SECTION 011200– SUMMARY OF CONTRACTS / SCOPES OF WORK

Bid Packages: The following is a list of Bid Packages for the New Delaware School for the Deaf:

UNIT OF WORK #	TITLE	BRIEF DESCRIPTION (See Specific Scope for full Description)
01A	General Scope of Work	General Scope of Work Applicable to All Trades
03A	Concrete	Structural concrete footings and slabs
04A	Masonry	Interior CMU, exterior CMU, brick veneer, stone veneer
05A	Steel	Structural steel and miscellaneous metals
06A	Carpentry	Doors, frames and hardware, window blocking, wood trim, miscellaneous specialties
07A	Roofing	Metal roofing, flat roofing, roof insulation, roof blocking, copings, fascia, gutters and downspouts
07B	Caulking	Interior and exterior caulking
07C	Metal Panels	Insulated metal panels, corrugated metal panels, flat metal panels
07D	Spray Foam Insulation	Spray foam insulation
08A	Glass and glazing	Aluminum storefront and curtainwall
09A	Studs & Drywall	Exterior stud framing and sheathing, interior framing and drywall, in-wall blocking, drywall ceilings
09B	Ceilings	Acoustical ceilings, acoustical wall panels, acoustical ceiling panels
09C	Flooring	Resilient flooring, carpet, resilient base and ceramic tile
09D	Painting	Interior and exterior painting
09E	Epoxy Flooring	Resinous flooring and base
11A	Kitchen Equipment	Kitchen Equipment
11B	Gym Equipment	Gym equipment, operable partition, miscellaneous equipment
12A	Casework	Casework and countertops
12B	Window Treatments	Window treatments
14A	Elevator	Elevator
21A	Fire Protection	Fire protection piping and equipment
23A	Mechanical and Plumbing	Plumbing, HVAC, ductwork, insulation, ATC
23B	Testing and Balancing	Air and water balancing
26A	Electrical	Power, lighting, site electric, special systems
31A	Sitework	Sitework, grading, paving, utilities, site concrete, DelDOT improvements, site furnishings
31B	Landscaping	Trees and plantings

Request for clarifications: Direct all questions or concerns in writing to:
The Whiting-Turner Contracting Co., Construction Manager, Attention: Frank Lerro
via fax 302-292-0683 or email, frank.lerro@whiting-turner.com.
All responses will be in the form of an Addendum.

END OF SECTION 011200
(ATTACHMENTS FOLLOW – GENERAL SCOPE AND SPECIFIC SCOPES OF WORK)

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Multipurpose Room

1. Base Bid: Provide construction indicated in area framed by column lines B5 to B6 and BQ to BS indicated on 101A series drawings, all disciplines.
2. Alternate 1A: Provide construction indicated on 108 series drawings, all disciplines. Work includes concrete footings, slab-on-grade, masonry, steel, carpentry, roofing, caulking, spray foam insulation, doors/frames/hardware, windows, studs and drywall, vinyl composition tile flooring, epoxy flooring, acoustical ceilings, rubber base, painting, specialties, manual roller shades, casework, sprinkler system, plumbing, HVAC, electrical and special systems.
3. Alternate 1B: Delete vinyl composition tile flooring. Provide quartz tile flooring as specified in Section 096519 Resilient Tile Flooring.
4. Alternate 1C: Delete vinyl composition tile flooring. Provide rubber tile flooring as specified in Section 096519 Resilient Tile Flooring.

B. Alternate No. 2: Second Floor Flex Space

1. Base Bid: Provide construction indicated in area framed by column lines D2 to D6 and DF to DJ indicated on 102D series drawings, all disciplines.
2. Alternate 2A: Provide construction indicated on 109 series drawings, all disciplines. Work includes concrete slab-on-deck, masonry, steel, carpentry, roofing, caulking, spray foam insulation, doors/frames/hardware, windows, studs and drywall, vinyl composition tile flooring, acoustical ceilings, rubber base, painting, manual roller shades, sprinkler system, HVAC, electrical and special systems.
3. Alternate 2B: Delete vinyl composition tile flooring. Provide quartz tile flooring as specified in Section 096519 Resilient Tile Flooring.
4. Alternate 2C: Delete vinyl composition tile flooring. Provide rubber tile flooring as specified in Section 096519 Resilient Tile Flooring.

C. Alternate No. 3: Athletic Field Grading and Parking

1. Base Bid: Do not provide soccer field grading and seeding and 19 adjacent parking spaces indicated on drawing CXXX.
2. Alternate 3: Provide soccer field grading and seeding and 19 adjacent parking spaces indicated on drawings C202 and C402.

D. Alternate No. 4: Metal Standing Seam Roofing System at Gymnasium/Student Dining.

1. Base Bid: Provide EPDM roofing system with ½” per 12” slope as indicated on drawing A103 and specified in Section 075323 Ethylene-Propylene-Diene-Monomer (EPDM) Roofing.

2. Alternate 4: Delete EPDM roofing system. Revise roof slope to 1" per 12". Provide metal standing seam roofing system as specified in Section 074113 Standing Seam Roof Panels and detailed on drawing AXXX.

E. Alternate No. 5: Revised Flooring in Corridors

1. Base Bid: Provide vinyl composition floor tile in Corridors A100, B100, C100A, C100B, C100C, C100D, D100, C200 and D200 as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.
2. Alternate 5A: Delete vinyl composition floor tile flooring in Corridors A100, B100, C100B, C100C, C100D, D100, C200 and D200. Provide resilient quartz tile flooring as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.
3. Alternate 5B: Delete vinyl composition floor Tile flooring: Provide rubber tile flooring as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.

F. Alternate No. 6: Revised Flooring in Classrooms

1. Base Bid: Provide vinyl composition floor tile flooring as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.
2. Alternate 5A: Delete vinyl composition floor tile flooring at all Classrooms. Provide quartz tile flooring in Classrooms as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.
3. Alternate 5B: Delete vinyl composition floor tile flooring at Classrooms: Provide rubber tile flooring as specified in Section 096519 Resilient Tile Flooring and indicated on A106 and A107 series drawings.

G. Alternate No. 7: Resilient Athletic Flooring at Gymnasium C116 and Student Dining C114

1. Base Bid: Provide vinyl composition floor tile flooring as specified in Section 096519 Resilient Tile Flooring and indicated on drawing A106C.
2. Alternate 7: Delete vinyl composition floor tile. Provide Resilient Athletic Flooring as specified in Section 096566 Resilient Athletic Flooring.

H. Alternate No. 8: Terrazzo at Main Lobby A100 and Stair C100A.

1. Base Bid: Provide resilient quartz tile flooring as specified in Section 096519 Resilient Tile Flooring.
2. Alternate 8: Delete resilient quartz tile flooring at Lobby A100 and Stair C100A. Provide terrazzo flooring as specified in Section 096623 Resinous Matrix Terrazzo Flooring. Provide State of Delaware Map at floor center. See drawing A106A for floor pattern and graphic.

I. Alternate No. 9: Sheet Metal Ductwork

1. Base Bid: Provide KoolDuct fabricated ductwork system at all concealed ductwork locations as specified in Section 33100 HVAC Ducts and Casing. Provide metal ductwork system at all exposed ductwork areas: Stair C100A, Media Center A115, Gymnasium C116, Student Dining C114, Music C123 and Art C125.

2. Alternate 9: Delete KoolDuct. Provide sheet metal ductwork at all concealed ductwork locations as specified in Section 233100 HVAC Ducts and Casings and indicated on mechanical plans.

J. Alternate No. 10: LED Site Lighting

1. Base Bid: Provide HID Site Lighting as indicated on drawings E000 and E700 and specified in Section 265600 Exterior Lighting.
2. Alternate 10: Provide LED Site Lighting as indicated on drawing E000 and E7XX and specified in Section 265600 Exterior Lighting.

K. Alternate No. 11: Interior Stone Veneer at Lobby and Main Stair

1. Base Bid: Provide metal wall panels type XXX at south wall of Lobby A100 outside the Media Center and east wall of Stair C100A.
2. Alternate 11: Delete metal wall panels at south wall of Lobby A100 outside the Media Center and east wall of Stair C100A. Provide interior stone veneeras specified in Section 047000 Architectural Stone Veneer.

L. Alternate No. 12: Stand-By Natural Gas-Fired Emergency Generator

1. Base Bid: No Emergency Generator.
2. Alternate 12: Provide Emergency Generator and concrete pad as specified in Section 26xxxx and indicated by Note UE-2 on drawing C301.

M. Alternate No. 13: Centria Metal Wrap Back-Up System

1. Base Bid: Provide spray foam insulation and gypsum exterior sheathing behind corrugated metal panels type XXX as specified in Section 072110 Insulating Air Barrier System and indicated on wall sections.
2. Alternate 13: Delete spray foam insulation and exterior gypsum sheathing at corrugated metal panels type XXX. Provide Centria Metal Wrap Back-Up System as specified in Section XXX and indicated on drawing XXX.

N. Alternate No. 14: Additional Visual Display Surfaces in Classrooms

1. Base Bid: Provide only 5’ high by 16’ wide magnetic marker board at primary instruction wall at each Classroom as specified in Section 101100 Visual Display Surfaces and indicated on A106 and A107 series Finish Plans and Interior Elevations.
2. Alternate 14: Provide additional 4’ high by 4’ wide magnetic marker board and 4’ high by 4’ wide tack board at secondary instruction walls at all Kindergarten and 1st Grade Classrooms. Provide additional 4’ high by 8’ wide magnetic marker board and 4’ high by 4’ wide tack board at secondary instruction walls at all 2nd, 3rd, 4th, and 5th Grade Classrooms as specified in Section 101100 Visual Display Surfaces and indicated on A106 and A107 Finish Plans and Interior Elevations.

O. Alternate No. 15: Multi-Hue Exterior Flat Metal Accent Panels

1. Base Bid: Provide 3 solid accent color flat metal panels type MWP-2 as specified in Section 074213 Metal Wall Panels and indicated on drawing XXX.

2. Alternate 15: Provide 3 hues per 3 accent colors for flat metal panels type MWP-2 as specified in Section 074213 Metal Wall Panels and indicated on drawing XXX.

P. Alternate No. 16: Decorative Glazed CMU Base at Lockers

1. Base Bid: Provide decorative glazed CMU base at CMU walls in Corridors as specified in Section 042000 Unit Masonry. At all other locations provide metal legs and base plates at lockers as specified in Section 105113 Metal Lockers and detailed on drawing AXXX.
2. Alternate 16: Delete metal legs and base plates at lockers in Corridors. Provide concrete curbs and decorative glazed CMU base as specified in Section 042000 Unit Masonry and detailed on drawing AXXX.

END OF SECTION 012300

SECTION 012500 – CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions" or comparableform.

1.3 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Construction Manager will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
   1. Proposal Requests issued by Construction Manager are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
   2. Within time specified in Proposal Request after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
      a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
      b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
      c. Include costs of labor and supervision directly attributable to the change.
      d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

B. Contractor-Initiated Proposals: If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Construction Manager.
   1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
   2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.

3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 1 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

C. Proposal Request Form: Use AIA Document G709 or approved comparable forms for Proposal Requests.

1.4 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.5 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Construction Manager may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
   1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
   1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012650 – CHANGE ORDER REQUEST SUBMISSION FORMAT

The following is a general listing of requirements relating to change order work. Refer to the Contract, General Conditions, Supplementary Conditions, General Scope, and Specification for full requirements.

1. Refer to the Supplementary General Conditions for the Allowable overhead and profit Mark-ups.

2. Any proposed change order / request for the project must be submitted in the format example shown in this specification section.

3. All labor and material costs must be separated with their applicable mark-ups detailed.

4. Whiting-Turner, the Owner, or the Architect may request additional breakdown information, back-up, etc., at their discretion at any time.

5. Each price submitted must include the following:
    a. Detailed description of the issue.
    b. Location in the building.
    c. Reason why it's extra
    d. Drawing, Specification or other documentation references.
    e. RFI reference
    f. Submittal reference
    g. WT price request reference

6. For price requests or time and material work, obtain approval from the Whiting-Turner project manager in writing prior to proceeding with the extra work.

7. Notify Whiting-Turner in writing immediately (with 24 hours) upon discovering an extra work issue.

8. Any work authorized to proceed on a time and material basis must have the T+M tickets signed daily by Whiting-Turner.

9. Extra work prices or unsigned T+M tickets forwarded after the work is completed will not be accepted.

10. For emergency work that may impact the schedule, verbal cost budgets must be submitted immediately. The work may be authorized to proceed at the Whiting-Turner project manager's and/or owner's discretion.

11. Return extra work price requests in 5 days. Finalize T+M tickets in 5 days.

12. Any item of extra work that cannot be agreed upon at a fixed price will be performed on a time and material basis that is not to exceed an agreed upon budget.

Labor Bill Rates & Change Request Submission Formats

A. Labor Billing Rate Calculation – Example

Base Rate	$17.40
Fringe Benefits *@% of base rate	8.53
Subtotal Rate	$25.93
Insurance& taxes ** @% of subtotal rate	9.07
Subtotal - **Labor Rate**	**$35.00**
Overhead & Profit @ 15%***	5.25
Total – **Hourly Billing Rate**	$40.25

NOTE:

* The fringe benefit includes health, welfare or retirement benefits, vacation, holiday or sick leave pay.

** The insurance and taxes include employer payment for unemployment insurance, worker's compensation, FICA, Bonds, Gross Receipts, etc.

*** Allowable mark-up will decrease on a scale based on the total amount of the proposed change. Refer to the supplementary general conditions for additional information. This note is typical for all of the examples above and below.

B. Change Directive Calculation

1. Trade Contractor

Labor Billing Rate$35/hr x 50 hrs		$1,750.00
Fee (overhead & profit) @15%***	262.50	
Subtotal Labor		$2,012.50
Material or Equipment		$2,000.00
Fee (overhead & profit) @15%***		300.00
Subtotal Material		$2,300.00
Total Costs		**$4,312.50**

2. Subcontractor / Trade Contractor

Sub- Labor Billing Rate $35/hr x 50hrs	$1,750.00
Fee (sub overhead & profit) @15%***	265.50
Subtotal-Labor	$2,012.50
Sub-Material or Equipment	$2,000.00
Fee (sub overhead & profit) @15%***	300.00
Subtotal-Material	$2,300.00
Total Costs-Subcontractor	**$4,312.50**
Fee payable to contractor	
Subcontractor Labor and Material	$4,312.50
Contractor overhead & profit @ 5%	215.62
Total Costs	**$4,528.12**

3. Sub-Subcontractor / Subcontractor / Trade Contractor

Sub-subcon. Labor Billing Rate $35/hr x 50hrs	$1,750.00
Fee (overhead & profit) @15%***	262.50
Subtotal- Labor	$2,012.50
Sub-subcon. Material or Equipment	$2,000.00
Fee (overhead & profit) @15%***	300.00
Subtotal-Material	$2,300.00
Total Costs – Sub-subcontractor	**$4,312.50**
Fee payable to Sub-Contractor	
Sub-subcontractor Labor and Material	$4,312.50
Subcontractor overhead & profit @5%	215.63
Total Costs – Subcontractor	**$4,528.13**
Fee payable to Trade Contractor	
Subcontractor Labor and Material	$4,528.13
Contractor overhead & profit @5%	226.41
Total Costs	**$4,754.54**

END OF SECTION 012650

SECTION 012900 – PAYMENT PROCEDURES

1. The following documents are included section 006200:
   A. AIA Document G732, Application and Certification for Payment, Construction Manager as Advisor Edition
   B. AIA Document G703, Continuation Sheet

2. A **PENCIL** (Proof) copy of the proposed Application for Payment must be submitted by the 20TH of the month to the WT Project Manager.

3. Upon approval of the Pencil copy by the WT Project Manager, the **ORIGINAL** Application for Payment must be submitted by the 25TH of the month to:
   The Whiting-Turner Contracting Company
   131 Continental Drive, Suite 404
   Newark, DE 19713.
   Faxed copies are NOT acceptable.

4. Typical errors on invoice submissions are as follows. Please review this list prior to submitting your invoice. Invoices with errors will be returned. Typical errors:
   A. AIA forms used must be the correct documents.
   B. AIA forms must be original documents, not copies.
   C. Invoice should reference the School District's Purchase Order number.
   D. Math is incorrect.
   E. Invoice is not notarized .
   F. Schedule of Values needs to be approved in advance prior to submission of invoice. It should be broken down by phases, floors, areas, systems, materials, labor, allowances, alternates, etc.
   G. Schedule of Values must list a line item for close-out documents: (As-Builts, Warranties, Operations and Maintenance Manuals, Training Sessions, AIA close-out documents, etc.)
      i. $2,500 minimum, OR
      ii. 1% of total contract amount, which ever is greater.
   H. Retainage amount is incorrect. Should be 5%.
   I. Amount billed does not match work in place on site (obtain WT's prior approval)
   J. Invoice is addressed improperly, should be addressed to:
      Red Clay Consolidated School District
      1502 Spruce Avenue
      Wilmington, DE 19805
      (But delivered to Whiting-Turner)
   K. Insurance certificate has expired. Current insurance must be on file.
   L. Trade Contractor's Partial Release of Liens not attached.
   M. Invoice is billing for stored materials, copies of shipping receipts, invoices, and an insurance certificate for the building which houses the materials must be attached.
   N. Invoice is billing for extra work that has not yet appeared on an AIA G701 Change Order.
   O. Second tier Contractors / Suppliers Partial Release not attached .
   P. Daily field reports or Safety meeting minutes have not been forwarded to the WT superintendent.
   Q. Copies of Certified payroll reports have not been submitted.
   R. Punchlist is not complete (applicable at end of project).
   S. Close out documents not received or incomplete (applicable at end of project).

END OF SECTION 012900

SECTION 013100 – PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
   1. Coordination Drawings.
   2. Project meetings.

B. See Division 1 Section "Execution Requirements" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.2 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
   1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
   2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
   3. Make adequate provisions to accommodate items scheduled for later installation.
   4. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.

B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
   1. Preparation of Contractor's Construction Schedule.
   2. Preparation of the Schedule of Values.
   3. Installation and removal of temporary facilities and controls.
   4. Delivery and processing of submittals.
   5. Progress meetings.
   6. Pre-installation conferences.
   7. Project closeout activities.
   8. Startup and adjustment of systems.
   9. Project closeout activities.

1.3 SUBMITTALS

A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.
   1. Content: Project-specific information, drawn accurately to scale. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. Include the following information, as applicable:
      a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
      b. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
   2. Sheet Size: At least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
   3. Number of Copies: Submit three opaque copies of each submittal. Architect will return one copy.
   4. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.

1.4 PROJECT MEETINGS

A. General: Coordinate, schedule and conduct meetings and conferences at Project site with the Construction Manager.
   1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Construction Manager, Owner and Architect of scheduled meeting dates and times.
   2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
   3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Construction Manager, Owner and Architect, within three days of the meeting.

B. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.
   1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Construction Manager and Architect of scheduled meeting dates.
   2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:
      a. The Contract Documents.
      b. Options.
      c. Related requests for interpretations (RFIs).
      d. Related Change Orders.
      e. Purchases.
      f. Deliveries.
      g. Submittals.
      h. Review of mockups.
      i. Possible conflicts.

j. Compatibility problems.
k. Time schedules.
l. Weather limitations.
m. Manufacturer's written recommendations.
n. Warranty requirements.
o. Compatibility of materials.
p. Acceptability of substrates.
q. Temporary facilities and controls.
r. Space and access limitations.
s. Regulations of authorities having jurisdiction.
t. Testing and inspecting requirements.
u. Installation procedures.
v. Coordination with other work.
w. Required performance results.
x. Protection of adjacent work.
y. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

C. Progress Meetings: Conduct progress meetings at regular intervals. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Construction Manager, Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Provide digital and hard copies of the construction schedule to the Construction Manager on a monthly basis unless indicated otherwise within the Construction Documents.
b. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
1) Review schedule for next period.
c. Review present and future needs of each entity present, including the following:
1) Interface requirements.
2) Sequence of operations.
3) Status of submittals.
4) Deliveries.
5) Off-site fabrication.

6) Access.
7) Site utilization.
8) Temporary facilities and controls.
9) Work hours.
10) Hazards and risks.
11) Progress cleaning.
12) Quality and work standards.
13) Status of correction of deficient items.
14) Field observations.
15) Requests for interpretations (RFIs).
16) Status of proposal requests.
17) Pending changes.
18) Status of Change Orders.
19) Pending claims and disputes.
20) Documentation of information for payment requests.

3. Minutes: Record the meeting minutes.
4. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.
   a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013110 – PROJECT COORDINATION

1.01 PROJECT COORDINATION

A. Every Trade Contractor shall be responsible for the coordination of the progress of their work with the progress of all other Trade Contractor's work.

B. Inasmuch as Project completion within the time limit is dependent upon cooperation of those engaged therein, it is imperative that each Trade Contractor perform his work at such time and in such a manner as not to delay or otherwise interfere with work progress of other Trade Contractors. If any Trade Contractor's work depends upon proper execution or results of another Trade Contractor's work, the former shall inspect the work and report any defects therein to the Construction Manager.

C. Trade Contractors shall afford each other every reasonable opportunity for installation of their work, and shall work in conjunction with each other in order to facilitate proper and intelligent execution of work.

D. Plans are generally diagrammatic, and each Trade Contractor shall coordinate his work with the work of others, so that interference between mechanical and electrical work and architectural and structural work does not occur. Each Trade Contractor shall furnish and install offsets, bends, turns, and the like in connection with his work to avoid interference with work of other Trade Contractors, to conceal work where required, and to secure necessary clearance and access for operation and maintenance. In case of interference or lack of clearance and access, the Construction Manager will be notified immediately, and shall, in turn, notify the Architect. The Architect will decide which work shall be relocated, regardless of which was installed first.

E. Systems Coordination Drawings

1. Systems Coordination Drawings are required from the Mechanical, Electrical, Fire Protection, and General Trade Contractors with the lead role assigned to the Mechanical Trade Contractor.

2. The Mechanical Trade Contractor shall prepare 1/4" = 1ft. scale Reproducible Systems Coordination Drawings for all areas with piping and ductwork. At critical areas of coordination (risers/shafts, mechanical, electrical and communications rooms), larger scale drawings may be required as determined by all Trade Contractors. Drawings to indicate spatial relationship of all HVAC piping and ductwork.

3. The Mechanical Trade Contractor shall prepare and submit, to the Construction Manager, a regularly updated schedule indicating the development and review of these drawings with other Trade Contractors. The drawing development and review schedule must follow the project construction schedule.

4. The Mechanical Trade Contractor shall provide the Reproducible Systems Coordination Drawings to other Trade Contractors for their input and review. The routing is as follows: HVAC, Fire Protection, Plumbing, Electrical, and General Works with the drawings being returned to the Mechanical (HVAC) Trade Contractor.

5. Each Trade Contractor will add the work of his Contract on the System Coordination Drawings to avoid interferences. All piping, equipment, light fixtures, sprinkler heads and in-ceiling equipment, such as rolling gates, must be shown on these drawings to include elevations and dimensions. Trade Contractors shall also consider future access for maintenance clearances required around equipment. If there are items on the systems coordination drawings which modify the design of the contract drawings, each Trade Contractor must highlight these areas by clouding, numbering, and referencing them to the affected contract drawings to allow proper review by each Trade Contractor and the Architect/Engineer.

6. Prior to forwarding the Systems Coordination Drawings to the next Trade Contractor, an approval stamp, initialed and dated, should be affixed by the reviewing Trade Contractor. This approval shall signify that the Trade Contractor will install his work accordingly.

7. During the Systems Coordination Drawing process, the Construction Manager will conduct regularly scheduled meetings. Each Trade Contractor is required to attend these meetings. The Construction Manager is responsible for recording and distributing meeting minutes to all Trade Contractor and the Architect/Engineer. The purpose of the meetings will be to review and discuss interferences and conflicts which required modifications to the Systems Coordination Drawings. All resolutions of interferences and conflicts which required modifications, shall be initialed by the appropriate Trade Contractors on the Systems Coordination Drawings. Conflicts that result after the coordination drawings are signed-off will be the responsibility of the Contractor who installed the work improperly. Coordination participants that fail to cooperate in the coordination Drawings effort, will be responsible for all costs incurred for adjustments to the work made necessary to accommodate installations. Coordination drawings shall be updated on a periodic basis and shall reflect all changes. At each meeting, the Trade Contractors will review and update the Systems Coordination Drawing Schedule.

8. Once reviewed and approved by each Trade Contractor, the Mechanical Trade Contractor will prepare the Final Reproducible Systems Coordination Drawings with the work of all trades included. Submit the Reproducible drawings along with five (5) prints to the Construction Manager who will forward to the Architect for his review.

9. The Mechanical Trade Contractor shall indicate any unresolved conflicts or interferences on the Systems Coordination Drawings. Those should be delineated by clouding, number and referencing to the affected contract drawings.

10. The Architect will review and return to the Construction Manager. The Construction Manager will distribute the number of drawings to the Trade Contractors for installation of their work.

11. The Systems Coordination Drawings DO NOT REPLACE ANY SHOP DRAWINGS FABRICATION AND LAYOUT DRAWINGS REQUIRED BY SPECIFICATION SECTIONS.

1.02 FIELD ENGINEERING

A. Inspection:

1. Each Trade Contractor shall verify locations of survey control points prior to starting work. Promptly notify Construction Manager of any discrepancies discovered.

2. The Trade Contractor shall verify all measurements of the building and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings; any difference which may be found should be submitted to the Architect for consideration before proceeding with the work.

B. Survey Requirements: The Construction Manager shall secure a professional engineer or surveyor licensed in the State of Delaware to perform the following:

1. Verify grades, lines, levels, locations and dimensions as indicated. Report any errors or inconsistencies in the above, before commencing work.

2. Exercise care in laying out work to keep within lot and property lines. Be responsible for encroachments on rights or property of public or surrounding property owners.

3. Locate and layout building or facilities according to the drawings with respect to their location on property and elevation in relation to grade.

4. Provide and maintain well-built batter boards at corners (if applicable). Establish and safeguard benchmarks in at least two (2) widely separated places. As work progresses, establish benchmarks at each level. Give exact levels of various floors.

5. Maintain complete, accurate log of control and survey work as it progresses.

C. Construction Layout:

The Sitework Trade Contractor shall be responsible to perform the layout and elevations required to complete his work.

Each Trade Contractor shall layout the remainder of his own work and be responsible for all lines, levels, grades, elevations, and measurements.

1.03 TESTS

A. The Construction Manager has employed and will pay for the services of a testing agency to perform the following tests and inspection (field):

Soil compaction
Concrete
Steel
Masonry

B. Tests, other than those required by the Specifications to be performed by Construction Manager required by any law, ordinance, rule, regulation or order of any public authority having jurisdiction, shall be made at such time and in such manner as the public authority may require. Each Trade Contractor responsible for that Specification Section shall be solely responsible for such tests.

C. Special tests may be ordered by the Architect in accordance with the General Conditions. Where specifications require testing by an independent testing laboratory, the Construction Manager shall be responsible for selection of the testing laboratory. The Construction Manager shall be responsible for the scheduling of all tests. Test reports should be given to the Construction Manager with copies for the Owner and Architect/Engineer.

D. All costs of testing required by the Contract Documents shall be borne by the Trade Contractor except costs of special tests which shall be paid for as stipulated in the General Conditions or Specifications.

1.04 TRADE CONTRACTOR'S OBLIGATIONS

A. The Trade Contractor must assume all risks and bear any loss occasioned by neglect or accident during the progress of the work until same shall have been completed and accepted by the Owner. The Trade Contractor agrees to indemnify, defend and save harmless the Owner, Architect, and Construction Manager from all suits and losses or injury to persons or property received or sustained from the Trade Contractor or his agents in the performance of the work under the progress of construction and make good all damage that may consequence the work herein specified. He must also assume all blame or loss by reason of neglect or violation of local or state laws, ordinances and regulations, encroachments upon neighbors, or from any other cause.

B. The work, in every respect, shall be under the care of the Trade Contractor and at his risk. He shall properly safeguard against any or all injury or damage to the public, to any property, materials, or things, except where stipulated otherwise in the Specifications, and also be responsible for any such damage or injury from his undertaking of this work to any person or persons or thing connected therewith. He shall indemnify and save harmless the Owner, Architect, and Construction Manager from all claims, suits, damages, actions of law, in equity or otherwise (including the costs of defense thereof which shall be assumed by the Trade Contractor) or any kind whatsoever in connection with this work and agreement and shall, if required, show evidence of settlement of any such action before final payment is made hereunder by the Owner.

1.05 ALLOCATION OF WORK

A. Sleeves, Hangers, and Inserts:

1. Each Trade Contractor shall furnish sleeves and inserts required to accommodate his work, together with instructions regarding their placement and location in the structure. Sleeves and inserts shall be furnished promptly in accordance with the established construction schedule so that they may be built-in as construction progresses.

2. Trade Contractors to furnish all embeds, sleeves, inserts, etc., that are to be cast in concrete or built in masonry to the appropriate Trade Contractor for installation.

3. Each Trade Contractor shall furnish and install all hangers required to accommodate his work.

B. Chases and Recesses:

Each Trade Contractor shall provide all blockouts in his work shown on the Contract Documents and having either or both dimensions greater than 10". Any openings with dimensions smaller than 10" or not shown and required by Trade Contractor shall be the responsibility of the Trade Contractor to make provisions for. Each Trade Contractor shall provide chases and recesses as shown on the Contract Documents required to accommodate the work or the other Trade Contractors. It is the responsibility of the Trade Contractors requiring openings, chases, etc., of a Trade Contractor, to furnish information regarding the size and location promptly in accordance with the established construction schedule, so that they may be built-in as construction progresses and avoid delays. Failure to provide the information promptly will result in the responsible Trade Contractor incurring any costs associated with the delay.

Trade Contractors shall cooperate fully with each other in the performance of above work, as cutting and patching of new work is neither contemplated nor will it be tolerated.

C. Sealing of Penetrations:

Each Trade Contractor shall be responsible to seal his own penetrations in walls, floors, and ceilings, using fire resistant materials, as required, to achieve fire ratings as indicated.

D. Equipment Foundations:

The Concrete Contractor shall provide all foundations and housekeeping pads for equipment furnished under his contract and all interior/exterior foundations and housekeeping pads indicated on the Contract Documents (Architectural, Civil, Structural, Mechanical, Plumbing, and Electrical) for equipment provided by other Trade Contractors. All other foundations, equipment, and housekeeping pads not shown, but required, shall be by the Trade Contractor requiring the same.

Each Trade Contractor shall furnish anchor bolts and other accessories required to anchor his equipment in place, together with instructions regarding their placement and location in the foundation. Anchor bolts and other accessories shall be furnished promptly in accordance with the established construction schedule so that they may be built-in as construction progresses.

E. Roofing Penetrations:

All roofing work shall be performed by the Roofing Trade Contractor, including patching penetrations made by the Electrical, Plumbing, and HVAC Trade Contractors. Cutting of roof openings, structural reinforcement, roof curbs, and counterflashing, shall be provided and installed by each Trade Contractor whose work penetrates the roofing surface, including all additional blocking.

1.06 CORING, CUTTING AND PATCHING

A. Responsibility: A Trade Contractor requiring the cutting of openings in new work, or in the existing work installed by others shall have such openings cut and patched by the trade which installed the original work, and such cutting and patching shall be at the expense of the Trade Contractor requiring the opening.

B. Approval: Approval to do such cutting and patching shall be received from the Architect through the Construction Manager prior to proceeding with the work.

C. Inspection:

1. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.

2. After uncovering, inspect conditions affecting performance of work.

D. Preparation:

Provide supports to assure structural integrity of surroundings, devices, and methods, to protect other portions of Project from damage.

Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

E. Performance:

Execute work by methods to avoid damage to other work and which provide proper surfaces to receive patching and finishing.

Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements and sight-exposed surfaces.

Restore work with new products in accordance with requirements to Contract Documents.

Fit work tightly to pipes, sleeves, ducts, conduit and other penetrations through surfaces.

At penetrations of fire-rated wall, ceiling or floor construction, completely seal voids with fire-resistant materials as required to achieve fire-rating indicated.

Where fire protection materials are damaged or removed, reapply fire protection materials to achieve a rating equivalent to existing construction or as noted.

Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

F. Access Doors and Panels

Access doors and panels, SHOWN ON ANY DRAWING, shall be furnished and installed by the Drywall Contractor.

Access doors and panels, NOT SHOWN ON DRAWINGS, but required by the Specifications to access concealed valves, dampers, traps, devices, etc., shall be furnished by the Trade Contractor requiring the same for installation by the Drywall Contractor.

G. Final Cleaning

Final cleaning shall be performed by Construction Manager. Daily cleaning will be by the Trade Contractor(s) and their subcontractor(s).

END OF SECTION 013110

SECTION 013200 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
   1. Construction Schedule.
   2. Submittals Schedule.
   3. Daily construction reports.
   4. Field condition reports.

1.2 SUBMITTALS

A. Submittals Schedule: Submit three copies of schedule. Arrange the following information in a tabular format:
   1. Scheduled date for first submittal.
   2. Specification Section number and title.
   3. Submittal category (action or informational).
   4. Name of subcontractor.
   5. Description of the Work covered.
   6. Scheduled date for Architect's final release or approval.

B. Contractor's Construction Schedule: Submit two opaque copies of initial schedule, large enough to show entire schedule for entire construction period and a copy of the digital file on CD.

C. Daily Construction Reports: Submit two copies at weekly monthly intervals.

D. Field Condition Reports: Submit two copies at time of discovery of differing conditions.

1.3 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
   1. Secure time commitments for performing critical elements of the Work from parties involved.
   2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 SUBMITTALS SCHEDULE

A. Preparation: Submit a schedule of submittals to Construction Manager, arranged in chronological order by dates required by construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
   1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
   2. Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion.
   1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
   1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
   2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
   3. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
   4. Startup and Testing Time: Include not less than 10 days for startup and testing.
   5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.

C. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion

D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragnets to demonstrate the effect of the proposed change on the overall project schedule.

2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for commencement of the Work unless otherwise indicated. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
   1. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.4 REPORTS

A. Daily Construction Reports: Prepare and issue a daily construction report recording the following information concerning events at Project site to the Construction Manager:
   1. List of subcontractors at Project site.
   2. Equipment at Project site.
   3. Material deliveries.
   4. High and low temperatures and general weather conditions.
   5. Accidents.
   6. Stoppages, delays, shortages, and losses.
   7. Meter readings and similar recordings.
   8. Orders and requests of authorities having jurisdiction.
   9. Services connected and disconnected.
   10. Equipment or system tests and startups.

B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit to Construction Manager a detailed report. Submit with a request for interpretation on CSI Form 13.2A or comparable form approved by Architect. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule to Construction Manager one week before each regularly scheduled progress meeting.
   1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
   2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
   3. As the Work progresses, indicate Actual Completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Construction Manager, Architect and Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
   1. Post copies in Project meeting rooms and temporary field offices.
   2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013210 – CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.1 Construction Schedule

1. The following William F. Cooke Elementary School Schedule is applicable to all bidders. The durations in the schedule are based on 5 day work weeks.
2. Liquidated damages of $1,000 per day will be assessed if final completion date, as adjusted by the Construction Manager is not met. Liquidated damages shall apply to all trade contracts. Liquidated damages will be assessed for each day beyond the scheduled date of completion for each trade contractor's item of work. Assessment will occur upon completion of all contracts and may be incurred by one or multiple contractors determined by the Construction Manager.
3. The Construction Schedule as approved by the Construction Manager and Owner will be an integral part of the Contract, and will establish interim work completion dates for the various activities.
4. The Construction Schedule may vary in accordance with construction conditions. Each Trade Contractor shall delay or expedite material and equipment deliveries, and modify the required labor forces to accommodate these varying conditions.
5. Work is to commence upon receipt of the Letter of Authorization to proceed.
6. Within fifteen (15) days after receipt of a "Letter of Authorization to proceed", each trade Contractor shall submit a detailed preliminary Construction Schedule to the Construction Manager. The schedule will include breakdowns of total man days of field labor into major categories of work, time estimates of various categories of work, and the crew size for each category.
7. Each Trade Contractor shall organize his Construction Schedule per Phase, Building, Area, and/or Floor as required by the Construction Manager.
8. The Construction Manager shall schedule a meeting with the Trade Contractor to receive the contents of each Trade Contractor's preliminary Construction Schedule, coordinate the sequence of work, and make all revisions required. The Construction Manager shall have the final authority concerning the sequence of work and durations of each activity. Each Trade Contractor shall revise his schedule in accordance with that meeting and submit his schedule to the Construction Manager for approval. The Construction Manager will then develop the Project Construction Schedule. Each Trade Contractor shall schedule and perform his work in accordance with the Construction Manager's Project Construction Schedule.
9. The Schedule shall be the basis for the dates to start and complete work for various portions of each contract, and to complete work (including changes) for the Project. It shall be the duty of the Trade Contractor to conform to the approved Schedule and to arrange his work in such a manner that it will be installed in accordance with the Schedule.
10. Each Trade Contractor shall submit two (2) copies of an updated Construction Schedule comparing the original schedule to actual work in progress and projected work along with the preliminary application for payment.
11. A representative of each Trade Contractor shall meet with the Construction Manager and furnish to him information necessary for such re-evaluating and updating and, if applicable, information with regard to changes in the work and the Trade Contractor's proposed effort to overcome any delays incurred.
12. Should any work not be started or completed within five (5) days of the stated scheduled date, the Construction Manger shall have the right to order the Trade Contractor to expedite start and completion of the work by whatever means the Construction Manager deems appropriate and necessary, without additional compensation to the Trade Contractor.

13. Should any work to ten (10) or more days behind schedule, the Construction Manger shall have the right to perform the work or have the work performed by whatever method the Construction Manager deem appropriate.
14. Costs incurred by the Construction Manager in connection with "maintaining the Construction Schedule" under this section shall be reimbursed to the Construction Manager by the Trade Contractor.
15. It is expressly understood and agreed that failure by the Construction Manager to exercise the option to either order the Trade Contractor to expedite work, or to expedite the work by other means, shall not be considered precedent-setting for any other activities.
16. The following Construction Schedule is critical to the successful completion of the Project and is an integral portion of the Construction Documents. The Construction Schedule may vary in accordance with the construction conditions. The Trade Contractor shall delay or expedite his material and equipment deliveries and modify the required work forces to accommodate these varying conditions. The attached schedule is a milestone schedule with durations that portions of the project must be completed in. A more detailed construction schedule will be generated after all contracts have been awarded. By submitting a bid, each Trade Contractor is acknowledging that they can complete this work within the durations outlined in the milestone schedule.
17. The schedule is of the essence on this project and each contractor is responsible for completion of its work in coordination with the work of all other contractors within the required sequence and time frame so that the established schedule is met. Each contractor agrees to provide sufficient labor crew size, equipment and/or work overtime, weekends, or shiftwork as necessary to meet the activity durations on this schedule.
18. The attached schedule includes "estimated" start dates for the construction activities. In the interest of the overall project, W-T reserves the right to alter the sequencing of activities in order to accommodate project conditions and/or Owner requirements. It is understood that the contractor shall be obligated to complete its activities within the specified duration regardless of the actual start date.
19. All submittals and shop drawings must be submitted within a minimum of **two (2) weeks** of the notice to proceed with this subcontract, or the dates indicated on the schedule or scope of work, whichever occurs first. All expediting of materials and equipment to meet this schedule is the responsibility of the contractor. Contractor to pay for any quick ship charges if necessary.
20. All critical path materials such as storm water structures, rebar, steel, brick, door frames, electrical gear and lighting, mechanical equipment and ductwork, roofing material, kitchen equipment, etc., must be expedited from the beginning of the project. Delays in critical path materials will not be accepted.
21. All work, or applicable portions of the work, shall be sufficiently complete for Owner's use and occupancy and all required approvals and permits for use and occupancy shall have been issued by the appropriate authorities by the established "Date of Substantial Completion" of the work, or applicable portion thereof.
22. All punchlist work and project closeout documentation shall be completed and approved by the Owner and Architect by the "Date of Final Completion": which shall be no later than 21 days after the Date of Substantial Completion. Any uncompleted punchlist items after this date will be completed by Whiting-Turner and backcharged to the appropriate contractor or vendor. Final invoices will not be processed until final completion of the work and certification of same by the Owner and Architect.
23. If a contractor misses any portion of a workday due to weather, manpower, or scheduling conflicts, they must make-up this lost time during the same week.

24. Sundays are not regular work days. Approval must be obtained from Whiting-Turner prior to working. It is expected that contractors will work Saturdays, Sundays, and overtime when days are lost during the week.
25. Failure to properly man the project during normal week days may result in charges for CM supervision on weekends, at the discretion of the CM.
26. The contractor must schedule their work forces to work on all available work at a given time. Therefore, if an area of the building is ready for the contractor's work to begin or continue, the contractor must have manpower onsite working. Contractors will not have the "entire" work area at one time.
27. Each contractor must request information or clarifications in a timely manner, at least two weeks prior to needing the information, so that the time required to receive the clarification does not impact the work. No delays will be accepted related to this issue.
28. Each contractor is required to include in their bid the necessary overtime costs if they are needed to meet the schedule durations in this section.

2.1 Time of Completion

1. The Trade Contractor shall commence work upon receipt of a Letter of Authorization to proceed from either Red Clay Consolidated School District or The Whiting-Turner Contracting Company.
2. All work shall be 100 percent (100%) complete and sequenced per the attached schedule unless agreed upon by the Construction Manager prior to the executing of the contract.
3. Work can be completed on Saturdays and Sundays and at extended hours during the week. The Owner shall not be responsible for additional costs for overtime.
4. Normal work hours shall be from 7:00 a.m. to 3:30 p.m., Monday to Friday, and 7:00 a.m. to 3:30 pm on Saturday, when applicable. Work may be completed beyond these hours, as approved by the Construction Manager.
5. <u>Weather Delays</u>: The project substantial completion date, shall only be adjusted due to weather conditions if there are delays above and beyond the following "Adverse Day" allowances based on a seven day work week:
   A. January (12), February (10), March (5), April (5), May (4), June (2), July (4), August (3 days), September (4 days), October (3 days), November (2 days), and December (6 days). These "Adverse Days" are based on the following reference: State of Delaware Department of Transportation's Standard: "763508 Project Control System."
   B. Delays requested due to weather must be related to the critical path activity as indicated on the Contractor's Project Schedule.
   C. Delays due to weather must be reported by the contractor on the day they occur in a written report.
   D. Any day lost during the week must be made up the same week by overtime and /or weekend work. If the weather is bad on the make-up day, the lost day must be made up the following week.
   E. The allowance days listed above carry over to the next month if they are not used. Therefore, if only 1 allowance day is used in November, there are (7) days in December. Therefore, there is a total of 60 allowance days in a year.

END OF SECTION 013210

(SCHEDULE ATTACHED)

SECTION 013500 – SPECIAL PROJECT PROCEDURES

1.0 PROCEDURES

1.1 CONSTRUCTION MANAGER

A. The Construction Manager shall control, enforce, direct, instruct, and otherwise implement regulations and restrictions as set forth in this section.

1.2 OWNER'S REPRESENTATIVE

A. All communications with the owner and owner's representative(s) and consultant(s) shall be thru the Construction Manager unless otherwise noted in the General Conditions.

1.3 NOISE CONTROL

A. The Contractor shall execute the Work in this Contract as quietly as practicable to avoid unnecessary disturbances.

B. Any complaints duly registered by the Construction Manager of unacceptable noise levels shall be cause for the use of special precautions and methods of operation by the Contractor to reduce noise to acceptable levels.

C. The Owner and Construction Manager shall be the sole judge of the tolerability of noise levels.

D. Use of portable radios or tape recorders will not be allowed on the premises other than two-way communication radios.

E. The Contractor shall prepare a "Noise Schedule" as soon as practicable indicated the type of noise inducing work showing the dates, times and duration of such work. The Contractor should note any special instruction and/or time requirement in Scopes of Work.

1.4 PERSONNEL IDENTIFICATION

A. All employees of the Contractor and all subcontractors may be required to wear numbered identification badges while on the premises of existing buildings.

B. The identification badges shall be conspicuously fixed to outer garments above elbow level.

C. Any of the Contractor's personnel or subcontractor's personnel who do not comply with this requirement at all times will be denied access to the facility or will be escorted off the premises by Security Guards or owner representative(s).

1.5 PERSONNEL PARKING

A. At no time shall the employees of the Contractor or subcontractor employed by Contractor be allowed to park their vehicles on-site without prior approval from the Construction Manager.

2.0 LIMIT OF OPERATIONS

A. It shall be noted that, adjacent streets will remain open throughout the duration of this Project. The Construction Manager will provide a perimeter fence, which will establish limits of operation.

B. The Contractor's normal limit of operations shall be confined within the Limits of Work Area as designated on the drawings.

C. The Owner, Architect, and other Contractors performing Work within these limits of operation, shall be allowed access at all times.

D. Construction operations must be planned and executed in a manner which allows emergency access to project.

3.0 SCHEDULING AND COORDINATION

3.1 SCHEDULING

A. All arrangements for work which will involve interference with normal Owner or adjacent properties functions, particularly in occupied areas, or adjacent thereto, shall be scheduled a minimum of 14 days in advance with the Construction Manager to provide for minimum of disruption and inconvenience.

3.2 OUTAGES

A. Utility and service outages shall be kept to a minimum, and will be permitted only with written approval of the Construction Manager and the Owner.

B. All requests for the outages shall be made a minimum of fourteen working days in advance of their need.

C. Requests for outages will not be considered unless they include an identification of all areas which will be affected by the proposed outage. Blank outage forms will be provided by the Construction Manager upon request.

D. All outages shall occur **after normal working hours.** All costs including premium time shall be included in the Bid amounts.

END OF SECTION 013500

SECTION 013520 – SAFETY REQUIREMENTS AND LOSS CONTROL

The major goal of the Loss Control Program is to prevent losses. Prevention of accidents and elimination of hazards will, in turn, prevent pain, suffering and direct loss in terms of dollars. A safe work place must be maintained for all employees and visitors. High quality work standards and on-time performance are facilitated by an effective Loss Control Program.

Controlling conditions which result in losses is the responsibility of all parties. The Construction Manager will designate a job site safety officer responsible for program management. The responsibility for program implementation is the responsibility of all employees of the Owner, Construction Manager, Contractors and all Subcontractors. The following summary identifies objectives requiring a firm commitment to insure a continuing and comprehensive Loss Control Program.

Construction Manager Duties:

1. Designate jobsite safety officer.
2. Loss reporting and summaries.
3. Accident investigation.
4. Establish project procedures.
5. Inspections, notifications and follow-up.
6. Weekly "Tool Box" talks.
7. Weekly Superintendents meetings.
8. Monthly summary report.

Contractors Duties:

1. Designate on-site safety representative.
2. Consult with insurance carrier for construction operations.
3. Involve foreman and employees.
4. Safety training of all employees.
5. Adherence to safety standards, rules and government regulations.
6. Report conditions or practices which might cause injury or damage.
7. Report all safety related incidents.
8. Participate in all accident investigations.
9. All employees attend weekly Tool Box talks.
10. Attend weekly Superintendents/Foreman's Meetings.
11. Request permission to move barricades and floor opening protection. *
12. Maintain fire watch for all burning operations *
13. Properly store and protect hazardous chemicals and flammable substances.
14. Insure performance of these duties by subcontractors.
15. Maintain good housekeeping practices.
16. Prohibit the use of drugs and/or intoxicating beverages.
17. Maintain equipment in safe condition.

* See the Whiting-Turner Forms for these issues in the On-Site Safety Orientation Package

In order for our accident prevention program to be effective, management at all levels must personally take a serious interest in the prevention of accidents. They must also provide the leadership to which supervisory personnel and employees will respond by developing a positive safety attitude.

THE WHITING-TURNER CONTRACTING COMPANY
SAFETY/HARASSMENT POLICY

I. SAFETY REQUIREMENTS

The Contractor agrees to fully comply with all applicable standards of the Occupational Safety and Health Administration, all safety codes, laws or ordinances applicable to any public authority and to ensure that is employees and Sub-Contractors abide by the same regulations. The Contractor further agrees that if so ordered by the Whiting-Turner Project Manager or Superintendent, it will immediately stop work and correct any serious safety violations immediately before resuming work. The Contractor expressly agrees and understands that Contractor shall be solely responsible for the safety conditions of its work areas and working forces.

The Contractor further agrees to comply with the following specific safety rules of Whiting-Turner which shall in no way limit the Contractor's liability for safety.

Each contractor and their subcontractors are to designate a safety representative, in writing, and provide a written safety program which identifies their organization and safety policies. All contractors are required to review the following rules and requirements with their on site employees:

CONTAINERS

A. No glass containers allowed on site.

CRANES

A. All lifts must use tag lines.
B. No open hooks used on lifts.

EQUIPMENT

A. Absolutely no riding on equipment not equipped with proper seating.
B. Site Speed not to exceed 10 MPH.

FIRE CONTROL

A. No open fires, fire barrels, or hot boxes.
B. Fire extinguishers in:
Trailers/offices..... minimum 10 lb ABC
Equipment..... minimum 5 lb ABC
Fire Watch..... minimum 20 lb ABC

HARDHATS

A. Wear on site at all times, must have Z89.1 rating.
B. No metal hardhats or bump caps authorized.

FOOT PROTECTION

A. Substantial leather boots required.
B. Loafers, sandals, tennis shoes (including steel toe type) are not allowed.

LADDERS

A. No metal ladders allowed on site.
B. Damaged ladders must be immediately removed from site or destroyed.

SCAFFOLDING

Full handrails, mid-rails, toeboards, full decking required on all scaffolds, according to standards.

SIGNAGE

A. Post safety or hazard signs (bilingual if necessary).
B. Use Whiting-Turner Supplied (Do Not Remove) signs on floor openings.

TRUCKS

A. No more than three (3) persons in cab of truck.
B. No riding in back of truck unless truck is equipped with seats and safety belts.

WORK CLOTHING

A. All shirts must have a minimum four (4) inches sleeve length over shoulders.
B. No shorts, cut offs, tank tops, net shirts, etc.

ELECTRICAL PROTECTION

A. No cut, frayed or damaged extension cords permitted.
B. All extension cords must have a U.L. approved GFCI (Ground Fault Circuit Interpreter)

SAFETY ORIENTATION / SAFETY MEETINGS

A. Each employee is required to attend a safety orientation and wear a sticker on his or her hardhat.
B. Each Foreman is required to hold weekly safety meetings with their employees and forward copies of the sign-in sheet.

DAILY REPORTS

A. Foreman are required to turn in a daily report for their work at the end of each workday. All employees are required to sign this sheet.

PARKING

A. Parking is limited on site – Coordinate with WT Superintendent for locations.
B. NO PARKING at the adjacent properties or roadways or any property not owned by the project owner.
C. Do not block handicap spaces or fire lanes.
D. Obtain necessary parking permits if applicable.

PERMITS

A. HOT WORK Permit must be filled out for any burning, welding, soldering, cutting, etc. that may generate a spark.
B. SAFE WORK Permit must be filled out for any other potentially dangerous work. Crane lifts, shaft cutting, hazardous chemicals, off-hour work, etc. If work occurs in an OSHA defined confined space, obtain a confined space permit.

C. SAFETY BARRICADE / FALL PROTECTION Permit must be filled out when creating an open hole or removing fall protection.
D. UTILITY SHUTDOWN Permit must be filled out when turning off any utilities to the building. A two-week notice is required for all outages.
E. ALL PERMITS must be filled out with Whiting-Turner in advance and posted in the work area.

ASBESTOS / HAZARDOUS MATERIALS

A. It is possible that there could be existing unforeseen asbestos or other hazardous materials either buried underground or laying on the project site from previous activities on the property.
B. It is possible that a hazardous material could be brought to the site by others.
C. Anyone who uncovers or notices a suspected hazardous material should leave it undisturbed and notify WT immediately.
D. An authorized contractor must dispose of asbestos or other hazardous materials or contaminated debris.

MISCELLANEOUS RULES

A. Do not block any hallways, stairs or exit doors. Maintain fire egress.
B. Use all proper personal protection equipment (hard hats, gloves, glasses, etc.)
C. Smoking is prohibited within the building once 50% of the building façade is covered (new building construction). For renovation projects, smoking is prohibited at all times inside the building, on the roof, or within 20' of the building. Violators will be warned in writing one time. Written warning will be copied to their office. The second violation will result in removal from project. Designated smoking areas will be established outside of the building.
D. Eating in designated areas only
E. Use temporary toilets only
F. Clean the work site daily, trash and debris to the dumpster daily
G. Alert WT to any emergency
H. Report any damage to building components or site items
I. No gasoline-powered or carbon monoxide exhaust equipment can be used at any time in the building after it is enclosed, use propane instead. All equipment you plan to use must be reviewed with the WT Superintendent for safety concerns.

NOTE: THESE ABOVE SAFETY RULES ARE IN ADDITION TO OSHA REQUIREMENTS.

II. CONTRACTOR'S SAFETY PROGRAM

The Contractor will provide a competent safety person who will be responsible for administering the Contractor's safety program and enforcing the safety rules. The following are recommended suggestions for establishing an effective Contractor's safety program.

A. Establish a schedule of safety meetings conducted by Contractor's foreman for discussing specific topics, such as safety rules, hazards or specific jobs, safe practices, etc.
B. Establish a plan for Contractor's foreman to contact each employee under his supervision at least once per week on safety.
C. Establish a procedure for the prompt investigation of all personal injuries and property damage by Contractor's management.
D. Establish a schedule for periodic inspection by Contractor's management of "hazards" on job site.
E. Establish a plan for the periodic inspection of tools and equipment by Contractor's management.
F. Develop basic safety rules for job, instruct employees and enforced compliance.

III. INDEMNIFICATION (RELATED TO OSHA VIOLATIONS)

To the fullest extent permitted by law the Contractor shall indemnify and hold harmless Whiting-Turner, the Owner, and the Architect and their agents and employees from and against all claims, including citations and penalties imposed by the Occupational Safety and Health Administration, damages, losses, expenses and judgments including, but not limited to attorney's fees, arising out of or resulting from performance of the work in an area which is unsafe, harmful, dangerous, or hazardous and which is caused in whole or in part by any act of omission of the Contractor, anyone directly or indirectly employed by it, or any one for whose acts it may be liable, regardless of whether the claim, citation, penalty, damage, loss, expense or judgment results from unsafe, harmful, dangerous, hazardous or toxic materials or substances or whether from any other unsafe, harmful, dangerous or hazardous conditions.

IV. SEXUAL HARASSMENT POLICY

The Construction Manager and Owner will not accept any behavior deemed to be a form of sexual harassment and actively seeks to eliminate such behavior from the jobsite environment.

Definition of Sexual Harassment

The Construction Manager and Owner officially defines sexual harassment as "any unwelcome sexual advances or requests for sexual favors and other verbal or physical conduct of a sexual nature that has the effect or purpose of unreasonably interfering with an individual's work or academic environment, or of affecting an individual's employment or academic status." Sexual harassment is not only a clear violation, it is illegal and a form of discrimination, covered under Title VII of the Civil Rights Act of 1964.

Be Aware

Sexual harassment takes many forms, but includes any unwanted sexual attention such as:

- starring, leering, and ogling
- sexual teasing
- jokes and gestures
- repeatedly asking for dates after being refused
- lewd remarks
- whistles
- references to someone's anatomy
- inappropriate touching
- attempts to kiss or fondle
- coerced sexual intercourse

The sexual harassment policy will be strictly enforced. Any reported incident will be dealt with swiftly and severely. The offending party, if identified will be dismissed from the project and property and not allowed to return. Repeated incidents by employees of a particular firm can result in cancellation of that contract. The victim of the abuse retains the legal right to prosecute. All employees of these contracting firms should be apprised of this policy before working on this project.

END OF SECTION 013520

SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

Refer to the specific scopes of work for clarification of responsibility of the items specified herein.

PART 1 – GENERAL INFORMATION

1.01 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 0 and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

This Section specifies requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection, and shall be subject to the Construction Manager's approval.

A. Temporary utilities required include, but are not limited to:

Water service and distribution
Temporary electric power and light
Telephone service
Storm and sanitary sewer

B. Temporary construction and support facilities required include, but are not limited to:

Dewatering facilities and drains
Temporary heating, ventilating, humidification, and air conditioning
Field offices and storage facilities
Temporary roads and paving/construction parking/mud/snow and ice clean-up
Sanitary facilities, including drinking water
Temporary enclosures
Hoists and temporary elevator use
Temporary project identification signs and bulletin boards
Waste disposal service and progress cleaning
Construction aids and protection

C. Security and safety facilities required include, but are not limited to:

Temporary fire protection
Barricades, warning signs, lights
Enclosure fence and security maintenance
Environmental protection
Safety requirements

D. Controls

Workday
Lunch wagons
Erosion control
Excavation material
Excavation training
Material inventories
Deliveries

1.03 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction, including but not limited to:

Municipal and Labor & Industry Building Code requirements
Health and safety regulations
Utility company regulations
Police, Fire Department and Rescue Squad rules
Environmental protection regulations

B. Inspections: Arrange for authorities, having jurisdiction, to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.04 PROJECT CONDITIONS

A. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload facilities, or permit them to interfere with progress. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on the site. They shall be removed, relocated as required by the progress of the work, or directed by the Construction Manager.

B. Existing Utilities and Systems:

1. Existing systems shall be maintained at all times unless approved (48 hrs. notice of shutdown) by Owner. Permanent heating, plumbing and electrical systems shall be activated and maintained during owner occupancy of existing facilities. Facilities shall be maintained at 70°F.

2. Trade Contractors interrupting services due to their construction operations shall provide temporary utility lines, as required, to maintain services.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General: Provide new materials; if acceptable to the Construction Manager, undamaged, previously used materials in serviceable condition may be used. Provide materials suitable for the use intended.

B. Lumber and Plywood: Comply with requirements in Division-6 Section "Rough Carpentry."

C. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.

D. Water: Provide potable water approved by local health authorities.

E. Open-Mesh Fencing: Provide 11-gauge, galvanized two inch, chain link fabric fencing, six (6) feet high with galvanized steel pipe posts, 1-1/2" I.D. for line posts and 2-1/2" I.D. for corner posts.

2.02 EQUIPMENT

A. General: Provide new equipment; if acceptable to the Construction Manager, undamaged, previously used equipment in serviceable condition may be used. Provide equipment suitable for use intended.

B. Water Hoses: Provide 3/4" heavy-duty, abrasion-resistant, flexible rubber hoses 100 ft. long, with pressure rating greater than the maximum pressure of the water distribution system; provide adjustable shut-off nozzles at hose discharge.

C. Electrical Outlets: Provide properly configured NEMA polarized outlets to prevent insertion of volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, and pilot light, for connection of power tools, equipment, and GFI breakers.

D. Electrical Power Cords: Provide grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress.

E. Electrical Welding Outlets: These will not be provided. Each Trade Contractor will be responsible for his own welding power.

F. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.

G. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel being consumed.

H. Temporary Offices: Provide prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading.

I. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation, or combustions type, properly vented and fully enclosed with a glass fiber, reinforced polyester shell or similar nonabsorbent material.

J. First Aid Supplies: Comply with governing regulations.

K. Fire Extinguishers: Provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.

Comply with NFPA 10 classification, extinguishing agent and size required by location and class of fire exposure.

PART 3 - EXECUTION/SCOPE RESPONSIBILITIES

3.01 INSTALLATION (BY APPLICABLE TRADE CONTRACTORS)

A. Use qualified personnel for installation of temporary facilities. Location facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed, or are replaced by authorized use of completed permanent facilities.

3.02 TEMPORARY UTILITY INSTALLATION(BY APPLICABLE TRADE CONTRACTORS)

A. General: Engage the appropriate local utility company to install temporary service or connect to existing service. Where the company provides only part of the service, provide the remainder with matching, compatible materials and equipment; comply with the company's recommendations.

1. Arrange with the company and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.

2. Provide adequate capacity at each stage of construction. Prior to temporary utility availability, each Trade Contractor shall provide trucked-in services at their expense as required to complete their work.

3. Obtain easements to bring temporary utilities to the site, where the Owner's easements cannot be used for that purpose.

Use Charges:

Cost or use charges for temporary facilities are to be paid by the Trade Contractor requiring or providing the temporary facility unless noted otherwise.

Owner will pay utility consumption costs during construction for construction activities only.

B. Water Service: The Plumbing Contractor shall install water service and distribution piping of sizes and pressures adequate for construction. Provide 3/4" hose bib termination at each story of construction work, located so that any area of building construction can be reached with a 100 ft. length of hose. Water service may be run from a temporary or permanent source.

1. Sterilization: Sterilize temporary water piping prior to use.

2. Protect system from freezing.

3. Maintain 30 psig. water pressure with 5 gpm. flow rate.

4. Owner shall pay for cost of water consumed during construction. Trade Contractor shall take the necessary steps not to be wasteful.

C. Temporary Electricity Power Service:

1. After start of work at project site, when requested by the Construction Manager, the Electrical Contractor shall provide a temporary electrical power distribution system sufficient to accommodate temporary lighting and construction operations, including the use of power tools, and start-up of specified building equipment which must be tested, started or placed into use prior to completion of its permanent power connections. Provide 480 volts, 3 phase, 3 wires, 60 hertz and an equipment grounding conductor as well as 120 volts, 1 phase, 15 amperes, 60 hertz for lighting. Provide weatherproof, grounded wiring with overload protection; with direct wired connections, where feasible, and for voltages up to 220/208 volts. Locate multiple outlets for 120 volt power, not less than 4 gang, at each story of construction, spaced so that the entire area of construction can be reached by power tools on a single extension cord of 100' maximum length. Maximum 20 Amp circuit breaker, four (4) receptacles per circuit breaker.

2. The Owner will pay for cost of all electric energy used for construction activities.

3. The Electrical Trade Contractor shall provide and pay for maintenance, servicing, operation, and supervision of lines installed.

4. Provide service with ground fault circuit interrupter feature, as per NEC and OSHA requirements. The Electrical Trade Contractor shall have a cord inspection program in place. He shall maintain the inspection records on site.

5. As permanent power distribution system is accepted as substantially complete, either entire system or usable portions thereof, the Electrical Trade Contractor shall make suitable provisions for temporary use thereof, and remove unused portions of temporary system.

6. If required, provide meters for electrical power.

7. When temporary electrical lines are no longer required, they shall be removed by the Electrical Trade Contractor and any part, or parts, of the grounds or buildings disturbed or damaged shall be brought back to their original condition.

8. Electricity from existing lines may be used at no charge to the Trade Contractor. Each trade shall provide extension cords from the existing facilities, as required, for the execution of the Work. Electrical power for welding equipment will not be available.

9. The Electrical Trade Contractor shall maintain and operate permanent electrical supply and distribution system until time of final acceptance and transfer of operation to Owner's personnel.

10. The Electrical Trade Contractor shall install switching controls for all lighting which will enable turning off temporary lighting during off-construction hours.

11. Temporary power supplies to the Construction Manager's Office Conference/Office Complex shall be installed with service connection by the Electrical Trade Contractor.

12. The Electrical Trade Contractor will provide power for oil or gas fired temporary heaters, if required by the Construction Manager. It will be connected so that it can remain "live" when the lighting has been turned off.

13. The Electrical Trade Contractor will provide 24-hour temporary power to any heat tape (installed by others) on temporary water and/or fire lines. All temporary heat work will comply with existing OSHA requirements.

14. Construction circuits shall be separate and independent from temporary lighting.

D. Temporary Lighting: Whenever overhead floor of roof deck has been installed, the Electrical Trade Contractor shall provide temporary lighting with local switching.

The Electrical Trade Contractor shall provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight and general lighting as stated below:

1. Provide uniformly spaced general lighting utilizing one (1) 150 watt incandescent lamp equivalent to 1.0 watts/sq. ft. of floor areas (minimum one (1) lamp per room), and one (1) 100 watt lamp per 50' of corridor of per flight of stairs.

2. Limit lighting installations to intensities which will accommodate normal access and workmanship requirements, recognizing that each entity performing work requiring higher intensity lighting will provide supplementary plug in temporary lighting and localized areas where such work is in progress.

3. As permanent lighting system is substantially complete for each story or usable portion thereof, the Electrical Trade Contractor shall make suitable provisions for temporary use thereof and remove unused portions of temporary lighting system.

4. The Electrical Trade Contractor shall maintain and operate permanent lighting system until the time of final acceptance and transfer of operation to Owner's personnel, including turning off lighting during off-construction hours.

5. The Electrical Trade Contractor shall replace bulbs that are burned out or substantially dimmed by substantial hours of use.

6. Special lighting required for construction activities shall be provided by contractor requiring it.

7. The Electrical Trade Contractor shall provide safety lighting in the stairways, hallways, and exterior security lighting (as required) on a 24-hour basis.

8. The Electrical Trade Contractor will provide a termination box in the Trade Contractor's office trailer area for hook-up of the Trade Contractor's trailers. Cost for individual Trade Contractor trailer hook-up will be born by the Trade Contractor requiring this service. Use of electric heaters in those trailers and shanties will not be permitted.

E. Temporary Telephones:

1. Each Trade Contractor shall be responsible for and provide for his own temporary telephone service.

F. Storm Sewers and Drainage:

1. If storm sewers are available, the Sitework Trade Contractor shall provide temporary connections to remove effluent that can be discharged lawfully. If sewers are not available, or cannot be used, Sitework Trade Contractor shall provide drainage ditches, dry wells, stabilization ponds and similar facilities. If neither sewers nor drainage facilities can be lawfully used for discharge of effluent, Sitework Trade Contractor provide containers to remove and dispose of effluent off the site in a lawful manner.

2. Filter out excessive amounts of soil, construction debris, chemicals, oils and similar contaminants that might clog sewers or pollute waterways before discharge.

3. Comply with the soil erosion and sedimentation control plan and local authorities having jurisdiction.

3.03 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION (BY APPLICABLE TRADE CONTRACTORS)

A. General:

1. Locate field offices, storage, sanitary facilities and other temporary construction and support facilities for easy access after approval from the Construction Manager.

2. Provide incombustible construction for offices, shops and sheds located within the construction area, or within 30 feet of building lines.

B. Dewatering Facilities and Drains:

1. For temporary drainage and dewatering facilities, and operations not directly associated with construction activities included under individual Sections, comply with dewatering requirements of applicable Division-2 Sections. Where feasible, utilize the same facilities.

2. The Sitework Trade Contractor shall be responsible to maintain the site, excavations and construction free of water. Review contract scopes for dewatering requirements for each Trade Contractor.

3. Plumbing Trade Contractor shall provide temporary storm water drainage from the building and the Sitework Trade Contractor shall control roof drainage from building on site.

4. Sitework Trade Contractor shall be responsible to drain or pump water and remove debris from the site so as not to delay his continuous work or progress. This shall include operating pumps during second shift in order to facilitate next-day continuation of work.

5. Sitework Trade Contractor shall excavate in a manner that prevents all surface water from flowing into the building area. Sitework Trade Contractor shall be responsible to remove any runoff water or debris which enters the building area.

6. Sitework Trade Contractor shall continue to drain site and remove debris until designed grades are obtained.

7. Upon completion of building foundations, each Trade Contractor shall be responsible to remove water and debris required to complete his work.

C. Temporary Heating, Ventilating & Air Conditioning:

1. Temporary heating shall be provided and maintained by the Trade Contractor performing the work if the outside temperature falls below 40°F at anytime during the day or night for all exterior work or work performed prior to the building being generally enclosed by walls and roof.

2. Each Trade Contractor shall furnish temporary heat by acceptable means to provide sufficient heat to maintain a temperature of 55°F, 24 hours a day throughout the entire area of the work for which the Trade Contractor is responsible.

   Except where use of the permanent system is authorized, provide vented, self-contained LP gas or fuel oil heaters with individual space thermostatic control. Use of gasoline-burning space heaters, open flame, or salamander type heating units is prohibited. Temporary heating may not be provided using electrical heating equipment if using electrical power supplied by the Owner.

3. As soon as the building, or portions thereof, is generally enclosed with walls and roof and temporary heat is required for scheduled work, or required to facilitate proper workmanship, and permanent heating system is not yet operable or authorized for use, the Mechanical Trade Contractor shall provide temporary heat or air conditioning service for every entity authorized to do work at the project site. The Mechanical Trade Contractor shall maintain temperatures as indicated by other Specification Sections for each type of work to be performed. The Construction Manager shall be the sole arbiter of when the building is considered generally enclosed.

4. The Carpentry Trades shall install, maintain, and remove temporary enclosure of windows, doors and roof openings until the permanent materials are in place when such enclosures will result in the building being generally enclosed.

5. After the conditions of construction require continuous 24 hour heat in the building, as determined by the Construction Manager, the Mechanical Trade Contractor shall provide, operate, and maintain temporary radiation or unit heaters to provide required temperatures (minimum 55°F) for the conduct of the work. This service shall be continued until the permanent heating system has been completely installed and is in operation and the buildings of the project completed. The Mechanical Trade Contractor shall furnish and pay for all fuel as required for providing temporary heat and air conditioning after the building is generally enclosed. The Owner shall pay for all fuel costs incurred to operate the permanent HVAC systems for temporary purposes. As permanent heating/cooling system is substantially complete and operational for each story or usable portion thereof, the Mechanical Trade Contractor shall make suitable provisions for use thereof in temporary heating and cooling. The Mechanical Trade Contractor shall maintain and operate permanent system for temporary heating/cooling purposes, including service to occupied areas, if any, until time of final acceptance or transfer of operation to Owner's personnel, for major parts of system if not for entire heating system.

6. All permanent heating and air conditioning equipment used to supply temporary heat and air conditioning shall be completely cleaned and reconditioned by the Mechanical Trade Contractor prior to final acceptance. NOTE: All permanent equipment shall receive required scheduled maintenance while use for temporary service. Radiator traps and valves used in the heating system during the period of its operation to supply temporary heat shall not be reinstalled in the permanent system. Install new disposable filters and clean non-disposable filters prior to final acceptance. Replace significantly worn parts and parts that have been subject to unusual operating conditions.

7. The Mechanical Trade Contractor shall remove all soot, smudges, and other deposits from walls, ceilings, and all exposed surfaces which are the result of the use of any temporary heating equipment including the use of the permanent heating system for temporary heat purposes. Finish work shall not be done until all such surfaces are properly cleaned.

8. Temporary Ventilation: A Trade Contractor requiring ventilation for work shall provide fans or other necessary equipment to condition air, provided prior approval has been obtained from the Construction Manager.

9. Humidification: Where control of ambient humidity is required for proper performance of the work, or for curing/drying of installed work, or for protection of installed work from deterioration due to variations in ambient conditions, each Trade Contractor shall provide his own temporary humidification or dehumidification equipment to maintain the required conditions. Coordinate the use of the equipment with temporary heating to produce the required conditions with a minimum overall use of energy.

10. Permanent electrical power needed to operate permanent heating system must be provided by the Electrical Trade Contractor in conjunction with building enclosure, or the Electrical Trade Contractor shall furnish adequate temporary power to operate permanent heating system and bear all cost associated to provide that power.

D. Field Offices:

1. Trade Contractors shall provide offices for their own personnel. All type and location of jobsite offices and equipment will be approved by the Construction Manager. Trade Contractor's offices shall be a maximum of 40' in length.

2. Storage and Fabrication Sheds: Each Trade Contractor shall provide storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces. All steps and platforms connected to shelters must be per OSHA regulations.

3. All offices and sheds must have the Trade Contractor's identification on them.

E. Temporary Roads and Paving, Construction Parking:

1. Sitework Trade Contractor shall construct and maintain temporary roads, to adequately support the indicated loading and to withstand exposure to traffic during the construction period. Locate temporary paving for roads, storage areas and parking where the same permanent facilities will be located.

2. Snow removal will be performed by the Sitework Contractor for access roads and storage areas. Each Trade Contractor shall provide any additional snow removal required to maintain the schedule.

F. Sanitary Facilities:

1. The Construction Manager shall provide temporary toilets. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

Provide toilet tissue for each facility.

2. Toilets: Install self-containted toilet units. Shield toilets to ensure privacy. Use of pit type privies will not be permitted. Provide means of locking facilities when construction is not in progress.

   Provide separate facilities or male and female personnel when both sexes are working in any capacity on project site.

   Provide one unit for use of Owner representative's office/conference meeting complex.

3. Drinking Water Facilities: Each Trade Contractor shall provide containerized tap-dispenser bottled-water type drinking water units, including paper supply. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45° to 55°F (7° to 13°C).

G. Temporary Enclosures:

1. All temporary enclosures required for protection of exterior construction in progress and completed from exposure, bad weather, other construction operations, and similar activities and to maintain the progress schedule, shall be provided by each contractor as necessary to protect their work.

2. Prior to the building being enclosed, all temporary enclosures required for protection of interior construction in progress and completed from exposure, bad weather, other construction operations, and similar activities and to maintain the progress schedule, shall be provided by each contractor as necessary to protect their work.

3. Where heat is needed and the permanent building enclosure is not complete (windows, doors, and roof openings not complete), the Carpentry Contractor shall provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

4. Install tarpaulins securely with noncombustible wood framing and other materials. Close openings of 25 sq. ft. or less with plywood or similar materials.

5. Each Trade Contractor is required to construct, maintain, and remove dust partitions required to prevent dust from entering adjacent areas.

H. Temporary Lifts and Hoists:

1. Each Trade Contractor shall be responsible for their own hoisting.

2. Existing Elevators:

   A. N/A

3. New Elevators:

   A. N/A

I. Project Identification and Temporary Signs

1. The Construction Manager shall prepare project identification and other signs, as approved by the Owner of the size indicated; install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative treated wood or steel.

2. Provide on (1) sign erected on the site, where directed, to identify the project. Sign shall include Project name, Owner's name, Architect's name, and Construction Manager's name. Size shall be 4' x 8'; color and lettering style shall be as designed by the Architect.

3. Engage an experienced sign painter to apply graphics.

4. Temporary Signs: The Construction Manager shall prepare signs to provide directional information to construction personnel and visitors as required by the Construction Manager.

5. The Construction Manager shall erect weathertight bulletin boards adjacent to the office/conference complex. Size of the boards shall be equivalent to 32 sq. ft., visible area.

J. Waste Disposal Services:

1. The Construction Manager will provide trash collection containers for construction debris, exclusive of masonry, rock, earth, etc., and pay for all debris disposal costs for them. Each Trade Contractor on the project will be required to clean up, and deposit in the dumpster, all debris generated by his trade contract work on a daily basis. This requirement shall be enforced by the Construction Manager and will result in cost assessment against a Trade Contractor who fails to perform daily clean-up. Each Trade Contractor will be responsible for flattening or crushing all trash as necessary when placed into the dumpster. Hazardous material shall not be placed in the collection container.

K. Construction Aids, Protection and Facilities

1. The Carpentry Trades Contractor shall provide temporary ladders, ramps, and walkways required to access upper levels until permanent systems are installed. They shall be installed and maintained throughout the duration of the project and comply with all OSHA requirements. Removal of these shall be by the Carpentry Contractor when requested by the Construction Manager.

2. The Concrete Contractor shall be responsible for providing safety railings around basement area prior to completion of metal deck and slab. Concrete Contractor shall also provide railing around floor opening for floor hatch into basement once concrete has been poured.

3. Each Trade Contractor will be responsible for protecting any floor openings that have been opened for work under his trade.

4. Each Trade Contractor, upon working in any of the area named in the above paragraph, shall remove the safety covering and handrail to perform his work. Upon completion of his work for the day, lunch, or breaks, or any time when the individual Trade Contractor is not working in that opening, the safety covering and handrail must be replaced by the Trade Contractor removing it. At the end of each day, each Trade Contractor will inspect the site and install all safety coverings and handrails. IF coverings and handrails are not being reinstalled by Trade Contractors responsible for replacement, then Construction Manager will replace at Trade Contractor's expense. At the end of the project, or in order to install permanent construction, the Construction Manager shall remove all coverings and handrails.

5. The Carpentry Trades Contractor shall provide safe, temporary stairs, constructed of secure, dimensional lumber, with all railings and closures according to OSHA regulations, until permanent stairs are installed. Temporary stairs must be provided at the point when above grade floors are framed and decked, and require access by trades, in addition to the steel erection crews.

6. The Trade Contractors requiring access to above grade work are responsible for providing ladders, scaffolding and appropriate methods to access their work. Trade Contractors desiring use of in place above grade work platforms must arrange directly with the party that owns the equipment and make all rental and insurance arrangements directly with that party.

7. All work platforms, scaffolding, etc., on the project shall be available for access by the Owner, Architect, Municipal Authority, Test Agency and/or Construction Manager, and these parties shall be insured and held harmless when using these facilities by the Owner of the facility.

8. Each Trade Contractor shall be responsible for maintaining safe walkway and stair traffic areas, using anti-skid methods, routine sweeping, snow, mud and/or ice removal, and any other reasonable method for safe usage.

3.04 SECURITY AND SAFETY FACILITIES INSTALLATION

A. Temporary Fire Safety

1. Shall be maintained in place until permanent fire protection system is available for use. The Fire Protection Trade Contractor shall provide the permanent sprinkler fire protection system for use at the earliest possible date after building enclosure and 55°F temperatures are maintained to protect the building.

2. Until fire protection needs are supplied by permanent facilities, the Construction Manager shall install and maintain temporary fire protection facilities of the types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 10 “Standard for Portable Fire Extinguishers.”

3. Locate fire extinguishers where convenient and effective for their intended purpose, but not less than one extinguisher on each floor at or near each usable stairwell.

4. Store combustible materials in containers in fire-safe locations.

5. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas. Prohibit smoking within the enclosure building.

6. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.

B. Barricades, Warning Signs and Lights: (Protection of Trade Contractors Work)

1. The responsible Trade Contractor shall comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against.

C. Building Security Enclosure and Lockup:

1. Each Trade Contractor shall be responsible for assisting the Construction Manager in maintaining a secure building at all times.
2. Each Trade Contractor is responsible for the secure storage of their own material and equipment on and off the site.

D. Environmental Protection:

1. To the fullest extent permitted by law, the Trade Contractor shall indemnify and hold harmless the Owner and Construction Manager, their employees and agents, from claims, losses, damage, and expenses including, but not limited to, attorney's fees arising out of performance of the work at it relates to any type of pollution related situations. This would apply to bodily injury, sickness, disease, or death, or to damages or destruction or contamination of tangible property arising out of the acts or omission of the Trade Contractor or the joint negligent acts of the Owner or Construction Manager, or anyone for whose acts the Trade Contractor may be liable.

2. The Construction Manager will designate area available for construction storage.

3. Each Trade Contractor shall provide protection, operate temporary facilities, and conduct construction in ways and methods that comply with all environmental regulations, and minimize the possibility that air, water, and soil become contaminated or polluted as a result of work or storage so supplies and materials, or equipment usage.

4. Each Trade Contractor will designate and train a responsible employee in environmental contamination procedures, including, but not limited to, emergency responses, material and waste inventories, spills and leak precautions and responses, inspections, housekeeping, security, and external factors.

5. Open burning will not be permitted.

E. Safety Requirements

1. All work shall be performed in accordance with rules, regulations, procedures and safe practice and/or OSHA and all other Government agencies having jurisdiction over the project.

2. Safety precautions and programs:

    a. Each container shall be responsible for initiating, maintaining and supervising safety precautions and programs in connection with the work. The name of the safety officer for each contractor shall be provided by the Construction Manager.

    b. All Trade Contractors shall comply with the provisions of the "Specific Safety Requirements of the Construction Safety Act," the "Occupational Safety and Health Act," and Federal, State and local requirements.

    c. If a contractor fails to maintain the safety precautions required by law or directed by the Construction Manager, the Construction Manager may take such action as necessary and charge the Trade Contractor for all incurred costs.

    d. The failure of the Construction Manager to take any such action shall not relieve the Trade Contractor of his obligations.

    e. The Trade Contractor individually shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

    f. Prior to mobilizing to the job, the Trade Contractor shall submit to the Construction Manager, in writing, a description of his safety program for review and comment. During the conduct of the work, the Trade Contractor shall immediately notify the Construction Manager, in writing, of all accidents and shall submit a written report describing in detail the circumstances of each accident within 24 hours of its occurrence.

    g. All Trade Contractors shall notify the Construction Manager of any flammable, combustible and/or toxic materials intended for use on the project and shall furnish the Construction Manager with literature pertinent to the use and control of all materials, including, but limited to, MSDS sheets.

    h. Each Trade Contractor shall delegate one representative who shall be responsible to maintain all safety requirements of the Trade Contractor, and shall attend all project safety meetings scheduled by the Construction Manager.

    i. Each Trade Contractor shall conduct weekly safety discussions which shall be attended by all employees assigned to this project. A written safety given to the Construction Manager on a weekly basis.

3. Safety of persons and property:

    a. The Trade Contractor shall take all reasonable precautions for the safety or, and shall provide all reasonable protection to prevent damage of loss to:

        1. All employees on the work site and all other persons may be affected thereby.

2. All the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody, or control of the Trade Contractor or any of his Subcontractors or Sub-Contractors.

3. Other property at the site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction and underground property.

b. The Trade Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority, including the Owner's department of protective services, bearing on the safety of persons or property or their protection from damage, injury or loss.

c. The Trade Contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, from his work, including danger signs and other warnings against hazards. He shall comply with safety regulations and notify the Construction Manager of possible effects on adjacent facilities. If the Trade Contractor fails to so comply, he shall, at the direction of the Construction Manager, remove forces from the project without cost or loss to the Owner or Construction Manager, until he is in compliance.

d. The Trade Contractor shall promptly remedy all damage or loss to any property caused in whole or in part by the Trade Contractor, his subcontractors, his Sub-subcontractors, or anyone directly employed by any of them, or by anyone for whose acts any of them be liable.

e. The Trade Contractor shall not load or permit any part of the work to be loaded so as to endanger its integrity and safety.

f. The use of audio equipment and headsets will not be permitted on the construction site.

4. Emergencies:

a. In any emergency affecting the safety of persons or property, the Trade Contractor shall act, at his discretion, to prevent threatened damage, injury or loss and shall immediately notify the Construction Manager of such emergency conditions. Any claims made by the Trade Contractor for additional compensation or extension of time on account of emergency work shall be processed in accordance with the Contract Documents.

5. Indemnification:

a. The Trade Contractor shall indemnify and hold harmless the Owner, the Construction Manager, the Architect/Engineer, all municipal authorities, and their agents and employees, from and against all claims, damages, losses, and expenses including, but limited to, attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to

injury, sickness, disease or death, or to injury to or destruction of tangible property (other work than the work itself) including the loss of use resulting therefrom, and (2) is caused in whole or part by any negligent act or omission of the Trade Contractor, any Subcontractor, anyone directly or indirectly employed by any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

b. In any and all claim against the Owner, the Construction Manager, the Architect/Engineer, or any of their agents or employees, by any employee of the Trade Contractor, and Sub-Contractor, anyone directly or indirectly employed by any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the type of damages, compensation or any Subcontractor under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

c. The obligations of the Trade Contractor under this paragraph shall not extend to the liability of the Architect/Engineer or the Construction Manager, his agents or employees arising out of (1) the preparation of approval of maps, drawings, opinions, reports, surveys, design or specifications, or (2) the giving of or failure to give directions or instructions by the Architect/Engineer or the Construction Manager, their agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

d. No provision of this Subparagraph shall give rise to any duties on the part of the Architect or the Construction Manager not otherwise provided for by contract or by law.

e. In the event that any party is requested but refuses to honor the indemnity obligations hereunder, then the party refusing to honor such requests shall, in addition to all other obligations, pay the cost of bringing any such action, including attorney's fees to the party requesting indemnity.

3.05 CONTROLS

A. Workday:

1. The workdays for the project are defined as 7:00 a.m. – 4:30 p.m., Monday through Friday, & 7-3:30 Saturday, with lunch period from 12:00 – 12:30 p.m. The progress schedule may require contractors to perform work other than the normal workday and in addition to the normal workday, to meet milestones in the progress schedule for the project, or to make up time previously lost to regain the progress schedule requirements or to prevent interruption of the Owner's ongoing operation.

2. Working times other than the normal workday or in addition to the normal work day, must be arranged in advance with the Construction Manager.

3. Trade Contractors who require additional workday hours to regain work time previously lost to meet the requirements of the project schedule shall be assessed for all costs including Construction Manager supervision and other Trade Contractor cost necessary for the performance of their work.

B. Lunch Wagons:

1. Lunch wagons, catered events of other non-construction related functions shall not be permitted on the project site, except by the written permission of the Owner and Construction Manager.

2. No alcoholic beverages or controlled substances shall be allowed on the project at any time.

C. Erosion Control:

1. The Sitework Trade Contractor shall employ all methods required to comply with Local, State, and Federal requirements to control erosion from the project site, including drainage control ditches, sediment basins, straw bale dykes and silt fencing.

D. Excavation Training:

1. Any Trade Contractor performing excavation shall have an OSHA trained person on site during all excavation operations. This person shall evaluate soil types and conditions to determine the required shoring and excavation methods.

E. Material Inventories:

1. Contractors shall coordinate the delivery and storage on the jobsite of all significant materials

2. Each Trade Contractor shall be responsible for the proper location, secure, and weather resistant storage as required of all materials. This includes placement of materials not to obstruct passage on site or within building structures or in any way which causes impediment or obstruction to other Trade Contractors.

3. All material inventories must be stored by the Trade Contractor to avoid excessive loads on building structure.

4. When directed by the Construction Manager, a Trade Contractor shall remove or relocate material inventories as required for the progress of the project.

F. Deliveries:

1. All contractors are required to properly instruct material suppliers and vendors to address deliveries to them specifically by named responsible party at the jobsite and require advance notice.

2. All deliveries addressed to the project in general, the Owner, Architect or Construction Manager, will be refused and returned to shipper.

3. The Owner will not be responsible for receipt, handing, or loss of any materials which are shipped to the Owner in error and received unknowing of relationship to the project.

4. Contractor receiving materials at the jobsite shall be responsible for prevention of any mud or other deposits on public roadways or other areas outside project limit lines, which may result due to methods of material delivery. Trade Contractor shall instruct delivery conveyor to take appropriate measures to prevent depositing mud or other construction deposits outside contract limit lines. Total responsibility of cleanup of mud or other construction deposit outside of contract limit lines will be the responsibility of the Trade Contractor receiving the delivery.

3.06 OPERATION, TERMINATION AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended use to minimize waste and abuse.

B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis where required to achieve indicated results and to avoid possibility of damage.

2. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

C. Termination and Removal: Unless the Construction Manager requests that it be maintained longer, remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or not later than Substantial Completion. Complete or, if necessary restore, permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities that constitute temporary facilities are property of the Trade Contractor. The Owner reserves the right to take possession of Project identification signs.

2. The Sitework Trade Contractor shall remove temporary paving that is not intended for or acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt, and other petrochemical compounds, and other substance which might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at the temporary entrances, as required by the governing authority.

END OF SECTION 015000

SECTION 017700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
   1. Inspection procedures.
   2. Warranties.
   3. Final cleaning.

B. See Volume I "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.

C. See Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

D. See Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.

E. See Division 1 Section "Demonstration and Training" for requirements for instructing Owner's personnel.

F. See Divisions 2 through 16 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.2 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
   1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
   2. Advise Owner of pending insurance changeover requirements.
   3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
   4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
   5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
   6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
   7. Make final changeover of permanent locks. Advise Owner's personnel of changeover in security provisions.
   8. Complete startup testing of systems.
   9. Submit test/adjust/balance records.

10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Construction Manager and Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
   1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
   2. Results of completed inspection will form the basis of requirements for Final Completion.

1.3 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
   1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
   2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
   3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
   4. Submit pest-control final inspection report and warranty.
   5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
   1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A or approved comparable form.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

1.5 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove snow and ice to provide safe access to building.
f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
h. Sweep concrete floors broom clean in unoccupied spaces.
i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
k. Remove labels that are not permanent.
l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
    1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
q. Leave Project clean and ready for occupancy.

C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.

D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 017700

SECTION 017750 – CLOSEOUT REQUIREMENTS

1. The following documents are included in this section:
    A. Trade Contractors Partial Release of Lien (to be submitted with each invoice)
    B. Partial Release of Lien – 2nd tier subcontractors and suppliers (to be submitted by every subcontractor and supplier when the contract is 50% billed)
    C. Trade Contractors Final Release of Lien (to be submitted with final invoice)
    D. Final Release of Lien – 2nd tier subcontractors and suppliers (to be submitted by every subcontractor and supplier prior to or with final invoice)
    E. Affidavit Taxes have been paid. (to be submitted prior to or with final invoice)
    F. Guarantee and Warranty (to be submitted prior to or with final invoice)
    G. AIA Document G706, Contractors Affidavit of Payment of Debts and Claims (to be submitted prior to or with final invoice)
    H. AIA Document G706A, Contractors Affidavit of Release of Liens (to be submitted prior to or with final invoice)
    I. AIA Document G707, Consent of Surety to Final Payment (to be submitted prior to or with final invoice)

END OF SECTION 017750
(ATTACHMENTS FOLLOW)

TRADE CONTRACTOR'S PARTIAL RELEASE,
WAIVER OF LIEN AND AFFIDAVIT

TO: Red Clay Consolidated School District
1502 Spruce Avenue
Wilmington, DE 19805

RE: Red Clay School District Contract No.:
CM: Whiting-Turner Contracting Company
PROJECT: William F. Cooke Elementary School
CURRENT INVOICE NO.:_____
FOR THE PERIOD ENDING:_____

The undersigned Contractor, in consideration of the payments previously made and payment for the period covered by the current invoice set forth above, hereby waives and releases all mechanic's, materialman's or other liens and, to the fullest extent permitted by law, all rights to file any such liens in the future, and all claims and demands against Owner, Construction Manager, and the real property on which the project is located, in any manner arising out of work, labor, services, equipment or materials, performed or furnished by Contractor, its subcontractors and suppliers, in connection with the Project and trade contract, through the period covered by the current invoice and all previous invoices. The release does not apply to retention, nor to extra work which Contractor has been authorized to proceed with by the Construction Manager, but for which payment has not yet been approved.

Except as noted below, Contractor acknowledges and represents that for the period and work covered by all previous invoices for which Contractor has received payment:

1. Contractor has paid in full all amounts for subcontracts, labor, materials and rented equipment.
2. Contractor has properly applied previous payments to pay all outstanding invoices related to the Project.
3. Contractor is aware of no claims nor any circumstances that could give rise to any future claims against Owner, Construction Manager, Architect or other Trade Contractor on the Project.
4. All payroll, withholding, sales and other taxes, union benefits, insurance premiums and any other amount required by law, regulation or agreement to be paid in connection with labor, materials, and equipment for the Project have been paid in full.

List exceptions, if any:

Contractor represents that the amounts set forth below are correct and that the amount of the current payment due will be applied promptly to full payment of all outstanding amounts due from Contractor to others in connection with the Project.

Contract Sum to Date	$_____
Total Completed and Stored to Date	$_____
Total Retention to Date	$_____
Total Earned Less Retention	$_____
Less Previous Payments	$_____
Current Payment Due	$_____

BY:_____
(Name of Subcontractor)
BY:_____
(Signature, Printed Name and Title), Duly Authorized Agent of Subcontractor

STATE OF)
(CITY)(COUNTY)OF)) to wit:

On this _____ day of _____, 20___, appeared before me _____ and he/she made oath in due form of law that the facts, information and representations set forth in the foregoing Trade Contractor's Partial Release, Waiver of lien and Affidavit, are true and accurate to the best of his/her knowledge, information and belief.

_____ My commission expires: _____
Notary Public

PARTIAL WAIVER AND RELEASE
FOR SECOND TIER SUBCONTRACTORS AND SUPPLIERS

TO: Red Clay Consolidated School District*(Owner)* DATE: _____

CONSTRUCTION MANAGER: The Whiting-Turner Contracting Co.

PROJECT: William F. Cooke Elementary School

CONTRACTOR: _____

The undersigned Company, a subcontractor or supplier to the Trade Contractor named above, and hereinafter referred to as the "Company", in consideration of payments previously received and in consideration of payment for work performed through the current date set forth below, hereby waives and releases all mechanics', materialman's, or other liens and, to the fullest extent permitted by law, all rights to file any such liens in the future, and all claims and demands against the Owner, the Construction Manager and the real property on which the Project is located, and any claims arising out of work, labor, services, equipment or materials, performed or furnished by the Company, its subcontractors and suppliers, in connection with the Project, through the period covered by the current invoice.

Except as noted below, the Company further acknowledges and represents that all persons and entities which have provided labor or material, or rented equipment, for or through the Company in connection with the project have been paid in full, for the periods covered by previous payments, that previous payments to the Company have been properly applied to pay all outstanding invoices relating to the Project, that the Company is not aware of any claims, or circumstances which could give rise to future claims, against the Owner, the Construction Manager or the Project, and that all payroll, withholding and other taxes, union benefits, insurance premiums or other amounts required by law, regulation or agreement to be paid in connection with labor for the project have been paid in full through the last date of work covered by the current invoice.

List exceptions, if any:

Last date of work period covered by current Invoice: _____

_____
(Name of Company)

BY: _____ Address: _____
Signature, Duly Authorized Agent of Company

_____

_____
Printed Name and Title

STATE OF)
(CITY)(COUNTY)OF))to wit:

On this _____ day of _____, _____, appeared before me _____ and he/she made oath in due form of law that the facts, information and representations set forth in the foregoing Company's Partial Waiver and Release, are true and accurate to the best of his/her knowledge, information and belief.

_____ My commission expires: _____
Notary Public

TRADE CONTRACTOR'S FINAL RELEASE AND AFFIDAVIT

TO: Red Clay Consolidated School District*(OWNER)* **DATE:**_____
1502 Spruce Avenue
Wilmington, DE 19805

FROM: _____*(Trade Contractor)*
RE: _____ **DATED:**_____
CONSTRUCTION MANAGER: The Whiting-Turner Contracting Company
PROJECT: William F. Cooke Elementary School

The undersigned Trade Contractor, in consideration of final payment as set forth herein, hereby waives all mechanic's liens and rights to file mechanic's liens and generally releases, and agrees to indemnify and save harmless, the above Owner, the construction manager, their successors and assigns, from all causes of action, suits, debts, contracts, damages, judgments, decrees, claims, demands, liens, rights to assert liens, awards and expenses, including attorneys' fees, in law, equity or otherwise, which Trade Contractor, its subcontractors and suppliers, their successors and assigns and any persons claiming through them or based upon their acts or omissions ever had, now have or hereafter may have against the above Owner, the construction manager, and any real property or improvements of Owner, from the beginning of the world to the date of this Release, in any manner relating to or arising in connection with the above referenced contract or project.

Trade Contractor represents that the amounts set forth below are correct and that the amount of the current payment due will promptly be applied to full payment of all outstanding amounts due from Trade Contractor to others in connection with the Project.

Final Contract Amount	$_____
Less Previous Payments	$_____
Final Payment Due	$_____

I hereby certify, under penalties of perjury, that the information and representations set forth above are true and accurate to the best of my knowledge, information and belief.

_____
Trade Contractor
BY:_____ Address: _____

Signature, Duly Authorized Agent of Trade Contractor

_____

_____
Printed Name and Title

STATE OF)
(CITY)(COUNTY)OF)) to wit:

On this _____ day of _____, 20___, appeared before me _____ and he/she made oath in due form of law that the facts, information and representations set forth in the foregoing Trade Contractor's Final Release and Affidavit, are true and accurate to the best of his/her knowledge, information and belief.

_____ My commission expires: _____
(Notary Public)

FINAL WAIVER AND RELEASE
FOR SECOND TIER SUBCONTRACTORS AND SUPPLIERS

OWNER: Red Clay Consolidated School District DATE: _____

CONSTRUCTION MANAGER: The Whiting-Turner Contracting Co.

PROJECT: William F, Cooke Elementary School

CONTRACTOR: _____

The undersigned Company, a subcontractor or supplier to the contractor named above, and hereinafter referred to as the "Company", in consideration of payments previously received and in consideration of final payment set forth below, hereby waives and releases all mechanics', materialman's, or other liens and, to the fullest extent permitted by law, all rights to file any such liens in the future, and all claims and demands against the Owner, the Construction Manager and the real property on which the Project is located, and any claims arising out of work, labor, services, equipment or materials, performed or furnished by the Company, its subcontractors and suppliers, in connection with the Project, from the beginning of the world to the date of this Waiver and Release.

Except as noted below, the Company further acknowledges and represents that all persons and entities which have provided labor or material, or rented equipment, for or through the Company in connection with the project have been paid in full, that previous payments to the Company have been properly applied to pay all outstanding invoices relating to the project, that the Company is not aware of any claims, or circumstances which could give rise to future claims, against the Owner, the Construction Manager or the Project, and that all payroll, withholding and other taxes, union benefits, insurance premiums or other amounts required by law, regulation or agreement to be paid in connection with labor for the project have been paid in full.

Final Payment Due: $_____

_____
(Name of Company)

BY: _____ Address: _____
Signature, Duly Authorized Agent of Company

_____

_____
Printed Name and Title

STATE OF)
(CITY)(COUNTY)OF))to wit:

On this _____ day of _____, _____, appeared before me _____ and he/she made oath in due form of law that the facts, information and representations set forth in the foregoing Company's Final Waiver and Release, are true and accurate to the best of his/her knowledge, information and belief.

_____ My commission expires: _____
(Notary Public)

AFFIDAVIT THAT ALL TAXES HAVE BEEN PAID

RE: William F. Cooke Elementary School

Date: _____

TO: RED CLAY CONSOLIDATED SCHOOL DISTRICT
1502 SPRUCE AVENUE
WILMINGTON, DE 19805

The undersigned certifies that all federal, state and local taxes (including sales, consumer, use and excise taxes) applicable to the work and services performed and materials and equipment incorporated into the work, in each case pursuant to the contract referred to above, have been paid in full.

SUPPLIER/CONTRACTOR: _____

By: _____

Date: _____ Title: _____

STATE OF)

COUNTY OF)

On this _____ day of _____, ____, before me personally came _____ _____, to me known who, being by me duly sworn, did depose and say that he resides at _____ that he is _____ of _____ the corporation that executed the foregoing instrument and that he signed his name thereto by order of the Board of Directors of said corporation.

_____
Notary Public

My Commission Expires: _____

GUARANTEE AND WARRANTY

WHEREAS, _____, hereinafter called the "Guarantor," entered into a contract dated_____, hereinafter called the "Contract," with the Christina School District, hereinafter called the Owner, for the construction of the William F. Cooke Elementary School (hereinafter referred to as the "Work"), located at 2025 Graves Road, Hockessin, Delaware 19707.

WHEREAS, the Owner has performed, kept, observed and fulfilled each and every one of the obligations, promises, stipulated, terms and conditions on its part, and

WHEREAS, by the terms of the Contract, one of the conditions precedent to the making of final payment is the execution and delivery by the Grantor of this guarantee and warranty; and

WHEREAS, the Guarantor is now desirous of obtaining payment pursuant to the terms of said Contract and as a condition precedent to such payment, furnishes this separate guarantee and warranty for all work and material included in said Contract,

NOW THEREFORE, in consideration of the premises and of the payments made to the Guarantor under said Contract and in further consideration of final payment, the Guarantor does hereby for itself and its successors, heirs and assigns, guarantee and warrant to the Owner, its successors and assigns, that the Guarantor has performed all the work required by said Contract in accordance with the terms thereof including but not limited to satisfactory operation of all equipment by means or acceptance tests, correction of items on punchlists prepared by the Architect, and that all portions of the work completed under the Contract are perfect as to materials and workmanship and will so remain from _____ _____ for a period of one (1) year; and

The Guarantor does hereby further guarantee and warrant that the Guarantor will make good and replace at its own cost and expense all defects in material and workmanship appearing during the period aforesaid and the Guarantor will be responsible for all damage caused to the Owner by such defects or by the work required to remedy such defects. All corrections to material and workmanship shall be made at the convenience of the Owner and shall be performed in a good workmanlike manner.

The Guarantor does hereby warrant and represent that it has obtained warranties and guarantees from its material and equipment suppliers and from its subcontractors to the fullest extent possible and as customary in the various trades and has delivered all assignable warranties and guarantees to the Owner.

It is understood that this guarantee shall in no way be construed to limit in any manner any of the provisions of the Contract or to modify or limit any of the obligations, liabilities and duties of the Guarantor thereunder.

It is further understood that his guarantee shall remain binding and irrevocable during the above stated period and that the Guarantor shall not contest the validly of, or in any way attempt to revoke or withdraw from, this guarantee for any cause whatsoever, whatever arising before or after the execution of the Contract or this guarantee.

IN WITNESS WHEREOF, the Guarantor has caused this instrument to be signed and executed this _____ day of _____, 20___.

_____
(GUARANTOR)

WITNESS: BY: _____

_____ TITLE: _____

STATE OF)
COUNTY OF)

On this _____ day of _____, 20 ___, before me personally came _____, to me known who, being by me duly sworn, did depose and say that he resides at _____, that he is _____ of _____ _____, the corporation that executed the foregoing instrument and that he signed his name thereto by order of the Board of Directors of said corporation.

_____
NOTARY PUBLIC

My Commission Expires: _____

DRAFT

AIA® Document G706™ – 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)*

TO OWNER: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR: General Construction

CONTRACT DATED:

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
SURETY: ☐
OTHER: ☐

STATE OF:
COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment ☐ Yes ☒ No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.

2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

BY: _____

(Signature of authorized representative)

_____

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

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DRAFT

AIA® Document G706A™ – 1994

Contractor's Affidavit of Release of Liens

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR: General Construction

TO OWNER: *(Name and address)*

CONTRACT DATED:

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
SURETY: ☐
OTHER: ☐

STATE OF:
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.

2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY:

(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

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Consent Of Surety to Final Payment

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR: General Construction

TO OWNER: *(Name and address)*

CONTRACT DATED:

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
SURETY: ☐
OTHER: ☐

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(Insert name and address of Surety)

, SURETY,

on bond of
(Insert name and address of Contractor)

, CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety of any of its obligations to
(Insert name and address of Owner)

, OWNER,

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:
(Insert in writing the month followed by the numeric date and year.)

_____
(Surety)

_____
(Signature of authorized representative)

Attest:
(Seal):

_____
(Printed name and title)

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