-3.6 Consistency. The consistency of the concrete shall be determined by the slump test specified in ASTM C143.

610-3.7 Mixing. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94.

610-3.8 Mixing conditions. The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F (4°C) without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F (10°C) nor more than 100°F (38°C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

610-3.9 Forms. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface. The forms shall not be removed until at least 30 hours after concrete placement for vertical faces, walls, slender columns, and similar structures. Forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate the concrete has developed at least 60% of the design strength.

610-3.10 Placing reinforcement. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

610-3.11 Embedded items. Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from
coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.

**610-3.12 Placing concrete.** All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the Engineer. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet (1.5 m). Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.

**610-3.13 Vibration.** Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309, Guide for Consolidation of Concrete. Where bars meeting ASTM A775 or A934 are used, the vibrators shall be equipped with rubber or non-metallic vibrator heads. Furnish a spare, working, vibrator on the job site whenever concrete is placed. Consolidate concrete slabs greater than 4 inches (100 mm) in depth with high frequency mechanical vibrating equipment supplemented by hand spading and tamping. Consolidate concrete slabs 4 inches (100 mm) or less in depth by wood tampers, spading, and settling with a heavy leveling straightedge. Operate internal vibrators with vibratory element submerged in the concrete, with a minimum frequency of not less than 6000 cycles per minute when submerged. Do not use vibrators to transport the concrete in the forms. Penetrate the previously placed lift with the vibrator when more than one lift is required. Use external vibrators on the exterior surface of the forms when internal vibrators do not provide adequate consolidation of the concrete. Vibrators shall be manipulated to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any point shall be of sufficient duration to accomplish compaction but shall not be prolonged to where segregation occurs. Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie or other approved method and shall not be disturbed after placement.

**610-3.14 Construction joints.** If the placement of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, provisions shall be made for grooves, steps, reinforcing bars or other devices as specified. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete that has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

**610-3.15 Expansion joints.** Expansion joints shall be constructed at such points and dimensions as indicated on the drawings. The premolded filler shall be cut to the same shape as the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place so that it will not be displaced when concrete is deposited against it.

**610-3.16 Defective work.** Any defective work discovered after the forms have been removed, which in the opinion of the Engineer cannot be repaired satisfactorily, shall be immediately removed and replaced at the expense of the Contractor. Defective work shall include deficient dimensions, or bulged, uneven, or honeycomb on the surface of the concrete.

**610-3.17 Surface finish.** All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be
brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

The surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be wetted and then rubbed with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a finishing machine.

**610-3.18 Curing and protection.** All concrete shall be properly cured and protected by the Contractor. The concrete shall be protected from the weather, flowing water, and from defacement of any nature during the project. The concrete shall be cured by covering with an approved material as soon as it has sufficiently hardened. Water-absorbent coverings shall be thoroughly saturated when placed and kept saturated for at least three (3) days following concrete placement. All curing mats or blankets shall be sufficiently weighted or tied down to keep the concrete surface covered and to prevent the surface from being exposed to air currents. Wooden forms shall be kept wet at all times until removed to prevent opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for seven (7) days after the concrete has been placed.

**610-3.19 Drains or ducts.** Drainage pipes, conduits, and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

**610-3.20 Cold weather placing.** When concrete is placed at temperatures below 40°F (4°C), the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated to place the concrete at temperatures between 50°F and 100°F (10°C and 38°C). Calcium chloride may be incorporated in the mixing water when directed by the Engineer. Not more than pounds (908 grams) of Type 1 nor more than 1.6 pounds (726 grams) of Type 2 shall be added per bag of cement. After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure and maintain the temperature of the mix at not less than 50°F (10°C) until at least 60% of the designed strength has been attained. Information regarding cold weather concreting practices may be found in ACI 306R, Cold Weather Concreting and is incorporated here by reference.

**610-3.21 Hot weather placing.** Concrete shall be properly placed and finished with procedures previously submitted. The concrete-placing temperature shall not exceed [90°F (32°C)] when measured in accordance with ASTM C1064. Cooling of the mixing water and aggregates, or both, may be required to obtain an adequate placing temperature. A retarder meeting the requirements of paragraph 610-2.6 may be used to facilitate placing and finishing. Steel forms and reinforcement shall be cooled prior to concrete placement when steel temperatures are greater than 120°F (50°C). Conveying and placing equipment shall be cooled if necessary to maintain proper concrete-placing temperature. Submit the proposed materials and methods for review and approval by the Engineer, if concrete is to be placed under hot weather conditions. Information regarding hot weather concreting practices may be found in ACI 305R, Hot Weather Concreting and is incorporated here by reference.

**610-3.22 Filling joints.** All joints that require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not start until after final
curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be done with proper equipment to obtain a neat looking joint free from excess filler.

METHOD OF MEASUREMENT

610-4.1 There will be no separate measurement for any work, materials, labor, or incidentals associated with this item. Portland cement concrete shall be measured by the number of cubic yards (cubic meters) of concrete complete in place and accepted. In computing the yardage of concrete for payment, the dimensions used shall be those shown on the plans or ordered by the Engineer. No measurements or other allowances shall be made for forms, falsework, cofferdams, pumping, bracing, expansion joints, or finishing of the concrete. No deductions in yardage shall be made for the volumes of reinforcing steel or embedded items.

610-4.2 Reinforcing steel shall be measured by the calculated theoretical number of pounds (kg) placed, as shown on the plans, complete in place and accepted. The unit weight used for deformed bars shall be the weight of plain square or round bars of equal nominal size. If so indicated on the plans, the poundage to be paid for shall include the weight of metal pipes and drains, metal conduits and ducts, or similar materials indicated and included.

BASIS OF PAYMENT

610-5.1 There will be no separate payment for any materials, equipment, labor, or incidentals associated with this work. Compensation for the work under this item shall be included in the Lump Sum Cost for this Contract. Payment shall be made at the contract unit price per cubic yard (cubic meter) for structural Portland cement concrete and per pound (kg) for reinforcing steel. These prices shall be full compensation for furnishing all materials and for all preparation, delivery and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-610-5.1 Structural Portland Cement Concrete, per cubic yard (cubic meter)

Item P-610-5.1 Steel Reinforcement, per pound (kg)

TESTING REQUIREMENTS

ASTM C31 Standard Practice for Making and Curing Concrete Test Specimens in the Field

ASTM C39 Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens

ASTM C136 Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates

ASTM C138 Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete

ASTM C143 Standard Test Method for Slump of Hydraulic-Cement Concrete

ASTM C231 Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
MATERIAL REQUIREMENTS

ASTM A184 Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A185 Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
ASTM A615 Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704 Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706 Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775 Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A934 Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A1064 Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM C33 Standard Specification for Concrete Aggregates
ASTM C94 Standard Specification for Ready-Mixed Concrete
ASTM C150 Standard Specification for Portland Cement
ASTM C171 Standard Specification for Sheet Materials for Curing Concrete
ASTM C172 Standard Practice for Sampling Freshly Mixed Concrete
ASTM C260 Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309 Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494 Standard Specification for Chemical Admixtures for Concrete
ASTM C595 Standard Specification for Blended Hydraulic Cements
ASTM C618 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM D1751 Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types)
ASTM D1752 Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction
ACI 305R Hot Weather Concreting
ACI 306R Cold Weather Concreting
ACI 309R Guide for Consolidation of Concrete

END OF ITEM P-610
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Interior standing and running trim.
4. Plastic-laminate wall and ceiling panel system.
5. Solid-surfacing-material countertops.

B. Related Sections include the following:

1. Division 6 Section "Miscellaneous Carpentry" for wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
2. Division 6 Section "Paneling."

1.2 DEFINITIONS

A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated including cabinet hardware and accessories and finishing materials and processes.

B. Product Data: For high-pressure decorative laminate adhesive for bonding plastic laminate solid-surfacing material cabinet hardware and accessories and finishing materials and processes.

C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.

1. Show details full size.
2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
3. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers and other items installed in architectural woodwork.
4. Apply WI-certified compliance label to first page of Shop Drawings.
5. Fire-retardant treatment data for underlayment material impregnated by pressure process to reduce combustibility. Include certification by treating plant that materials comply with requirements.

D. Samples for Verification:
   1. Plastic laminates, 8 by 10 inches, for each type, color, pattern, and surface finish with 1 sample applied to core material.
   2. Thermoset decorative-panels, 8 by 10 inches, for each type, color, pattern, and surface finish with edge banding at intersection and perimeter.
   3. Solid-surfacings materials, 6 inches square.

E. Product Certificates: For each type of product, signed by product manufacturer.

F. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

G. Qualification Data: For fabricator

1.4 QUALITY ASSURANCE

A. Manufacturer and Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance. Shop is a certified participant in AWI's Quality Certification Program.

B. Installer Qualifications: Certified participant in AWI's Quality Certification Program.

C. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction, finishes, installation, and other requirements.

   1. Provide AWI Quality Certification Program labels and certificates indicating that woodwork, including installation, complies with requirements of grades specified.

D. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver woodwork until finishing and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.
1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.

2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.7 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.

B. Wood Species for Opaque Finish: Any closed-grain hardwood.

C. Wood Products: Comply with the following:

2. Medium-Density Fiberboard: ANSI A208.2, Grade MD.
5. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1 made with adhesive containing no urea formaldehyde.

D. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
1. Provide PVC or polyester edge banding complying with LMA EDG-1 on components with exposed or semiexposed edges.

E. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or, if not indicated, as required by woodwork quality standard.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering high-pressure decorative laminates that may be incorporated into the Work include, but are not limited to, the following:

   a. Abet Laminati, Inc.
   b. Arborite; Division of ITW Canada, Inc.
   c. Formica Corporation.
   d. Lamin-Art, Inc.
   e. Marlite.
   f. Nevamar Company, LLC; Decorative Products Div.
   g. Panolam Industries International Incorporated.
   h. Westinghouse Electric Corp.; Specialty Products Div.
   i. Wilsonart International; Div. of Premark International, Inc.

2.2 FIRE-RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this Article, which are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified.

1. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.
2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
3. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Comply with performance requirements of AWPA C20 (lumber) and AWPA C27 (plywood). Use the following treatment type:

2. Mill lumber after treatment within limits set for wood removal that do not affect listed fire-test-response characteristics, using a woodworking plant certified by testing and inspecting agency.
3. Kiln-dry materials before and after treatment to levels required for untreated materials.
2.3 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets, except for items specified in Division 8 Section "Door Hardware (Scheduled by Describing Products)."

B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening, self closing with soft action.

C. Back-Mounted Pulls: BHMA A156.9, B02011.

D. Wire Pulls: Back mounted, solid metal 5 inches long, 2-1/2 inches deep, and 5/16 inch in diameter.

E. Catches: Magnetic catches, BHMA A156.9, B03141.

F. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081.

G. Shelf Rests: BHMA A156.9, B04013; metal, two-pin type with shelf hold-down clip.

H. Drawer Slides: BHMA A156.9, B05091.

   1. Standard Duty (Grade 1, Grade 2, and Grade 3): Side mounted and extending under bottom edge of drawer; full-extension type; epoxy-coated steel with polymer rollers with self-closing feature.

I. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.

   1. Satin Stainless Steel: BHMA 630.

J. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.

2.4 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Fire-retardant-treated softwood lumber, kiln dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

C. Adhesives, General: Do not use adhesives that contain urea formaldehyde.

D. Adhesive for Bonding Plastic Laminate: Unpigmented contact cement. Retain subparagraph below unless good chemical, fire, or temperature resistance is required.
1. Adhesive for Bonding Edges: Hot-melt adhesive or adhesive specified above for faces.

2.5 FABRICATION, GENERAL

A. Interior Woodwork Grade: Unless otherwise indicated, provide Premium grade interior woodwork complying with referenced quality standard.

B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.

C. Sand fire-retardant-treated wood lightly to remove raised grain on exposed surfaces before fabrication.

D. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:

E. Complete fabrication, including assembly, finishing and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

   1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.

F. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

   1. Seal edges of openings in countertops with a coat of varnish.

G. Install glass to comply with applicable requirements in Division 8 Section "Glazing" and in GANA's "Glazing Manual." For glass in wood frames, secure glass with removable stops.

2.6 PLASTIC-LAMINATE CABINETS

A. Grade: Premium.
B. AWI Type of Cabinet Construction: Flush overlay.

C. Reveal Dimension: 1/2 inch or as indicated.

D. Laminate Cladding for Exposed Surfaces: High-pressure decorative laminate complying with the following requirements:
   1. Horizontal Surfaces Other Than Tops: Grade HGS.
   2. Vertical Surfaces: Grade HGS.
   3. Edges: Grade HGS.

E. Concealed Backs of Panels with Exposed Plastic Laminate Surfaces: High-pressure decorative laminate, Grade BKL.

F. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
   1. As indicated by laminate manufacturer's designations.
      a. Solid colors, matte finish.
      b. Patterns, matte finish.

G. Provide dust panels of 1/4-inch plywood or tempered hardboard above compartments and drawers, unless located directly under tops.

2.7 SOLID-SURFACING-MATERIAL COUNTERTOPS

A. Grade: Premium

B. Solid-Surfacing-Material Thickness: 3/4 inch unless indicated otherwise.

C. Colors, Patterns, and Finishes: Provide materials and products that result in colors of solid-surfacing material complying with the following requirements:
   1. As indicated by manufacturer's designations.

D. Fabricate tops in one piece, unless otherwise indicated. Comply with solid-surfacing-material manufacturer's written recommendations for adhesives, sealers, fabrication, and finishing.
   1. Fabricate tops with shop-applied edges of materials and configuration indicated.
   2. Fabricate tops with loose backsplashes for field application.

E. Install integral sink bowls in countertops in shop.

F. Drill holes in countertops for plumbing fittings and soap dispensers in shop.
PART 3 - EXECUTION

3.1 PREPARATION

A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.

B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.

B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.

C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.

D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

E. Fire-Retardant-Treated Wood: Handle, store, and install fire-retardant-treated wood to comply with chemical treatment manufacturer's written instructions, including those for adhesives used to install woodwork. Provide separation between treated wood and dissimilar materials.

F. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

G. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.

1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.

2. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches o.c. with No. 10 wafer-head screws sized for 1-inch penetration into wood, blocking; or hanging strips.

H. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
1. Align adjacent solid-surfacing-material countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

2. Install countertops with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.

3. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c. and to walls with adhesive.

4. Caulk space between backsplash and wall with sealant specified in Division 7 Section "Joint Sealants."

I. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.

3.3 ADJUSTING AND CLEANING

A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.

B. Clean, lubricate, and adjust hardware.

C. Clean woodwork on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION 06.40.20
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes stainless-steel units as follows:
   1. Toilet Enclosures: Ceiling hung.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
   1. Show locations of cutouts for compartment-mounted toilet accessories.
   2. Show locations of reinforcements for compartment-mounted grab bars.

C. Samples for Verification: Of each type of color and finish required for units, prepared on 6 inch square Samples of same thickness and material indicated for Work.

1.4 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication and indicate measurements on Shop Drawings.

   1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating toilet compartments without field measurements. Coordinate wall, floor, ceilings, and other contiguous construction to ensure that actual dimensions correspond to established dimensions.
PART 2 - PRODUCTS

2.1 METAL UNITS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Accurate Partitions Corporation.
2. All American Metal Corp.
4. Ampco.
5. Bradley Corporation; Mills Partitions
6. Flush Metal Partition Corp.
8. Global Steel Products Corp.
10. Hadrian (Basis of Design)

B. Stainless-Steel Units: Facing sheets and closures fabricated from ASTM A 666, Type 302 or 304, stainless-steel sheet, leveled to stretcher-leveled flatness.

1. Stainless-Steel Facing Sheet Thicknesses: Specified thicknesses as follows:
   a. Pilasters, Unbraced at One End: Manufacturer's standard thickness, but not less than 0.050 inch.
   b. Panels: Manufacturer's standard thickness, but not less than 0.0312 inch.
   c. Doors: Manufacturer's standard thickness, but not less than 0.0312 inch.
   d. Integral-Flange, Wall-Hung Urinal Screens: Manufacturer's standard thickness, but not less than 0.0312 inch.

2. Finish: No.4 soft brushed satin finish on exposed faces. Exposed surfaces are protected from damage by application of strippable, temporary protective covering before shipment.

C. Door, Panel, and Pilaster Construction: Seamless, metal facing sheets are pressure laminated to core material. Units have continuous, interlocking molding strip or lapped and formed edge closures. Exposed surfaces are free of pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections. Corners are sealed by welding or clips. Exposed welds are ground smooth.

1. Core Material: Manufacturer's standard sound-deadening honeycomb of resin-impregnated kraft paper in thickness required to provide finished thickness of 1-inch for doors and panels and 1 1/4-inches for pilasters.
2. Grab-Bar Reinforcement: Provide concealed internal reinforcement for grab bars mounted on units.
3. Tapping Reinforcement: Provide concealed reinforcement for tapping (threading) at locations where machine screws are used for attaching items to units.
4. Urinal-Screen Construction: Similar to panels, with integral full-height flanges for wall attachment, and maximum 1-1/4 inches thick.

D. Pilaster Sleeves (Caps): Stainless steel, ASTM A 666, Type 302 or 304, not less than 0.0312 inch specified thickness and 3 inches high, finished to match hardware.

E. Brackets (Fittings):
   1. Stirrup Type: Ear or U-brackets, stainless steel.
   2. Full-Height (Continuous) Type: Manufacturer’s standard design; stainless steel for use at urinal screens.

2.2 ACCESSORIES

A. Hardware and Accessories: Manufacturer’s standard design, heavy-duty operating hardware and accessories.

B. Anchorages and Fasteners: Manufacturer’s standard exposed fasteners of stainless steel or chrome-plated steel or brass, finished to match hardware, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use hot-dip galvanized or other rust-resistant, protective-coated steel.

2.3 FABRICATION

A. Ceiling hung Units: Provide manufacturer’s standard corrosion-resistant anchoring assemblies complete with threaded rods, lock washers, and leveling adjustment nuts at pilasters for connection to structural support above finished ceiling. Provide assemblies that support pilasters from structure without transmitting load to finished ceiling. Provide sleeves (caps) at tops of pilasters to conceal anchorage.

B. Doors: Unless otherwise indicated, provide 24-inch wide in-swinging doors for standard toilet compartments and 36-inch wide out-swinging doors with a minimum 32-inch wide clear opening for compartments indicated to be accessible to people with disabilities.

   1. Hinges: Manufacturer’s standard self-closing type that can be adjusted to hold doors open at any angle up to 90 degrees.
   2. Latch and Keeper: Manufacturer’s standard recessed latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with accessibility requirements of authorities having jurisdiction at compartments indicated to be accessible to people with disabilities.
   3. Coat Hook: Manufacturer’s standard combination hook and rubber-tipped bumper, sized to prevent door from hitting compartment-mounted accessories.
   4. Door Bumper: Manufacturer’s standard rubber-tipped bumper at out-swinging doors.
   5. Door Pull: Manufacturer’s standard unit at out-swinging doors that complies with accessibility requirements of authorities having jurisdiction. Provide units
on both sides of doors at compartments indicated to be accessible to people with disabilities.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

1. Maximum Clearances:
   a. Pilasters and Panels: ¼"-inch.
   b. Panels and Walls: ½"-inch.

2. Stirrup Brackets: Secure panels to walls and to pilasters with not less than three brackets attached at midpoint and near top and bottom of panel.
   a. Locate wall brackets so holes for wall anchors occur in masonry or tile joints.
   b. Align brackets at pilasters with brackets at walls.

B. Ceiling Hung Units: Secure pilasters to supporting structure and level, plumb, and tighten. Hang doors and adjust so bottoms of doors are level with bottoms of pilasters when doors are in closed position.

C. Wall-Hung Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb and to resist lateral impact.

3.2 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION 10.15.50
PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.

1.2 SUMMARY:

A. Section includes new interior signage.

B. Section includes indicated artwork and typesetting.

1.3 MANUFACTURER RESPONSIBILITIES:

A. The Manufacturer and his Subcontractor(s) shall hereby agree to read carefully all instructions to bidders, agreements, and specifications and any other attachments included in these contract documents and be bound by their conditions.

B. These contract documents are for Design Intent compliance and should only be used as a guide to produce the finished size, appearance, and function shown.

C. In all cases, any and all national, state and local codes, ordinances and safety standards shall take precedence over these contract documents and it shall be the responsibility of the Manufacturer or his Subcontractor(s) to make certain that these codes, ordinances and safety standards are in compliance.

1.4 REFERENCES:

A. Conform to the following current standards and specifications.


4. ADA HC300 ADA System room signs
1.5 SUBMITTALS:

A. Product Data: Submit manufacturer’s product data and installation instructions for each type of sign required.

B. Shop Drawings:

1. Submit shop drawings for fabrication and erection for each type of sign required. Include plans, elevations, elevations of sign faces, large scale details of sign wording and graphics layout. Indicate method and type of anchorage, field dimensions, and accessory items including material types, thickness and gauges, finishes, and colors.

2. Furnish full-size spacing templates for individual mounted characters.

3. Submit full size art work and typesetting. Submittal may be in black and white with colors noted.

C. Submit two 6”x6” samples of each paint color and vinyl material required.

D. Contract Closeout Submittals:

1. Submit executed special warranty.

1.8 QUALITY ASSURANCE:

A. Qualifications:

1. Sign Contractor must have been regularly engaged for the past five (5) years in the fabrication and installation of sign programs.

1.9 DELIVERY, STORAGE, AND HANDLING:

A. Delivery: Deliver materials to job in protective packaging, labeled for identification.

B. Storage and Protection: Store and protect materials on site to prevent damage or deterioration. Install temporary opaque covers on all sign faces.

1.10 PROJECT/SITE CONDITIONS:

A. Field Conditions: Where the work of this section interfaces with in-place construction, verify existing conditions. Obtain field dimension to ensure proper coordination.

B. Existing Conditions: If visual mounting details shown in Design Intent Drawings
differ from those existing, follow existing conditions.

1.11 WARRANTY:

A. Warrant shop applied finishes to withstand effects of weather, heat, tarnishing and aging for three years.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Raised Plastic Signs as manufactured by Best Sign Systems, Inc. 1202 N Park Avenue, Montrose.CO 81401. 800-235-2378, or approved equal.

B. Signs:

   HC300 ADA System, or approved equal, with a four-in-one construction style having the following characteristics:

   Tactile characters/symbols shall be raised 1/32" from sign plate face. Signs shall be of one-piece construction; added-on and/or engraved characters are unacceptable.

   Text shall be accompanied by Grade 2 braille.
   3/8" wide, 1/32" raised perimeter border with 1/8" inside radius typical.

   Color: Text Color shall be 950 White.

   Characters and background shall have matte finish.

B. Plaque material shall consist of melamine plastic laminate, approximately 1/8" thick (1/4" thick for Slot signs), with core painted a contrasting color and rated non-static, fire-retardant and self-extinguishing. Plastic laminate will be impervious to most acids, alkalies, alcohol, solvents, abrasives and boiling water.

   Color: Match existing.

C. Lettering style shall be Arial Standard Medium, upper case.

D. Sizes of letters and numbers shall be as follows:

   Room numbers shall be 1" high.
   Lettering for room usage and directional identification shall be 3/4" high.
   Lettering for restroom identification shall be 1" high, corresponding symbols shall be 3" high.
E. Letters and numbers shall be centered on sign.

F. Grade 2 braille shall be placed directly below last line of letters or numbers, except for room number signs, where they shall be placed directly behind the last number.

G. Radius corners: 1/2".

H. Sign sizes:
   Restroom signs shall be 6" x 8".
   Directional signs shall be 6" x 6".
   Room identification signs shall be 6" x 6", 8" x 6", 8" x 8" or 10" x 3".
   Room number signs shall be 6" x 2".
   Room identification signs with 5" x 1" window opening for occupants name shall be 6" x 6". Insert shall be 5-9/16" x 1-1/8" [specify optional Lexan® cover over inserts, if required].
   Room identification signs with 8" x 1" slot opening for occupants name shall be 8" x 8". Insert shall be 8" x 1"

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Verification of Conditions: Examine conditions and substrates where products specified in this section are installed; notify Architect within three business days of any unacceptable condition encountered.

3.2 INSTALLATION

A. Clean substrate of projections and substances detrimental to installation.

B. General:

1. Fasteners: Provide concealed fasteners.

3.6 PROTECTION:

A. Protect installed work during construction period to prevent damage to finish surfaces.

3.7 SCHEDULE OF SIGN TEXT:
A. As indicated on drawings.

END OF SECTION 10.42.50
PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Public-use washroom accessories.
2. Public-use shower room accessories.
3. Private-use bathroom accessories.

B. Related Sections include the following:

1. Division 8 Section "Mirrors" for frameless mirrors.

1.2 SUBMITTALS

A. Product Data: For each type of product indicated. Include the following:

1. Construction details and dimensions.
2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
3. Material and finish descriptions.
4. Features that will be included for Project.
5. Manufacturer's warranty.

B. Product Schedule: Indicating types, quantities, sizes, and installation locations by room of each accessory required.

1. Identify locations using room designations indicated on Drawings.
2. Identify products using designations indicated on Drawings.

C. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.

1.3 QUALITY ASSURANCE

A. Source Limitations: For products listed together in the same articles in Part 2, provide products of same manufacturer unless otherwise approved by Architect.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
1.4 COORDINATION
   A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
   B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.5 WARRANTY
   A. Special Mirror Warranty: Manufacturer's standard form in which manufacturer agrees to replace mirrors that develop visible silver spoilage defects and that fail in materials or workmanship within specified warranty period.
      1. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS
   A. Stainless Steel: ASTM A 666, Type 304, 0.0312-inch minimum nominal thickness, unless otherwise indicated.
   B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.0359-inch (0.9-mm) minimum nominal thickness.
   C. Galvanized Steel Sheet: ASTM A 653/A 653M, with G60 (Z180) hot-dip zinc coating.
   E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
   F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).
   G. Mirrors: ASTM C 1503, Mirror Glazing Quality, clear-glass mirrors, nominal 6.0 mm thick.

2.2 PUBLIC- AND PRIVATE-USE WASHROOM ACCESSORIES
   A. Basis-of-Design Product: The design for accessories is based on scheduled products of American Specialties. Subject to compliance with requirements, provide the scheduled product or a comparable product by one of the following:
      1. A & J Washroom Accessories, Inc.
      2. American Specialties, Inc.

2.3 FABRICATION

A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.

B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.

B. Grab Bars: Install to withstand a downward load of at least 250 lbf, when tested according to method in ASTM F 446.

3.2 ADJUSTING AND CLEANING

A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.

B. Remove temporary labels and protective coatings.

C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 10.80.10
EASTERWOOD AIRPORT
TERMINAL IMPROVEMENTS – PHASE 1
COLLEGE STATION, TEXAS

ADDENDUM NO 1. ATTACHMENT

CLARIFICATION TO BIDDERS QUESTIONS
BIDDING CLARIFICATION NO. 1
May 22, 2015

RS&H, INC.
Houston, Texas

The following is provided for information only and does NOT change the Bid Documents:

CLARIFICATIONS TO QUESTIONS FROM BIDDERS

1. Page IB-5 and IB-6 of the specifications list 18 Proposal Forms that need to be included in our bid submission on June 1. Proposal Form 5 is the Proposal Bond and Proposal Form 6 is the Bid Bond. Are you asking us to submit both of these?

   Answer: Proposal Form 5: Proposal Bond will be required to be part of the submittal proposal. Proposal Form 6 is deleted as part of Addendum No 1.

2. Page P-23 seems to be missing. Can you please confirm that this was done intentionally and that we do not need to submit anything associated with Page P-23?

   Answer: P-23 was inadvertently missing. See Addendum No 1.

3. Ref. Sheet C-250 -Detail 1 indicates core drilling the pavement for posts in chain link fencing. Please confirm whether core drilling can or cannot be used for the Decorative Fence posts and bollards in the concrete paving.

   Answer: Core drilling can be used for bollards but must provide full footing width of 12”. See Specification 32.31.19 Section 1.6-B & 3.2-A for foundation requirement for decorative fence.

4. There are two proposal forms in the contract documents, one provided by the architect and another proposal form provided by SSC. The alternate for roof removal and replacement is indicated to be Alternate #1 in specification P101. Architect’s bid form indicates the roof removal and replacement is Alternate #2. SSC bid form does not indicate there is an alternate for roof removal and replacement. Please confirm which bid form is to be used for the bid proposal and confirm the alternate # for the roof removal and replacement.

   Answer: Both forms are to be included in the proposal submittal. Proposal Form 3 is to be completed. Division costs are not required to be included in the Total Price Column on pages 3 & 4; however, a Total Contract Cost on Page 4 shall be included. See Addendum No 1. The total contract cost on Proposal Form 3 page 4 is to be included as item P-001-1 on Proposal Form 2 on page P-3.

   Roofing of Existing Building is Alternate #1. Title of Bid Schedule C on page P-4 revised in Addendum 001.
5. Demolition work is required for this project. Has there been an asbestos survey completed? Will this project require any asbestos abatement or removal?

**Answer:** Asbestos survey shall be provided by the owner.

6. Ref. Sheet C-100 - Site demolition requires removal of the existing fencing located on concrete paving. Can we cut fence posts off flush with paving and leave them as is? Please confirm what is required for removal of chain link fence posts.

**Answer:** Fence posts shall be removed down to 4” below existing pavement by core drilling and then grout filled with non-shrink grout. See Addendum No 1.

7. Ref: Sheet C-200 - Note for 2 - 2” underground conduits & hand hole indicates that more information is on the Technology plans. There is no reference to 2-2” u/g conduits & hand hole in the Technology plans. Please provide information about the scope of work for the 2-2” u/g conduits & hand hole.

**Answer:** See Addendum No 1.

8. Ref. Sheet A-510, Details 2 and 3 indicate galvanized, painted, and powder coat finishes on the stair rail. Please confirm the finish required for the stair rail.

**Answer:** See Addendum No 1.

9. Ref. Elevation 1 and 2/A601 shows 2 each 55” LCD monitors mounted on the wall. Please confirm if the owner or contractor provides the monitors and mounting equipment.

**Answer:** Technology drawings and Specifications indicate LCD monitors and mounting equipment to be included as part of contract.

10. Ref. Sheet E1 Notes 1, 2 and 4 refer to a low voltage master selector switchbank at ticket counter 214. Please confirm the actual location of the low voltage master selector switchbank. Please confirm if the switchbank has spare openings for the added circuits.

**Answer:** See Addendum No 1

11. Please provide specifications for toilet accessories, toilet partitions, interior room signs, corner guards, millwork and countertops

**Answer:** Refer to Accessories schedule on sheet A-500 and Finish Schedule on Sheet A-800. See Addendum No 1 for specifications.

12. Please consider Nu-Age plastic film/sheathing as an “equal or better” to what is currently specified for the project referenced above. Nu-Age Films are the future of plastic film/sheathing materials for construction, industrial, and agricultural applications. Unlike most polyethylene sheeting, Nu-Age Films are tri-extruded from virgin resin and outperform standard polyethylene films of higher weight and thickness. For your review, please Please provide specifications for toilet accessories, toilet partitions, interior room signs, corner guards, millwork and countertops

**Answer:** Product is in accordance with Specification 07.54.20 Section 2.4-A. Therefore, product shall be reviewed during the shop drawing review process.

13. Where in the Specs or Drawings where it indicates what the existing Manual Addressable Fire Alarm System is?

**Answer:** See Addendum No 1