

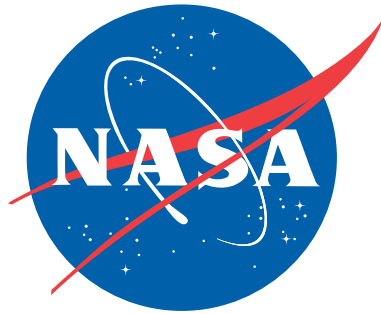
Part 3 – Project Program

Building 3205

D/B RFP Preparation

Final Submittal

National Data Buoy Center Renovation and Expansion



John C. Stennis Space Center, Mississippi

prepared for



**Naval Facilities Engineering Command
Southeast
Charleston, South Carolina**

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Project Program

NDBC Renovation & Expansion
Building 3205

Stennis Space Center
Mississippi

September 5, 2008

TABLE OF CONTENTS

COVER PAGE	1
TABLE OF CONTENTS.....	2
1. PROJECT DESCRIPTION.....	3
2. PROJECT OBJECTIVES	3
2.1. Mission Statement	3
2.2. Facility Function.....	3
2.3. Project Specific Priorities	3
2.4. Appropriate Design	4
2.5. Workflow Process	4
2.6. Special Design Challenges	4
2.7. Adaptability and Flexibility	5
3. SITE ANALYSIS	6
3.1 Existing Site Conditions	6
3.2 Site Development Requirements	10
4. BUILDING REQUIREMENTS	11
4.1 Space Tabulation.....	11
4.2 Space Relationships	12
4.3 Exterior Character.....	13
5. ROOM REQUIREMENTS	15

6. ENGINEERING SYSTEMS REQUIREMENTS ... 44

A10	Foundations	44
B10	Superstructure	45
B20	Exterior Closure	46
B30	Roofing	48
C10	Interior Construction	50
C30	Interior Finishes	52
D20	Plumbing.....	53
D30	HVAC	56
D40	Fire Protection Systems	61
D50	Electrical Power and Lighting	64
E20	Furnishings	69
F10	Special Construction	71
F20	Selective Building Demolition	72
G10	Site Preparations	75
G20	Site Improvements.....	79
G30	Site Civil / Mechanical Utilities.....	82
G40	Site Electrical Utilities	86

1. PROJECT DESCRIPTION

The purpose of this project is to renovate and expand Building 3205 at Stennis Space Center, Mississippi for the National Data Buoy Center (NDBC). This project is for the renovation of the existing 14,000 SF B3205 Building as well as an expansion of 14,000 SF to the West side of the building. The renovation and expansion will provide for the expansion of the Line Replacement Unit (LRU) property storage, LRU electronics lab, the office area, new restrooms, and a new conference room. The building shall be a pre-engineered building and will have metal siding exterior finish and a standing seam metal roof to match the existing buildings. The existing building shall be pressure washed and painted white. The existing roof will be replaced with a new standing seam metal roof to match the new addition.

A pre-engineered metal canopy shall be added to the North side of Building 3205 connecting to Building B3203 to provide cover for the walkways that join B3205 and B3203. The canopy shall be free standing and flashed accordingly between each building. The roof shall be a standing seam metal roof to match the existing buildings.

A receiving pad shall be added next to the entrance of the LRU Property storage between 3203 and 3205.

Site work will include: cathodic protection relocation and an enclosed sidewalk to connect to adjacent Building B3203.

2. PROJECT OBJECTIVES

2.1 Mission Statement

The National Data Buoy Center (NDBC) provides comprehensive, reliable systems and marine observations to support the missions of the National Weather Service (NWS) and National Oceanic and Atmospheric Administration (NOAA), promote public safety, and satisfy the future needs of our customers. NDBC designs, develops, operates and maintains a network of data collecting buoys and coastal stations.

2.2 Facility Function

The original building is a 14,000 SF pre-engineered metal building. A pre-engineered addition of 14,000 SF will provide a total 28,000 SF of space to accommodate three main spaces: an offices area, a LRU property storage and a LRU electronics lab. The office space will allow for five enclosed department manager offices, a technical publications room, a conference room, 50 cubicles and restrooms. LRU property storage will contain five employees and multiple shelving units for storage. The LRU electronics lab contains 18 work stations, 6 test chambers (4 existing), a cable shop and an existing office and parts storage room. Existing functions include three mechanical rooms, two offices, a break room and restrooms.

2.3 Project Specific Priorities

The specific priority for this building is to expand and organize the National Data Buoy Center LRU storage and lab needs.

2.3.1 Sustainable Design

In accordance with Executive Order 13123 and other pertinent directives, integrate sustainable principles into the design, development and construction of the project. Reduce the total cost of ownership of the facility using a whole building, life-cycle approach.

Provide integrated sustainable design strategies and features to minimize the energy consumption of the facilities; conserve resources; minimize adverse effects to the environment; and improve occupant productivity, health, and comfort. In accordance with NAVFAC Instruction 9830.1 the facility and all site features shall be designed and constructed to the minimum requirement for building additions as certifiable for the US Green Building Councils (USGBC) "Leadership in Energy and Environmental Design (LEED) Rating System version 2.2". The constructed facility shall be certifiable by the USGBC as having met all LEED-NC (New Construction) requirements. The constructed facility shall be Self-Certified by USGBC as having met as many prerequisites and as many credits practical in the LEED-NC (New Construction) rating system.

2.3.2 Energy Conservation

All new facilities and major renovation projects shall conform to the latest edition of ASHRAE/IESNA Standard 90.1-2004 "Energy Standard for Buildings Except Low-Rise Residential Buildings", January 2004, International Energy Conservation Code (IECC) 2004 Supplement Edition, January 2005. In addition, for new buildings, the Energy Policy Act of 2005 requires federal building designs achieve energy consumption levels 30% below the ASHRAE 90.1 and IECC baseline building. The Designer of Record (DOR) shall perform and submit an energy analysis in accordance with Appendix G of ASHRAE Standard 90.1 showing the calculated baseline building performance and the proposed building performance on an energy consumption basis to document compliance with the Act. For the ASHRAE analysis, energy for receptacle and process loads should not be included the calculations for compliance. Laboratory hoods & kitchen hoods shall be considered non-process loads and are to be included in the 30% reduction requirements. For the IECC analysis, energy consumption shall include space heating, space cooling, and domestic water heating. If the 30% reduction level is not life-cycle cost-effective based on the analysis, the Designer of Record (DOR) shall use an iterative procedure to find the lowest level of energy consumption that is life-cycle cost-effective. To determine if a feature is "life-cycle cost-effective", a life cycle cost analysis shall be performed in accordance with 10 CFR 436 Subpart A. Any of four methods are acceptable to determine LCC: (Lower LCC, Positive net savings, Investment Ratio (SIR) greater than 1, or an adjusted rate of return greater than discount rate).

2.4 Appropriate Design

The building will be an expansion to a single story pre-engineered building structure with a pitched roof. The material for the skin will be pre-finished metal panel and the existing skin is to be pressure washed and all panels (white and blue) will be painted white. The entire roof will be new standing seam pre-finished metal. All windows and doors will match the existing except for the entry which will be aluminum storefront and glass. All doors and frames are hollow metal and the windows are non-operable metal windows. The building color shall match the adjacent building which is white.

2.5 Workflow Process

The facility is comprised of three main areas. The front area is for administration offices, the second area is LRU property storage and the rear of the facility will be for the testing of LRU before installation onto buoys. These LRU's, when ready, are transported through the breezeway to Building B3203.

2.5.1 Hours of Operation

Normally the building will operate on a 0700 to 1700 schedule five days a week. The LRU storage and lab area will have secure access and the office area will be semi public access.

2.5.2 Staffing/Occupancy

Type of Occupancy	No. of Persons	Description of Activity
Administration Area	61	Administration offices for buoy data equipment
LRU Storage	5	Storage and distribution for LRU components.
LRU Lab	26	Testing and building LRU's
Maximum Occupancy	92	

2.6 Special Design Challenges

The main challenge for this facility will be to construct an addition to the existing building and phase interior finishes so operation of the three main areas will not be compromised for a long period of time. Coordination of a construction phasing plan shall be developed so that only one area at a time is affected and so the lab equipment is operational for the duration of construction.

2.7 Adaptability and Flexibility

Adaptability and flexibility must be a major consideration for this design due to the wide variety of users and potential change in priorities for this facility. The location of structural components and interior walls shall be arranged to allow for future internal modifications.

3. SITE ANALYSIS

3.1 Existing Site Conditions

3.1.1 Natural Constraints

The site lies within Stennis Space Center (SSC) located in the southwest corner of Mississippi in Hancock County. It is about 50 miles northeast of New Orleans, Louisiana, and 30 miles from the Mississippi Gulf Coast. Stennis Space Center is NASA's largest rocket engine test facility. Within Stennis Space Center, the site is located to the east of Old MS Highway 43 or Road "H". Entrance into Stennis Space Center is located on MS-607. Security clearance is required to enter the area.

Topography:

The topography of the area is rural, very flat, and predominately covered with coniferous trees. A canal is located to the East and South of the site. The canal to the East is for the deployment of data buoys to be taken to and from sea.

Vegetation / Landscaping

The site has limited landscaping. There are two small trees to the east of Building 3205 and the building is surrounded with grass on the east, south, and west sides and has a densely wooded area with mature timber to the east and west.

Wetlands:

A wetlands area is located to the west of the site in the wooded area between Trent Lott Parkway and Old Highway 43.

Climate:

The climate is typical of southwest Mississippi with an average monthly high temperature of 91F in August, and an average monthly low temperature of 40F in January. The rainfall is plentiful; the driest month being December with an average of 3.1", the wettest month is September with an average of 6.7".

3.1.2 Man Made

Existing Vehicular Access & Circulation

The main arterial road into Stennis Space Center is state road MS 607 or Trent Lott Parkway. It runs north / south through the eastern half of SSC. The southern entrance into SSC is closest to the project site. Once through the security gate follow Trent Lott Parkway and turn right on Road "H" approximately 1.1 miles ahead at the first stop light. Building 3205 will be approximately 0.80 miles on the left. Parking for Building 3205 is located in the parking lot along the northwest side of the building.

Site Utilities

The existing site utilities include: water, sewer, natural gas, electric (above and below ground), underground communications, high temperature hot water (HTHW), high pressure air (HPA), and Nitrogen. See the NDBC Site Existing Utilities Plan and NDBC Critical Systems Plan in Part 6 of this RFP for a more detailed layout of the site utilities.

Site Drainage & Storm Runoff

Drainage off the site is collected into open channel ditches and is then discharged into the canal to the east of the site. The main drainage ditch for B3205 lies directly to the south of the facility. The ditch is approximately 4-foot deep, roughly has a 5-foot flat bottom, and 3:1 (x:y) side slopes. See the NDBC Site Existing Drainage Plan in Part 6 of this RFP for a more detailed layout of the existing drainage.

Existing Buildings

All building on the project site are of similar construction with a metal façade. See the Site Plan for a more detailed layout of the existing buildings.

Building 3205 is a one story metal building that contains offices and an electrical assembly area. It is located directly south of Building B3203 and north of B3202 across the grass field.

Building 3205 – North and West side



Building 3202 is constructed of metal and partially surrounded by high security fencing topped with razor wire and completely surrounded by concrete filled steel bollards.

Building 3202 – North and East side



Building B3203 is located north of B3205 and is the northern most building on the project site. It is constructed of metal and houses both offices and heavy machinery shop.

Building B3203 – West side



Building B3209 is a paint and blast area for the NDBC buoys. It is located east of Building B3203.

Building B3209 – West side



Existing Waterfront Facilities

A water front facility is located at the ramp of the canal east of Building 3202. The facility serves the canal area where the larger buoys are stored and the smaller buoys are transported to and from the water.



3.2 Site Development Requirements

Building Footprint

Building 3205 is to be expanded approximately 175-feet west toward Highway 43 into the existing grass lot. The expansion shall be constructed on a Portland Cement Concrete slab. The existing building footprint shall remain as is. A truck loading and unloading dock flush with the finished floor elevation of Building 3205 is required for the LRU (Line Replacement Unit) Lab storage area. The new addition location may shift to accommodate AT/FP requirements; however, the desired configuration is shown on the concept plans included in Part 6: Attachments.

Anti-Terrorism / Force Protection

All Anti-Terrorism / Force Protection design criteria and standards shall be followed in the design of the NDBC Renovation and Expansion Project.

Parking

Any parking spaces lost to Anti-Terrorism / Force Protection requirement for Building 3205 expansion shall be replaced.

Pedestrian Access and Circulation

Pedestrian entrances into the new Building 3205 Expansion shall be served by sidewalks from all parking areas. The sidewalk system shall provide an efficient, direct, easy to follow and functional path for pedestrian circulation to all facilities.

Landscaping

Relocate the two trees located in the Building 3205 expansion to an area directed by the Contracting Officer or ROICC. All disturbed areas shall be seeded and/or mulched.

Utilities

The renovation and expansion of Building 3205 will require the relocation and addition of some site utilities. An 8-inch water line shall be relocated from underneath the footprint of the new expansion on the west side. Also, a 4-inch sanitary sewer lateral shall service the expansion and shall tie into the existing sanitary sewer system on the west side of the Building 3205 expansion. For a more detailed layout of the utility relocations, refer to the NDBC Site Existing

Utilities Plan, the NDBC Critical System Plan, and the NDBC Site Existing Utilities Connection Plan in Part 6 of this RFP.

All non-metallic utilities shall include a metallic locator tracer wire. No utilities shall be placed beneath the concrete slab. The utilities shall be installed prior to construction and within five (5) feet of the proposed facility. The installation and location of the utility connections shall be coordinated with the location of the new Building 3205 Expansion. The designer of record shall confirm all existing utilities will have the capacity to accommodate the additional service.

Signage

Traffic and pedestrian signage shall meet Mississippi Department of Transportation (MDOT) standards, The Manual on Uniform Traffic Control Devices (MUTCD), and the Stennis Space Center Signage Implementation and Control Plan.

Site Drainage & Storm Water Runoff

The small existing drainage swale west of existing Building 3205 shall be relocated west of the new Building 3205 expansion. The relocated drainage ditch shall have the same cross sectional dimensions as the existing drainage ditch and shall empty into the larger existing open channel drainage ditch south of Building 3205. Refer to the NDBC Site Existing Drainage Plan in Part 6 of this RFP for a more detailed layout. The Contractor is responsible for providing the final storm water plan that meets all NPDES, state, and local requirements.

Site Clearing

The topsoil will be stripped and stockpiled on the site before grade work begins. The topsoil will be redistributed during finish grading operations.

Construction Access / Lay Down Area

The Contractor shall coordinate material and equipment lay down areas on-site with the ROICC office.

Permits

The Contractor shall be responsible for obtaining all applicable permits and paying associated fees (storm drainage, erosion control, grading, etc.). All utilities are owned and operated by NASA.

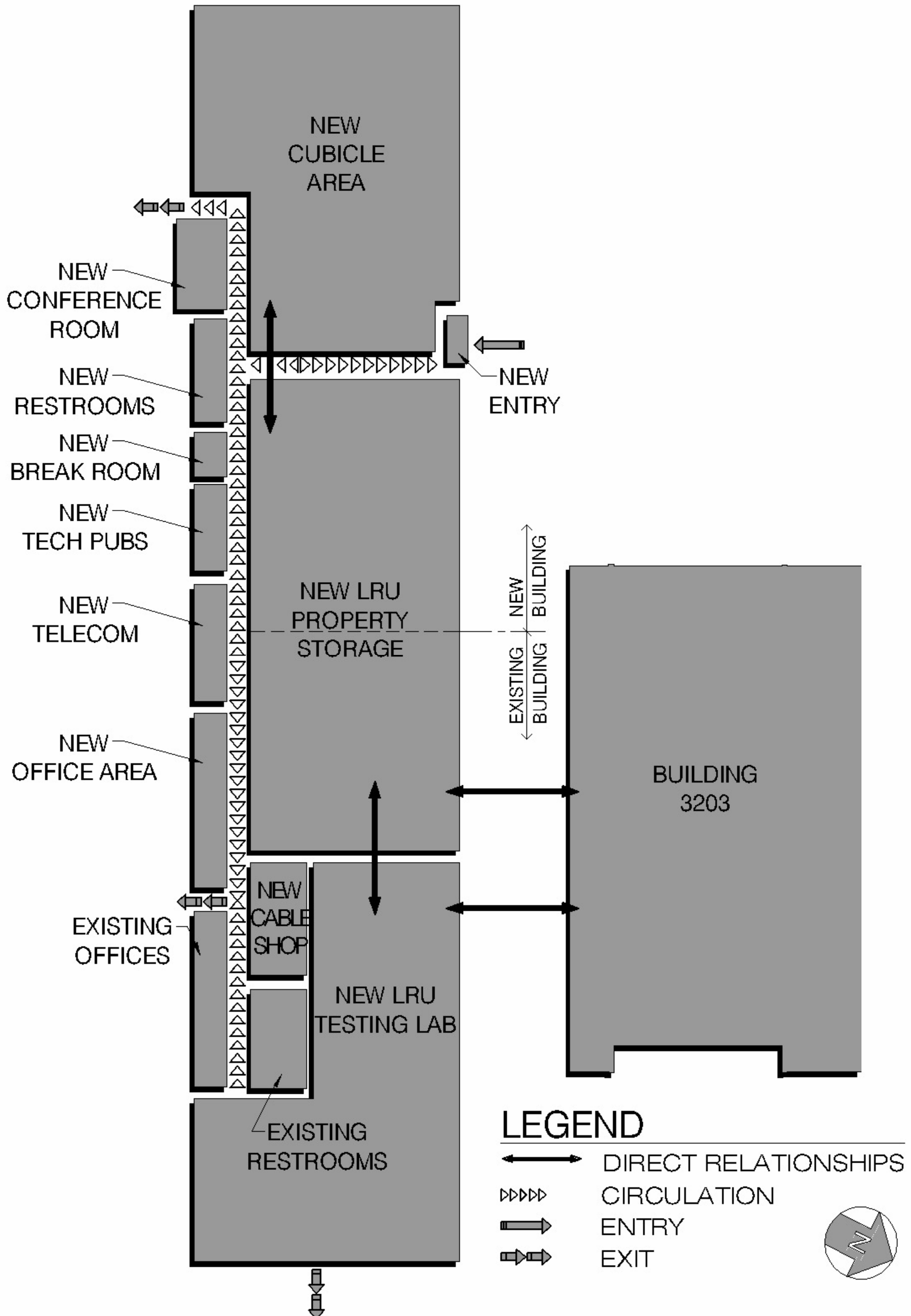
4. BUILDING REQUIREMENTS

4.1 Space Tabulation

Space Name	# of spaces	Unit SF (Net)	Total SF (Net)	Total SQM (Net)	Ideal Dimensions	Ceiling Height (ft)	Ceiling Height (cm)	# of Occupants	Remarks
Entry	1	100	100	9.29		10	304.8		
Cubicle Area	1	7525	364	33.82		10	304.8		1 Person Per Cubicle
Conference Room	1	364	364	33.82		10	304.8	5	14 Person Table
Women	1	130	130	12.08		9	274.32	2	
Men	1	130	130	12.08		9	274.32	50	
Break Room	1	145	145	13.47		10	304.8		
Tech Pubs	1	264	264	24.53		10	304.8		
Managers Offices	5	110	550	51.10		10	304.8		1 Person Per Room
LRU Property Storage	1	8296	8296	770.72		12	365.76	5	
LRU Test Lab	1	6455	6455	599.69		12	365.76	22	
Lab Office 1	1	0						1	Existing To Remain
Part Storage	1	0							Existing To Remain
Cable Shop	1	660	660	61.32		12	365.76	4	
Mechanical 1	1	0							Existing To Remain
Men's Restroom	1	0							Existing To Remain
Women's Restroom	1	0							Existing To Remain
Break Room	1	0							Existing To Remain
Mechanical 2	1	0							Existing To Remain
Lab Office 2	1	0						1	Existing To Remain
Mechanical 3	1	0							Existing To Remain
Lab Office 3	1	0						1	Existing To Remain
Corridor	1	1322	1322	122.82		10	304.8		
Telcom Closet	1	255	1137	105.63		10	304.8		
Mechanical Room	1	95	95	8.83		10	304.8		
Subtotal Net Area			19917	1850.35					
Net to Gross Factor			1.10	1.10					
TOTAL GROSS AREA			22000	2043.90				Total Occupancy	91

The design build contractor shall provide actual area in both square feet and square meters in proposals.

4.2 Space Relationships – Building 3205



4.3 Exterior Character

Building 2305 is part of a cluster of buildings that have general similarities. By pressure washing and painting the exterior of Building 3205, there would be a more aesthetic uniform appearance. Below are photographs of the existing building and examples of the surrounding buildings to match.



Existing west elevation. NOTE: Building 3202 in the background



Existing south elevation



Walkway between Building 3205 and Building 3203

The user wishes to provide better coverage connecting the buildings.

5. ROOM REQUIREMENTS

100 Entry

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Main entry into the building. Once inside entry is into the Office Area.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: ADA accessible. Lockset to secure building from unauthorized access after business hours</p> <p>Other: Provide direct access to the office space.</p>	B202001	Exterior Windows	Aluminum Framed Storefront			Per designer of Record
	B202002	Exterior Doors	Aluminum Frame, Storefront	2	3'-0" x 7'-0"	Coordinate materials and finishes with existing building, comply with AT/FP. Doors must be of "Heavy Duty" quality.
	B202002	Exterior Frames	Aluminum Frame, Storefront	1	6'-0" x 7'-0"	Frames must be of "Heavy Duty" quality. Comply with AT/FP.
	B203006	Exterior Door Hardware	Exterior Door Hardware	As Required	As Required	Closer, hinge, lock set, kick plate, exit device and stops.
	C101001	Fixed Partition	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partition	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Wood Door	2	3'-0" x 7'-0"	Stained with clear finish, 1/2 glass
	C102001	Interior Door Frames	Metal, Welded	1	6'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	As Required	As Required	Card reader, closer, hinge, lock set, kick plate, exit device and stops
	C103004	Identifying Devices	Architectural Signage	1 Per Door		Wall mounted; include room name and number
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Impact resistant gypsum board
	C301003	Ceiling Finishes	Gypsum Wallboard Ceiling Finishes	As Required	5/8" Thick	Regular Gypsum Board; Painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 coats
	C302004	Floor Finishes	Vinyl Composition Tile	As Required	12" x 12"	
C302008	Resilient Wall Base	Rubber Wall Base	As Required	4" High		

101 Cubicle Area

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Open office area for staff.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: 50</p> <p>Access: ADA accessible.</p> <p>Other: Cubicles in proximity to exterior windows for natural day lighting.</p> <p>The cubicle area should be configured to maximize the number of cubicles and provide a centrally located copy area. 100 SF cubicles are desired.</p>	B202002	Exterior Window	Aluminum			Per designer of Record
	B203002	Exterior Doors	Insulated Steel Door	2	3'-0" x 7'-0"	Coordinate materials and finished with existing building. Comply with AT/FP.
	B203001	Exterior Door Frames	Metal Welded	2	3'-0" x 7'-0"	Comply with AT/FP, Paint, Silencers
	B203008	Exterior Door Hardware	Exterior Door Hardware	As Required	As Required	Exit device, closer, kick plate, threshold, weather seals.
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C3010	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C3020	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C3030	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C3030	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice Outlets Data Outlets	As Required		Minimum 1 Per 8' on walls. 1 floor box (power & data) per cubical cluster that is not on a wall. Coordinate data/power with furniture pan.
	E201002	Window Treatments	1" horizontal Blinds			One per window

102 Conference Room

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall space to serve meeting requirements.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: STC of 45 for privacy of conversations and meetings. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 10-14 Transient</p> <p>Access: ADA accessible. Lockset to secure space from unauthorized access after business hours.</p> <p>Other: Provide all required media equipment: projector screen, white board</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	2	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	2	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	2 Sets	As Required	Hinges, lockset and stop
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room names and number
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C302005	Carpeting	Carpet Tile	As Required	12" x 12'	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice Outlets Data Outlets	As Required		Minimum 1 Per 8' on walls. 1 floor box with voice data in center of the room.
E201002	Window Treatments	1" horizontal Blinds			One per window	

103 Women's Restroom

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Men's Restroom Special Dimensions: N/A Acoustics: N/A Occupancy: Determined by total building occupancy Access: ADA accessible. Other: N/A	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, push & pull plates
	C103001	Toilet Partition	Solid Plastic		As Required	2 toilet partitions
	C103002	Toilet and Bath Accessories	Stainless steel accessories	As Required	As Required	Grab Bars, Hook and Bumper, Paper Towel Dispenser and Waste Receptacle, Mirrors and Soap Dispensers.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room names and number
	C301003	Gypsum Wallboard Finishes	Cementitious Backing system finish	As Required	5/8"	Painted Moisture Resistant Gypsum Board above wall tile.
	C301004	Tile Wall Finishes	Ceramic Tile Wall system Finish	As Required	4" x 4"	Wall tile floor to ceiling
	C302001	Tile Floor Finishes	Ceramic Tile Floor system finish	As Required	2" x 2"	Floor tile Wall to Wall
	C302008	Wall Base Finish	Ceramic Tile	As Required	4" x 4"	Coved
	C303003	Ceiling Finishes	Gypsum Wallboard Ceiling Finishes	As Required	5/8" thick	Moisture Resistant Ceiling, Painted
	D201001	Water Closet	Wall Mounted		As Required	TBD Handicap Accessories
	D201003	Lavatories	Vanity Top		As Required	Backsplash, 100% acrylic solid surface material, handicap accessories.
	D304007	Exhaust System	Exhaust Fan		As Required	As Required for restrooms foe IBC 2006
E201002	Window Treatment	1" Horizontal Blinds	1	3'-0" x 3'-4"	One per window	

104 Men's Restroom

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Men's Restroom Special Dimensions: N/A Acoustics: N/A Occupancy: Determined by total building occupancy Access: ADA accessible. Other: N/A	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, push & pull plates
	C103001	Toilet Partition	Solid Plastic		As Required	
	C103001	Urinal Screens	Solid Plastic		As Required	
	C103002	Toilet and Bath Accessories	Stainless steel accessories	As Required	As Required	Grab Bars, Hook and Bumper, Paper Towel Dispenser and Waste Receptacle, Mirrors and Soap Dispensers.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room names and number
	C301003	Gypsum Wallboard Finishes	Cementitious Backing system finish	As Required	5/8" Thick	Painted Moisture Resistant Gypsum Board above wall tile.
	C301004	Tile Wall Finishes	Ceramic Tile Wall system Finish	As Required	4" x 4"	Wall tile floor to ceiling
	C302001	Tile Floor Finishes	Ceramic Tile Floor system finish	As Required	2" x 2"	Floor tile Wall to Wall
	C302008	Wall Base Finish	Ceramic Tile	As Required	4" x 4"	Coved
	C303003	Ceiling Finishes	Gypsum Wallboard Ceiling Finishes	As Required	5/8" thick	Moisture Resistant Ceiling, painted
	D201001	Water Closet	Wall Mounted		As Required	TBD Handicap Accessories
	D201002	Urinals	Wall Mounted		As Required	TBD Handicap Accessories
D201003	Lavatories	Vanity Top		As Required	Backsplash, 100% acrylic solid surface material, handicap accessories.	

104 Men's Restroom (cont'd)

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
	D304007	Exhaust System	Exhaust Fan		As Required	As Required for restrooms for IBC 2006
	E201002	Window Treatment	1" Horizontal Blinds			One per window

105 Break Room

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Break room for occupants of the building.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: ADA accessible.</p> <p>Other: Will contain refrigerator (N.I.C.) and vending machines (N.I.C.)</p>	B202001	Exterior Windows	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room names and number
	C103008	Fixed Countertop	Plastic Laminate		6'-0" x 2'-0"	As Required
	C103009	Cabinets	Wall Hung Cabinets		As Required	
	C301002	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C302004	Flooring Finish	VCT	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D201004	Fixtures	Sink		Double Bowl	
E201002	Window Treatment	1" Horizontal Blinds			One per window	

106 Technical Publications

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Open office area for staff.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 2</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours.</p> <p>Other: 264 SF open office with exterior windows for natural day lighting</p> <p>The Technical Publications should be grouped in close proximity to the manager offices and the cubicle area.</p> <p>The existing Technical Publication furniture and equipment is to be re-located and installed in the new Technical Publications room by the contractor.</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	2	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	2	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	2 Sets	As Required	Hinges, lockset and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice Outlets Data Outlets	As Required		Minimum 1 Per 8' on walls. 1 floor box (power & data) per desk that is not on a wall. Coordinate data/power with furniture pan.
E201002	Window Treatments	1" horizontal Blinds			One per window	

107 Managers Office #1

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall offices for the five department managers. Five offices should be located adjacent to the cubicle area on the new West wall.</p> <p>Special Dimensions:</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 1</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours</p> <p>Other: 110 SF hard wall office with exterior window for natural day lighting.</p> <p>The manager's offices should be grouped in close proximity to one another.</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kick plate and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice/Data Outlets	1 per wall		
E201002	Window Treatments	1" horizontal Blinds			One per window	

108 Managers Office #2

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall offices for the five department managers. Five offices should be located adjacent to the cubicle area on the new West wall.</p> <p>Special Dimensions:</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 1</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours</p> <p>Other: 110 SF hard wall office with exterior window for natural day lighting.</p> <p>The manager's offices should be grouped in close proximity to one another.</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kick plate and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice/Data Outlets	1 per wall		
E201002	Window Treatments	1" horizontal Blinds			One per window	

109 Managers Office #3

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall offices for the five department managers. Five offices should be located adjacent to the cubicle area on the new West wall.</p> <p>Special Dimensions:</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 1</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours</p> <p>Other: 110 SF hard wall office with exterior window for natural day lighting.</p> <p>The manager's offices should be grouped in close proximity to one another.</p>	B202002	Exterior Window	Aluminum	1	3'-0" x 3'-4"	Coordinate materials and finishes with existing building. Fixed.
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required	10' High	1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required	10' High	3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kick plate and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT 9' A.F.F.
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish 9' A.F.F.
	D503001	Telecommunications Systems	Voice/Data Outlets	1 per wall		
	E201002	Window Treatments	1" horizontal Blinds	1	3'-0" x 3'-4"	One per window
E202003	Freestanding Furniture	3' x 5' Desk w/ Return Adjustable Task Chair	1 1			

110 Managers Office #4

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall offices for the five department managers. Five offices should be located adjacent to the cubicle area on the new West wall.</p> <p>Special Dimensions:</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 1</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours</p> <p>Other: 110 SF hard wall office with exterior window for natural day lighting.</p> <p>The manager's offices should be grouped in close proximity to one another.</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kick plate and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice/Data Outlets	1 per wall		
E201002	Window Treatments	1" horizontal Blinds			One per window	

111 Managers Office #5

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard wall offices for the five department managers. Five offices should be located adjacent to the cubicle area on the new West wall.</p> <p>Special Dimensions:</p> <p>Acoustics: STC of 45 for privacy of conversations. Extend sound attenuation above ceiling to eliminate flanking points.</p> <p>Occupancy: 1</p> <p>Access: ADA accessible. Lockset to secure office from unauthorized access after business hours</p> <p>Other: 110 SF hard wall office with exterior window for natural day lighting.</p> <p>The manager's offices should be grouped in close proximity to one another.</p>	B202002	Exterior Window	Aluminum			Per Designer of Record
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kick plate and stop.
	C103004	Identifying Devices	Architectural Signage	1 per door		Wall mounted; Include room name and number, name of occupant or function.
	C301003	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C301099	Wood Trim	Chair Rail	As Required	Continuous	Paint or stained with clear coat
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice/Data Outlets	1 per wall		
E201002	Window Treatments	1" horizontal Blinds			One per window	

112 LRU Property

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Storage Room for LRU Property.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: 5</p> <p>Access: ADA accessible. Lockset to secure property from unauthorized access at all times.</p> <p>Other: LRU Property should have direct connection to the LRU lab as well as direct secured and covered connect to B3203.</p> <p>Contractor will relocate existing storage shelving and furniture and install all new government furnished storage shelving and furniture.</p>	B202002	Exterior Windows	Aluminum			Per Designer of Record
	B203004	Exterior Door	Overhead Roll-up Door	1	8'-0" x 10'-0"	Painted
	B203004	Exterior Door Frame	Metal, Welded	1	8'-0" x 10'-0"	Painted "C" channels
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Hollow Metal	2	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	6'-0" x 7'-0"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	2 Sets	As Required	Closer, hinges, lockset, flush bolts, kick plate and stop
	C103004	Identifying Devices	Architectural Signage	1 Per Door		Wall mounted, include room name and number, name of occupant or function.
	C301002	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB – Painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 coats
	C302009	Floor Toppings and Traffic Membranes	Floor Toppings and Traffic Membranes	As Required		
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension Systems	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" Grid	White Baked Enamel Finish
	D503001	Telecommunications Systems	Voice/Data Outlets	3		Coordinate location with technician locations.
E201002	Window Treatments	1" horizontal Blinds			One per window	

113 LRU Test Lab

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard walled space for techs to test LRU's.</p>	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required	12' High	3 5/8" Metal Stud
<p>Special Dimensions: N/A</p>	C301002	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB – Painted
<p>Acoustics: N/A</p>	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 coats
<p>Occupancy: 22</p>	C302099	Floor Finishes	Static Dissipating Vinyl Composition Tile	As Required	12" x 12"	
<p>Access: ADA accessible. Lockset to secure property from unauthorized access after business hours.</p>	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
<p>Other: LRU Lab should have direct connection to the LRU Property.</p>	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" Grid	White Baked Enamel Finish
<p>Paint existing doors and frames.</p>	D503001	Telecommunications Systems	Voice Outlets Data Outlets	As Required		Voice/Data every 10' on walls and 1 Data Outlet for each workstation
<p>The lab equipment must remain operational throughout the duration of construction. The construction must coordinate these requirements with the owner prior to construction.</p>	D509003	Grounding Systems	Workbench Grounding	1 per workbench		Each workbench must be earth grounded to ground rod
<p>Relocate the temperature chamber that is next to the back door to the south wall. This chamber is used for testing equipment that requires directional antenna access. An access port will be required in the south wall to allow for antenna cables. A level antenna platform approximately 2'x2' above the roof would be required above this chamber to keep the cable run short.</p>	E202090	Moveable Furnishings	Electronics Test Chambers	2	As Required	Install government furnished T30C Test Chambers
	E202090	Moveable Furnishings	New Work Tables	--	As Required	Install government furnished work tables
	E202090	Moveable Furnishings	New Work Benches	5	As Required	Install government furnished work bench at each test chamber.
<p>All new equipment is Government furnished and contractor installed.</p>						

114 Lab Office 1

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Lab Office</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: 1</p> <p>Access: From LRU test lab</p> <p>Other:</p>			Existing To Remain			

115 Part Storage

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Part Storage</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: From LRU test lab</p> <p>Other:</p>			Existing To Remain			

116 Cable Shop

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Hard walled space for making electric cables for LRU computers</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: 4</p> <p>Access: ADA accessible. Lockset to secure space from unauthorized access after business hours.</p> <p>Other: Provide a long layout space for stretching out long cables.</p>	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Hollow Metal Door	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Closer, hinges, lockset, kickplate and stop
	C103004	Identifying Devices	Architectural Signage	1 Per Door		Wall Mounted; Include room name and number, name of occupant or function
	C3010	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB – Painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 coats
	C302099	Hardener and Sealant for Concrete Floor	Hardener and Sealant for Concrete Floor	As Required		2 coats, slip resistant
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension Systems	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish
D503001	Telecommunications Systems	Voice/Data Outlets	As Required		Minimum every 10' on walls.	

117 Mechanical 1

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Mechanical Room Special Dimensions: N/A Acoustics: N/A Occupancy: N/A Access: N/A Other:			Existing To Remain			

118 Men's Restroom

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Men's Restroom</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: N/A</p> <p>Other:</p>	Existing To Remain					

119 Women's Restroom

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Women's Restroom Special Dimensions: N/A Acoustics: N/A Occupancy: N/A Access: N/A Other:			Existing To Remain			

120 Break Room

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Break Room</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: N/A</p> <p>Other:</p>			Existing To Remain			

121 Mechanical 2

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Mechanical Room Special Dimensions: N/A Acoustics: N/A Occupancy: N/A Access: N/A Other:			Existing To Remain			

122 Lab Office 2

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Lab Office Special Dimensions: N/A Acoustics: N/A Occupancy: 1 Access: N/A Other:			Existing To Remain			

123 Mechanical 3

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Mechanical Room Special Dimensions: N/A Acoustics: N/A Occupancy: N/A Access: N/A Other:			Existing To Remain			

124 Lab Office 3

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
Function: Lab Office Special Dimensions: N/A Acoustics: N/A Occupancy: 1 Access: N/A Other:			Existing To Remain			

125 Corridor

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Corridor connecting the Cubical Area to the existing spaces of the building.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: ADA accessible.</p> <p>Other: Paint existing door and frame</p>	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C302005	Carpeting	Carpet Tile	As Required	12" x 12"	
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C303004	Acoustical Ceiling Tiles and Panels	Acoustical Ceiling Tiles	As Required	2'-0" x 4'-0" x 5/8"	Type III ACT
	C303007	Suspension System	Exposed Suspended Acoustical Ceiling Grid	As Required	2'-0" x 4'-0" GRID	White Baked Enamel Finish

126 Telcom Closet

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Room for all Telecommunications.</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: ADA accessible.</p> <p>Other: All walls must extend to the bottom of the roof deck.</p>	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Hinges, Lockset, and Stop
	C103004	Identifying Device	Architectural Signage	1 per door		Wall mounted; include room name and number, name of occupant or function.
	C301002	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C302099	Floor Finishes	Static Dissipating Vinyl Composition Tile	As Required	12" x 12"	
	E201002	Window Treatments	1" horizontal Blinds			One per window

127 Mechanical Room

Space Characteristics	Uniformat Level 4#	Uniformat Title	Description	Quantity	Size	Remarks
<p>Function: Mechanical Room</p> <p>Special Dimensions: N/A</p> <p>Acoustics: N/A</p> <p>Occupancy: N/A</p> <p>Access: ADA accessible.</p> <p>Other: Floor drain for air handling equipment condensate.</p> <p>All walls must extend to the bottom of the roof deck.</p>	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		1 5/8" Metal Stud
	C101001	Fixed Partitions	Cold-Formed Metal Framing	As Required		3 5/8" Metal Stud
	C102001	Interior Doors	Standard Wood Doors	1	3'-0" x 7'-0"	Stained with clear finish
	C102001	Interior Door Frames	Metal, Welded	1	3'-4" x 7'-4"	Painted, Silencers
	C102007	Interior Door Hardware	BHMA 626/630	1 Set	As Required	Hinges, Lockset, and Stop
	C103004	Identifying Device	Architectural Signage	1 per door		Wall mounted; include room name and number, name of occupant or function.
	C301002	Gypsum Wallboard Finishes	GWB	As Required	5/8" Thick	Regular GWB, painted
	C301005	Painting to Walls	High Performance Architectural Latex	As Required		3 Coats
	C302008	Resilient Wall Base Finishes	Rubber wall base	As Required	4" high	
	C302099	Hardener and Sealant for Concrete Floor	Hardener and Sealant for Concrete Floor	As Required	12" x 12"	

6. ENGINEERING SYSTEMS REQUIREMENTS

A10 FOUNDATIONS

SYSTEM DESCRIPTION

Provide the building foundation system in accordance with UFC 3-300-10N, *Structural Engineering*. Foundation shall be designed to suit subsurface conditions, and shall be capable of transmitting all building loads to the ground.

See Section B10 – Superstructure for additional loading criteria.

In addition, design the structure in accordance with the following loading criteria:

Importance Factors

Use Occupancy Category II in Table 1 of UFC 3-310-01 for determining Importance Factors for seismic, snow, and wind design.

Wind Exposure

Wind design shall be based on Exposure C.

A10 GENERAL

The Contractor shall commission the services of a geotechnical engineer registered as a Professional Engineer.

Subsurface soil information, including a geotechnical report is included in other portions of this RFP.

The successful bidder's Geotechnical Engineer shall perform borings and supplementary laboratory classification of soils encountered, on the building site to support the foundation design.

A site-specific seismic ground motion study is not required.

Engage a registered Professional Engineer to provide inspection of excavations and soil/groundwater conditions throughout construction.

A1010 STANDARD FOUNDATIONS

See "System Description" above. The foundation construction may include any foundation system meeting the requirements of this section. Do not use timber footings or wood foundations.

A1020 NOT USED

A1030 SLAB ON GRADE

Provide standard concrete slab on grade. Where slab on grade is below the existing adjacent exterior grade, provide a perimeter drainage system to remove ground water from the area immediately adjacent to the building.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

B10 SUPERSTRUCTURE

SYSTEM DESCRIPTION

Provide the building framing system in accordance with UFC 3-300-10N, *Structural Engineering*.

In addition, design the structure in accordance with the following loading criteria:

Importance Factors

Use Occupancy Category II in Table 1 of UFC 3-310-01 for determining Importance Factors for seismic, snow, and wind design.

Wind Exposure

Wind design shall be based on Exposure C.

B1010 NOT USED

B1020 ROOF CONSTRUCTION

The roof construction may include any structural framing system meeting the requirements of this section.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

B20 EXTERIOR ENCLOSURE

SYSTEM DESCRIPTION

This system consists of the exterior facing of the facility, which includes all vertical and horizontal exterior closure such as exterior walls, exterior windows, and exterior doors. The existing siding of existing Building 3205 shall be pressure washed and all panels (white and blue) shall be painted white to match the new addition. Existing windows and doors shall remain and be painted and/or repaired as required to match new doors and windows. The new windows shall match the style, size and color of the existing windows.

GENERAL SYSTEMS REQUIREMENTS

B2010 EXTERIOR WALLS

The primary exterior material of the building shall be pre-finished metal panels with panel profiles to match the existing structures. It is to be installed as part of the pre-engineered metal building package.

The color shall match the adjacent Building 3203 and all siding on the existing Building 3205 shall be pressure washed and painted to match the new building addition and adjacent buildings.

Back-up wall system for metal panel construction shall be pre-engineered building metal purlins. All interior surfaces will be furred out and finished with gypsum board to match the interior wall.

B201001 EXTERIOR CLOSURE

Provide metal prefabricated panel exterior wall closure. Metal panel system shall have concealed fasteners.

B201003 INSULATION AND VAPOR RETARDER

Provide insulation and vapor barriers as required.

B201007 EXTERIOR SOFFITS

The pre-engineered building shall include the metal exterior soffit system.

B201009 EXTERIOR COATINGS

All exterior metal shall be pre-finished and the color shall be white to match the existing buildings.

B201010 JOINT SEALANTS

Provide exterior application of joint sealants to seal joints and prepare for finish material installation.

B2020 EXTERIOR WINDOWS

As much as practical, windows shall be provided in each area of the building that is regularly occupied, to enhance the working environment, without compromising visual acuity and comfort and compromising the usable space of the room. Exterior windows shall be pre-finished metal coordinating style and color with current windows on the existing building. Windows shall meet AT/FP requirements. All existing windows shall be painted and/or repaired as required.

B202001 WINDOWS

Determine the construction of security windows by evaluating the project program security requirements, using the Mil Hdbk 1013/1A, *Design Guidance for Physical Security of Facilities*, to define window requirements.

Windows shall be aluminum operable.

B202002 STOREFRONTS

Storefronts shall be aluminum.

B202004 EXTERIOR GLAZING

Glazing color shall match the existing windows.

Glazing shall be tinted glass, insulated glass units, laminated glass, tempered glass and/or fragment retention film.

B2030 EXTERIOR DOORS

Provide solid door assemblies other than at the main entrance.

Doors shall be Heavy Duty Doors - ANSI/SDI A250.8, Level 2, physical performance Level B, Model 1.

Glazing shall match the window glazing.

Door hardware finish shall be chrome-plated brass or bronze, or stainless steel.

B203001 SOLID DOORS

For all new doors provide hollow metal door assemblies other than at main entrance including painted, pre-finished, heavy-duty, non-corroding, insulated doors with frames and hardware. Openings in exterior flush doors shall be flashed with aluminum flashings at the bottom of the openings. Also provide wall opening elements such as flashings.

B203002 GLAZED DOORS

Glazed Doors – Provide Exterior Glazed Doors and Entrances System. Including factory – finish, all glass, aluminum framed door assemblies with insulated, tinted glazing, frames and hardware compatible with other buildings on the base. Also include wall opening elements such as lintels, sills, through-wall flashings and joint sealers.

B203003 REVOLVING DOORS

Not used.

B203004 OVERHEAD AND ROLL-UP DOORS

Roll-up doors shall be NAGDM 102 Industrial designation.

Doors for automobile entrances shall be rolling service type. Doors shall have automatic and manual override operation. Doors shall be operated by three-button electric power conforming to NEMA MG 1, NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6. with auxiliary hand chain operation.

B203005 HANGAR DOORS

Not used.

B203006 BLAST RESISTANT DOORS

Not used.

B203007 GATES

Not used.

B203008 EXTERIOR DOOR HARDWARE

Provide the services of a certified door hardware consultant to prepare the door hardware schedule.

Provide hardware keying compatible with the existing keying system. Replacement interchangeable cores shall be compatible with the NASA/Stennis Space Center preferred hardware.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

B30 ROOFING

B30 GENERAL SYSTEM DESCRIPTION

The existing roof for Building 3205 will be repaired and the new roof will be installed to match the existing roof. The roof systems shall be watertight and compatible with facility function, construction, and service conditions. Provide complete roof system design and construction services for the entire existing and new facility roof system, including all ancillary and incidental work necessary for a complete, new, insulated, watertight roof system installation. Provide a weather tight antenna platform located per the owner requirements. Provide 2 – 2 inch diameter water proof conduits to the antenna platform.

Provide a bid option to remove the existing roof and install a new roof on the entire building. New roof must be installed to meet the required wind loads of the 2006 IBC.

Submittal Requirements: Components of a minimum roof submittal shall include the roof plan, method of drainage, standard details and details unique to the project, wind load calculations and requirements.

A free standing canopy shall be added to the North side of Building 3205 connecting to Building 3203 to provide cover for the walkways that join B3205 and B3203. The roof shall be a standing seam metal roof to match the new addition.

The gutters will be continuous at the base of the roof with downspouts as required by local rainfall volumes.

Refer to UFC 3-310-01, UFC 3-100-10N, *Architecture*, IBC 2006 for 130mph design wind loads, and UFC 3-110-06, *Roofing*, for additional roofing requirements.

B3010 ROOF COVERINGS

B301001 STEEP SLOPE ROOFING SYSTEMS

Steep slope roofing systems are preferred over low slope roofing systems, where practical. Steep slope roofing systems that are acceptable include metal.

Metal roofing systems shall be designed to comply with a UFC 3-310-01, and IBC 2006 for 130mph design wind loads for wind uplift, and resist the negative pressure and uplift loads calculated in accordance with ASCE-7. Wind uplift resistance shall be validated by ASTM E 1592 testing.

Sub-purlins for the Structural Metal Roof System shall be galvanized and shop painted.

SSSMRS Warranty Certificate. At the completion of the project the Contractor shall furnish signed copies of the 5-year Warranty for Structural Standing Seam Metal Roof (SSSMR) System, a sample copy of which is attached to the PTS section [, and the 20-year Manufacturer's Material Warranties, and the manufacturer's 20-year system weather-tightness warranty.

B301002 LOW SLOPE ROOFING SYSTEMS

Not used.

B301003 ROOF INSULATION AND FILL

For fastening roof insulation on low-slope membrane roofs, fasteners shall be placed to withstand an uplift pressure as determined in accordance with UFC 3-310-01 and IBC 2006 for 130mph design wind load requirements.

B301004 CANOPY ROOF

Provide a pre-engineered metal canopy that is free standing between buildings B3205 and B3203 but flashed to each building accordingly. The metal canopy shall be 71 feet long by 31 feet wide, with an eave height of 14 feet high.

The framing system for the steel structure shall be in accordance with AISC M016, except that end frames may be of rigid frame or beam and column design.

In addition to the design loads determined in accordance with ASTM 7-05, design the structure in accordance with the following loading criteria:

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

C10 INTERIOR CONSTRUCTION

SYSTEM DESCRIPTION

Interior construction includes interior partitions, interior doors, and fittings.

Provide durable construction appropriate to the buildings use as a System Test and Development Building. Acoustic properties of materials, as well as durability, shall be considered during material selection.

GENERAL SYSTEMS REQUIREMENTS

See "Room Requirements" for specific requirements on "Partitions", "Interior Doors", and "Fittings".

C1010 PARTITIONS

All interior partitions shall be constructed of metal studs with gypsum board on each side.

C101001 FIXED PARTITIONS

Provide fixed interior partitions required by the "Room Requirements." Sound-rated partition assemblies shall have a minimum Sound Transmission Coefficient (STC) of 45 where indicated in accordance with ASTM E 90 or ASTM E 413 for frequency data.

C1020 INTERIOR DOORS

C102001 STANDARD INTERIOR DOORS

All interior doors shall be flush to match the appearance of the existing doors.

All interior doors shall be wood, except where hollow metal doors are required. All interior door frames shall be hollow metal.

Flush wood doors shall be WDMA I.S.1A-04, custom grade, heavy duty. Flush wood doors shall be WDMA I.S.-97 SCLC-5 5-ply structural composite lumber core.

Veneer for flush doors shall be birch in book match.

Doors shall have Factory Finish of AWI Quality Standards Section 1500, specification for catalyzed polyurethane pre-finish.

C102002 GLAZED INTERIOR DOORS

Provide vision glazing in doors where it is required by the "Room Requirements" portion of this RFP, or it is deemed advantageous to be able to see through the door, either for safety of pedestrian traffic, or other functional reason.

C102007 INTERIOR DOOR HARDWARE

Lock cores shall match the BEST system.

C1030 SPECIALTIES

C103001 COMPARTMENTS, CUBICLES, & TOILET PARTITIONS

Provide toilet partitions in all toilet rooms with more than one water closet or urinal. Provide toilet accessories as indicated in Section 5, "Room Requirements" portion of this RFP. Work cubicles and furniture to be installed and provided as directed by the user.

C103002 TOILET AND BATH ACCESSORIES

Provide toilet and bath accessories as required.

stalls, ADA stalls, urinal screens, toilet paper dispensers, feminine napkin dispensers, paper towel dispensers, trash receptacles, soap dispensers, mirrors, sinks, 36" handrails, 42" handrails, urinals, water closets.

C103003 MARKER BOARDS AND TACK BOARDS

Provide as required by user.

C103004 IDENTIFYING DEVICES

All interior doors shall have an identifying device to match the user requirements. .

C103006 SHELVING

User to define.

C103007 FIRE EXTINGUISHER CABINETS

Provide fire extinguisher cabinets.

C103008 COUNTERS

Provide 100% acrylic counter tops and back splashes.

C103009 CABINETS

Provide cabinetry and millwork items with associated accessories.
Cabinetry shall be AWI custom grade to be identified by the user.

Provide specific cabinetry as shown on the Room Requirements Sheets.

C103010 CASEWORK

Provide all built-in premanufactured metal cabinetry for specialized functions such as laboratories as identified by the user. Casework shall comply with Mil Std 1691.

Provide specific casework as shown on the Room Requirements Sheets.

C103012 FIRESTOPPING PENETRATIONS

Provide all sleeves, caulking, and flashing for firestopping penetrations.

6. ENGINEERING SYSTEMS REQUIREMENTS

C30 INTERIOR FINISHES

SYSTEM DESCRIPTION

Interior finishes include wall finishes, floor finishes, wall base finishes, and ceiling finishes.

Provide aesthetically pleasing, functional, durable finishes appropriate to the buildings use as System Test and Development Building. Acoustic properties of materials, as well as durability and ease of maintenance, shall be considered during material selection. Maximize the use of sustainable materials.

GENERAL SYSTEMS REQUIREMENTS

See "Room Requirements" for specific requirements on "Interior Finishes."

C3010 WALL FINISHES

All interior wall finish materials shall be painted gypsum board, except ceramic tile in all toilet rooms to ceiling height.

All interior wall finishes shall be as indicated in the "Room Requirements" portion of this RFP.

C3020 FLOOR FINISHES

Primary floor finish shall be carpet tile, coated concrete, and vinyl composition tile, except ceramic tile shall be provided in toilet areas.

Building entrances and restrooms shall be ceramic tile.

Exposed concrete floors shall be coated with a sealer appropriate to the function of the space. Colored concrete floor shall be concrete topping with integral color pigment.

Floor finishes shall be as indicated in the "Room Requirements" portion of this RFP.

C3030 CEILING FINISHES

Primary ceiling finish shall be 24 inch by 48 inch by 5/8 inch minimum thickness suspended acoustical panel ceiling system, except provide a suspended gypsum board ceiling in restrooms. Acoustical panels shall have a tegular edge.

Ceiling finishes shall be as indicated in the "Room Requirements" portion of this RFP.

C3040 INTERIOR COATINGS AND SPECIAL FINISHES

Paint all interior exposed metal items, to include interior grilles, registers, diffusers, access panels, and panel boxes.

All finish coatings shall be as indicated in the "Room Requirements" portion of this RFP.

6. ENGINEERING SYSTEM REQUIREMENTS

D20 PLUMBING

Refer to Part 4 Section D20 for performance requirements of the building elements included in the plumbing system.

Refer to the Project Program, Paragraph 2.3.2 for Energy Conservation. Each system, component or feature selected that impacts the energy or water use of the facility shall be in compliance with UFC 3-400-01 ENERGY CONSERVATION and include the 30% energy reduction as compared to ASHARE Standard 90.1 as described in EPACK – 2005, Public Law 109-59.

SYSTEM DESCRIPTION

The plumbing system for Building 3205 extension shall consist of all fixtures, potable cold and hot water piping and equipment, piping insulation, water heating equipment, sanitary waste and vent piping systems, and other specialty piping and equipment within 1.5 meter (5 foot) of the building. Refer to Building Requirements, Space Tabulations Section of the Project Program for building occupancy levels.

GENERAL SYSTEM REQUIREMENTS

Provide working space around all equipment. Provide concrete pads under all equipment. Provide all required fittings, connections and accessories required for a complete and usable system. All equipment shall be installed per the criteria of RFP section D20 and the manufacturer's recommendations. Design and installation shall be in accordance with IPC and UFC 3-420-01, *Plumbing Systems*. Where the word "should" is used in the manufacturer's recommendations, substitute the word "shall".

D2010 PLUMBING FIXTURES

Provide quantity and type of plumbing fixtures required for the occupancy, use, and functions described for this facility. Refer to Room Requirements

Section for additional specific requirements for spaces with plumbing fixtures. Provide handicapped fixtures in accordance with the referenced criteria in the Project Program.

D201001 WATER CLOSETS

Refer to Room Requirement Section for the number of water closets required.

Provide wall mounted electronic dual flush valve type water closets in all public restroom spaces.

Provide handicapped electronic dual flush valve type water closets for handicapped spaces.

D201002 URINALS

Refer to Room Requirement Section for the number of urinals required.

Provide electronic flush valve type urinals in all public restroom spaces.

Provide at least one handicapped electronic flush valve type urinals in all public restroom spaces.

D201003 LAVATORIES

Refer to Room Requirement Section for the number and type of lavatories required.

Provide under countertop lavatories with electronic metering faucets providing tempered water in each restroom space. Lavatories shall be accessible.

D201004 SINKS

Refer to Room Requirement Section for the number and type of sinks required.

Provide countertop stainless steel sink with two compartments in the Break Room.

D201005 SHOWERS/TUBS

Not Used.

D201006 DRINKING FOUNTAINS AND COOLERS

Refer to Room Requirement Section for the number and type of water coolers required.

Provide electric water coolers in spaces as indicated.

Provide handicapped units in spaces as indicated.

D201090 EMERGENCY FIXTURES

Provide emergency shower and eyewash in the spaces as required.

Provide alarms and appurtenances for service within NEMA type 3 or 4 enclosures.

D2020 DOMESTIC WATER DISTRIBUTION

D202001 PIPES AND FITTINGS

Provide Copper tubing and fittings for above ground and buried piping.

D202002 VALVES & HYDRANTS

Provide isolation valves at supply to each restroom group. Provide wall hydrants along the building exterior such that all points along the perimeter can be reached with a 100 foot long hose.

D202003 DOMESTIC WATER EQUIPMENT

Provide reduced pressure principle type backflow preventer at the service entrance inside the mechanical room.

Provide water meter.

Provide electric water heater for Rest Room lavatories.

D202004 INSULATION & IDENTIFICATION

Provide mineral fiber insulation with vapor barrier on domestic water (hot and cold) supply and recirculation piping. Provide identification for piping and equipment.

D202005 SPECIALTIES

Not Used.

D202090 OTHER DOMESTIC WATER SUPPLY

Provide cold water connection with isolation valve for Tenney T30C environmental chamber.

Provide piping supports in accordance with the IPC. Provide inspections, disinfection, and testing in accordance with the IPC.

D2030 SANITARY WASTE

D203001 WASTE PIPE & FITTINGS

Provide cast iron hub and spigot pipe and fittings, 'rubber compression gasket joints for below ground installation.

Provide plastic PVC piping, fittings, and solvent cement for above installation.

D203002 VENT PIPE & FITTINGS

Provide plastic PVC piping, fittings, and solvent cement.

D203003 FLOOR DRAINS

Provide in mechanical rooms, restrooms, and areas to receive condensate from air handling equipment. Provide a floor drain near the Tenney T30C environmental chamber. Provide trap primers on all floor drains.

D203004 SANITARY & VENT EQUIPMENT

Not Used.

D2040 RAIN WATER DRAINAGE

D204001 PIPE & FITTINGS

Not Used.

D204002 ROOF DRAINS

Not Used.

D204004 INSULATION & IDENTIFICATION

Not Used.

D204090 OTHER RAINWATER DRAINAGE SYSTEM

Not Used.

D2090 OTHER PLUMBING SYSTEMS

D209001 SPECIAL PIPING SYSTEMS

Not Used.

D209002 ACID WASTE SYSTEMS

Not Used.

D209003 INTERCEPTORS

Not Used.

D209005 COMPRESSED AIR SYSTEM (NON-BREATHING)

Not Used.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

D30 HVAC

Refer to Part 4 Section D30 for performance requirements of the building elements included in the HVAC system. This section covers building expansion and various area upgrades for Building 3205.

Refer to the Project Program, Paragraph 2.3.2 for Energy Conservation. Each system, component or feature selected that impacts the energy or water use of the facility shall be in compliance with UFC 3-400-1 ENERGY CONSERVATION and include the 30% energy reduction as compared to ASHARE Standard 90.1 as described in EPACT – 2005, Public Law 109-59.

The existing HVAC systems for this facility consist of DX split systems air handling units, and electric unit heaters controlled by direct digital control (DDC) systems.

SYSTEM DESCRIPTION

Office Area Expansion:

Provide heating, ventilating and air conditioning (HVAC) systems for the Building 3205 Extension that attains the following objectives: Occupant comfort, Indoor air quality, Acceptable noise levels, Energy efficiency, Reliable operation, and Ease of maintenance. Design and installation shall be in accordance with IMC and UFC 3-400-10N, *Mechanical Engineering*. Refer to Building Requirements, Space Tabulations Section of the Project Program for building occupancy levels.

Any combination of equipment that attains these goals, and meets the requirements outlined below, will be acceptable.

Direct expansion multizone systems, direct expansion variable air volume systems, and thru-the-wall units are not acceptable. Economizer cycles shall not be used.

LRU Storage Relocation:

The existing heating, ventilating and air conditioning (HVAC) system AHU-2 will be used to provide occupant comfort for LRU Storage area. Provide HVAC system modifications, ductwork, grilles, and diffusers as required to attain Occupant comfort, Indoor air quality, Acceptable noise levels, Energy efficiency, Reliable operation, and Ease of maintenance. Refer to Building Requirements, Space Tabulations Section of the Project Program for building occupancy levels.

LRU Test Lab Expansion:

The existing heating, ventilating and air conditioning (HVAC) system AHU-4 will be used to provide occupant comfort for LRU Test Lab expanded area. Provide HVAC system modifications, ductwork, grilles, and diffusers as required to attain Occupant comfort, Indoor air quality, Acceptable noise levels, Energy efficiency, Reliable operation, and Ease of maintenance. Refer to Building Requirements, Space Tabulations Section of the Project Program for building occupancy levels.

Cable Shop and various Offices and Corridors along south wall:

The existing heating, ventilating and air conditioning (HVAC) system AHU-1 will be used to provide occupant comfort for Cable Shop and various offices and corridors along south wall. Provide HVAC system modifications, ductwork, grilles, and diffusers as required to attain Occupant comfort, Indoor air quality, Acceptable noise levels, Energy efficiency, Reliable operation, and Ease of maintenance. Refer to Building Requirements, Space Tabulations Section of the Project Program for building occupancy levels.

GENERAL SYSTEM REQUIREMENTS

Provide working space around all equipment. Provide all required fittings, connections and accessories required for a complete and usable system. All equipment shall be installed per the criteria in RFP Section D30 and the manufacturer's recommendations. Where the word "should" is used in manufacturer's instructions, substitute the word "shall".

Provide air conditioning and heating for spaces as indicated and for the following Design conditions:

Outside Conditions					
Summer	33.3	Degrees C dry bulb	Winter	+0.6	Degrees C
	92	Degrees F dry bulb		33	Degrees F
	27.2	Degrees C wet bulb			
	81	Degrees F wet bulb			

Inside Conditions					
Summer	23.8	Degrees C dry bulb	Winter	20	Degrees C
	75	Degrees F dry bulb		68	Degrees F
	50	%RH			

Mechanical Room Inside Conditions					
Summer	5.6	Degrees C dry bulb above ambient	Winter	18.3	Degrees C
	10	Degrees F dry bulb above ambient		65	Degrees F

Provide Ventilation rates and systems per the latest edition of ASHRAE Standard 62, *Ventilation for Acceptable Indoor Air Quality*.

The HVAC system shall provide each zone with the choice of heating or cooling year round unless otherwise indicated. Each zone shall have its own limited range of control, as allowed by the control system central workstation.

Material and Equipment Qualifications: All materials and equipment shall have been in satisfactory commercial or industrial use for 2 years prior to the bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The

product shall have been for sale on the commercial market through advertisements, manufacturer's catalogs, or brochures during the 2-year period.

Motors: Single-phase fractional-horsepower alternating-current motors shall be high efficiency types corresponding to the applications listed in NEMA MG 11. Select polyphase motors based on high efficiency characteristics relative to the applications as listed in NEMA MG 10. Additionally, all polyphase squirrel-cage medium induction motors with continuous ratings shall meet or exceed energy efficient ratings per Table 12-10 of NEMA MG 1. Provide controllers for 3-phase motors rated 0.75 kW (1 hp) and above with phase voltage monitors designed to protect motors from phase loss and over/under-voltage. Provide means to prevent automatic restart by a time adjustable restart relay. For packaged equipment, the manufacturer shall provide controllers including the required monitors and timed restart. Provide reduced voltage starters for all motors 25 hp and larger.

Provide housekeeping pads and vibration isolators under all floor-mounted equipment.

All mechanical equipment shall have painted finishes that pass a salt-spray test conducted per ASTM B117 for duration of at least 500 hours.

D3010 ENERGY SUPPLY

D301001 OIL SUPPLY SYSTEM

Not Used.

D301002 GAS SUPPLY SYSTEM

Not Used.

D301003 STEAM SUPPLY SYSTEM (FROM CENTRAL PLANT)

Not Used.

D301004 HOT WATER SUPPLY SYSTEM (FROM CENTRAL PLANT)

Not Used.

D3020 HEAT GENERATING SYSTEMS

Not Used.

D302001 BOILERS

Not Used.

D302002 FURNACES

Not Used.

D302003 FUEL-FIRED UNIT HEATERS

Not Used.

D302004 AUXILIARY EQUIPMENT

Not Used.

D302005 EQUIPMENT THERMAL INSULATION

Not Used.

D302090 OTHER HEAT GENERATING SYSTEMS

Not Used.

D3030 COOLING GENERATING SYSTEMS

D303001 CHILLED WATER SYSTEMS

Not Used.

D303002 DIRECT EXPANSION SYSTEMS

Provide air-cooled, split system heat pumps and associated air handling unit with ducted air distribution. Provide with supplemental electric heater on heat pump systems.

D3040 DISTRIBUTION SYSTEMS

D304001 AIR DISTRIBUTION, HEATING & COOLING

Provide insulated, galvanized steel ductwork constructed, braced, reinforced, installed, supported, and sealed per the IMC and SMACNA standards.

All HVAC systems shall have ducted supply and returns.

In finished areas with suspended or dropped ceilings route all ductwork above ceilings. Ductwork may be exposed in all other areas.

Use only external duct insulation, duct board or internal duct liner is not allowed.

At a minimum seal all ductwork to SMACNA Seal Class B, and leak test in accordance with specifications. Ducts shall also be sealed at all room enclosure penetrations and at all connections to equipment, louvers, grilles and diffusers. Seal all ductwork in accordance with ITG FY05-2 (NAVFAC Humid Area HVAC Design Criteria)

Provide aluminum grilles, registers, and diffusers.

D304002 STEAM DISTRIBUTION SYSTEMS

Not Used.

D304003 HOT WATER DISTRIBUTION SYSTEMS

Not Used.

D304004 CHANGEOVER DISTRIBUTION SYSTEMS

Not Used.

D304005 GLYCOL DISTRIBUTION SYSTEMS

Not Used.

D304006 CHILLED WATER DISTRIBUTION SYSTEMS

Not Used.

D304007 EXHAUST SYSTEMS

Provide ducted exhaust ventilation systems and exhaust fans to serve all ventilated zones of the facility. Provide in-line centrifugal exhaust fans with wall louvers.

Provide ducted exhaust system for existing cleaning station (printed circuit boards and other small equipment).

D304008 AIR HANDLING UNITS

Provide split system constant volume air handlers. Provide with 35% filters.

NOTE: Consideration should be given to the use of ultraviolet disinfection system based on the activities ability to maintain the equipment, since it enhances the equipment life and minimizes coil cleaning. Also this will help avoid IAQ problems.

D304090 OTHER DISTRIBUTION SYSTEMS

Not Used.

D3050 TERMINAL & PACKAGE UNITS

D305001 UNIT VENTILATORS

Not Used.

D305002 UNIT HEATERS

Not Used.

D305003 FAN COIL UNITS

Not Used.

D305004 FIN TUBE RADIATORS & CONVECTORS

Not Used.

D305005 ELECTRIC HEATING

Provide electric unit heaters for heating Mechanical Rooms.

D305006 PACKAGE UNITS

Provide split-system, air-to-air heat pumps to serve each conditioned zone of the facility.

D3060 CONTROLS AND INSTRUMENTATION

D306001 HVAC CONTROLS

D306001-1.1 DIRECT DIGITAL CONTROLS (DDC)

Provide partial direct digital control (DDC) system which will communicate with the existing DDC system and EMCS system. The DDC system shall be manufactured by Siemens Building Technologies.

Provide electronic controls for the HVAC systems and equipment.

D3070 SYSTEMS TESTING AND BALANCING

Provide complete Testing and Balancing (TAB) of all air and water distribution systems and HVAC equipment. The TAB shall be done by either a NEBB or TABB certified contractor.

D307001 WATER SIDE TESTING & BALANCING – HEATING & COOLING

Not Used.

D307002 AIR SIDE TESTING & BALANCING – HEATING, COOLING & EXHAUST

Refer to paragraph D3070.

D307003 HVAC COMMISSIONING

Provide level 2 commissioning for all HVAC systems.

**D3090 OTHER HVAC SYSTEMS AND
EQUIPMENT**

D309001 GENERAL CONSTRUCTION ITEMS

Provide seismic restraints and comply with the Force Protection Criteria.

D309090 OTHER SPECIAL MECHANICAL SYSTEMS

Provide ducted vents for the Tenney TC30C environmental chamber as required. <http://www.thermalproductsolutions.com/tenney/classic-specs.asp>

-- End of Section --

6. ENGINEERING SYSTEMS REQUIREMENTS

D40 FIRE PROTECTION

Refer to Part 4 Section D40 for performance requirements of the building elements included in the fire protection systems.

SYSTEM DESCRIPTION

Provide an integrated fire alarm, public address, mass notification and suppression system capable of notifying building occupants and controlling any fire that may start inside the facility. Fire suppression system shall be designed for seismic requirements per NFPA 13 and UFC 3-600-10N.

ANTI- TERRORISM.FORCE PROTECTION: To meet anti-terrorism and force protection requirements provide seismic restraints and supports on all sprinkler system components.

Provide portable fire extinguishers in a secured manner.

GENERAL SYSTEM REQUIREMENTS

Provide working space around all equipment. Provide concrete pads under all equipment. Provide all required fittings, connections and accessories required for a complete and usable system. All equipment shall be installed per the criteria of RFP section D40 and the manufacturer's recommendations. Where the word "should" is used in the manufacturer's recommendations, substitute the word "shall".

All Design Documents, (i.e. Building Code/Life Safety Analysis, plans, specifications, calculations, etc.) developed for Section D40 shall be prepared by, or under the supervision of the design/build contractor's Registered Fire Protection Engineer, the Design Build Fire Protection Engineer (FPDOR).

The FPDOR shall have a firm contractual agreement with

1. The Design-Build Contractor and shall not be working for any of the subcontractors on the project he is reviewing.
2. The FPDOR shall have obtained professional registration in the field of fire protection and shall be working exclusively in this field.

ALL construction submittals, (i.e. shop drawings, calculations, catalog cuts, etc.) shall be reviewed and approved by the FPDOR.

The FPDOR and the NAVFAC Southeast FPE shall witness final acceptance tests for all systems installed for Section D40 and D5030.

The FPDOR is responsible for developing the hydraulic analysis, and developing a code analysis demonstrating compliance with all NFPA codes and the model building code utilized prior to initial design submittals.

The FPDOR is expected to verify provision and construction compliance of all passive fire protection systems in the facility (proper wall, floor, and ceiling rating, proper use of fireproofing and fire-stopping systems, protection of openings (coordination of door ratings, hardware, etc).

The FPDOR shall identify any special hazards in the facility (i.e. chemical use/storage, HAZMAT, flammable use/storage, etc.) and verify adequate protection (i.e. fire rated construction, explosion venting, alternate suppression, etc.) is provided.

Provide training for the active systems consisting of two (2) eight (8)-hour sessions to accommodate both shifts of the base fire department and allow for rescheduling for unforeseen fire department responses.

D4010 FIRE ALARM/MASS NOTIFICATION SYSTEMS

Provide a complete, electrically supervised, addressable, intelligent, manual and automatic, annunciated combination fire alarm/mass notification system throughout the facility.

Provide an Individual Inhabited Facility/Building Subsystem type Mass Notification System (MNS) combined with the Fire Alarm System to meet mass notification requirements of UFC 4-021-01 Design and O&M: Mass Notification Systems. If required, the Mass Notification system shall be provided with amplifiers, speakers, microphone, zone paging adapter to interface with the telephone system. The MNS shall be a single zone; all call system that annunciates in all occupied spaces. The system shall be accessed via the telephone system by dialing a designated telephone extension. The System shall also be capable of being used as a public address system with head end equipment and back up microphone shall be located in a rack, coordinate location with Stennis Space Center Fire Department.

Combine the fire alarm and mass notification System (MNS) Control systems notification appliances. Fire alarm system shall include voice evacuation system. Provide a voice evacuation microphone equipped announcement point for the facility.

Combination fire alarm/mass notification system shall include manual stations, system smoke detectors, duct smoke detectors, heat detectors, audio speakers, alarm strobes, textual devices, fire alarm radio transmitter, electrical supervision of all sprinkler system alarm and supervisory devices.

The system shall have the capability to take an external input from a remote microphone station and base wide mass notification message to provide real-time information to all building occupants or personnel in the immediate vicinity of a building during emergency situations

The system shall be capable of providing pre-recorded and live voice emergency messages to alert occupants and give specific instructions based on the emergency. At a minimum, there shall be a pre-recorded message for a fire emergency with instructions to evacuate the building, and a hazardous chemical release message with instructions to close all windows and doors, turn off all heating, air conditioning, and exhaust fans

and to wait for further instructions. Coordinate with fire department during design.

Existing fire alarm reporting system uses a Monaco radio alarm system. Building radio transceivers shall be compatible with the existing system. Stennis is currently installing the 'Siemens Firefinder (XLS) Fire Alarm Panel.' All new fire alarm panels must be the XLS or UL listed to be compatible with the 'Siemens Insight Life Safety System. Coordinate with fire department during design.

D4020 FIRE SUPPRESSION WATER SUPPLY AND EQUIPMENT

Base hydraulic calculations on a static pressure of (63psig) with (1256 gpm) available at a residual pressure of (59 psig) at the junction with the water distribution piping system. The FPDOR shall conduct a flow test after award prior to any design submissions. The FPDOR shall determine the need for a fire pump based on building design and the available flow and pressure at the site.

The incoming sprinkler service shall be provided with a double check backflow preventer.

Depending on results of flow test, contractor may have to provide a horizontal split-case centrifugal shaft turbine-type, diesel and electric driven fire pumps with the minimum rated capacity based on results of the flow test

D4030 STANDPIPE SYSTEMS

None Required.

D4040 SPRINKLER SYSTEMS

Provide wet pipe automatic sprinkler protection to provide complete coverage throughout Building 3205 and the new Building 3205 Addition.

For ordinary hazard areas including mechanical rooms, LRU Test Lab and LRU property storage areas, cable shop and cubical areas, the sprinkler rate of application shall be (0.20 gpm/ft^2) , over an area of (3000 ft^2) with hose stream allowance of (500 gpm) .

Provide quick-response recessed sprinklers with ordinary temperature rating in areas with finished ceilings. Provide chrome sprinklers with escutcheon plates to match ceiling color.

D4090 OTHER FIRE PROTECTION SYSTEMS

Provide multiple purpose portable fire extinguishers having a rating of 2A:10BC installed and located per NFPA 10 2007 edition

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

D50 ELECTRICAL

SYSTEM DESCRIPTION

The electrical system shall be designed after a thorough site investigation and meeting with public works and the end users, and shall be in accordance with the most recent edition of the following applicable UFC design guides and design criteria: UFC 3-500-10N Design: Interior Electrical Requirements, UFC 3-530-01 Design: Interior and Exterior Lighting and Controls, UFC 3-550-03N Design: Power Distribution Systems, UFC 3-600-01 Design: Fire Protection Engineering for Facilities, UFC 4-010-01 Design: DoD Minimum Antiterrorism Standards for Buildings, UFC 4-021-01 Design: Mass Notification Systems, UFC 4-610-01N Design: Administration Facilities, and UFC 4-229-01N Design: General Maintenance Facilities. The Stennis Space Center Electrical Standards shall be followed.

Contractor shall verify all systems associated with this renovation to be in good working condition and code compliant. Provide an interior electrical system including all accessories and devices as necessary and required for a complete and usable system. The interior electrical shall consist of, but not be limited to, lighting and branch circuit systems, fire alarm/mass notification systems, lightning protection and grounding systems, and communications systems. Arrange the systems logically for easy testing and maintenance. Specify extremely durable components for a quality, low-maintenance installation. Electrical systems shall comply with program requirements, performance specification G40 and D50 and all applicable UFCs. This section covers installations out to the building 1.5 meter (5 foot) line.

GENERAL SYSTEM REQUIREMENTS

Provide an Electrical System complete in place, tested and approved, as specified throughout this RFP, as needed for a complete, usable and proper installation. All equipment shall be installed per the criteria of Section D50 and the manufacturer's recommendations. Where the word "should" is used in the manufacturer's recommendations, substitute the word "shall".

The existing interior electrical system appears to be in good working order. Extensive modification will be required in some rooms while complete reconstruction will be involved in others. These repairs, modifications and installations will include accessories and devices as necessary and will require for a complete and usable system. There will be some modifications which will call for relocating and/or adding power receptacles, communication outlets, light fixtures and fire alarm equipment. As the building is expanded, the installation of new additional equipment including, but not limited to, light fixtures, power and communications receptacles, fire alarm equipment as well as grounding and lightning protection will be required.

D5010 ELECTRICAL SERVICE AND DISTRIBUTION

D501001 MAIN TRANSFORMERS

Main transformer(s) are defined in Section G40, *Site Electrical Utilities*.

D501002 SERVICE ENTRANCE EQUIPMENT

Provide an interior distribution system consisting of insulated conductors in conduit for all equipment, plumbing systems, air conditioning and ventilation systems, fire alarm system, etc.

A detailed analysis of the electrical design shall be conducted. The electrical studies to be performed shall include, but not be limited to voltage drop, load flow, short circuit protection, and coordination. The method for performing these calculations shall be by computer programs designed for such purpose. Hand calculations for these complex computations shall not be used

since hand calculations tend to require simplifying assumptions that limit accuracy and usefulness of the results.

Over-current protective devices in the system must be designed to isolate faults instantly with minimal equipment damage and minimal disruption to facility operations. Provide a main distribution panel as service equipment.

Feeders shall have over-current protection in accordance with NEC article 240.4 (latest edition), and service conductors shall be protected in accordance with NEC article 230.90 (latest edition).

D501003 INTERIOR DISTRIBUTION TRANSFORMERS

Provide energy efficient 80 degree rise, dry type transformers to step down secondary voltages for general-purpose outlets and other low voltage equipment.

Harmonic mitigating or K-rated transformers shall be utilized for stepping down voltages to supply non-linear loads associated with computer and IT type equipment. The neutral on the secondary side of harmonic mitigating or K-rated transformers feeding dedicated computer/IT equipment panel(s) shall be sized at 200%.

If more than 40% of the load is required to be stepped down with interior dry type transformers, the designer should consider providing the lower voltage at the service from the exterior pad mounted transformer. The design shall provide a minimum of 20% allowance for growth.

D501004 PANELBOARDS

Provide distribution and branch circuit panelboards with bolt on type circuit breakers throughout the facility to serve loads as required. 480Y/277 volt, 3-phase, 4-wire panelboards shall be provided for distribution of large mechanical equipment and lighting loads. 208Y/120 volt, 3-phase, 4-wire panelboards shall be provided for distribution of small mechanical equipment and general receptacle loads. Panelboards shall be located throughout

the facility to reduce voltage drop on branch circuit loads, efficiently serve equipment, and provide system flexibility. Panelboards shall be provided with a minimum of 20% space and 20% spare capacity. Electrical equipment dedicated space and working clearance shall be in compliance with NEC (NFPA 70). Coordinate with other disciplines to avoid conflicts with other equipment.

208Y/120 volt , 3-phase, 4-wire panelboards serving computer and IT equipment loads shall be equipped with 200% rated neutral buses.

D501005 ENCLOSED CIRCUIT BREAKERS

Provide enclosed circuit breakers for loads as required.

D501006 MOTOR CONTROL CENTERS

Provide motor control centers, individual motor starters with disconnect switches, combination motor starters, variable speed drives, reduced voltage controllers, manual motor starters, and combination motor starters for motor controls as required by mechanical equipment in accordance with NEC. Provide all circuits and connections for all motors and mechanical equipment.

120-volt motors shall be specified to have integral thermal overload protection when available. If integral thermal overload protection is not available, provide manual thermal overload starters. Provide combination motor starter-disconnect controllers for poly-phase motors. Provide reduced voltage starters for motors over 25 HP. Coordinate type with motor design and starting torque requirements.

Provide horsepower-rated manual starters for 120-volt motors with integral thermal overload protection. The manual starter may serve as the disconnect means for 120-volt motors without integral thermal overload protection when properly located. Combination motor starter-disconnect controllers may serve as the disconnecting means for poly-phase motors when properly located. Provide additional non-fused disconnect switches within

sight of the motor when the starter disconnect cannot be placed within sight of the motor.

D501090 OTHER SERVICE AND DISTRIBUTION

Provide transient voltage surge suppressors (TVSS) at the service entrance.

In the expansion part of the facility, provide floor boxes or poke-throughs in conference rooms and cubicle areas to provide power and data access to furniture located away from the perimeter walls.

D5020 LIGHTING AND BRANCH WIRING

Provide lighting and general-purpose receptacles throughout all spaces as required. All new general-purpose receptacles shall be 20 amp, NEMA WD 1. New receptacles for general purpose shall be circuited such that no more than six duplex (or three quad-duplex) receptacles are placed on one 20 amp, single-pole breaker. New receptacles dedicated for computer loads shall be circuited such that no more than two quad-duplex receptacles are placed on one 20 amp, single-pole breaker (two computers per circuit). Quad-duplex receptacles in communications rooms shall be circuited such that one quad-duplex receptacle is placed on one 20 amp, single-pole breaker. If new, provide dedicated receptacles for all auxiliary office equipment such as fax machines, printers, plotters, shredders, or copiers. This equipment shall be circuited such that no more than one duplex receptacle is placed on one 20 amp, single-pole breaker. A dedicated circuit shall also be required for refrigerators, water coolers, microwaves, and vending machines. Each new receptacle homerun shall have a dedicated neutral, multi-wire branch circuits (shared neutrals) shall not be used. Contractor shall provide new ground fault circuit interrupting receptacles as required by the NEC (latest edition).

Provide a minimum of one general-purpose receptacle on each wall of individual offices and conference rooms. In offices where walls exceed 10 feet, provide an additional duplex receptacle for

each additional 10 feet of wall or fraction thereof. General-purpose receptacle spacing shall not exceed 10 feet.

Provide receptacles and/or hard-wired power connections as required for any special equipment or furnishings included in sections E-10 and E-20. The existing receptacles throughout the building are assumed to be in good working condition. If found out to be faulty or out of code compliance, contact the contracting officer.

D502001 BRANCH WIRING

All branch wiring shall be per UFC 3-500-10N. At a minimum, provide conductors with type THHN/THWN insulation for conductor sizes #12 through #1/0, and type XHHW insulation for conductor sizes #2/0 and larger. All conductors shall be copper and shall be routed in EMT conduit, except that RGS conduit shall be used in shop and work bay areas. All conductor sizes shall be #12 minimum.

D502002 LIGHTING EQUIPMENT

Provide a complete lighting system including emergency lighting, LED exit lights, and emergency egress lighting (either integral to the fixture or through stand-alone emergency packs). Building lighting shall consist of fluorescent lighting including switches. All lighting control design, fixture layout, luminaire wattage requirements, lighting power allowance, etc. shall be in compliance with ASHRAE 90.1, 2004 version.

Lighting design at a minimum shall consist of a combination of static fluorescent troffers, fluorescent industrials, HID, and fluorescent down lights to meet the required foot-candles levels needed for the desired areas.

Lighting methods and foot-candle levels shall be in accordance with the Illuminating Engineering Society of North America (IESNA) or applicable UFC. Design to highest recommended foot-candle level. Illumination shall meet the requirements of the visual tasks being performed. General illumination requirements shall be determined in a plane of 30 inches above the floor.

Fluorescent fixtures shall utilize T5 or T8 lamps and electronic energy efficient, high frequency ballasts. Design shall employ multi-lamp standard ballasts with total harmonic distortion less than 10 percent.

Automatic shut-off systems, dimming ballast, and multi-level switching shall be used along with occupancy and daylight sensors to help reduce energy cost.

Contractor shall coordinate all possible light fixture types and layout designs along with any control design requirements with the user and applicable design guides.

D5030 COMMUNICATIONS AND SECURITY

The Room Requirements Section identifies locations for communications and security systems and equipment, unless noted otherwise in the following sub-elements.

D503001 TELECOMMUNICATIONS SYSTEMS

The existing telecommunications system is assumed to be in good working condition. If found to be faulty or out of code compliance, contact the contracting officer. The contractor shall ensure the completed system, including new installation in conjunction with existing equipment, consists of a complete building entrance facility, backbone distribution system, and horizontal distribution system including, but not necessarily limited to, all wiring, pathway systems, grounding, backboards, connector blocks, protectors for all copper service entrance pairs, patch panels, outlet boxes, telephone jacks, data jacks and cover plates. Provide fiber optic distribution panels, terminators for all fiber optic cables as required. Extend category 6 cables to the outlets from the existing communications hub.

D503002 PUBLIC ADDRESS SYSTEM

Building B3205 shall be integrated in the NDBC and SSC mass notification/public address system and shall comply with applicable UFCs and SSC Standards.

D503004 TELEVISION SYSTEMS

The existing CATV system consisting of raceways and outlet boxes appears to be operational. The system is assumed to be in good working condition. If found to be faulty or out of code compliance, contact the contracting officer.

Add new or relocate existing CATV system components where required by the user, to be owned and maintained by the user, including all interior equipment required to provide high quality TV signals to all outlets with a return path for interactive television and cable modem access. System shall include, but is not necessarily limited to amplifiers, splitters, combiners, line taps, cables, outlets, tilt compensators and all other parts, components, and equipment necessary to provide a complete and usable system. All CATV outlets shall have an individual homerun back to the facilities CATV source.

Conduct CATV testing at each of the following points in the system:

Furthest outlet from service entrance point of connection.
A random sampling of 25 percent of the outlets as designated by the Contracting Officer.

D503090 OTHER COMMUNICATIONS AND ALARM SYSTEMS

See section D40 of this RFP for Fire Alarm/Mass Notification Systems.

D5090 OTHER ELECTRICAL SERVICES

D509001 GENERAL CONSTRUCTION ITEMS (ELECTRICAL)

Provide General Construction Items (Electrical) including, but not necessarily limited to, all connections, fittings, boxes and associated equipment needed by this and other sections of this RFP as required for a complete and usable system.

Conduits, cable trays and busways that penetrate fire-rated walls, fire-rated partitions, or fire-rated floors shall be firestopped in accordance with Section C10, *Interior Construction*.

D509002 EMERGENCY LIGHTING AND POWER

Provide power and wiring for emergency lights and exit lights throughout the facility. Emergency light fixtures and all exit lights must be self-contained utilizing internal and external battery packs. Luminaires that provide normal and emergency lighting within the same enclosure are permitted, however emergency lights shall be on independent circuits to allow for testing. Fixtures with wall-mounted battery packs are prohibited.

Emergency lighting and exit lights shall be installed in accordance with NFPA 70, NFPA 101 and all applicable local and state codes. The system must be maintained and tested in accordance with NFPA 111, Stored Electrical Emergency and Standby Power Systems.

Batteries for emergency lighting fixtures, exit lights and battery fluorescent ballasts shall have a minimum warranty of five years and minimum expected battery life of 10 years. Battery fluorescent ballasts shall provide a minimum of 1100 lumens (or as required to meet emergency egress illumination criteria per NFPA 70 and 101) continuously for 90 minutes.

Exit signs shall utilize LED with illuminated letters displayed on an opaque background.

D509003 GROUNDING SYSTEMS

Provide a complete grounding system for the facility electrical and telecommunications systems.

All workbenches in the lab area shall be provided with an Electrostatic Discharge (ESD)

D509004 LIGHTNING PROTECTION

Provide a complete lightning protection system including, but not necessarily limited to, strike termination devices, conductors, ground terminals, interconnecting conductors, surge suppression devices, and other connectors and fittings required for a complete and usable system.

Work shall include necessary modifications to the existing lightning protection system on Building 3205 such that the entire system meets NFPA 780 and UL 96 and shall bear a UL Master Label when complete. All criteria for obtaining the Master Label, such as surge protection on the electrical and communications service, shall be met. The Lightning protection system shall bond to the building structural steel for a completely electrically continuous structure. Work shall include installation of a complete lightning protection system of the Building 3205 expansion such that the entire system meets the Master Label requirements.

D509005 ELECTRIC HEATING

Provide power wiring and connections as required for all electric heating systems and equipment.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

E20 FURNISHINGS

SYSTEM DESCRIPTION

Furnishings shall include fixed furnishings and movable furnishings.

The movable furniture and furnishings for this facility include, but are not limited to modular prefabricated furniture, freestanding furniture, accessories, and other miscellaneous items to support facility functions.

GENERAL SYSTEMS REQUIREMENTS

The contractor shall have an interior designer, certified by the National Council for Interior Design Qualification (NCIDQ) prepare the FF&E Package. The Interior Designer shall not be affiliated with any furniture dealership/vendor or manufacturer. The Government Interior Designer reserves the right to approve/disapprove the qualifications of the interior designer selected.

Design and provide fixed furnishings for all areas as indicated in the Room Requirements matrix and as required and appropriate for other areas.

Design a comprehensive interior movable furniture and furnishings package and prepare supporting plans and specifications (procurement data).

All fixed and movable furnishings selections shall be closely coordinated with Sections C10, *Interior Construction*, and C30, *Interior Finishes*.

Both Fixed and movable furniture and furnishings shall be fully integrated with the building systems.

E2010 FIXED FURNISHINGS

As indicated by the user.

E201002 WINDOW TREATMENTS

All windows and other glazed openings to the exterior of the building shall be provided with horizontal blinds.

E2020 MOVABLE FURNISHINGS

As indicated by the user.

The contractor must provide the Comprehensive Interior Design furnishings package in accordance with UFC 03-120-10, *Interior Design*, and other portions of this RFP. Furnishings shall be selected from GSA schedules according to Federal Acquisition Regulations, to include movable artwork, furniture and accessories, rugs and mats, multiple seating and interior landscaping.

Furnishings, Fixtures, and Equipment (FF&E) shall include furniture, shop equipment, audiovisual equipment, and specialty equipment. Weapon racks, drying cages, and lockers are not considered FF&E. FF&E shall be fully integrated with the building systems and finishes. FF&E may also include specialty items for which the customer activity shall be responsible for specifying.

Design and provide as required FF&E for all areas as developed during client programming. Design an FF&E package and prepare supporting plans and procurement data in accordance with the general interior design requirements UFC 3-120-10. The contractor shall obtain services of equipment specialists to specify the audiovisual, shop, telephone systems or other specialty equipment. Specialists shall not have any affiliation with the product specified.

At the beginning of the facility design, the Contractor's Project Manager or his designated representative, the Project Architect, and the Project Interior Designer shall be required to attend an orientation meeting at NAVFAC Southeast located in Jacksonville, Florida. Other attendees are welcome at the Contractor's discretion. The Interior Designer attending

shall be the professional(s) assigned to do the work and shall not be associated in any way with any furniture dealership, vendor, or manufacturer. Contact Patty O'Neil, NAVFAC Southeast Interior Design IPT Gulf Coast Division, 904-542-3991, ext. 4424, patricia.a.oneil@navy.mil to begin the process. The interior design process shall be reviewed in detail including a discussion of the three required design meetings and the three required design submittals. These are minimum requirements and the Contractor shall be prepared to provide any/all additional meetings and/or submittals necessary to support the Interior Design effort/collateral equipment coordination necessary to produce a complete and fully integrated initial outfitting furniture and furnishings CID (FF&E) package.

FF&E Package: Design and provide a fully usable and complete facility to include a FF&E movable furnishings package from Government supply sources according to Federal Acquisition Regulations. The FF&E will include, but not limited to, systems and modular furniture, training and conference furniture, seating, tables, artwork, decorative window covering, specialty furniture and equipment, and accessories. The FF&E Package must include shipping, freight, handling, and installation.

The Comprehensive Interior Design movable furniture and furnishings package shall be designed in accordance with guidance set forth in the Federal Acquisitions Regulations (FAR) Part 8 Required Sources of Supply and shall be fully integrated with the building's systems. A Best Value Determination shall be required.

E2020 1.1.2 The contractor shall be authorized by the Government Contracting Officer to procure all furniture/furnishings using predominately negotiated price schedules from GSA or other Federal contracts. Furniture shall be provided and paid from construction funds.

E202002 LOUNGE, RECEPTION AND GUEST SEATING

Lounge, reception and guest seating shall be easily reupholstered

E202003 CAFETERIA, DINING HALL FURNISHINGS

NOT USED

E202004 RUGS & ACCESSORIES
NOT USED

6. ENGINEERING SYSTEMS REQUIREMENTS

F10 SPECIAL CONSTRUCTION

SYSTEM DESCRIPTION

Special Construction shall include special structures such as pre-engineered buildings.

GENERAL SYSTEMS REQUIREMENTS

F1010 SPECIAL STRUCTURES

F101001 PRE-ENGINEERED METAL BUILDINGS

Provide the building foundation and other systems in accordance with UFC 3-300-10N, *Structural Engineering*.

Provide a pre-engineered metal building for B3205. Building shall have thermal resistance to comply with the ASHRAE 90.1 standards for its use.

The facility shall be a pre-engineered metal building. The metal building shall be 180 feet long by 81 feet wide, with an eave height of 14 feet high. A pre-engineered metal canopy shall connect B3205 and B3203. The metal canopy shall be 71 feet long by 31 feet wide, with an eave height of 14 feet high.

The framing system for the steel structure shall be in accordance with AISC M016, except that end frames may be of rigid frame or beam and column design.

In addition to the design loads determined in accordance with ASTM 7-05, design the structure in accordance with the following loading criteria:

Importance Factors

Use Occupancy Category II in Table 1 of UFC 3-310-01 for determining Importance Factors for seismic, snow, and wind design.

Wind Exposure

Wind design shall be based on Exposure C.

Provide framed openings for doors. The door openings shall integrate with the wind bracing system for the building.

6. ENGINEERING SYSTEMS REQUIREMENTS

F20 SELECTIVE BUILDING DEMOLITION

GENERAL SYSTEMS REQUIREMENTS

Perform all off-site work necessary to meet the requirements of the project, local codes, reference standards, technical specifications and performance criteria.

Identify and obtain all permits to comply with all federal, state, and local regulatory requirements associated with this work. The contractor shall submit complete the "Permits Record of Decision" (PROD) form with the first design submittal package. A blank PROD form is in the UFC 3-200-10N, *Civil Engineering*. Contractor shall determine correct permit fees and pay said fees. Copies of all permits, permit applications, and the completed PROD form shall be forwarded to the EFD Environmental Reviewer.

Coordinate and obtain approval from the Contracting Officer for proposed haul routes, work site access points, employee parking locations and material lay down and storage area).

F2010 BUILDING ELEMENTS DEMOLITION

This project includes general site demolition at the north/west side of Building 3205 for a new addition. The exterior metal skin will be removed as well as windows, metal roof trim, sidewalks, etc. All demolished items shall be the property of NASA and NASA will determine which items will be salvaged or discarded. The salvaged items delivered to Building 2204 and the remaining items will be removed from the premises.

F2010 1.1 GENERAL DEMOLITION

Building 3205 will be partially demolished and some items shall be salvaged. All demolished structural steel shall be salvaged and become the property of NASA and delivered to Building 2204. The demolition includes, but not limited to exterior metal wall panels, hollow metal doors and frames, downspouts, concrete, etc. Verify with NASA for additional items to be salvaged.

F2010 1.2 UTILITIES

Utilities must be coordinated with on-site personnel for planned outages.

The existing lab area is required to maintain operation throughout the construction of the new addition.

F2010 1.3 DUST CONTROL

Prevent the spread of dust and debris to occupied portions of the building and avoid the creation of a nuisance or hazard in the surrounding area.

F2010 1.4 TRAFFIC CONTROL

Removal of debris will be via North on Road H.

F2010 1.5 WEATHER PROTECTION

The interior spaces of the existing building must be protected from the weather for the duration of the period in which the exterior siding and roof are removed and replaced.

F2010 1.6 BURNING

Burning will not be permitted.

F201001 SUBSTRUCTURE & SUPERSTRUCTURE

The steel for this building is to be dismantled and hauled to Building 2204 Stennis Space Center.

F201002 EXTERIOR CLOSURE

Remove all exterior metal panels, purlins, and door frames and doors where the addition will occur. The wall panels can be removed there but must be a temporary wall constructed to protect the existing space from the elements. This wall will be removed when the new addition is complete.

All steel siding for this building is to be dismantled and hauled to Building 2204 Stennis Space Center

F201003 ROOFING

Remove all exterior metal trim and metal panels as needed on the entry vestibule on the north side of the building and the entire west side of the building. The roof panels or metal trim shall not be removed and left to be exposed to the elements. Only remove roof panels that can be replaced on the same day.

F201004 INTERIOR CONSTRUCTION & FINISHES

Remove all walls, flooring and ceiling as indicated by enclosed demolition plan, refer to Part 6 Attachments.

F201005 CONVEYING SYSTEMS

Not Used.

F201006 MECHANICAL SYSTEMS

Remove duct work where required to be raised for new 10' high ceilings. Refer to Part 3 Section D30.

F201007 ELECTRICAL SYSTEMS

For electrical demolition refer to Part 3 Section D50.

F201008 EQUIPMENT & FURNISHINGS

All equipment and furnishings that are to be re-used will be removed by the user prior to demolition.

F201090 OTHER NON-HAZARDOUS SELECTIVE BUILDING DEMOLITION

Not used.

F2020 HAZARDOUS COMPONENT ABATEMENT

A report prepared by BAT Associates, Inc. for each of the following: asbestos and lead based paint is provided to support this project and some of these reports are attached in Part 6 of this RFP.

F2020 1.1 PRIVATE QUALIFIED PERSON (PQP)

The General Contractor is required to hire as a first tier subcontractor a PQP to ensure compliance with the approved work plans and perform independent inspections, testing and verification of the hazardous components work including: asbestos, lead containing paint, cadmium containing paint, chromium containing paint, mercury & LLR components, PCBs ODS, animal droppings and molds and spores.

F2020 1.2 FURNISHINGS

Not Used.

F2020 1.3 ASBESTOS

The Asbestoses test report by BAT Associates, Inc. did not determine that there were less than 1% asbestoses CH detected. This would indicate that no special requirements are required for removal. See report in Part 6 Attachments.

F2020 1.4 LEAD BASED PAINT

The work includes removal of components that are painted with Lead base paint. The substrates and items that contain lead base paint can be

found in the test report by BAT Associates, Inc. See report in Part 6 Attachments.

F2020 1.5 PAINT RELATED WORK

The work will require disturbance of paint containing lead. Paint related work includes: removal of components with lead base paint. For more detailed information regarding concentrations, locations, etc. of existing paints please refer to the test report by BAT Associates, Inc. See report in Part 6 Attachments.

F201002 EXTERIOR CLOSURE

Remove all exterior metal panels, purlins, windows, and door frames and doors where the addition will occur. The wall panels shall not be removed and left to be exposed to the elements with out providing protection from the elements for the duration of exposure.

All steel siding that is to be removed from this building is to be to Building 2204 Stennis Space Center.

F2020 1.6 MERCURY & LLR COMPONENTS

Not Used.

F2020 1.7 PCB'S

Remove all light ballasts, transformers, capacitors, and STC without markings regarding PCB content ("NO PCB", etc.) as PCB containing and deliver to NASA Building 2204.

F2020 1.8 OZONE DEPLETING SUBSTANCES (ODS)

Not Used.

F2020 1.9 ANIMAL DROPPINGS

Not Used.

F2020 1.10 MOLDS AND SPORES

Not Used.

F2020 1.11 DISPOSAL

The structural steel salvage shall become the property of NASA and shall be transported to Building 2204 at Stennis Space Center. Verify with NASA what other materials are required for salvage prior to demolition.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

G10 SITE PREPARATION

SYSTEM DESCRIPTION

The site preparation system consists of site clearing, demolition, salvage, relocation, earthwork, and hazardous waste remediation necessary to ready the site for other work associated with the project.

GENERAL SYSTEM REQUIREMENTS

Develop the project site and perform all off-site work necessary to meet the requirements of the project, antiterrorism criteria, local codes, reference standards, technical specifications and performance criteria.

A topographic survey of the existing site has been performed. Prior to starting work, physically verify the location of all existing utilities and obtain all additional survey data required to provide a quality final design.

A geotechnical survey of the existing site has been performed. Subsurface soil information, including the geotechnical report, is included in other portions of this RFP. This information is included for the Contractor's information only, and is not guaranteed to fully represent all subsurface conditions. The data included in this RFP are intended for proposal preparation and preliminary design only. Contractor shall perform, at his expense, such subsurface exploration, investigation, testing, and analysis as his Designer of Record deems necessary for the design and construction of the requirements of this RFP.

A registered Professional Engineer shall provide inspection of excavations and soil/groundwater conditions throughout construction. The Engineer shall be responsible for performing pre-construction and periodic site visits throughout construction to assess site conditions. The Engineer, with the concurrence of the Contractor and the Contracting Officer or ROICC Officer, shall update the excavation, sheeting, shoring and dewatering plans as construction progresses to reflect actual site conditions and shall

submit the updated plan and a written report (with professional stamp) at least monthly informing the Contractor and ROICC Officer of the status of the plan and an accounting of Contractor adherence to the plan; specifically addressing any present or potential problems. The Engineer shall be available to meet with the ROICC at any time throughout the contract duration. The Contractor shall bear all costs of the Engineer.

For illustrative purposes, a concept sketch has been prepared and included in Part 6 Attachments. These sketches are intended solely as an aid to the designer.

Minimize the impact of construction activity on operations and neighboring facilities.

Identify and obtain all permits to comply with all federal, state, and local regulatory requirements associated with this work. The contractor shall submit a complete "Permits Record of Decision" (PROD) form with the first design submittal package. A blank PROD form can be obtained at the Download Tab of Part 6 of the NAVFAC Design-Build website at the following link
<http://www.wbdg.org/ndbm/Download/Download.html?Tab=Download>
Contractor shall determine correct permit fees and pay said fees. Copies of all permits, permit applications, and the completed PROD form shall be forwarded to the Government's Civil Reviewer and Environmental Reviewer.

Coordinate and obtain the Resident Officer In Charge of Construction's (ROICC) approval for proposed haul route(s), work site access point(s), employee parking location(s) and material laydown and storage area(s).

Refer to Site Analysis and Building Requirements Sections for additional site preparation functional program information.

G1010 SITE CLEARING

G101001 CLEARING

Relocate the two trees located in the Building 3205 expansion to an area directed by the Contracting Officer or ROICC.

G101002 TREE REMOVAL

Relocate the two trees located in the Building 3205 expansion to an area directed by the Contracting Officer or ROICC.

G101003 STUMP REMOVAL

Remove and dispose of all tree stumps as required for project construction.

G101004 GRUBBING

Grub all tree stumps as required for project construction.

G101005 SELECTIVE THINNING

Not used.

G101006 DEBRIS DISPOSAL

All grubbing and clearing residue, demolished material, rubbish and debris generated by this project shall be hauled off-site and off station by the Contractor.

G1020 SITE DEMOLITION & RELOCATIONS

No items are to be reused, relocated or salvaged.

G102001 BUILDING MASS DEMOLITION

Not used.

G102002 ABOVEGROUND SITE DEMOLITION

Not used.

G102002 1.1 ABOVEGROUND STORAGE TANKS

Not used.

G102003 UNDERGROUND SITE DEMOLITION

Abandonment of utility systems shall be done in a manner that conforms to applicable installation codes and regulations. Utilities shall not be abandoned in place underneath or within 10 feet of any new facilities.

All conduits to be abandoned shall have wiring removed.

All piping to be abandoned shall be filled with flowable fill. Piping shall be filled with flowable fill under pavements subject to potential vehicle loadings.

Remove existing utility structures to 3 feet below existing or new adjacent grade, whichever is greater. Break up bases to permit drainage. Fill with clean sand.

G102003 1.1 UNDERGROUND STORAGE TANKS

Not used.

G102004 BUILDING RELOCATION

Not used.

G102005 UTILITY RELOCATION

Locate utilities and relocate in order to ensure that none are under the buildings footprints. The designer shall take safety and maintenance into consideration during the design of utilities and relocation of utilities.

G102006 FENCING RELOCATION

Not used.

G102007 SITE CLEANUP

At the conclusion of the project, ensure that all construction debris and rubbish is removed from the site and disposed of off station.

G102090 OTHER SITE DEMOLITION & RELOCATIONS

Not used.

G1030 SITE EARTHWORK

G103001 GRADING

Finish floor elevations for new facilities shall be a minimum of 4" above the 100 year flood elevation. Provide elevations for mechanical/electrical equipment pads above the 100 year flood elevation.

G103002 COMMON EXCAVATION

Minimize cut and fill whilst ensuring positive drainage and observing the recommendations of the geotechnical investigation.

G103003 ROCK EXCAVATION

Blasting will not be permitted.

G103004 FILL & BORROW

Borrow and select fill shall come from off-base sources.

G103005 COMPACTION

All soil shall be compacted in accordance with the recommendations of the geotechnical investigation.

G103006 SOIL STABILIZATION

Provide soil stabilization using geosynthetics, such as geotextiles and geogrids designed to function as required by site conditions.

G103007 SLOPE STABILIZATION

Provide slope stabilization through appropriate grading and site design for a minimum factor of safety of 1.5 or slope that does not exceed the maximum slope per local code requirements. Where necessary, use the following techniques for slope stabilization: geogrids, gabions, or riprap or concrete.

G103008 SOIL TREATMENT

Treat the area around the entire foundation of each building for termite control in accordance with manufacturer's instructions.

G103009 SHORING

Provide shoring in accordance with federal state and local codes in order to ensure worker safety. Refer to G103002.

G103010 TEMPORARY DEWATERING

Ensure that all excavations are dewatered to the degree necessary to ensure worker safety and sound construction in accordance with both federal and state laws and regulations.

G103011 TEMPORARY EROSION & SEDIMENT CONTROL

Construct temporary measures including but not limited to filter barriers, silt fence, tree protection, inlet protection, culvert protection, construction entrance, dust suppressors, temporary seeding, and erosion control matting to reduce on-site erosion and off-site runoff and sedimentation. All temporary erosion control measures shall conform to the requirements of the authority having jurisdiction.

G1040 HAZARDOUS WASTE REMEDIATION

Not used.

G1040 1.1 EXCAVATION

Not used.

G1040 1.2 STOCKPILED SOILS

Not used.

G1040 1.3 CLEAN FILL

Not used.

G1040 1.4 SPILLS

Not used.

G1040 1.5 DISPOSAL

Not used.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

G20 SITE IMPROVEMENTS

SYSTEM DESCRIPTION

The site improvements system consists of pavements and pavement related features, landscaping and other exterior site development work related to this project.

GENERAL SYSTEMS REQUIREMENTS

Provide site improvements as required to make a useable facility that meets functional and operational requirements, incorporates all applicable anti-terrorism, force protection and physical security requirements and blends into the existing environment.

Provide site improvements in conformance with applicable requirements of the Uniform Federal Accessibility Standards.

Identify and obtain all permits to comply with all federal, state, and local regulatory requirements associated with this work. The contractor shall complete the "Permits Record of Decision" (PROD) form with the first design submittal package. A blank PROD form can be obtained at the Download Tab of Part 6 of the NAVFAC Design-Build website at the following link

<http://www.wbdg.org/ndbm/Download/Download.html?Tab=Download>.

Contractor shall determine correct permit fees and pay said fees. Copies of all permits, permit applications, and the completed PROD form shall be forwarded to the Government's Civil Reviewer.

Provide improvements as required to conform to all applicable anti-terrorism and physical security requirements.

Minimize the impact of construction activity on operations and neighboring facilities.

Locate new site improvements at locations indicated on the drawings in another part of this RFP. If specific locations are not provided, site the improvements to develop appropriate and positive relationships with other facilities and to conform to existing development patterns.

Refer to Site Analysis and Building Requirements Sections for additional site improvement functional program information.

G2010 ROADWAYS

Not used.

G201001 BASES & SUBBASES

Not used.

G201002 CURBS & GUTTERS

Not used.

G201003 PAVED SURFACES

Not used.

G201004 MARKING & SIGNAGE

Provide pavement markings to match existing.

Provide signage in accordance with the Stennis Space Center Signage Implementation and Control Plan.

Provide temporary pavement markings and signage throughout construction to meet phasing requirements indicated in the project program. Provide temporary signage in accordance with the MUTCD.

G201005 GUARDRAILS & BARRIERS

Not used.

G201006 RESURFACING

Not used.

G201090 OTHER ROADWAYS

Not used.

G2020 PARKING LOTS

Not used.

G202001 BASES & SUBBASES

Not used.

G202002 CURBS & GUTTERS

Not used..

G202003 PAVED SURFACES

Not used.

G202004 MARKING & SIGNAGE

Provide signage in accordance with the Stennis Space Center Signage Implementation and Control Plan.

G202005 GUARDRAILS & BARRIERS

Not used.

G202006 RESURFACING

Not used.

G202007 MISCELLANEOUSE STRUCTURES AND EQUIPMENT

Not used.

G202090 OTHER PARKING LOTS

Not used.

G2030 PEDESTRIAN PAVING

Provide a network of Portland cement concrete sidewalks, separated from, but connected to vehicular circulation systems, to allow pedestrian circulation between various elements of the project.

G203001 BASES & SUBBASES

Crushed stone meeting specified gradation for aggregate base or subbase courses may be used.

G203002 CURBS & GUTTERS

Not used.

G203003 PAVED SURFACES

Use materials and place them in accordance with the Mississippi Department of Transportation (MDOT) design manual.

G203004 GUARDRAILS & BARRIERS

Not used.

G203005 RESURFACING

Not used.

G203006 OTHER WALKS, STEPS & TERRACES

Not used.

G2040 SITE DEVELOPMENT

G204001 FENCING & GATES

Not used.

G204002 RETAINING AND FREESTANDING WALLS

Not used.

G204003 EXTERIOR FURNISHINGS

Not used.

G204004 SECURITY STRUCTURES

Not used.

G204005 SIGNAGE

Provide signage in accordance with the Stennis Space Center Signage Implementation and Control Plan. See Part 6, Attachments.

G204006 FOUNTAINS & POOLS

Not used.

G204007 PLAYING FIELDS

Not used.

G204008 TERRACE AND PERIMETER WALLS

Not used.

G204009 FLAGPOLES

Not used.

G204090 OTHER SITE IMPROVEMENTS

Not used.

G2050 LANDSCAPING

Relocate the two trees located in the Building 3205 expansion to an area directed by the Contracting Officer or ROICC.

Provide landscaping consisting of seeding all disturbed areas and mulch required areas while complying with all applicable anti-terrorism, force protection and physical security requirements.

Provide shrubs or small growing trees for screening of mechanical equipment/wall, dumpster enclosures, and other obstructions that do not present an aesthetic view from the street.

G205001 FINE GRADING AND SOIL PREPARATION

Provide fine grading and soil preparation that will ensure positive storm drainage and support the establishment and growth of the landscaping.

G205002 EROSION CONTROL MEASURES

Prevent erosion from occurring by providing erosion control measures as required by city, state and federal requirements.

G205003 TOPSOIL AND PLANTING BEDS

See G205005 Plantings.

G205004 SEEDING SPRIGGING AND SODDING

Seed all disturbed areas.

G205005 PLANTINGS

Preserve existing trees to the greatest extent possible. Relocate the two trees located in the Building 3205 expansion to an area directed by the Contracting Officer or ROICC.

G205006 PLANTERS

Not used.

G205007 IRRIGATION SYSTEMS

Not used.

G205090 OTHER LANDSCAPING

Not used.

--End of Section--

6. ENGINEERING SYSTEMS REQUIREMENTS

G30 SITE CIVIL/MECHANICAL UTILITIES

SYSTEM DESCRIPTION

The site civil/mechanical utility systems include water supply systems, sanitary sewer systems, storm drainage systems, heating distribution systems, cooling distribution systems, fuel distribution systems and associated appurtenances which are more than 5 feet outside the building.

GENERAL SYSTEM REQUIREMENTS

Develop the site to provide water, fire protection, sanitary sewer, storm drainage, heating, cooling and fuel distribution services that meet the requirements of each applicable regulatory agency that governs and issues permits for the construction and operation of these systems.

Provide each system complete and ready for operation.

Physically verify the location of existing above and below ground utilities prior to starting work.

Identify and obtain all permits to comply with all federal, state, and local regulatory requirements associated with this work. The contractor shall complete the "Permits Record of Decision" (PROD) form with the first design submittal package. A blank PROD form can be obtained at the Download Tab of Part 6 of the NAVFAC Design-Build website at the following link
<http://www.wbdg.org/ndbm/Download/Download.html?Tab=Download>. Contractor shall determine correct permit fees and pay said fees. Copies of all permits, permit applications, and the completed PROD form shall be forwarded to the Government's Civil/Mechanical Reviewer.

Minimize the impact of construction activity on facility operations and neighboring facilities.

Utility connection points are indicated on the drawings in another part of this RFP. These connection points are conceptual only. They are subject to change during design. Obtain final approvals from the Government's Civil/Mechanical Reviewer and the Contracting Officer or ROICC Officer for all utility connection points associated with this work.

Coordinate with the local utility providers and pay any fees or charges required to connect to their utility.

Refer to Site Analysis and Building Requirements Sections for additional site civil/mechanical utilities information.

Provide all required fittings, connections and accessories required for a complete and usable system. All equipment shall be installed per the criteria of RFP Section G30 and the manufacturer's recommendations. Where the word "should" is used in the manufacturer's recommendations, substitute the word "shall". Any non-metallic utility shall include metallic locator tracer wire. No utilities shall be located under any new concrete slabs. The designer shall confirm the existing utilities are able to handle the capacity of the new expansions, buildings, and renovations.

G3010 WATER SUPPLY

The new water system is a relocation of the existing water system. The existing water system serving the project site is owned, operated, and maintained by the installation. Provide the new water system and connections to the existing water system in accordance with UFC 3-200-10N, *Civil Engineering*; UFC 3-230-03A Water Supply, the American Water Works Association (AWWA) Standards and Manuals of Water Supply Practices, the utility provider's requirements; and the state waterworks' regulations; whichever is more stringent.

Notify the utility provider of the additional demand generated by the proposed facility. Provide a copy of all correspondence with the utility provider to the Government's Civil/Mechanical Reviewer.

Provide connection to the existing water distribution system at the point indicated on the drawings in another part of this RFP.

G301001 WELL SYSTEMS

Not used.

G301002 POTABLE WATER DISTRIBUTION

Connect the new potable water distribution system to the distribution system at the point indicated on the drawings in another part of this RFP.

A water meter on each proposed service line is not required.

Fire hydrants shall be painted per the installation standards.

Where backflow prevention is required, backflow preventers will not be allowed aboveground outside the building.

G301003 POTABLE WATER STORAGE

Not used.

G301004 FIRE PROTECTION WATER DISTRIBUTION

Provide a connection and sufficient supply to ensure a fully functioning fire protection system that meets all the fire fighting and code requirements both inside and outside the building. Provide hydrants, valves, and fire department connections.

G301005 FIRE PROTECTION WATER STORAGE

Not used.

G301006 NON-POTABLE WATER DISTRIBUTION

Not used

G301007 PUMPING STATIONS

A package booster pump station will not be required.

G301008 PACKAGED WATER TREATMENT PLANTS

Not used.

G301090 OTHER WATER SUPPLY

Not used.

G3020 SANITARY SEWER

The existing sanitary sewer collection system serving the project site is owned, operated, and maintained by the installation. Provide the new sanitary sewer system and connections to the existing sanitary sewer collection system in accordance with UFC 3-200-10N, *Civil Engineering*; the utility provider's requirements; the state sewerage regulations; and the Recommended Standards for Wastewater Facilities (known as the Ten State Standard), whichever is more stringent.

Notify the utility provider of the additional wastewater flow generated by the proposed facility. Provide a copy of all correspondence with the utility provider to the Government Civil Reviewer.

Provide connection to the existing sanitary sewer collection system at the point indicated on the drawings in another part of this RFP. In identifying a suitable point of connection, provide consideration of the capacity of the existing collection system

G302001 SANITARY SEWER PIPING

Construct the sanitary sewer piping using PVC piping with gasketed joints.

G302002 SANITARY SEWER MANHOLES & CLEANOUTS

Provide precast concrete manholes only.

G302003 LIFT STATIONS AND PUMPING STATIONS

A wastewater pump station will not be required.

G302004 PACKAGED SANITARY SEWER TREATMENT PLANTS

Not used.

G302005 SEPTIC TANKS

Not used.

G302006 DRAIN FIELDS

Not used.

G302090 OTHER SANITARY SEWER

Not used.

G3030 STORM SEWER

The new storm sewer ditch system is a relocation of a section of the existing storm sewer ditch system. The existing storm sewer system serving the project site is owned, operated, and maintained by the installation. Provide the new storm sewer system and connections to the existing storm sewer system in accordance with UFC 3-200-10N, *Civil Engineering*; the utility provider's requirements; and the state stormwater management laws and regulations; whichever is more stringent.

Provide relocation to the existing storm sewer ditch system at the point indicated on the drawings in another part of this RFP. Confirm that the existing outfall has adequate capacity to receive the additional stormwater flow generated by the project.

G303001 STORM SEWER PIPING

Not used.

G303002 STORM SEWER STRUCTURES

Not used.

G303003 LIFT STATIONS

Not used.

G303004 CULVERTS

Not used.

G303005 HEADWALLS

Not used.

G303006 EROSION & SEDIMENT CONTROL MEASURES

Construct measures including but not limited to filter barriers, silt fence, tree protection, inlet protection, culvert protection, construction entrance, dust suppressors, temporary seeding, and erosion control matting to reduce on-site erosion and off-site runoff and sedimentation. All erosion control measures shall conform to the requirements of the authority having jurisdiction.

G303007 STORMWATER MANAGEMENT

A stormwater management facility will not be required for this project.

G303090 OTHER STORM SEWER

Not used.

G3040 HEATING DISTRIBUTION

Not used.

G304001 OVERHEAD HOT WATER SYSTEMS

Not used.

G304002 OVERHEAD STEAM SYSTEMS

Not used.

G304003 UNDERGROUND HOT WATER SYSTEMS

Not used.

G304004 UNDERGROUND STEAM SYSTEMS

Not used.

G304005 CONCRETE MANHOLES & VALVE BOXES

Not used.

G304090 OTHER HEATING DISTRIBUTION

Not used.

- G3050** **COOLING DISTRIBUTION**
- G305001** **OVERHEAD COOLING SYSTEMS**
Not used.
- G305002** **UNDERGROUND COOLING SYSTEMS**
Not used.
- G305090** **OTHER COOLING DISTRIBUTION**
Not used.
- G3060** **FUEL DISTRIBUTION**
- G306001** **LIQUID FUEL DISTRIBUTION PIPING**
Not used.
- G306003** **LIQUID FUEL STORAGE TANKS**
Not used.
- G306004** **LIQUID FUEL DISPENSING EQUIPMENT**
Not used.
- G306006** **GAS DISTRIBUTION PIPING**
Not used.
- G306007** **GAS STORAGE TANKS**
Not used.
- G306009** **OTHER GAS DISTRIBUTION**
Not used.
- G306090** **OTHER FUEL DISTRIBUTION**
Not used.
- G3090** **OTHER SITE MECHANICAL UTILITIES**

G309001 **NITROGEN & HIGH PRESSURE AIR (HPA)
PIPING**

Not used.

-- End of Section --

6. ENGINEERING SYSTEMS REQUIREMENTS

G40 SITE ELECTRICAL UTILITIES

SYSTEM DESCRIPTION

The site electrical utility system consists of all power and telecommunications and fiber optic cabling from the existing distribution system point of connection including all connections, accessories and devices as necessary and required for a complete and usable system. This section covers installations up to within 1.5 meters (5 foot) of new (or existing) building location.

GENERAL SYSTEM REQUIREMENTS

Limited site investigation has determined the existing Electrical System appears to be in good condition and should handle the loads needed for the modifications required to expand and renovate Building B3205. Test and approve, as specified throughout this RFP, as needed for a complete, usable and proper installation. The Stennis Space Center Electrical Standards shall be followed. All equipment shall be installed per the criteria of RFP Section G40 and the manufacturer's recommendations. Where the word "should" is used in the manufacturer's recommendations, substitute the word "shall".

G4010 ELECTRICAL DISTRIBUTION

The existing 480Y/277 volt three phase, four wire, 60 hertz electrical power system appears to be in good condition. The connection point is underground to the existing 300kVA Pad Mounted Transformer if additional service into the building is necessary.

The available fault current at the point of connection shall be assumed to be an infinite bus.

G401006 UNDERGROUND ELECTRIC CONDUCTORS

The existing medium voltage and 600 volt secondary underground electrical power distribution systems appear to meet the connection requirements as indicated in paragraph G4010 "Electrical Distribution". The conductors are assumed to be in good working condition. If found to be faulty or out of code compliance, contact the contracting officer.

G401008 GROUNDING SYSTEMS

Provide a complete grounding system for the electrical power distribution system. The grounding systems in the existing facility are assumed to be in good working condition. If found to be faulty or out of code compliance, contact contracting officer.

G401008 METERING

If there is no metering to building, provide a separate Kilowatt Demand Meter. Stennis currently uses Siemens Series 2000 Digital Energy Monitors. Provide this model or a model that is UL listed as compatible.

G4030 SITE COMMUNICATION AND SECURITY

The existing site communication and security system including, but not necessarily limited to, Voice and Data Telecommunications Systems including all conduit and wiring, underground structures, termination equipment, poles and structures, and grounding systems appear to be in good working condition. If found to be faulty or out of code compliance, contact the contracting officer.

G403003 CABLES AND WIRING

Cables and wiring for site telecommunications and security systems shall be as indicated in their respective categories.

G403009 GROUNDING SYSTEMS

Provide a complete grounding system for all site communications and security systems.

-- End of Section --