SECTION 01 11 00.98

SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

This project provides for the rehabilitation and modification of areas within Building 14, Technical Services Building, located on the NASA Glenn Research Center (GRC) at Lewis Field, 21000 Brookpark Road, Cleveland, OH 44135. These rehabilitated areas, adjacent to existing occupied spaces, of Building 14 total approximately 22,000 SF and will accommodate the relocation of GRC's Logistics and Technical Information Division (LTID) offices, Project Management Offices (PMO), Business Process Support (BPS) offices, Move Operations, Publishing and Imaging Technology offices, Duplicating and Publishing functions, and Multimedia Editing capability, all currently residing elsewhere on the GRC campus. This rehabilitation effort will require demolition and modification to the Building 14's civil, architectural, structural, mechanical, life safety, electrical, and technology systems. Scope includes, but is not limited to, the following:

Civil: Construct an exterior ramp and stair on the south of the facility, frost slab and sidewalk on the west facade, and frost slab on the north facade, alter existing site conditions around new work, and install steel bollards as required.

Structural: Remove interior concrete curbs and equipment pads where required, infill interior trenches, and install new concrete toppings, lintels, and roof infill framing members.

Architectural: Demolish existing building elements in specific areas, level floors, construct a new floor plan, install interior casework and finishes, and construct an exterior ramp and stair on the south of the facility.

Mechanical: Demolish existing building systems in specific areas and install new and/or rework existing building air-handling equipment, ductwork, and piping.

Life Safety: Design and install new and/or rework existing building fire sprinkler and fire alarm systems.

Electrical and Technology: Demolish and/or consolidate existing building systems in specific areas and install new electrical panels, lighting fixtures, receptacles, switches, emergency and exit lighting, card access security devices, closed-circuit television equipment, and associated conduit, cable tray, and wiring as required.

Refer to each contract drawing for specific scope of work.

1.1.1 OPTIONS AND UNIT PRICE ITEMS

Option and unit pricing shall be valid for 365 calendar days after contract award. If any option is awarded after the initial 365 days after contract award then revised option pricing shall be negotiated between the Contractor and the NASA Contracting Officer. The following summarizes the

options for this project, refer to each contract drawing for specific scopes of work.

1.1.1.1 Option No. 1: Install Carpet Tile in Room 122

Option No. 1 shall include the costs for installation of approximately 4,700 SF, Contractor to verify, of carpet tile with transition strips in Room 122. Contractor shall submit for Government review a carpet tile layout including transition strip locations and style. This work shall also include preparation of the existing floor for carpet tile installation to include, but not limited to, infilling of existing joints and gaps as recommended by the carpeting manufacturer, and removal of existing rubber wall base, including in adjacent rooms as required to wrap corners, throughout the area. Walls shall be patched and repaired as necessary to create a smooth surface and painted to match existing wall surfaces. Contractor shall install new 4" rubber wall base to match existing. Wall base corners shall be pre-molded or wrapped for a minimum 12" into adjacent rooms/corridors. Refer to Architectural finish schedule on design drawing A-426 and Architectural design drawings for additional information and requirements.

1.1.1.2 Option No. 2: Remove Existing Bridge Crane Appurtenances

Option No. 2 shall include the costs for removal of the existing bridge crane appurtenances, not removed under Base Bid work, in Room 111 and Room 143.

Within Room 111, Contractor shall remove the bridge, end rails, and end rail suspension supports for each crane. Existing to remain items including conduit, piping, ductwork mounted to the removed crane appurtenances shall be relocated and remounted as necessary. Prior to demolition Contractor shall verify structural members do not support existing building elements. Base Bid work is to remove the hoist, trolley, and all associated abandoned electrical conduit, shut-offs, junctions, and wiring.

Within Room 143, Contractor shall remove the bridge, end rails are to remain. Base Bid work is to remove the hoist, trolley, and all associated abandoned electrical conduit, shut-offs, junctions, and wiring.

Refer to Architectural design drawings for additional information.

1.1.1.3 Option No. 3: Replace Existing Low-Voltage Electrical Panels P0122, P0128, and P0140

Option No. 3 shall include the costs for removal and replacement of existing low-voltage electrical panels P0122, P0128, and P0140 including the associated bus bars, breakers, brackets, racking, cover, etc. The costs to furnish and install new panel interiors and covers for existing tub shall also be including in this work. All circuits shall be reconnected, panel schedules updated, and wiring extended as required. Refer to electrical design drawings for additional information.

1.1.1.4 Option No. 4: Construct Wall and Door System to Separate Corridor 141a and Room 122

Option No. 4 shall include the costs to construct a new wall and door to

separate Corridor 141a and Room 122.

1.1.1.5 Option No. 5: Redesign of Steam Condensate System

Option No. 5 shall include the costs to rework the existing steam condensate piping system of Building 14. This work will include piping demolition, pump and heater installations, and new interconnecting piping systems. Refer to drawings listed on 0014-WON20361-G-001, included with this solicitation, and these specifications for specific scope of work.

1.1.1.6 Option No. 6: Additional VAV Boxes

Option No. 6 shall include the unit cost to provide and install one additional VAV box, including all necessary ductwork, piping, DDC and temperature controls, and accessories. This unit cost will be considered for up to three additional VAV boxes. Any one of these additional VAV boxes will serve any one of the following rooms: 108G, 108H, 110C, 110D, or 110E. Refer to engineering design drawings for additional information and requirements.

1.1.1.7 Deduct Option No. 7: Remove Existing Rooftop Equipment

Deduct Option No. 7 shall include the lump sum deduct cost to remove the scope of demolition work indicated on design drawing A-121 to remove existing rooftop equipment, curbs, and insulated caps. Refer to design drawing A-121 and engineering design drawings for additional requirements.

1.1.1.8 Deduct Option No. 8: Switch existing Green Room 117 with Control Room 116A

Deduct Option No. 8 shall include the lump sum deduct cost to remove the scope of work to swap the existing Green Room 117 with Control Room 116A. Scope removal includes relocating equipment from Room 116A to Room 117 and wall patching. Refer to design drawings AD405, A-405, A-425, and engineering design drawings for additional requirements.

1.1.1.9 Option No. 9: Window Blinds and Coverings

Option No. 9 shall include the costs to provide and install blinds and coverings for all windows as indicated in the contract drawings. Refer to each contract drawing for specific scope of work.

1.1.1.10 Option No. 10: Install Windows in South Elevation of Building

Option No. 10 shall include the costs to install new windows in the South elevation of Building 14. The structural and architectural modifications to the South elevation are limited to the area of new LTID Open Office 111. Refer to Architectural and Structural engineering design drawings for additional information and requirements. If Option No. 10 is not exercised, Base Bid work is to remove existing metal overhead door, rails, jambs/head, and all appurtenances and anchoring and tooth in brick at wall infill.

1.1.1.11 Unit Price Item No. 1: Infill Existing Floor Drains Beneath Existing Wood Block Flooring

Unit Price Item No. 1 shall provide for the infill of one existing floor drain that may be uncovered upon demolition of the existing wood block flooring. Refer to Detail 3 on structural design drawing S-502 for infill requirements.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Submit the following items to the Contracting Officer:

Site Specific Health and Safety Plan (HASP) G
Utility Outages G
Confined Space Permits G
Connection Requests G
Digging, Excavating, and Trenching Permits G
Soil Relocation Form Permits G
Hot Work Permits G

1.3 CONTRACT DRAWINGS

The drawings dated 07/14/2014 and listed on 0014-COF20297-G-001 accompany this specification and are a part thereof.

Reference publications will not be furnished.

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work by the Contractor. Labor or materials which are necessary to produce the desired result, even though not specifically mentioned in the Contract Documents, shall be included in the work.

Contractor shall immediately check furnished drawings and notify the Government of any discrepancies.

1.4 WORK HOURS AND WORK RESCHEDULING

1.4.1 Work Hours

NASA GRC standard working hours shall be from 7:00 a.m. to 4:00 p.m., Monday through Friday. Second shift hours shall be defined as 4:00 p.m. to 12:00 a.m., midnight, Monday through Friday. Weekend hours shall be defined as 12:00 a.m. Saturday to 6:00 a.m. Monday. Requests for additional work shall require written approval from the Contracting Officer 5 working days in advance of the proposed work period. Special permission will be given in other circumstances on a case by case basis.

1.4.2 Work Rescheduling

Contractor shall allow for a maximum of 5 days where construction activity is prohibitive. Further allowance for 5 days of excavation and subsurface activity abeyance shall be imposed where other construction activities are permitted. Government will provide 24 hours notification each time the restrictions are invoked.

1.5 OCCUPANCY OF PREMISES

Building 14 will be occupied during performance of work under this Contract.

Before work is started, the Contractor shall arrange with the Contracting Officer a sequence of procedure, means of access, space for storage of materials and equipment, and use of approaches, corridors, and stairways.

1.6 UTILITY OUTAGES, CONNECTION REQUESTS AND ON-SITE PERMITS

1.6.1 Utility Outages and Connection Requests

Work shall be scheduled to hold outages to a minimum. Utility outages and connections required during the prosecution of work that affect existing systems shall be arranged for at the convenience of the Government and shall be scheduled outside the standard working hours or on weekends.

Contractor shall not be entitled to additional payment for utility outages and connections required to be performed outside the regular work hours. Requests for utility outages and connections shall be coordinated with the NASA Construction Manager at least 10 working days in advance of the time required. Each area clearance request shall state the system involved, area involved, approximate duration of outage, and the nature of work involved.

1.6.2 Permit Requested Lead Times and Forms

ACTIVITY	SUBMISSION DATE	SUBMISSION FORM
Hot Work Permits	7 days prior to work	NASA Form C-7A & C-7B
Confined Space Permits	7 days prior to work	NASA Form C-199, C-199B & C
Digging, Excavating, and Trenching Permits	21 days prior to work	NASA Form C-927
Soil Relocation Form Permits	7 days prior to work	NASA Form C-9436
Area Clearance Authorization	10 working days prior to work	NASA Form C-978

Permits shall be posted at a conspicuous location in the construction area.

Burning of trash or rubbish is not permitted.

1.7 SALVAGE MATERIAL AND EQUIPMENT

Only material and construction equipment designated for performance of contract work may be stored at the construction site or located in Government-controlled warehouses or shop facilities.

1.7.1 Salvage Material and Equipment for turnover to Government

Items of material designated by the Contracting Officer to be salvage shall remain the property of the Government and are identified in the contract drawings.

Salvage items shall be segregated, itemized, delivered, and off-loaded at the Government designated storage area. Contractor shall maintain property control records for material or equipment designated as salvage.

Contractor's system of property control may be used if approved by the Contracting Officer. Contractor shall be responsible for storage and protection of salvaged materials and equipment until disposition by the Contracting Officer.

1.7.2 Salvage Material and Equipment for Reuse

Items of material denoted in the Contract Documents to be salvaged and reinstalled by the Contractor shall be protected and stored by Contractor. Contractor shall replace with new, at Contractor's expense, any item damaged during demolition or new construction activities.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 NOTICES TO PROCEED

The construction contract shall be structured with two Notices to Proceed (NTP) and shall be issued in writing by the Government as follows:

3.1.1 Initial Notice to Proceed (NTP1)

This NTP shall commence all required submittals (materials, equipment, schedules, health & safety plans, etc.). After this NTP, and before the Contractor submits a detailed construction schedule, a preconstruction meeting shall be held between the Contractor and its Subcontractors, the NASA Construction Manager (CM), NASA Project Manager (PM), and other project stakeholders. This meeting will discuss the coordination and implementation of construction and the coordination of Contractor personnel. Contractor shall identify any long lead items and their impact on project implementation. Contractor shall then incorporate this information into the construction schedule and submit the detailed schedule for approval.

3.1.2 Second Notice to Proceed (NTP2)

This NTP shall commence actual site demolition and construction activities (field work). In order to obtain this NTP, materials and equipment (other than long lead items) shall be onsite. The Contractor shall have approved submittals on major (long lead) equipment and evidence that material equipment have been procured (invoices, manufacturing dates, etc.). The Site Specific Health and Safety Plan (HASP) shall be reviewed and approved (signed) by the NASA Safety and Health Division (SHeD). The construction schedule, submittal schedule, and schedule of values also shall be approved prior to NTP2.

3.2 CONTRACT PERIOD OF PERFORMANCE AND SCHEDULE CONSTRAINTS

3.2.1 Contract Period of Performance

The contract period of performance for this task is 530 calendar days from Initial Notice to Proceed (NTP1). The contract period of performance allows 44 calendar days for pre-construction activities, 456 calendar days for completion of the Base Bid scope of work, and 30 calendar days for contract closeout requirements.

Extension of the contract period of performance for award of any options(s) shall be at the discretion of the NASA Contracting Officer.

3.2.2 Start of Construction/Field Work

The start date for construction/field work for this task shall be January 1, 2015. No field work shall be permitted before this date.

3.3 CONSTRUCTION IMPLEMENTATION

3.3.1 General Coordination

Several GRC Contractors will be actively working within the project work limits for the last several months of the construction activities. These GRC Contractors will be performing work on the data network and communications systems and security systems as well as installing furniture. Extremely close interaction and scheduling with the NASA Construction Manager shall be required to coordinate work during this period. The Government shall not be responsible for delays caused by improper and untimely scheduling of work activities. The Contractor shall take adequate precautions to not damage other Contractors' equipment and installations by construction activities. The Contractor shall be fully liable for all replacement costs for such damaged equipment and installations.

3.3.2 Security

It is NASA policy to provide appropriate and reasonable protection or security for its onsite personnel, including authorized contractors or other invitees, during official duty or tour hours, and for its facilities, property, and information that are in its possession or under its control.

It is imperative while on NASA property that all contractor and subcontractor personnel obey all signs and instructions given by uniformed and non-uniformed security personnel, especially if workers are unfamiliar with GRC.

The Contractor shall follow and ensure all subcontractors are aware and follow GRC visitor and access control policy at all times. Access control badges shall be displayed at all times unless deemed unsafe due to activity being performed. During those limited times when not displayed due to safety concerns, access control badges shall be available on the individual's person at all times and available for presentation upon demand. Contractor and Subcontractor personnel shall honor these restrictions and comply with directions given. Failure to comply may interfere with GRC safety and security, resulting in removal of violators from GRC property and potentially subjecting the Contractor to federal or state charges.

3.3.3 Civil

Contractor shall coordinate all exterior work with the NASA Construction Manager. Work shall include, but not limited to, demolition, stock piling, disposal/displacement of material, fencing/barricading, vehicular/pedestrian traffic control, and coordination with deliveries.

3.3.3.1 Digging, Trenching, and Excavating Permit Procedure

No excavation shall commence without all portions of the permit form, GRC 927, complete. An excavation permit will be required every 3 months or to work areas limited to a 400 linear foot section or a 400 foot by 110 foot area (approximately 1.0 acre). Work areas are to be divided and organized by street, parking lot, or building location. The Contractor shall submit desired area for consideration. At the discretion of the NASA Civil Systems Manager these limits may be adjusted to fit the needs of a given project. The Civil Systems Manager will consult the NASA Construction Manager (CM) and/or NASA Inspector and Contractor when making this decision, but safety of the crew and protection of the existing infrastructure will always be the most important consideration. Contractor is required to request remarking and validation of work area every two weeks.

Contractor is required to verify (pothole) all utilities as identified on NASA Underground Record Drawing (URD) prior to completing infrastructure excavation. Not applicable for maintenance contractor or can be waived on specific project basis by the NASA Civil Systems Manager during the design phase. The Contractor shall contact the NASA CM/Inspector to initiate the utility verification process. The NASA Surveyor will verify the exposed utilities match those identified on the URDs. If there is a question on a utility location or identification the NASA CM/Inspector shall contact the NASA Civil Engineer for further direction prior to proceeding. After potholing and completion of the permit form the Contractor may proceed, after Government concurrence, with the remaining excavation and utility installation.

Contractor shall apply for excavation permit five working days prior to the start of excavation activities. Contact the NASA CM one day prior to backfill to allow NASA Surveyor to obtain survey information. Daily field tag-ups among Contractor, Excavation Subcontractor(s), and NASA CM/Inspector/Facility Operations Specialist (FOS) shall be required at the work site and recorded within the permit. The NASA CM/Inspector/FOS shall request the presence of the NASA Surveyor or Civil Engineer as required. Contractor shall log each meeting and scope discussion on the permit form.

3.3.3.2 Digging, Trenching, and Excavating Policy Requirements

The Contractor or Excavation Subcontractor(s) must provide utility and excavation competent person overseeing each excavation permit. Competent person must be at the physical excavation site 100% of the time comparing construction documents to the URDs, auditing the excavation process, evaluating utility markings and typical symbols vs. details, and ensuring the excavation permit process is followed. Qualifications for each competent person shall be submitted to NASA prior to the start of field work.

Utility and Excavation Competency and Field Expectations Defined:

a. Follow policy and procedures for excavation and utility identification.
b. Aid in validation/coordination of identification of utilities.
c. Understand each utility installation, operations, and possible hazards
d. Audit and document government excavation policy and procedures used.
e. Stop work if policy and procedures are not followed.

f. Translate utility and excavation requirements between Contractor and Government Personnel.
g. Read and compare URDs and Construction Drawings for conflicts or issues with excavation and utilities.
h. Knowledgeable in all OSHA excavation policies and procedures.
i. Working knowledge of trenching, excavation, horizontal directional drilling, underground construction, shoring, soil types, hydro testing and pigging, and welding & fusion procedures.
j. At least 5 years of concurrent experience installing underground infrastructure and excavating.

3.3.4 Architectural

Door Hardware Removal for Security Access Control Work; It will be necessary for Contractor to remove some door hardware so the GRC Maintenance Contractor will be able to perform its Security Access Control work (see door schedule). Coordination shall be worked through the NASA Construction Manager.

3.3.5 Structural

Contractor shall provide temporary support during demolition as required to structurally support any existing elements/structures to remain as required.

3.3.6 Mechanical

Mechanical Systems Isolations; Mechanical systems isolations for installations and connections required during the prosecution of work that affect existing systems shall be scheduled during second shift and/or weekend hours. Mechanical systems isolations shall be coordinated with the NASA Construction Manager.

3.3.7 Plumbing

Plumbing System Isolation; Plumbing systems isolations for installations and connections required during the prosecution of work that affect existing systems shall be scheduled during second shift and/or weekend hours. Plumbing systems isolations shall be coordinated with the NASA Construction Manager.

3.3.8 Fire Protection

Fire Protection System Isolations; Isolation of the existing fire protection system required for new installations and connections during the prosecution of work shall be scheduled during second shift and/or weekend hours. Fire protection system isolations shall be coordinated with the NASA Construction Manager and GRC Authority Having Jurisdiction (AHJ).

3.3.9 Electrical

Electrical Panel Isolations; Electrical panel isolations for installations and connections required during the prosecution of work that affect existing systems shall be scheduled during second shift and/or weekend hours. Electrical panel isolations shall be coordinated with the NASA Construction Manager.

Outages Affecting Life Safety Systems; Each life safety system, except

emergency lighting, affected by isolations of existing power panels shall be limited to a four hour maximum power interruption. Each emergency lighting unit shall be limited to a 90 minute maximum power interruption.

Electrical Power System Operating Instructions; The Contractor shall follow all GRC High and Low Voltage Electrical Power System Operating Instructions. This shall be indicated in the Contractor's Site Specific Health and Safety Plan (HASP).

3.3.10 Technology

FHCI Hub Room 100B; While no work will be required in the existing FHCI Hub Room 100B, all existing Government equipment located in FHCI Hub Room 100B must be protected from damage, debris, and dust during construction.

Glenn Television (GTV) Network; Work and installations shall be sequenced to ensure 100% uptime of the Building's GTV network.

Project Schedule Telecommunications Milestones; Telecommunications (MDF) Rooms shall have project milestones included in the construction project that ensures the early completion of architectural, mechanical, and electrical systems within the MDF room; allowing time for communications cabling to be installed according to project schedules. See subpart 3.3.1 of this specification section.

3.3.11 Demolition/Environmental

Protection of Adjacent Spaces; Protect occupied spaces adjacent to the construction work areas from noise and migrating dust and debris.

3.3.12 Building Occupant Access to/from Existing Corridor 140a and 141a

Throughout construction, a path for safe Building Occupant travel must be maintained between Corridor 140a/141a and the corridor to Vestibule 130.

If Option No. 4 (construct wall and door system to separate Corridor 141a and Room 122) is exercised, Contractor shall coordinate with the NASA Construction Manager to schedule work around the established occupancies schedules for Training Rooms 141C and 141D.

3.3.13 Carpet Tile Installation in Room 122 (Option No. 1)

Installation of carpet tile in Room 122 as outlined in Option No. 1 shall require the lifting of the existing systems furniture cubicles. Any selective dismantling of systems furniture shall be coordinated with the NASA Construction Manager.

3.3.14 Replace Existing Low-Voltage Electrical Panesl P0122, P0128, and P0140 (Option No. 3)

Existing panels P0122, P0128, and P0140 serve GRC's Offices of Protective Services, Inspector General, and Emergency Operations Center which will remain occupied and operational during construction. It is recommended that only one panel be replaced at a time. As mentioned in subpart 3.3.9 of this specification section, all electrical panel isolations affecting existing systems shall be conducted during second shift and/or weekend hours. If needed, Contractor shall provide temporary power from a generator(s) or other panel(s) located within Building 14. Contractor to submit for Government review a detailed work implementation plan,

including schedule and methodology, regarding each panel replacement. Advance scheduling and close coordination with the NASA Construction Manager will be required to perform this scope of work. The Government shall not be responsible for delays caused by improper and untimely scheduling or lack of communication on the Contractor's part.

3.3.15 Redesign of Steam Condensate System (Option No. 5)

The majority of work on the existing steam condensate system will occur in the unoccupied areas of the Building 14. Execution of some scope however, will require the Contractor to access and work in occupied spaces on the building's East half. Close coordination and scheduling with the NASA Construction Manager will be required to perform this scope of work. The Government shall not be responsible for delays caused by improper and untimely scheduling or lack of communication on the Contractor's part.

-- End of Section --