

SECTION 01011 - SUMMARY OF THE WORK

PART 1 - GENERAL

RELATED DOCUMENTS:

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

PROJECT/WORK IDENTIFICATION:

General: Project name is **Rowan County Airport – Terminal Expansion Project** located on The Rowan County Airport campus at 3670 Airport Loop Road, Salisbury, North Carolina as shown on Contract Documents prepared by RAMSAY BURGIN SMITH ARCHITECTS, INC. Drawings dated April 2017 and Specifications dated April 2017

Prime Contracts, in the context used in this Section, are separate contracts that represent significant elements of work that are performed concurrently with and in close coordination with work performed on the project under other prime contracts. Prime contracts for this project include the following:

**Contract for General Work including the work associated with Site, Architectural, Structural, Plumbing, Heating, Ventilating and Air Conditioning and Electrical work as required to complete the building for its intended use and function.**

Contract Documents indicate the work of Contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to the following:

Existing site conditions and restrictions on use of the site and adjacent site.

Existing Terminal Facility must remain in operation during construction project.

**Contractors should be aware of the consequences of working in and around the Airport where multiple aircraft are stored – these aircraft must be protected from damage - as any damages are extremely costly to repair.**

Construction of new Addition and Misc Renovations -Business Facility.

Work to be performed subsequent to work under the prime contract.

Items to be installed by prime contractor(s) that will be furnished by the Owner.

Work associated with accepted Alternates.

Unit Prices that may be applicable to conditions found during construction.

Allowances.

PROJECT COMPLETION: Prime Contractor shall deliver to the Owner from the notice to proceed, a completed building with related plumbing, HVAC, electrical systems functioning, as designed and specified for its intended use as an educational facility.

**Construction Duration: 5 Months.**

LIQUIDATED DAMAGES shall be assessed and levied against each Prime Contractor not attaining substantial completion of the contractual work in the amount of time indicated above. The damage amount applicable to each Contractor shall be as listed below and shall begin the day following the

scheduled date of substantial completion above (plus any written, approved extensions) and continue until final acceptance is obtained.

Each day following the intended substantial completion date for work not found substantially complete will be subject to damage assessment at the following rate:

**GENERAL WORK----- \$ 250.00 per calendar day**

Submittal of proposals constitutes acknowledgement by the General Contractor that time is of the essence to the Owner and of material value equal to the damage amounts listed above. These amounts are pre-established equitable values required to recover the losses incurred by the Owner for failure to have complete use of the new facility by the required completion date.

Each Subcontractor shall be responsible for reviewing the General Contractor's initial construction schedule and report any unacceptable scheduling. Failure by a subprime contractor to report objections within 30 days to the General Contractor (with copy to Architect) after issuance of initial schedule constitutes acceptance of the schedule.

The General Contractor shall accept clerical responsibility for reporting any delays due to extremes in weather or other uncontrollable events which create deviations from the established construction schedule that unduly exposes the contractor to liquidated damages. These reports are required to be submitted to the Architect on a monthly basis coinciding with the Contractor's monthly application for payments. Failure to report delays constitutes agreement by the General Contractor, that no time extension is forthcoming for each applicable month at the end of the project completion date.

**NOTE: Reporting of delays does not guarantee Owner or Architect agreement that delays are acceptable or justified.**

The completion date includes normal bad weather days. See Supplementary Conditions for definition of a bad weather day and the allowance for numbers of bad weather days included as "normal" within the contract base bid.

Change Orders will not automatically mean additional time. If events beyond the Prime Contractor's(s') control or if additional work adds time to the project's "critical path", a change order may then include an appropriate extensions to the contract completion date.

GENERAL WORK includes work that is primarily architectural, structural and civil in nature plus work traditionally recognized as general construction, including demolition of existing where required, and new construction. It also includes both administrative and coordination responsibilities.

Pay for all permits required, including all government and utility fees; sales, consumer and use taxes for the proper execution of the work.

File and Pay for Water & Sewer Tap fees - Contractors shall be responsible for hooking to meters and providing & installing all other piping – including providing and installing RPZ(s).

File & Pay for all Building & Permit fees.

Project coordination work.

Temporary facilities related to General work as specified in the "Temporary Facilities" section of these specifications.

Typically, work described on drawing Sheets C – Cover Sheet, A1, A2, A3, A4, A5, S0.10, S0.11, S1.10, S1.20, S1.30 and specifications including Invitation to Bids, Instructions to bidders, General Conditions, Supplementary General Conditions, Specification Divisions 1 thru 14, and MBE requirements represents General Work.

Complete drawings and specifications are included in bid package to assist General Contractor in including coordination costs of his work as it relates to other prime contracts (or major subcontracts) and to assist General Contractor in determining how other prime contractor(s) (or major subcontractors) work effects General Work construction. Only specifically noted work by General Contractor on P1.1, M1.1, M2.1, M3.1, E.1, E.2, E.3, E4 and specifications Division 15 and 16 is part of General Work.

PLUMBING WORK includes the work required to provide complete domestic water and sewer piping systems in the new building including, but not limited to the following:

- Water service connection,
- Sewer service connection,
- Building potable water supply system (hot and cold water piping),
- Pipe insulation,
- Building sewer system,
- Vent piping system,
- Plumbing fixtures and equipment, and
- Temporary facilities related to plumbing work as specified in the "Temporary Facilities" section of these specifications.

Typically, work described on drawings P1.1 Invitation to Bids, Instructions to bidders, General Conditions, Supplementary General Conditions and Specification Division 1, Division 15, and MBE requirements represent bases of Plumbing Work.

Complete drawings and specifications are included in bid package to assist Plumbing Contractor in including coordination costs of his work as it relates to other prime contracts (or major subcontracts) and to assist Plumbing Contractor in determining how other prime contractor(s) (or major subcontractor work) work effects Plumbing Work construction. Only specifically noted work by Plumbing Contractor on Sheets C – Cover Sheet, A1, A2, A3, A4, A5, S0.10, S0.11, S1.10, S1.20, S1.30, M1.1, M2.1, M3.1, E.1, E.2, E.3, E4 and specifications Division 2 thru 14 and Division 16 is part of Plumbing Work.

HEATING, VENTILATING AND AIR CONDITIONING (MECHANICAL) WORK includes the work required to provide a complete heating, ventilating and air conditioning system in the new building including, but not limited to the following:

- HVAC System Refrigerant piping,
- Air handlers,
- Heat Pumps,
- Condensate drain piping,
- Control system,
- Piping insulation,
- Ducted (air) or sheet metal portion of the heating, ventilating and air conditioning system,
- Fans/blowers, power ventilators and exhaust systems,
- Motor starters for HVAC equipment motors,
- Air filters,
- Air diffusers, grilles and registers, and
- HVAC test-adjust-balance requirements.
- Temporary facilities related to heating, ventilating and air-conditioning work as specified in the "Temporary Facilities" section of these specifications.

Typically, work described on drawings M1.1, M2.1, M3.1, and Invitation to Bids, Instructions to  
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bidders, General Conditions, Supplementary General Conditions and Specification Division 1, Division 15, and MBE requirements represent bases of Heating, Ventilating and Air Conditioning Work (Mechanical Work).

Complete drawings and specifications are included in bid package to assist Mechanical Contractor in including coordination costs of his work as it relates to other prime contracts (or major subcontracts) and to assist Mechanical Contractor in determining how other prime contractor(s) (or major subcontractor work) work effects Mechanical Work construction. Only specifically noted work by Mechanical Contractor on Sheets C – Cover Sheet, A1, A2, A3, A4, A5, S0.10, S0.11, S1.10, S1.20, S1.30, P1.1, E.1, E.2, E.3, E4 and specifications Division 2 thru 14 and Division 16 is part of Mechanical Work.

ELECTRICAL WORK includes the work required to provide a complete electrical power distribution and lighting system in the new building including but not necessarily limited to the following:

- Power transmission and service extension,
- Power distribution (panel boards) including disconnect switches at major units of other work requiring power (except as noted otherwise),
- Electrical lighting,
- Emergency lighting,
- Grounding,
- Fire alarm and equipment and systems, data systems, and
- Raceways, outlets, etc. for power, lights, security, telephone, data processing, and other special systems.
- Temporary facilities related to electrical work as specified in the "Temporary Facilities" section of these specifications.

Typically, described on drawings E.1, E.2, E.3, E4 and Invitation to Bids, Instructions to bidders, General Conditions, Supplementary General Conditions and Specification Division 1, Division 16, and MBE requirements represent bases of Electrical Work.

Complete drawings and specifications are included in bid package to assist Electrical Contractor in including coordination costs of his work as it relates to other prime contracts (or major subcontracts) and to assist Electrical Contractor in determining how other Prime Contractor(s) (or major subcontractor work) work effects Electrical Work construction. Only specifically noted work by Electrical Contractor on Sheets C – Cover Sheet, A1, A2, A3, A4, A5, S0.10, S0.11, S1.10, S1.20, S1.30, P1.1, M1.1, M2.1, M3.1 and specifications Division 2 thru 15 is part of Electrical Work.

**DEFINITION OF THE EXTENT OF PRIME CONTRACT WORK:** The extent of the work of the Prime Contract is indicated in/on the Contract Documents. General names and terminology on the drawings and in the specifications may be used to control which subcontract(s) includes a specific element of required work, **but the final extent and demarcation of subcontract work is the sole responsibility of the Prime Contractor.**

Summary by References: Work of the major subcontract(s) can be summarized by reference to the major subcontract(s) drawing sheets, General Conditions, Supplementary Conditions, Specification sections, Addenda and Modifications to Contract Documents issued subsequent to the initial printing of this Project Manual, and including but not necessarily limited to printed material reference by any of these. It is recognized that the work of the Contract(s) is unavoidably affected or influenced by governing regulations, natural phenomenon, including weather conditions, and other forces outside the contract documents.

#### CONTRACTORS USE OF PREMISES:

General: During the entire construction period all contractors and subcontractors jointly shall have the use of the premises for construction operations, including full use of the site within limits described.

Grading and site work on adjacent property shall be prohibited unless specifically note otherwise.

The site is defined as the property shown on drawings by property lines.

Specific work activities as drawn and/or specified are allowed as required beyond the site lines; however, limit time to minimum required to perform work.

Use of the Site: Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is required are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.

Do not unreasonably encumber the site with materials of equipment. Confine stockpiling of materials and location of storage sheds to minimum areas.

Lock automotive type vehicles such as passenger cars and trucks and other types of mechanized and motorized construction equipment, when parked and unattended, so as to prevent unauthorized use.

Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place.

Smoking or open fires will not be permitted within the building enclosure or on the premises as further specified in Division 2 work.

#### BUILDING USAGE AND SECURITY:

General: The Contract for General Work includes maintaining security and occupant safety during the construction process; however, all Prime Contractors are accountable for conducting their work in a safe, responsible manner that will provide a safe environment for all workers.

#### ALTERATIONS AND COORDINATION:

General: The Contract for General Work includes coordination of the entire work of the project, acting as the "Project Expeditor" including preparation of general coordination drawings, diagrams and schedules and control of site utilization from the beginning of construction activity through project closeout and warranty period.

MISCELLANEOUS PROVISIONS: Electrical Requirements: Except as otherwise indicated, comply with applicable provisions of the National Electric Code (NEC) and standards by the National Electrical Manufacturer's Association (NEMA) for electrical components of general work. Provide Underwriter's Laboratories listed and labeled products where applicable.

#### PART 2 - PRODUCTS (Not Applicable).

## SCHEDULE OF DRAWINGS

- \*C COVER SHEET – LIFE SAFETY PLAN, BUILDING CODE SUMMARY & INDEX OF DRAWINGS
- A1 SITE PLAN - GENERAL PROJECT NOTES & ENERGY CODE SUMMARY
- \*A2 DEMOLITION & FLOOR PLANS – DIMENSIONS, RFS & WALL TYPES
- \*A3 ELEVATIONS & WALL SECTIONS
- \*A4 WALL SECTIONS & CABINET DETAILS
- \*A5 DOORS & WINDOWS and ALTERNATE #1
  
- S0.10 GENERAL NOTES & ABBREV.
- S0.11 GENERAL NOTES & ABBREV.'S CONTI with DETAILS
- S1.10 FOUNDATION PLAN & DETAILS
- S1.20 ROOF FRAMING PLAN & DETAILS
- S1.30 SECTIONS & DETAILS
  
- P1.1 PLUMBING PLAN – WASTE PLAN & WATER PIPING PLAN & DETAILS
- \*M1.1 MECHANICAL - FLOOR PLAN & SCHEDULES
- M2.1 MECHANICAL - DETAILS
- M3.1 MECHANICAL - SPECIFICATIONS
  
- E1 ELECTRICAL - SCHEDULES & ENERGY CODE
- \*E2 ELECTIRCAL – POWER & LIGHTING
- E3 ELECTRICAL – DETAILS & SPECIFICATIONS
- \*E4 ELECTRICAL – PANELS & RISERS

\*REVISED DRAWINGS

SEE ATTACHED UL Design No. U418 – 7C – 1 Hour Rating



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### Design No. U418

BXUV.U418

Fire-resistance Ratings - ANSI/UL 263

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#### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

**BXUV - Fire Resistance Ratings - ANSI/UL 263**

**BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada**

[See General Information for Fire-resistance Ratings - ANSI/UL 263](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada](#)

### Design No. U418

April 19, 2017

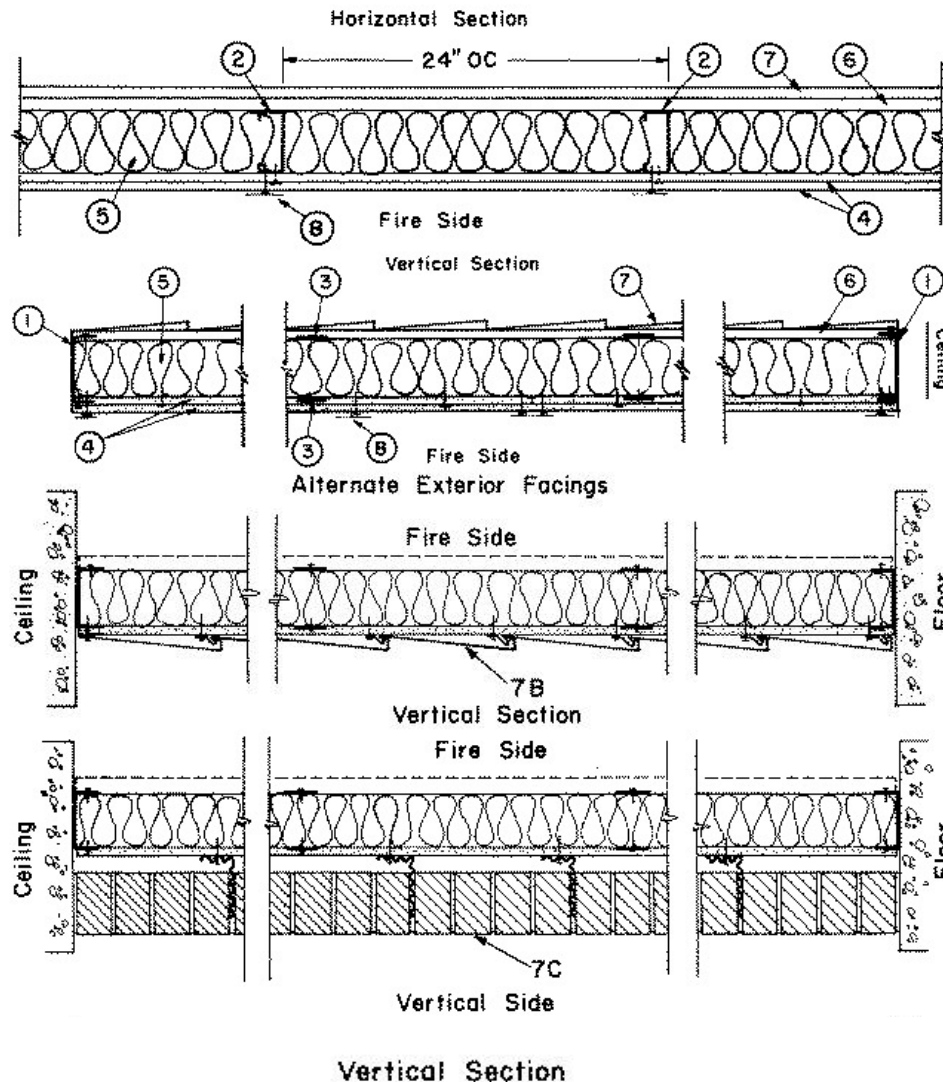
(Exposed to Fire on Interior Face Only)

Bearing Wall Rating – 3/4 Hr., 1 or 2 Hr.

(See Item 4)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used – See Guide BXUV or BXUV7

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Floor and ceiling tracks** — Channel shaped, 3-5/8 in. or 5-5/8 in. wide with 1-1/2 in. flanges. Fabricated from No. 18 GSG galv steel. Attached to floor and ceiling with fasteners spaced 24 in. O.C.

2. **Steel Studs** — C-shaped, fabricated from min No. 18 GSG (0.051 in. thick) galv steel, 3-1/2 in. or 5-1/2 in. wide with 1-1/2 in. flanges and 1/2 in. returns (stiffening flanges.) Min yield strength 40,000 psi. See Ill. 12 of Report R7760-1, -2 dated Dec. 11, 1975 or Ill. 15 of Report R7760-3, -4 dated Aug. 23, 1976 for tables containing max allowable axial loads. Report Ills. available from U. S. Steel Corp., Rm. 1846, 600 Grant St., Pittsburgh, PA 15230.

3. **Steel Strapping** — Flat stock, 2 in. wide, fabricated from No. 18 GSG galv steel. Located horizontally and attached to both sides of the studs at the third points using one No. 6-20 by 1/2 in. self-drilling steel screw at each intersection.

4A. **Gypsum Board\*** — (As an alternate to Item 4) - 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically only and secured as described in Item 4.

**GEORGIA-PACIFIC GYPSUM L L C** — Type X ComfortGuard Sound Deadening Gypsum Board.

**NATIONAL GYPSUM CO** — SoundBreak XP Type X Gypsum Board

4B. **Gypsum Board\*** — (As an alternate to Items 4 through 4A) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock ES.

4C. **Gypsum Board\*** — (As an alternate to 5/8 in. Type FSW in Item 4) - Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 4. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 4, spaced 24 in. OC. Outer layer of each double 5/16 in. layer attached per Item 4.

**NATIONAL GYPSUM CO** — Type FSW.

4D. **Wall and Partition Facings and Accessories\*** — (As an alternate to Items 4 through 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527.

5. **Batts and Blankets\*** — 3-1/2 in. thick, 2 ft wide, glass fiber or mineral wool batts. Inserted between each stud to fill the wall cavity.

**CERTAINTED CORP**

**JOHNS MANVILLE**

**KNAUF INSULATION LLC**

**MANSON INSULATION INC**

**OWENS CORNING**

**ROXUL INC** — Type AFB

6. **Gypsum Sheathing** — One layer of nominal 1/2 in. thick exterior sheathing, applied vertically and secured to the studs and runner tracks with 1 in. long, 0.142 in. diam, Type S-12 bugle head screws spaced 12 in. OC along the studs and the runner tracks.

7. **Exterior Facings** —

7A. **Aluminum Siding** — Horizontal lap type 9 in. wide fabricated from 0.019 in. thick or 0.024 in. thick painted aluminum. Interior face of 0.019 in. thick siding lined with 3/8 in. thick unbonded insulation material. Attached to the studs with 1-7/8 in. long, 0.118 in. diam steel screws spaced 9 in. OC along the studs. A starter strip to be fastened to floor runner with 0.118 in. diam screws spaced 12 in. OC.

7B. **Steel Siding** — Same description as above (No. 17 GSG) gauge 0.017 in. thick.

7C. **Brick Veneer** — Any type 4 in. wide brick. Metal ties used as every fourth course spaced 24 in. OC horizontally. Fastened to steel studs through gypsum sheathing with one No. 6-20 steel screw per tie. One inch air space provided between veneer and gypsum sheathing.

8. **Joint Tape and Compound** — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads. Perforated paper tape, 2 in. wide, embedded in first layer of compound over all joints.

9. **Furring Channels** — (Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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## SECTION 01020 - ALLOWANCES

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements governing handling and processing allowances.

Selected materials and equipment, and in some cases, their installation are shown and specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. Additional requirements, if necessary, will be issued by Change Order.

Types of allowances required include the following:

- Lump sum allowances.
- Unit-cost allowances.
- Contingency allowance.
- Inspection and testing allowances.

Procedures for submitting and handling Change Orders are included in Section "Change Order Procedures."

Use of allowances for inspection and testing agencies is included in Section "Quality Control Services."

#### SELECTION AND PURCHASE

At the earliest feasible date after Contract award, advise the Architect of the date when the final selection and purchase of each product or system described by an allowance must be completed in order to avoid delay in performance of the Work.

When requested by the Architect, obtain proposals for each allowance for use in making final selections; include recommendations that are relevant to performance of the Work.

Purchase products and systems as selected by the Architect from the designated supplier.

#### SUBMITTALS

Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

Submit invoices or delivery slips to indicate actual quantities of materials delivered to the site for use in fulfillment of each allowance.

### CONTINGENCY ALLOWANCES

Use the contingency allowance only as directed for the Owner's purposes, and only by Change Orders which designate amounts to be charged to the allowance.

The Contractor's related costs for products or equipment ordered by the Owner under the contingency allowance, including delivery, installation, taxes, insurance, equipment rental, and similar costs are not part of the Contract Sum.

Change Orders authorizing use of funds from the contingency allowance will include the Contractor's related costs and reasonable overhead and profit margins (see Supplementary General Conditions).

At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

### INSPECTION AND TESTING ALLOWANCES

Inspection and testing allowance includes the cost of engaging the inspection or testing agencies and cost for reporting the results of unanticipated below grade soil conditions only. General Contractor shall include in his regular job costs, the testing required for soil compaction, concrete mix and steel connections as specified in those sections of these specifications.

At Project closeout, credit unused amounts remaining in the inspection and testing allowance to Owner by Change Order.

### UNUSED MATERIALS

Return unused materials to the manufacturer or supplier for credit to the Owner, after installation has been completed and accepted.

Where it is not economically feasible to return unused material for credit and when requested by the Architect, prepare unused material for the Owner's storage, and deliver to the Owner's storage space as directed. Otherwise, disposal of excess material is the Contractor's responsibility.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### INSPECTION

Inspect products covered by an allowance promptly upon delivery for damage or defects.

#### PREPARATION

Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related construction activities.

## **SCHEDULE OF ALLOWANCES:**

**NOTE: ALL ALLOWANCES LISTED BELOW SHALL BE INCLUDED IN THE BASE BID.**

### **GENERAL CONTRACT:**

**Contingency Allowance** **\$ 10,000.00**

**Testing Allowance** **\$ 2,000.00**

This Allowance to be used by Contractor to pay for all required testing - reference Section 01400.

**Distance Learning Equipment Allowance** **\$ 10,000.00**

This Allowance to be used by the Owner to pay for equipment (TVs, cameras, computers, etc.) to upfit Conference Room 101 for Distance Learning.

End of SECTION 01020

## SECTION 01027 - APPLICATIONS FOR PAYMENT

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements governing the Prime Contractor's(s') Applications for Payment.

This Section specifies administrative and procedural requirements governing each Prime Contractor's Applications for Payment.

Coordinate the Schedule of Values and Applications for Payment with the Prime Contractor's Construction Schedule, List of Subcontracts, and Submittal Schedule.

The Construction Schedule and Submittal Schedule are included in Section "Submittals".

#### SCHEDULE OF VALUES

Coordinate preparation of the Schedule of Values with preparation of the Construction Schedule.

Each Prime Contractor shall coordinate preparation of its Schedule of Values for its part of the Work with preparation of the Construction Schedule.

Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:

- General Contractor's construction schedule (as approved by all Prime Contractors).
- Application for Payment form.
- List of subcontractors.
- Schedule of allowances.
- List of products.
- List of principal suppliers and fabricators.

Submit the Schedule of Values to the Architect at the earliest feasible date, but in no case later than 7 days before the date scheduled for submittal of the initial Application for Payment.

Format and Content: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values.

Identification: Include the following Project identification on the Schedule of Values:

- Project name and location.
- Name of the Architect.
- Prime Contractor's name and address.
- Date of submittal.

Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed:

- Generic name.
- Related Specification Section.
- Dollar value.
- Percentage of Contract Sum to the nearest one-tenth percent, adjusted to total 100 percent.

Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Break principal subcontract amounts down into several line items including cost of major equipment and labor costs.

Round amounts off to the nearest whole dollar; the total shall equal the Contract Sum.

Margins of Cost: Temporary facilities and other major cost items that are not direct cost of actual work-in-place shall be shown as separate line items in the Schedule of Values as general overhead expense.

### APPLICATIONS FOR PAYMENT

Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.

The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.

Payment Application Times (Unless listed otherwise in the Owner-Contractor Agreement): The date for each progress payment is the 15th day of each month. The period of construction Work covered by each Application for Payment is the period ending 15 days prior to the date for each progress payment and starting the day following the end of the preceding period.

Payment Application Forms: Use AIA Document G 702 and Continuation Sheets G 703 as the form for Application for Payment.

Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.

Entries shall match data on the Schedule of Values and Construction Schedule. Use updated schedules if revisions have been made.

Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.

Each monthly payment application shall include an attachment listing of all sales tax paid on materials that are billed on the application. (**See SALES TAX REPORT attached at the end of this Section 01027.**) Listing shall breakdown, per vendor, the tax amount paid to each state and each county.

Payments requested for stored materials or major pieces of equipment will be paid from invoice costs documented with applications. Submit "Amendment to Protect Stored Materials" (**sample attached at the end of this Section 01027**) on Bonding Company letterhead with application for payment.

Transmittal: Submit 4 executed copies of each Application for Payment to the Architect by means ensuring receipt within 24 hours; all copies shall be complete.

Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Architect.

Waivers of Mechanics Lien: With Final Application for Payment, submit waivers of mechanics lien from every entity who may lawfully be entitled to file a mechanics lien arising out of the Contract, and related to the Work covered by the payment.

Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to Owner.

Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:

- List of subcontractors,
- List of principal suppliers and fabricators,
- Schedule of Values,
- General Contractor's Construction Schedule (preliminary if not final),
- List of Prime Contractor's(s') staff assignments,
- Initial progress report,
- Copies of authorizations and licenses from governing authorities for performance of the Work,
- Certificates of insurance and insurance policies (Part of Owner-Contractor Agreement documents),
- Performance and payment bonds (Part of Owner-Contractor Agreement documents), and
- Data needed to acquire Owner's insurance (Part of Owner-Contractor Agreement documents).

Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

Administrative actions and submittals that shall proceed or coincide with this application include:

- Occupancy permits and similar approvals,
- Warranties (guarantees) and maintenance agreements,
- Test/adjust/balance records,
- Maintenance instructions,
- Start-up performance reports,
- Changeover information related to Owner's occupancy, use, operation and maintenance,
- Final cleaning,
- Application for reduction of retainage, and consent of surety,
- Advice on shifting insurance coverages,
- List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion,
- Change of door locks to Owner's access, and
- Issue final keys to Owner with door numbers marked on each key.

Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final payment Application for Payment include the following:

- Completion of Project closeout requirements,
- Completion of items specified for completion after Substantial Completion,
- Submit signed off completed Punch List items to the Architect
- Assurance that unsettled claims will be settled,
- Assurance that Work not complete and accepted will be completed without undue delay,
- Transmittal of required Project construction records to Owner,
- Proof that taxes, fees and similar obligations have been paid,
- Removal of temporary facilities and services, and
- Removal of surplus materials, rubbish and similar elements.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

End of SECTION 01027

STATE AND COUNTY SALES/USE TAX STATEMENT  
 And Certification

Contractor: \_\_\_\_\_ Sales Taxes Paid from \_\_\_\_\_ Sheet # \_\_\_\_\_  
 To \_\_\_\_\_

Project Name: \_\_\_\_\_ Payment Application # \_\_\_\_\_

Invoice #	Invoice Date	Vendor	Vendor Address	Type of Materials	TL. Amt. of Invoice	NC Tax	CTY Tax	Total Taxes

We certify that the above listing includes all materials purchased by us and incorporated into the above referenced project for the period stated, became a permanent part of the project, and that the sales tax shown has been paid. The above represents a complete listing of these sales taxes paid for the application number.

SWORN AND SUBSCRIBED BEFORE ME THIS \_\_\_\_\_  
 NOTARY PUBLIC  
 MY COMMISSION EXPIRES: \_\_\_\_\_

BY: \_\_\_\_\_  
 TITLE \_\_\_\_\_



**AMENDMENT TO PROTECT STORED MATERIALS**

**Below is the outline form letter noted in Division 1 of the specifications required by the Architect prior to recommending to the Owner payments for materials stored off site.**

**COMPANY LETTER HEAD**

**CURRENT DATE**

Ramsay, Burgin, Smith, Architects, Inc.  
225 North Main Street, Suite 501  
Salisbury, North Carolina 28144

Subject: ROWAN COUNTY AIRPORT – TERMINAL EXPANSION PROJECT  
Salisbury, NC

Dear Sirs:

This letter represents consent from **LIST NAME OF BONDING COMPANY** allowing Ramsay, Burgin, Smith, Architects, Inc. to release payment to **LIST NAME OF CONTRACTOR** all materials claimed on applications for payment as stored materials for ROWAN COUNTY AIRPORT, TERMINAL EXPANSION PROJECT, Salisbury, NC. This applies to materials whether stored on or off site.

The bonding company does not require the Owner or Architect to inventory or monitor inventory for said stored materials.

The bonding company also acknowledge that in the event of contractor default, bond coverage includes all costs and expenses for recovery or repurchase or these paid stored materials as well as all normal bond obligations and responsibilities applicable toward project completion.

Very truly yours,

**AUTHORIZED SIGNATURE**

**SIGNEE'S TITLE**

**SIGNEE'S COMPANY NAME**

**XXX/xx**

**APPLICABLE OR DESIRED COPIES**

Attachment: Power of Attorney statement

**XXX/xx**

## SECTION 01030 - ALTERNATES

### PART 1 - GENERAL

#### RELATED DOCUMENTS

Drawings, General Conditions and Supplementary General Conditions and other Division-1 Specification Sections, apply to this Section.

#### SUMMARY

This Section specifies administrative and procedural requirements for Alternates.

Definition: An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.

Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project.

Notification: Immediately following the award of the Contract, prepare and distribute to each party involved, notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date. Include a complete description of negotiated modifications to Alternates.

Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate.

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

### PART 2 - PRODUCTS

### PART 3 - EXECUTION

### SCHEDULE OF ALTERNATES:

NOTE: PRICES FOR ALL ALTERNATES LISTED BELOW ARE TO BE INCLUDED ON THE CONTRACTOR'S FORM OF PROPOSAL.

Each alternate price listing in this proposal shall cover all costs required for this particular part of the work, complete and in place, including all changes, alterations or modifications to surrounding work required to accommodate the substitution, addition, deletion or other change.

The Architect reserves the right to recommend to the Owner the acceptance or rejection of any or all alternates. The Owner reserves the right to accept or reject any or all such recommendations. The Owner further reserves the right to accept or reject alternates in any order they preferred without regard to whether or not their selected order effects bid outcome.

Should any of the alternates as described in the specifications be accepted, the amount written on the **"Form of Proposal"** shall be the amount to "add to" or "deduct from" the Base Bid. Signify the option intended by the words "add" or "deduct" in front of the written figures and the like "plus" or "minus" signs in front of the numerals.

#### **ALTERNATE #1 - Renovate and Enlarge Existing Individual Toilet to meet ADA**

Work of this alternate includes all work associated with the renovation of the existing Individual Toilet to meet ADA requirements. Work includes additional Door & Frame in Hall 1 – meant to separate Terminal Proper for After Hours use of Conference Room, Toilet and Pilot's Lounge. Reference Spec Sections for Doors, Hardware and Toilet Accessories. Also reference Plumbing, Mechanical and Electrical Drawings for work relating to this Alternate.

#### **ALTERNATE #2 - Remove & Replace Existing Roof System**

Work of this alternate includes all work associated with the removal of the existing metal roof system – including but not limited to the metal roof panels, fascia panels, flush wall panels and soffit panels – and replacing the existing with a new Metal Roof System as specified.

#### **ALTERNATE #3 - Provide and Install Movable Partition**

Work of this alternate includes all work associated with the provision and installation of a Movable Partition for the Conference Room.

END OF SECTION 01030

SECTION 01041 - PROJECT COORDINATION - SINGLE PRIME CONTRACTS

PART 1 - GENERAL

RELATED DOCUMENTS:

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

DESCRIPTION OF WORK:

Maximum administrative and supervisory requirements necessary for coordination of work on the project to be fulfilled collectively by the prime contractors include but are not necessarily limited to the following:

- Coordination and meetings,
- Administrative and supervisory personnel,
- Surveys and records or reports,
- Special reports,
- General installation provisions,
- Cleaning and protection, and
- Conservation and salvage.

These coordination requirements must be participated in by the General Contractor and each major subcontractor (plumbing, HVAC, electrical, and sprinkler), where applicable, even though certain items of work may be assigned to a specific prime contractor, and even though the Contractor for General Work may be assigned certain general work for overall coordination purposes.

COORDINATION AND MEETINGS:

Coordination Drawings: Each subcontractor shall prepare their related coordination drawings where work by separate entities requires fabrication off-site of products and materials that must accurately interface. Coordination drawings shall indicate how work shown by separate shop drawings will interface and shall indicate installation sequence. Comply with all requirements of the "Submittals" section.

Monthly Coordination Meetings: The Contractor for General Work shall schedule and hold monthly general project coordination meetings at regularly scheduled times that are convenient for the attendance of other major subcontractors and other parties involved. Required attendance includes the General Contractor and each subcontractor and every other entity identified by any contractor or subcontractor as being currently involved in the coordination or planning for the work of the entire project. Conduct meetings in a manner that resolve coordination problems. The Contractor for General Work shall preside at each meeting, and shall record meeting results. The Contractor for General Work shall distribute copies of the meeting result to everyone in attendance and to others affected by the decisions and actions resulting from each meeting.

ADMINISTRATIVE/SUPERVISORY PERSONNEL:

General: In addition to a General Superintendent and other administrative and supervisory personnel required for performance of the work, each major subcontractor shall provide specific coordinating personnel as reasonably required for interfacing work with other work of total project.

**Project Coordinator:** The Contractor for General Work shall provide a Project Coordinator, who is experienced in administration and supervision of building construction, including plumbing, mechanical, electrical, and sprinkler work. This Project Coordinator is hereby authorized to act as the general coordinator of interfaces between the work. For the purpose of this provision, "interface" is defined to include scheduling and sequencing of work, sharing of access to work spaces, installations, protection of each other's work, cutting and patching, tolerances, cleaning, selections for compatibility, preparation of coordination drawings, inspection, tests and temporary facilities and services.

**Submittals of Staff Names, Duties:** Within 15 days of Notice to Proceed the General Contractor and each major subcontractor shall submit a listing of Contractor's principal staff assignments and consultants, naming persons and listing their addresses and telephone numbers.

#### **SURVEYS AND RECORDS/REPORTS:**

**General:** Working from lines and levels established by the property survey, the Contractor for General Work shall establish and maintain bench marks and other dependable markers. These bench marks and markers are established to set lines and levels for work at each story of construction and elsewhere as needed to properly locate each element of the project. Each major subcontractor shall calculate and measure required dimensions as shown, within recognized tolerances. Drawings shall not be scaled to determine dimensions. Advise entities performing work, of marked lines and levels provided for their use.

**Survey Procedures:** Before proceeding with the layout of actual work, each major subcontractor shall verify the layout information shown on the drawings, in relation to the property area and existing bench marks. As the work proceeds, check every major element for line, level and plumb. Each contractor and subcontractor shall report (to the General Contractor and Architect) and record deviations which are accepted and/or not corrected, on record drawings.

#### **LIMITATIONS ON USE OF THE SITE:**

**General:** Limitations on site usage as well as specific requirements that impact utilization are indicated on the drawings and by other contract documents. In addition to these limitations and requirements, the Contractor for General Work shall administer allocation of available space equitably among the subcontractors and other entities needing access and space, so as to produce the best overall efficiency in performance of the total work of the project. Each contractor and subcontractor shall schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.

#### **SPECIAL REPORTS:**

**General:** Submit special reports directly to the Architect and other entities affected by the occurrence.

**Reporting Unusual Events:** When an event of an unusual and significant nature occurs at the site, the Contractor for General Work shall prepare and submit a special report. The report shall list chain of events, persons participating, the response by the contractor's personnel and by the personnel of the other subcontractors, an evaluation of the results or effects, and similar pertinent information. It is the responsibility of each contractor and subcontractor to advise the Architect in advance date, when such events are known or predictable.

**Reporting Accident:** Each contractor and subcontractor shall prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

### PART 3 - EXECUTION

#### GENERAL INSTALLATION PROVISIONS:

**Installer's Inspection of Conditions: The contractor (General and/or Subcontractor) involved require the Installer of each major unit of work to inspect the substrate to receive the work and the conditions under which the work is to be performed. The Installer shall report all unsatisfactory conditions in writing to the General Contractor and Architect. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.**

Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation, to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the contract documents.

Inspect each item of materials or equipment immediately prior to installation. Reject damaged and defective items.

Provide attachment and connection devices and methods for securing work properly. Secure work true to line and level, and within recognized tolerances. Allow expansion and building movement. Provide uniform joint width in exposed work. Arrange joints in exposed work to obtain the best visual effect. Refer questionable visual-effect choices to the Architect/Engineer for final decision.

Recheck measurements and dimensions of the work, as an integral step of starting each installation.

Install each unit of work during weather conditions and project status which will ensure the best possible results in coordination with the entire work. Isolate each unit of work from incompatible work as necessary to prevent deterioration.

Enclosure of the Work: Each prime contractor shall coordinate the closing-in of the work with required inspections and tests, so as to minimize the necessity of uncovering work for that purpose.

Mounting Heights: Where mounting heights are not indicated, mount individual units of work at industry recognized standard mounting heights for the particular application indicated. Refer questionable mounting height choices to the Architect/Engineer for final decision.

#### CLEANING AND PROTECTION:

General: During handling and installation of work at the project site, each prime contractor shall clean and protect work in progress and adjoining work in the basis of continuous maintenance. Apply protective covering on installed work where it is required to ensure freedom from damage or deterioration at the time of substantial completion.

Clean and perform maintenance on installed work as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

Limiting Exposure of Work: To the extent possible through reasonable control and protection methods, each prime contractor shall supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period.

End of SECTION 01041

## SECTION 01045 - CUTTING AND PATCHING

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements for cutting and patching.

Refer to other Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

Requirements of this Section apply to mechanical and electrical installations. Refer to Division-15 and Division-16 Sections for other requirements and limitations applicable to cutting and patching mechanical and electrical installations.

#### QUALITY ASSURANCE

Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity or load-deflection ratio.

Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:

- Foundation construction.
- Bearing and retaining walls.
- Structural concrete.
- Structural steel.
- Lintels.
- Structural decking.
- Miscellaneous structural metals.
- Equipment supports.
- Piping, ductwork, vessels and equipment.

Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.

Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

If possible retain the original installer or fabricator to cut and patch the following categories of exposed Work, or if it is not possible to engage the original installer or fabricator, engage another recognized experienced and specialized firm:

- Roofing and Roof Flashing
- HVAC enclosures, cabinets or covers.

Electrical panels and motor controls

## PART 2 - PRODUCTS

### MATERIALS

Use materials that are identical to existing materials.

## PART 3 - EXECUTION

### INSPECTION

Before cutting existing surfaces, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

Before proceeding, meet at the site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

### PREPARATION

Temporary Support: Provide temporary support of Work to be cut.

### PERFORMANCE

General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.

In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.

Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.

Comply with requirements of applicable Sections of Division-2 where cutting and patching requires excavating and backfilling.

By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.



Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.

Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

#### CLEANING

Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

End of SECTION 01045

## SECTION 01050 - FIELD ENGINEERING

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

**General:** This Section specifies administrative and procedural requirements for field engineering services required as part of the **General Work**, including, but not necessarily limited to, the following:

Survey and Building Layout Work.

Post Construction Survey Work.

#### SUBMITTALS

**Certificates:** Submit a certificate signed by the Land Surveyor certifying that the location and elevation of improvements comply with the Contract Documents.

**Project Record Documents:** Submit a record of Work performed and record survey data as required under provisions of Sections "Submittals" and "Project Closeout".

#### QUALITY ASSURANCE

**Surveyor:** Engage a Registered Land Surveyor registered in the State where the project is located, to perform land surveying services required.

**Pre Construction Property and Topographic Map survey** for the project Site plan was provided by:

Ramsay Burgin Smith Architects – proposed site plan.

**Post Construction Survey:** Prepare, provide and submit Final Project Site Survey including all as built structures, utilities, storm sewer improvements including storm basin grate tops, inlet and outlet elevations to the City of Salisbury as part of the close-out documents required for project completion.

Original surveyor may be contacted to provide final Project Survey.

### PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### EXAMINATION

Verify layout information shown on the Drawings, in relation to the property survey and existing benchmarks before proceeding to layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.

Existing utilities and equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction.

Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer and water service piping.

### PERFORMANCE

Working from lines and levels established by the property survey, establish benchmarks and markers to set lines and levels at each story of construction and elsewhere as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.

Advise entities engaged in construction activities, of marked lines and levels provided for their use.

As construction proceeds, check every major element for line, level and plumb.

Record deviations from required lines and levels, and advise the Architect when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.

Site Improvements: Locate and lay out site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.

Building Lines and Levels: Locate and lay out batter boards for structures, building foundations, column grids and locations, floor levels and control lines and levels required for mechanical and electrical Work.

Existing Utilities: Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.

End of SECTION 01050

## SECTION 01095 - REFERENCE STANDARDS AND DEFINITIONS

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### DEFINITIONS

General: Basic Contract definitions are included in the General Conditions.

Indicated: The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help the reader locate the reference; no limitation on location is intended.

Directed: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Architect," "requested by the Architect," and similar phrases.

Approve: The term "approved," where used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the Architect's duties and responsibilities as stated in General and Supplementary Conditions.

Regulation: The term "Regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

Furnish: The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."

Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations."

Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

Installer: An "Installer" is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

The term "experienced" when used with the term "Installer" means having a minimum of 5 previous Projects similar in size and scope to this Project, being familiar with the precautions required, and having complied with requirements of the authority having jurisdiction.

Assignment of Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and assignments are requirements over which the Contractor has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the Contractor.

This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the Work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.

Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

## SPECIFICATION FORMAT AND CONTENT EXPLANATION

Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 16-Division format and MASTERFORMAT numbering system.

Specification Content: This Specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:

Abbreviated Language: Language used in Specifications and other Contract Documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the full context of the Contract Documents so indicates.

Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.

## INDUSTRY STANDARDS

Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.

Publication Dates: Where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of Contract Documents.

Conflicting Requirements: Where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Architect for a decision before proceeding.

Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Architect for a decision before proceeding.

Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.

Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

#### GOVERNING REGULATIONS/AUTHORITIES

The Architect has contacted authorities having jurisdiction where necessary to obtain information necessary for preparation of Contract Documents; that information may or may not be of significance to the Contractor. Contact authorities having jurisdiction directly for information and decisions having a bearing on the Work.

#### SUBMITTALS

Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

#### PART 2 - PRODUCTS (NOT APPLICABLE)

#### PART 3 - EXECUTION (NOT APPLICABLE)

End of SECTION 01095

## SECTION 01200 - PROJECT MEETINGS

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements for project meetings including but not limited to:

- Pre-Construction Conference.
- Coordination Meetings.
- Progress Meetings.

Construction schedules are specified in another Division-1 Section.

#### PRE-CONSTRUCTION CONFERENCE

Schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after execution of the Agreement and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.

Attendees: The Owner, Architect and their consultants, the Prime Contractor(s) and their superintendent(s), major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conclude matters relating to the Work.

Agenda: Discuss items of significance that could affect progress including such topics as:

- Tentative construction schedule,
- Critical Work sequencing,
- Designation of responsible personnel,
- Procedures for processing field decisions and Change Orders,
- Procedures for processing Applications for Payment,
- Submittal of Shop Drawings, Product Data and Samples,
- Preparation of record documents,
- Use of the premises,
- Office, Work and storage areas,
- Equipment deliveries and priorities,
- Safety procedures,
- First aid,
- Security,
- Housekeeping, and
- Working hours.

## COORDINATION MEETINGS

Conduct Project coordination meetings at regularly scheduled times convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special pre-installation meetings.

Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.

Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

## PROGRESS MEETINGS

Conduct progress meetings at the Project site at regularly scheduled intervals. Notify the Owner and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.

Attendees: In addition to representatives of the Owner, Architect, and Prime Contractor(s), each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.

Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.

Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. 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.

Review the present and future needs of each entity present, including such items as:

- Interface requirements,
- Time,
- Sequences,
- Deliveries,
- Off-site fabrication problems,
- Access,
- Site utilization,
- Temporary facilities and services,
- Hours of Work,
- Hazards and risks,
- Housekeeping,
- Quality and Work standards,
- Change Orders, and
- Documentation of information for payment requests.

Reporting: No later than 3 days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.



Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

End of SECTION 01200

## SECTION 01300 - SUBMITTALS

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including:

- Contractor's construction schedule.
- Shop Drawings.
- Product Data.
- Samples.

Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

- Permits.
- Applications for payment.
- Performance and payment bonds.
- Insurance certificates.
- List of Subcontractors.

The Schedule of Values submittal is included in Section "Applications for Payment."

Inspection and test reports are included in Section "Quality Control Services."

#### SUBMITTAL PROCEDURES

Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.

Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Architect will promptly advise the Contractor when a submittal being processed must be delayed for coordination.

If an intermediate submittal is necessary, process the same as the initial submittal.

Allow two weeks for reprocessing each submittal.

No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.

Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

Include the following information on the label for processing and recording action taken.

Project name.  
Date.  
Name and address of Contractor.  
Name and address of subcontractor.  
Name and address of supplier.  
Name of manufacturer.  
Drawing number and detail references, as appropriate.

Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Architect using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.

On the transmittal Record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

#### CONTRACTOR'S CONSTRUCTION SCHEDULE

Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 30 days of the date established for "Commencement of the Work".

Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values."

#### SHOP DRAWINGS

Submit newly prepared information, drawn to accurate scale.

**Highlight, encircle, and otherwise indicate deviations from the Contract Documents. ALSO SEE GENERAL CONDITIONS REQUIREMENTS FOR SUBMITTAL – ARTICLE 3, paragraph 3.12, and all related subparagraphs.**

**Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings.** Standard information prepared without specific reference to the Project is not considered Shop Drawings.

Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:

- Dimensions.
- Identification of products and materials included.
- Compliance with specified standards.
- Notation of coordination requirements.
- Notation of dimensions established by field measurement.

Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48".

Electronic Format Submittal: PDFs submittals. Provided without security lock and capable of being "commented on" and returned.  
Contractor Responsible for PRINTING Job Copies of the final/approved/stamped.

Initial Submittal: Submit one correctable translucent reproducible print and one blue-line print for the Architect's review; the reproducible print will be returned.

Final Submittal: Submit 5 blue-line prints, 2 prints will be retained; the remainder will be returned.

**NOTE: Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.**

Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.

## PRODUCT DATA

Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

- Manufacturer's printed recommendations.
- Compliance with recognized trade association standards.
- Compliance with recognized testing agency standards.
- Application of testing agency labels and seals.
- Notation of dimensions verified by field measurement.
- Notation of coordination requirements.

**Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.**

Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.

Submittals: Submit 5 copies of each required submittal. The Architect will retain two, and will return the others marked with action taken and corrections or modifications required.

Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.

Do not permit use of unmarked copies of Product Data in connection with construction.

## SAMPLES

Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.

Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Architect's Sample. Include the following:

- Generic description of the Sample.
- Sample source.
- Product name or name of manufacturer.
- Compliance with recognized standards.
- Availability and delivery time.

Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.

Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.

Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.

Preliminary submittals will be reviewed and returned with the Architect's mark indicating selection and other action.

**Note that the Architect must see a full selection of all samples of products that require a color selection together at one time. No decision can be made on any one**

**color product without first seeing the full range of all color choices that must be made. No Delay may be claimed for Satisfying that requirement..**

Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit four sets; two will be returned marked with the action taken.

Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.

Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

Sample sets may be used to obtain final acceptance of the construction associated with each set.

Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

Field Samples specified in individual Sections are special types of Samples. Field Samples are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.

Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

#### ARCHITECT'S ACTION

Except for submittals for record, information or similar purposes, where action and return is required or requested, the Architect will review each submittal, mark to indicate action taken, and return promptly.

Compliance with specified characteristics is the Contractor's responsibility.

Action Stamp: The Architect will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

Final Unrestricted Release: Where submittals are marked "Approved," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.

Final-But-Restricted Release: When submittals are marked "Approved as Noted," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.

Returned for Resubmittal: When submittal is marked "Not Approved, Revise and Resubmit," do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.

**NOTE:** Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

End of SECTION 01300

## SECTION 01400 - QUALITY CONTROL SERVICES

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements for quality control services.

**Special Inspections required by NC Building Code Chapter 17 shall be performed under a separate contract between the Owner and the inspections firm.**

#### **Statement of Special Inspections – not required.**

Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Architect.

Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.

Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.

Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.

Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.

Requirements for the Contractor to provide quality control services required by the Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

#### RESPONSIBILITIES

**Contractor Responsibilities:** The Contractor shall employ a Testing Agency (approved by the Owner) to perform all inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities. Costs for these services shall be paid via the Owner's Testing Allowance. Contractors are warned not to abuse this right but to be responsible with agency's time and the Owner's Testing Allowance Funds.

The Owner will engage the services of an independent agency to perform inspections and tests specified as the Owner's responsibilities – specifically, the Special Inspections Requirements.



Retesting: The Contractor is responsible for retesting where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.

Cost of retesting construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.

Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:

Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.

Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.

Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.

Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.

Security and protection of samples and test equipment at the Project site.

Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Architect and Contractor in performance of its duties, and shall provide qualified personnel to perform required inspections and tests.

The agency shall notify the Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

**The testing agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.**

The agency shall not perform any duties of the Contractor.

Coordination: The Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition to Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

## SUBMITTALS

The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the Architect, in duplicate, unless the Contractor is responsible for the service. If the Contractor is responsible for the service, submit a certified written report of each inspection, test or similar service through the Contractor, in duplicate.

Submit additional copies of each written report directly to the governing authority, when the authority so directs.

Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:

Date of issue,  
Project title and number,  
Name, address and telephone number of testing agency,  
Dates and locations of samples and tests or inspections,  
Names of individuals making the inspection or test,  
Designation of the Work and test method,  
Identification of product and Specification Section,  
Complete inspection or test data,  
Test results and an interpretation of test results,  
Ambient conditions at the time of sample-taking and testing,  
Comments or professional opinion as to whether inspected or tested Work complies with  
Contract Document requirements,  
Name and signature of laboratory inspector, and  
Recommendations on retesting.

### QUALITY ASSURANCE

Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.

Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State in which the Project is located.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION

### REPAIR AND PROTECTION

General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."

Protect construction exposed by or for quality control service activities, and protect repaired construction.

Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

End of SECTION 01400

SECTION 01501 - TEMPORARY FACILITIES, SINGLE PRIME CONTRACTS

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of each prime Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF REQUIREMENTS:

This section specifies administrative and procedural requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security, protection and temporary storage shed.

Division of Responsibilities:

**General:** Each Prime Contractor and/or subcontractor is specifically assigned certain responsibilities for temporary services and facilities to be used by other contractors, and other entities at the site. **The Contractor for General Work is responsible for providing all temporary services and facilities that are not related to other Prime Contracts or other subcontractors' normal work and are not specifically assigned otherwise by these specifications.**

Work of each Prime contractor and/or subcontractor: Except as otherwise indicated, each Prime Contractor and subcontractor is responsible for the following:

- Installation, operation, maintenance and removal of each temporary service or facility usually recognized as related to its own normal scope of work, and the costs and use charges associated with each service or facility.
- Plug-in electric power cords and extension cords, and supplementary plug-in task lighting and special lighting necessary exclusively for its own work.
- Storage and fabrication sheds necessary for its own work.
- Specialized or unusual hoisting requirements.
- Collection and disposal of its own hazardous, dangerous, unsanitary or otherwise harmful waste material.
- Construction aids and miscellaneous services and facilities necessary for its own work.

The Contractor for General Work is responsible for the following:

- Temporary telephone, superintendent cellphone, and jobsite **fax or internet** service.
- Temporary storm piping, dewatering and drainage.
- Temporary roads and paving.
- Temporary toilets, including disposable supplies.
- Temporary enclosure of the building.
- Temporary heat.
- Minimum emergency fire protection.
- Project identification and temporary signs.
- General collection and disposal of wastes.
- Barricades, warning signs.
- Environmental protection.
- Rodent and Pest Control.

General project Construction Aids and Miscellaneous Services and Facilities.  
Project Sign (See sign layout at the end of the Section)

The Subcontractor for Plumbing Work is responsible for the following:

Piped temporary water service.

The Subcontractor for Mechanical Work is responsible for the following:

NONE

The Subcontractor for Electrical Work is responsible for the following:

Temporary electric power service and distribution.  
Temporary lighting.

Use Charges:

**Cost or usage charges for temporary services or facilities are not chargeable to the Owner or Architect. General Contractor's cost or use charges for temporary services or facilities will not be accepted as a basis of claims for a change-order extra. These charges must be part of base bid costs.**

Water Service Use Charges: The Contractor for the General work shall pay water service use charges, whether metered or otherwise, for water used by all entities authorized to be at or to perform work at the project site. This contractor may exercise reasonable control over water use in an effort to conserve water.

Electric Power Service Use Charges: The Contractor for the General Work shall pay electric power service use charges, whether metered or otherwise, for electricity used by all entities authorized to be at or to perform work at the project site. This contractor may exercise reasonable control over power use in an effort to conserve energy.

Telephone Charges: The Contractor for the General Work shall pay basic and local phone charges; however, each other Prime Contractor(s) and subcontractor(s) will be responsible for any long distance charges relating to their work and made by their employees (or sub-subcontractors). Contractor of the General Work will be responsible for invoicing these costs to other contractors.

Internet Charges: The contractor for the General Contractor shall pay for internet usage charges for online electronic service available at the jobsite for communications.

Other entities using temporary services and facilities may include, but are not limited to the following:

Other Prime Contractor(s) if multi-prime,  
Other nonprime contractors,  
The Owner's work forces,  
Occupants of the Project,  
The Architect/Engineer,  
Testing agencies, and  
Personnel of governing agencies.

QUALITY ASSURANCE:

Regulations: Prime Contractor shall comply with local laws and regulations governing construction and local industry standards, in the installation and maintenance of temporary services and facilities, including but not limited to the following:

Building Codes, including local requirements for permits, testing and inspection,  
Health and safety regulations, (OSHA)  
Utility company regulations and recommendations governing temporary utility services,  
Fire Department rules and recommendations,  
Police and Rescue Squad recommendations, and  
Environmental protection regulations governing use of water and energy, and control of dust, noise  
and other nuisances. (DENR)

#### JOB CONDITIONS:

General: Contractor for the General work shall provide each temporary service and facility ready for use at each location, when first needed to avoid delays in performance of work. Maintain, expand as required, and modify as needed throughout the progress of the work. Do not remove until services or facilities are no longer needed, or are replaced by the authorized use of completed permanent facilities.

Heat and Humidity control: The General Contractor must be aware that the unconditioned/exposed atmosphere inside the building produces extremely wet conditions in warm damp weather which causes condensation to form on cool interior surfaces. Temperature and humidity controls will be required to maintain newly installed finishes.

Mold control: The General Contractor will be required to protect construction in progress from the development of conditions that will be favorable for the development of mold. Means of removing moisture from within building enclosure shall be the responsibility of the General Contractor as required to inhibit mold development within the project.

Conditions of Use: Operate temporary services and facilities in a safe and efficient manner. Do not overload, and do not permit temporary services and facilities to interfere with the progress of work. Do not allow unsanitary conditions, public nuisances or hazardous conditions to develop or persist on the site.

Temporary Utilities: Do not permit freezing of pipes, flooding or the contamination of water sources.

Temporary Construction and Support Facilities: Maintain temporary facilities in a manner to prevent discomfort to users. Take necessary fire prevention measures. Maintain temporary facilities in a sanitary manner so as to avoid health problems.

Security and Protection: Maintain site security and protection facilities in a safe, lawful, publicly acceptable manner. Take measures necessary to prevent site erosion.

## PART 2 - PRODUCTS

### MATERIALS AND EQUIPMENT:

General: Contractor for the General work shall provide new materials and equipment for temporary services and facilities; used materials and equipment that are substantially undamaged and in serviceable condition may be used, if acceptable to the Architect/Engineer. Provide only materials and equipment that are suitable for their intended use.

Temporary Utilities: Where the local utility company provides only a portion of the temporary utility, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.

Electrical Service: Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service, including requirements included in Division-16 sections.

Voltage Differences: Provide identification warning signs at power outlets other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets.

Ground-Fault Protection: Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.

Electrical Power Cords: Use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or waterproof connectors to connect separate lengths, if single lengths will not reach work areas.

Lamps and Light Fixtures: Provide general service incandescent lamps of wattage indicated or required for adequate illumination. Provide exterior fixtures where fixtures are exposed to weather or moisture.

Temporary Construction and Support Facilities: Provide facilities that can be maintained properly throughout the course of use at the project site.

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

Temporary Offices and Similar Construction: For temporary offices, fabrication shops, storage sheds and similar construction, provide standard prefabricated or mobile units. Provide insulated, weathertight units, that are heated and air-conditioned, with lockable entrances, operable windows, roofing, foundations adequate for normal loading, including wind loads, serviceable finishes, and mechanical and electrical equipment necessary to achieve ambient conditions indicated.

Self-Contained Toilet Units: Provide single-occupant self-contained toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with glass fiber reinforced polyester shell or similar non-absorbent material.

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

Drinking Water: Provide potable water complying with local health authority requirements.

Sign Materials: For signs and directory boards, provide exterior type, Grade B-B High Density Concrete Form Overlay Plywood conforming to PS-1, of sizes and thicknesses indicated. Provide exterior grade acrylic-latex-base enamel for painting sign panels and applying graphics.

#### Security and Protection Facilities:

Fire Extinguishers: Provide type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical fires or grease-oil-flammable liquid fires. In other locations provide either type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.

### PART 3 - EXECUTION

#### INSTALLATION - GENERAL:

General: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with performance of the Work.

Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

### TEMPORARY UTILITY INSTALLATION:

General: Engage the local utility company to install temporary service to the project, or to make connections to existing service. Arrange with the companies and existing users for an acceptable time when service can be interrupted, where necessary, to make connections for temporary services.

#### Water Service:

General: Install water service and distribution piping of sizes and pressures adequate for temporary construction purposes during the construction period and until permanent service is in use, including but not limited to the following uses:

- Construction processes,
- Drinking water,
- Sanitary facilities, and
- Cleaning.

Obtain metered water service from the existing Terminal Bldg Domestic Water Service.

#### Temporary Electric Power Service:

General: Provide a weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the construction period. Whenever an overhead floor or roof deck has been installed, install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every work area.

Temporary Service: Install service and grounding in compliance with the National Electric Code (NFPA 70). Include necessary meters, transformers, overload protection disconnect and main distribution switch gear.

Install electric power service overhead except where underground service must be used to avoid construction conflicts or to comply with governing regulations.

Connect temporary service to the local electric power company main in the manner directed by company officials.

Provide temporary service with an automatic ground-fault interrupter feature, activated from the circuits of the system.

Power Distribution System: Provide circuits of adequate size and proper characteristics for each use.

Provide overload-protected disconnect switch for each temporary power circuit and each temporary lighting circuit, located at the power distribution center.

For power hand tools and task lighting, provide temporary 4-gang outlets at each floor level, spaced so that a 100 foot extension cord can reach each work area. Provide separate 110-120 Volt, 20 Amp circuit for each 4-gang outlet (4 outlets per circuit).

#### Temporary Lighting:

Provide not less than one 200-watt incandescent lamp per 1000 sq. ft. of floor area, uniformly distributed, for general construction lighting, or illumination of a similar nature. In corridors and similar traffic areas provide one 100-watt incandescent lamp every 50 feet. In stairways and at ladder runs, provide one lamp every story, located to illuminate each landing and flight.

Install and operate temporary lighting to fulfill security and protection requirements, without the necessity of operating the entire system.

Temporary Telephones:

General: Arrange for the local telephone company to install temporary service to the project. Provide service of the type and capacity indicated in other Division-1 sections.

TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION:

General: Provide a neat and uniform appearance in temporary construction and support facilities acceptable to the Architect/Engineer and the Owner.

**Field Office – Not required.**

~~Locate field offices, storage and fabrication sheds and other facilities for easy access to the work. Position offices so that windows give the best possible view of construction activities.~~

~~Maintain field offices, storage and fabrication sheds, temporary sanitary facilities, waste collection and disposal system, and project identification and temporary signs until near substantial completion. Immediately prior to substantial completion remove these facilities. Personnel remaining at the site beyond substantial completion will be permitted to use certain permanent facilities, under restricted use conditions acceptable to the Owner.~~

Temporary Heat:

General: Provide temporary heat where indicated or needed for proper performance of the Work, curing or drying of recently installed work or protection of work in place from adverse effects of low temperatures or high humidity. Select facilities known to be safe and without deleterious effect upon work in place or being installed. Coordinate with ventilation requirements to produce indicated ambient condition required and to minimize consumption of fuel or energy.

Maintain a minimum temperature of 45 deg.F (7 deg.C) in permanently enclosed portions of the building and areas where finished work has been installed.

Heating Facilities: Except where conditions make it necessary to use another system, and where use of permanent heating system is available and authorized, provide properly vented self-contained LP gas or fuel oil heaters with individual space thermostatic control for temporary heat.

Do not use open burning or salamander type temporary heating units where prohibited by governing regulations, or when combustible materials are located in or near the space being heated, or when work installed or being installed includes work exposed to view in the completed project.

Field Offices:

~~General: The Contractor for the General Work shall provide a temporary field office of sufficient size to accommodate required office personnel of all subcontractors at the project site.~~

~~Provide a vented space heater, capable of maintaining uniform indoor temperature of 68 deg.F (20 deg.C), and an air conditioning unit capable of maintaining a maximum indoor temperature of 72 deg.F (24 deg.C).~~

~~Furnish with not less than a desk and chair, a 4 drawer file cabinet, plan table and plan rack and seated meeting space for 8 people minimum.~~

Storage and Fabrication Sheds: Install storage and fabrication sheds, properly sized, furnished and equipped, as required to accommodate work. Comply with applicable provisions specified elsewhere for distribution and use of temporary utilities. Sheds may be open shelters or fully enclosed spaces, within the building construction area or elsewhere on the project site.



Temporary Roads and Paving: (not applicable)

Sanitary Facilities:

General: Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with governing regulations including safety and health codes for the type, number, location, operation and maintenance of fixtures and facilities; provide not less than specified requirements. Install in locations which will best service the project's needs.

Supply and maintain toilet tissue, paper towels, paper cups and other disposable materials as appropriate for each facility. Provide covered waste containers for used material.

Toilets: Install self-contained toilet units or water and sewer connected temporary toilet facilities, to the extent permitted by governing regulations. Use of pit-type privies will not be permitted. Provide a minimum of three units.

Wash Facilities: Install potable-water-supplied wash facilities at locations convenient to construction personnel involved in handling compounds and materials where wash-up is necessary to maintain a healthy, sanitary condition.

Responsibilities: The Contractor for General Work is responsible for temporary sanitary facilities and their maintenance, including disposable supplies.

Temporary Enclosure:

General: At the earliest practical time provide temporary enclosure of materials, equipment, work in progress and completed portions of work to provide protection to the Work and employees from effects of exposure, foul weather, other construction operations, and similar activities on the site.

Provide temporary enclosures where temporary heat is needed and permanent building enclosure is not yet completed, and there is no other provision for containment of temporary heat. Coordinate enclosures with ventilating and material drying or curing requirements to avoid dangerous conditions and adverse effects.

Enclosure: Install tarpaulins or equivalent materials securely, using a minimum of wood framing and combustible materials. Individual openings of 25 sq. ft. or less may be closed with plywood or similar materials.

Close openings through the floor or roof decks and other horizontal surfaces with substantial load-bearing wood-framed or similar construction.

Project Identification and Temporary Signs:

General: Prepare project identification and other temporary signs of the size and with graphic content indicated; install where indicated. Support on posts or framing of treated wood or steel. Maintain signs to properly inform the public and persons seeking entrance to the project. Do not permit installation of unauthorized signs that are visible outside the site.

Project Identification Signs: Engage an experienced sign painter to apply graphics in a neat professional manner. Comply with details and notations indicated on sketch of sign inserted after end of this section.

Collection and Disposal of Wastes:

General: Establish a system for daily collection and disposal of waste materials from construction areas and elsewhere on the site. Enforce requirements strictly. Do not hold collected materials at the site more than 7 days during normal weather or 3 days when the daily temperature is expected to rise above 80

deg.F (27 deg.C). Handle hazardous, dangerous, or unsanitary waste materials separately from other inert waste by containerizing appropriately. Dispose of waste material in a lawful manner.

Burying or burning of waste materials on the site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

Construction Aids and Miscellaneous Services and Facilities:

General: Design, construct, and maintain construction aids and miscellaneous services and facilities as needed to accommodate performance of work. Construction aids and miscellaneous services and facilities include, but are not limited to the following:

Temporary stairs and ladders,  
Guardrails and barriers, and  
Walkways.

Stairs: Until permanent stairs are available, provide temporary stairs where ladders are not adequate for performance of work. Cover finished permanent stairs exposed to occupants' use, with a durable protective covering of plywood or similar material so that finishes will undamaged at the time of acceptance.

Walkways: Install and maintain temporary walkways around construction work and to field offices, toilets and similar places. Construct walkways of washed, well graded gravel 6" deep by 36" wide, or duckboard units 20" wide.

Responsibility: General construction aids and miscellaneous facilities required by the Contractor for General Work as well as other subcontractors are the responsibility of the Contractor for General Work. Construction aids and miscellaneous facilities required exclusively for each subcontractor are the responsibility of that subcontractor.

SECURITY AND PROTECTION FACILITIES INSTALLATION:

General: Provide a neat and uniform appearance in security and protection facilities acceptable to the Architect/Engineer and the Owner.

Barricades, Warning Signs:

General: Comply with recognized standards and code requirements for erection of substantial, structurally adequate barricades where needed to prevent accidents and losses. Paint with appropriate colors, graphics and warning signs to inform personnel at the site and the public, of the hazard being protected against. Provide lighting where appropriate and needed for recognition of the facility, including flashing red lights where appropriate.

Storage: Where materials and equipment must be temporarily stored, prior to and during construction, and are of substantial value or are attractive for possible theft, provide a secure lockup. Enforce strict discipline in connection with the timing of installation and release of materials, so that the opportunity for theft and vandalism is minimized.

OPERATION, TERMINATION AND REMOVAL:

Supervision: Enforce strict discipline in the use of temporary services and facilities at the site. Limit availability of temporary services and facilities to essential and intended uses to minimize waste and abuse. Do not permit temporary installations to be abused or endangered. Do not allow hazardous, dangerous or unsanitary conditions to develop or persist on the site.

Maintenance: Operate and maintain temporary services and facilities in good operating condition throughout the time of use and until removal is authorized. Protect from damage by freezing temperatures and similar elements.

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 in the work and avoid the possibility of damage to work or the temporary facilities.

Protection: Prevent water filled piping from freezing, by use of ground covers, insulation, by keeping drained or by temporary heating. Maintain distinct markers for underground lines. Protect from damage during excavation operations.

Termination and Removal: Unless the Architect/Engineer requests that it be maintained for a longer period of time, remove each temporary service and facility promptly when the need for it has ended, or when it has been replaced by authorized use of a permanent facility, or no later than the time of substantial completion. Complete or, if necessary, restore permanent work which may have been delayed because of interference with the temporary service or facility. Repair damaged work, clean exposed surfaces and replace work which cannot be satisfactorily repaired.

Materials and facilities that constitute temporary services and facilities are and remain the property of each Prime Contractor.

At substantial completion, clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during the construction period, including but not limited to the following:

Replace air filters and clean the inside of ductwork and housings.

Replace significantly worn parts and parts that have been subject to unusual operating conditions.

Replace lamps in the lighting system that are burned out or dimmed by substantial hours of use.

END OF SECTION 01501

## SECTION 01600 - MATERIALS AND EQUIPMENT

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements governing the Prime Contractor's(s') selection of products for use in the Project.

Prime Contracts: Provisions of this Section apply to the construction activities of each Prime Contractor.

The Prime Contractor's(s') Construction Schedule and the Schedule of Submittals are included under Section "Submittals."

Standards: Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.

Administrative procedures for handling requests for substitutions made after award of the Contract are included under Section "Product Substitutions."

#### DEFINITIONS

Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.

"Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

"Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

"Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

"Equipment", is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

#### QUALITY ASSURANCE

Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.

Compatibility of Options: When the Prime Contractor(s) is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

Each Prime Contractor (or subcontractor) is responsible for providing products and construction methods that are compatible with products and construction methods of prime or other separate subcontractors.

If a dispute arises between Prime Contractors or subcontractors over concurrently selectable, but incompatible products, the Architect will determine which products shall be retained and which are incompatible and must be replaced.

Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.

Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.

Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the essential operating data and equipment characteristics.

## PRODUCT DELIVERY, STORAGE, AND HANDLING

Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.

Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.

Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.

Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.

Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.

Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

## PART 2 - PRODUCTS

### PRODUCT SELECTION

General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.

Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:

Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.

Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.

Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Prime Contractor(s) to use of these products only, the Prime Contractor(s) may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.

Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.

Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.

Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.

Visual Matching: Where Specifications require matching an established Sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.

Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.

Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures

Allowances: Refer to individual Specification Sections and "Allowance" provisions in Division-1 for allowances that control product selection, and for procedures required for processing such selections.

### PART 3 - EXECUTION

#### INSTALLATION OF PRODUCTS

Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

End of SECTION 01600

## SECTION 01631 - PRODUCT SUBSTITUTIONS

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section specifies administrative and procedural requirements for handling requests for substitutions made after award of the Contract.

Prime Contracts: Provisions of this Section apply to the construction activities of each Prime Contractor.

The Prime Contractor's(s') Construction Schedule and the Schedule of Submittals are included under Section "Submittals."

Standards: Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.

Procedural requirements governing the Prime Contractor's(s) selection of products and product options are included under Section "Materials and Equipment."

#### DEFINITIONS

Definitions used in this Article are not intended to change or modify the meaning of other terms used in the Contract Documents.

Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Prime Contractor(s) after award of the Contract are considered requests for "substitutions." The following are not considered substitutions:

Substitutions requested by Bidders during the bidding period, and incorporated in a project addendum prior to award of Contract, are considered as included in the Contract Documents and are not subject to requirements specified in this Section for substitutions.

Revisions to Contract Documents requested by the Owner or Architect.

Specified options of products and construction methods included in Contract Documents.

#### SUBMITTALS

Substitution Request Submittal: Requests for substitution will be considered if received within 60 days after commencement of the Work. Requests received more than 60 days after commencement of the Work may be considered or rejected at the discretion of the Architect.

Submit 3 copies of each request for substitution for consideration. Submit requests in the form and in accordance with procedures required for Change Order proposals.



Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

Product Data, including Drawings and descriptions of products, fabrication and installation procedures.

Samples, where applicable or requested.

A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such as size, weight, durability, performance and visual effect.

Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate Prime Contractors, that will become necessary to accommodate the proposed substitution.

A statement indicating the substitution's effect on the Construction Schedule compared to the schedule without approval of the substitution.

Cost information, including a proposal of the net change, if any in the Contract Sum.

Certification by the Prime Contractor(s) that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the Prime Contractor's(s') waiver of rights to additional payment or time, that may subsequently become necessary because of the failure of the substitution to perform adequately.

Architect's Action: Within one week of receipt of the request for substitution, the Architect will request additional information or documentation necessary for evaluation of the request. Within 2 weeks of receipt of the request, or one week of receipt of the additional information or documentation, whichever is later, the Architect will notify the Prime Contractor(s) of acceptance or rejection of the proposed substitution. If a decision on use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of a Change Order.

## PART 2 - PRODUCTS

### SUBSTITUTIONS

Conditions: The Prime Contractor's(s') substitution request will be received and considered by the Architect when one or more of the following conditions are satisfied, as determined by the Architect; otherwise requests will be returned without action except to record noncompliance with these requirements.

Extensive revisions to Contract Documents are not required.

Proposed changes are in keeping with the general intent of Contract Documents.

The request is timely, fully documented and properly submitted.

The request is directly related to an "or equal" clause or similar language in the Contract Documents.

The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.

The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

A substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. Additional responsibilities for the Owner may include additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or separate Prime Contractors, and similar considerations.

The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the Prime Contractor(s) certifies that the substitution will overcome the incompatibility.

The specified product or method of construction cannot be coordinated with other materials, and where the Prime Contractor(s) certifies that the proposed substitution can be coordinated.

The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Prime Contractor(s) certifies that the proposed substitution provide the required warranty.

Where a proposed substitution involves more than one Prime Contractor, each Contractor shall cooperate with the other Contractors involved to coordinate the Work, provide uniformity and consistency, and to assure compatibility of products.

The Prime Contractor's(s') submittal and Architect's acceptance of Shop Drawings, Product Data or Samples that relate to construction activities not complying with the Contract Documents does not constitute an acceptable or valid request for substitution, nor does it constitute approval.

PART 3 - EXECUTION (Not Applicable).

End of SECTION 01631

## SECTION 01700 - PROJECT CLOSEOUT

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

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

#### DESCRIPTION OF REQUIREMENTS:

Definitions: Project closeout is the term used to describe certain collective project requirements, indicating completion of the Work that are to be fulfilled near the end of the Contract time in preparation for final acceptance and occupancy of the Work by the Owner, as well as final payment to the Prime Contractor(s) and the normal termination of the Contract.

Specific requirements for individual units of work are included in the appropriate sections in Divisions 2 through 16.

Time of closeout is directly related to "Substantial Completion"; therefore, the time of closeout may be either a single time period for the entire Work or a series of time periods for individual elements of the Work that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to the other provisions of this section.

#### PREREQUISITES TO SUBSTANTIAL COMPLETION:

General: Complete the following before requesting the Architect's inspection for certification of substantial completion, either for the entire Work or for portions of the Work. List known exceptions in the request.

In the progress payment request that coincides with, or is the first request following, the date substantial completion is claimed, show either 100% completion for the portion of the Work claimed as "substantially complete", or list incomplete items, the value of incomplete work, and reasons for the Work being incomplete.

Include supporting documentation for completion as indicated in these contract documents.

Submit a statement showing an accounting of changes to the Contract Sum.

Advise Owner of pending insurance change-over requirements.

Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.

Obtain and submit releases enabling Owner's full, unrestricted use of the Work and access to services and utilities. Where required, include occupancy permits, operating certificates and similar releases.

Submit record drawings, maintenance manuals, damage or settlement survey, and similar final record information.

Deliver tools, spare parts, extra stocks of material and similar physical items to the Owner.

Make the final change-over of locks and transmit the keys to the Owner. Advise the Owner's personnel of the change-over in security provisions.

Complete start-up testing of systems, and instruction of the Owner's operating and maintenance personnel. Discontinue or change over and remove temporary facilities and services from the project site, along with construction tools and facilities, mock-ups, and similar elements.

Complete final cleaning up requirements, including touch-up painting of marred surfaces.

Touch-up and otherwise repair and restore marred exposed finishes.

Inspection Procedures: Upon receipt of Prime Contractor's(s') request for inspection, the Architect will either proceed with inspection or advise Prime Contractor(s) of unfulfilled prerequisites.

Following the initial inspection, the Architect will either prepare the certificate of substantial completion, or will advise Prime Contractor(s) of work which must be performed before the certificate will be issued. The Architect will repeat the inspection when requested and when assured that the Work has been substantially completed.

Note requirements of General Conditions, Article 9 and Supplementary Conditions, Article 9 clause 9.8.6.

Results of the completed inspection will form the initial "punch-list" for final acceptance.

**Punch lists must be completed by the contractor within 30 days of receipt. Unless items on the list are specifically excluded by the Architect, Liquidated damages will be reassessed for work not completed in the 30 days indicated above.**

PREREQUISITES TO FINAL ACCEPTANCE:

General: Complete the following before requesting the Architect's final inspection for certification of final acceptance, and final payment as required by the General Conditions. List known exceptions, if any, in request:

Submit the final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

Submit an updated final statement, accounting for final additional changes to the Contract Sum.

**Submit a certified copy of the Architect's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by the Architect.**

Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of substantial completion, or else when the Owner took possession of and responsibility for corresponding elements of the Work.

**Submit consent of surety, Prime Contractor's(s') Affidavit of Payment of Debts and Claims; Release of Liens (from each major subcontractor and material supplier.)**

Submit evidence of final, continuing insurance coverage complying with insurance requirements.

Re-inspection Procedure: The Architect will re-inspect the Work upon receipt of the Prime Contractor's(s') notice that the work, including punch-list items resulting from earlier inspections, has

been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the Architect.

Upon completion of re-inspection, the Architect will either prepare a certificate of final acceptance, or will advise the Prime Contractor(s) of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance.

If necessary, the re-inspection procedure will be repeated.

Note requirements of General Conditions, Article 9 and Supplementary Conditions, Article 9 clause 9.8.6.

RECORD DOCUMENT SUBMITTALS:

General: Specific requirements for record documents are indicated in the individual sections of these specifications. Other requirements are indicated in the General Conditions. General submittal requirements are indicated in "submittals" sections.

Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Architect's reference during normal working hours.

Record Drawings: Maintain a record set of black line white-prints of contract drawings and shop drawings in a clean, undamaged condition. Mark-up the set of record documents to show the actual installation where the installed work varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing the actual "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at the corresponding location on the working drawings. Give particular attention to concealed work that would be difficult to measure and record at a later date.

Mark record sets with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.

Mark-up new information which is known to be important to the Owner, but for some reason was not shown on either contract drawings or shop drawings.

Note related change-order number where applicable.

Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.

Record Project Survey: Submit three copies of the project property survey provided by a licensed surveyor that shows within the project boundaries, the new and existing structures, site improvements, utilities, storm drainage components including basin top, inlet and outlet elevations, and other data a required by the local municipality.

Record Specifications: Maintain one complete copy of the Project Manual, including specifications and addenda, and one copy of other written construction documents such as change orders and similar modifications issued in printed form during construction. Mark these documents to show substantial variations in the actual work performed in comparison with the text of the specifications and modifications as issued. Give particular attention to substitutions, selection of options and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable.

Upon completion of the Work, submit record specifications to the Architect for the Owner's records.

Miscellaneous Record Submittals: Refer to other sections of these specifications for requirements of miscellaneous record-keeping and submittals in connection with the actual performance of the Work. Immediately prior to the date or dates of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Architect for the Owner's records.

Maintenance Manuals: ( Three copies) Organize operating and maintenance data into suitable sets of manageable size. Bind data into individual binders properly identified and indexed. Bind each set of data in a heavy-duty 2-inch, 3-ring vinyl-covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spine of each binder.

Include the following types of information in operation and maintenance manuals:

- List of Prime Contractor(s) and major subcontractors names, addresses and phone numbers and contact person.
- Project Warranties
- Subcontractor Warranties
- Emergency instructions,
- Spare parts listing,
- Copies of color schedules, hardware schedules,
- Wiring diagrams,
- Recommended "turn-around" cycles,
- Inspection procedures,
- Shop drawings and product data, and
- Floor or wall finish cleaning instructions from manufacturers.
- Asbestos Certification for Project

## PART 2 - PRODUCTS (Not Applicable)

## PART 3 - EXECUTION

### CLOSEOUT PROCEDURES:

General Operating and Maintenance Instructions: Arrange for each installer of operating equipment and other work that requires regular or continuing maintenance, to meet at the site with the Owners personnel to provide necessary basic instruction in the proper operation and maintenance of the entire Work. Where installers are not experienced in the required procedures, include instruction by the manufacturer's representatives.

As part of this instruction provide a detailed review of the following items:

- Maintenance manuals,
- Record documents,
- Spare parts and materials,
- Tools,
- Lubricants,
- Fuels,
- Identification systems,
- Control sequences,
- Hazards,
- Cleaning, and
- Warranties, bonds, maintenance agreements and similar continuing commitments.

As part of this instruction for operating equipment demonstrate the following procedures:

Start-up,  
Shut-down,  
Emergency operations,  
Noise and vibration adjustments,  
Safety procedures,  
Economy and efficiency adjustments, and  
Effective and energy utilization.

FINAL CLEANING:

General: Special cleaning requirements for specific units of Work are included in the appropriate sections of Divisions 2 through 16. General Cleaning during the regular progress of the Work is required by the General Conditions and is included under section "Temporary Facilities".

Cleaning: Provide final cleaning of the Work at the time indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

Complete the following cleaning operations before requesting the Architect's inspection for certification of substantial completion.

Remove labels that are not required as permanent labels.

Clean transparent materials, including mirrors and glass in doors and windows, to a polished condition. Remove putty and other substances that are noticeable as vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

Clean exposed exterior and interim hard-surfaced finishes to a dust-free condition, free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

Wipe surfaces of mechanical and electrical equipment clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

Clean the project site, including landscape development areas, of rubbish, litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth, even-textured surface.

Removal of Protection: Except as otherwise indicated or requested by the Architect, remove temporary protection devices and facilities that were installed during the course of the work to protect previously completed work during the remainder of the construction period.

Compliances: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated work have become the Owner's property, dispose of these to the Owner's best advantage as directed.

End of SECTION 01700

## SECTION 01732 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

#### SUMMARY

This Section includes the following:

- Demolition and removal of selected portions of a building or structure.
- Demolition and removal of selected site elements.
- Repair procedures for selective demolition operations.

Related Sections include the following:

- Division 1 Section "Summary" for use of the premises and phasing requirements.
- Division 1 Section "Temporary Facilities" for temporary construction.
- Division 1 Section "Cutting and Patching" for cutting and patching procedures for selective demolition operations.
- ~~Division 2 Section "Building Demolition" for demolition of entire buildings, structures, and site improvements.~~
- ~~Division 2 Section "Site Clearing" for site clearing and removal of above and below grade improvements.~~

#### DEFINITIONS

**Remove:** Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

**Remove and Salvage:** Detach items from existing construction and deliver them to Owner.

**Remove and Reinstall:** Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

**Existing to Remain:** Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### MATERIALS OWNERSHIP

Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Prime Contractor's(s') property and shall be removed from Project site.



Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

### SUBMITTALS

Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

Schedule of Selective Demolition Activities: Indicate the following:

- Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
- Interruption of utility services.
- Coordination for shutoff, capping, and continuation of utility services.
- Locations of temporary partitions and means of egress.
- Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

### QUALITY ASSURANCE

Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

- Inspect and discuss condition of construction to be selectively demolished.
- Review structural load limitations of existing structure.
- Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
- Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.

### PROJECT CONDITIONS

Owner/Existing Facility will remain as a functioning Airport Terminal - during all phases of this project.

Contractor must maintain safe access to **existing Terminal Doors / Entrances / Exits.**

Owner assumes no responsibility for condition of areas to be selectively demolished.

Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

Before selective demolition, Owner will remove the following items:

Furniture removed from areas scheduled to be renovated.

Fire Extinguishers located on the exterior North Wall of the Terminal.

Hazardous Materials (asbestos and lead paint):

Assume **No Hazardous Materials present in this facility.**

Asbestos and Lead Pain Survey is available for review – [www.rbsarch.com](http://www.rbsarch.com)

Storage or sale of removed items or materials on-site will not be permitted.

Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

REPAIR MATERIALS

Use repair materials identical to existing materials.

If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

Use materials whose installed performance equals or surpasses that of existing materials.

Comply with material and installation requirements specified in individual Specification Sections.

PART 3 - EXECUTION

EXAMINATION

Verify that utilities have been disconnected and capped.

Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

UTILITY SERVICES

Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.

Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.

**Provide at least 48 hours' notice to Owner if shutdown of service is required during changeover.**

Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be selectively demolished.

Arrange to shut off indicated utilities with utility companies.

If utility services are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary utilities that bypass area of selective demolition and that maintain continuity of service to other parts of building.

Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

Utility Requirements: Refer to Division 15 and 16 Sections for shutting off, disconnecting, removing, and sealing or capping utilities. Do not start selective demolition work until utility disconnecting and sealing have been completed and verified in writing.

PREPARATION

Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

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

Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.

Protect existing site improvements, appurtenances, and landscaping to remain.

Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.

Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.

Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.

Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.

Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

Cleaning: Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

### SELECTIVE DEMOLITION

General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.

Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.

Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain **fire watch and** portable fire-suppression devices during flame-cutting operations.

Maintain adequate ventilation when using cutting torches.

Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

Dispose of demolished items and materials promptly.

Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.

Removed and Salvaged Items: Comply with the following:

Clean salvaged items.

Store items in a secure area until delivery to Owner.

Removed and Reinstalled Items: Comply with the following:

Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.

Protect items from damage during transport and storage.

Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

Concrete: Demolish in small sections. Cut concrete to a depth of at least 1 inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated.

Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals, using power-driven saw, then remove concrete between saw cuts.

Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.

Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.

Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum.

Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.

Roofing: Remove no more existing roofing than can be covered in one day by new roofing. Refer to applicable Division 7 Section for new roofing requirements.

Air-Conditioning Equipment: Remove equipment without releasing refrigerants.

## PATCHING AND REPAIRS

General: Promptly repair damage to adjacent construction caused by selective demolition operations.

Patching: Comply with Division 1 Section "Cutting and Patching."

Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.

Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to manufacturer's written recommendations.

Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

Floors and Walls: Where walls or partitions that are demolished extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.

Where patching occurs in a painted surface, apply primer and intermediate paint coats over patch and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces.

Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.

Ceilings: Patch, repair, or re-hang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

#### DISPOSAL OF DEMOLISHED MATERIALS

General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

Burning: Do not burn demolished materials.

Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 01732

## SECTION 01740 - WARRANTIES AND BONDS

### PART 1 - GENERAL

#### RELATED DOCUMENTS

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

The warranty period for this project in one (1) year unless more is indicated in the individual sections of this specification. Nothing implied by this warranty period exempts the Owner from other warranty and legal rights that he may apply to work quality issues.

#### SUMMARY

This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturers standard warranties on products and special warranties.

Refer to the General Conditions for terms of the Prime Contractor's(s) special warranty of workmanship and materials.

General closeout requirements are included in Section "Project Closeout."

Specific requirements for warranties for the Work and products and installation that are specified to be warranted, are included in the individual Sections of Divisions-2 through -16.

Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.

Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Prime Contractor(s) of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Prime Contractor.

Separate Prime Contracts: Each Prime Contractor is responsible for warranties related to its own Contract.

#### DEFINITIONS

Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

#### WARRANTY REQUIREMENTS

Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Prime Contractor(s) is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, right and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

## SUBMITTALS

Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Architect.

When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Prime Contractor(s) during the construction period, submit properly executed warranties to the Architect within fifteen days of completion of that designated portion of the Work.

When a special warranty is required to be executed by the Prime Contractor(s), or the Prime Contractor(s) and a subcontractor(s), supplier(s) or manufacturer(s), prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.

Refer to individual Sections of Divisions-2 through -16 for specific content requirements, and particular requirements for submittal of special warranties.

## PART 2 - PRODUCTS (not applicable).

## PART 3 - EXECUTION

Additional requirements for warranties and bonds on products and installation are found in their applicable sections of the specifications.

## End of SECTION 01740



**CONTRACTOR'S GENERAL WARRANTY/CERTIFICATION**

(Name of Project)

(Address)

(Name of Contract)

The undersigned Contractor hereby warrants, in accordance with the applicable provisions and terms set forth in the Contract Documents, all materials and workmanship incorporated in the (name of contract) contract for (name of project) located in (project address) against any and all defects due to faulty materials or workmanship or negligence for a period of 12 months, or such longer periods as set forth in the Contract Documents, from the effective date of this warranty.

This Warranty shall be binding where defects occur due to normal usage conditions and does not cover willful or malicious damage, damage caused by acts of God or other casualty beyond the control of the Contractor.

This Warranty shall be in addition to other warranties and guarantees set forth in the Contract Documents, and shall not act to constitute a waiver of additional protection of the Owner afforded, where applicable, by consumer protection and product liability provisions of law, and these stipulations shall not constitute waiver of any additional rights or remedies available to the Owner under the law.

The undersigned Contractor also hereby certifies that to the best of his/her knowledge, information and belief, no asbestos, lead or other hazardous materials have been utilized in this project.

Signed: \_\_\_\_\_

(Corporate Seal)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Subscribed and sworn before me this  
\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Notary Public)