



Outpatient Services Center
G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS

Contract VA256-14-C-0078, Project 586-396

SPECIFICATIONS
Final Design Submittal

Prepared for
Dept. of Veterans Affairs
1500 E. Woodrow Wilson Dr.
Jackson, MS 39216

Prepared by
AKEA^{INC.}
3603 NW 98th St., Suite B
Gainesville, FL 32606

July 2, 2015

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS
Section 00 01 10

DIVISION 00 - SPECIAL SECTIONS

00 01 15 **List of Drawings Sheets Addendum #1 (August 17, 2015)**

DIVISION 01 - GENERAL REQUIREMENTS

01 00 00 General Requirements
01 32 16.15 Project Schedules (Small Projects - Design/Bid/Build)
01 33 23 Shop Drawings, Product Data, and Samples
01 35 26 Safety Requirements
01 42 19 Reference Standards
01 45 29 Testing Laboratory Services
01 57 19 Temporary Environmental Controls
01 74 19 Construction Waste Management
01 81 11 Sustainable Design Requirements
01 91 00 General Commissioning Requirements

DIVISION 02 - EXISTING CONDITIONS

02 41 00 Demolition

DIVISION 03 - CONCRETE

03 30 00 Cast In Place Concrete

DIVISION 04 - MASONRY

04 05 13 Masonry Mortaring
04 20 00 Unit Masonry

DIVISION 05 - METALS

05 12 00 Structural Steel Framing
05 36 00 Composite Metal Decking
05 40 00 Cold-Formed Metal Framing
05 50 00 Metal Fabrications
05 51 00 Metal Stairs

DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

06 10 00 Rough Carpentry
06 20 00 Finish Carpentry

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 13 52 Modified Bituminous Sheet Waterproofing
07 21 13 Thermal Insulation
07 24 00 Exterior Insulation and Finish Systems
07 42 65 Thermal and Air Barrier Wall System
07 52 16.13 Styrene-Butadiene-Styrene Modified Bituminous Membrane,
Roofing, Cold Applied
07 60 00 Flashing and Sheet Metal

07 84 00	Firestopping
07 92 00	Joint Sealants
07 95 13	Expansion Joint Cover Assemblies

DIVISION 08 - OPENINGS

08 11 13	Hollow Metal Doors and Frames
08 14 00	Interior Wood Doors
08 41 13	Aluminum-Framed Entrances and Storefronts
08 44 13	Glazed Aluminum Curtain Walls
08 71 00	Door Hardware
08 71 13.11	Low Energy Power Assist Door Operators
08 80 00	Glazing
08 90 00	Louvers and Vents

DIVISION 09 - FINISHES

09 06 00	Schedule for Finishes
09 22 16	Non-Structural Metal Framing
09 29 00	Gypsum Board
09 30 13	Ceramic/Porcelain Tiling
09 51 00	Acoustical Ceilings
09 65 13	Resilient Base and Accessories
09 65 16	Resilient Sheet Flooring
09 65 19	Resilient Tile Flooring
09 91 00	Painting

DIVISION 10 - SPECIALTIES

10 14 00	Signage
10 21 23	Cubicle Curtain Tracks
10 26 00	Wall and Door Protection
10 44 13	Fire Extinguisher Cabinets

DIVISION 11 - EQUIPMENT

11 41 21	Walk-In Coolers and Freezers
----------	------------------------------

DIVISION 12 - FURNISHINGS

12 31 00	Manufactured Metal Casework
12 36 00	Countertops

DIVISION 14 - CONVEYING EQUIPMENT

14 24 00	Hydraulic Elevators
14 92 00	Pneumatic-Tube System

DIVISION 21 - FIRE SUPPRESSION

21 05 11	Common Work Results for Fire Suppression
21 08 00	Commissioning of Fire Suppression Systems
21 10 00	Water-Based Fire-Suppression Systems
21 12 00	Fire-Suppression Standpipes
21 13 13	Wet-Pipe Sprinkler Systems

DIVISION 22 - PLUMBING

22 05 11	Common Work Results for Plumbing
22 05 12	General Motor Requirements for Plumbing Equipment
22 05 23	General-Duty Valves for Plumbing Piping Addendum #1 (August 17, 2015)
22 05 48	Vibration Isolation and Seismic/Wind Controls for Plumbing Piping and Equipment
22 07 11	Plumbing Insulation
22 08 00	Commissioning of Plumbing Systems
22 11 00	Facility Water Distribution Addendum #1 (August 17, 2015)
22 13 00	Facility Sanitary and Vent Piping
22 13 33	Packaged Submersible Sewerage Pump Units Addendum #1 (August 17, 2015)
22 14 00	Facility Storm Drainage
22 35 00	Domestic Water Heater Addendum #1 (August 17, 2015)
22 36 00	Heating Water Heat Exchange
22 40 00	Plumbing Fixtures Addendum #1 (August 17, 2015)
22 63 00	Medical Gas and Vacuum Systems

DIVISION 23 - HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

23 05 11	Common Work Results for HVAC
23 05 12	General Motor Requirements for HVAC Equipment
23 05 15	Variable Frequency Drives and Motor Starters
23 05 48	Vibration Isolation and Seismic/Wind Controls for HVAC Piping and Equipment
23 05 93	Testing, Adjusting, and Balancing for HVAC
23 07 11	HVAC Insulation
23 08 00	Commissioning of HVAC Systems
23 09 23	Direct-Digital Control System for HVAC
23 09 25	Air Flow Measuring Stations
23 09 26	Room Pressurization Controls
23 21 13	Hydronic Piping
23 21 23	Hydronic Pumps
23 22 16	Steam and Condensate Piping Specialties
23 31 00	HVAC Ducts and Casings
23 33 00	Air Duct Accessories
23 34 00	HVAC Fans
23 36 00	Air Terminal Units
23 37 00	Air Outlets and Inlets
23 40 00	HVAC Air Filters
23 64 00	Air-Cooled Chillers
23 74 13	Custom Central Station Air Handling Units
23 82 16	Air Coils

DIVISION 26 - ELECTRICAL

26 05 11	Requirements for Electrical Installations
26 05 13	Medium-Voltage Cables
26 05 19	Low-Voltage Electrical Power Conductors and Cables
26 05 26	Grounding and Bonding for Electrical Systems
26 05 33	Raceway and Boxes for Electrical Systems
26 05 41	Underground Electrical Construction
26 05 73	Overcurrent Protective Device Coordination Study
26 08 00	Commissioning of Electrical Systems

26 09 23	Lighting Controls
26 12 19	Pad-Mounted, Liquid-Filled, Medium-Voltage Transformers
26 22 00	Low-Voltage Transformers
26 23 00	Low-Voltage Switchgear
26 24 13	Distribution Switchboards
26 24 16	Panelboards
26 25 11	Busways
26 27 26	Wiring Devices
26 29 21	Enclosed Switches and Circuit Breakers
26 36 23	Automatic Transfer Switches
26 41 00	Facility Lightning Protection
26 43 13	Surge Protective Device
26 51 00	Interior Lighting
26 56 00	Exterior Lighting

DIVISION 27 - COMMUNICATIONS

27 05 11	Requirements for Communications Installations
27 05 26	Grounding and Bonding for Communications Systems
27 05 33	Raceways and Boxes for Communications Systems
27 08 00	Commissioning of Communications Systems
27 10 00	Structured Cabling
27 11 00	Communications Equipment Room Fittings
27 15 00	Communications Horizontal Cabling
27 41 31	Master Antenna Television Equipment and Systems
27 51 16	Public Address and Mass Notification Systems
27 51 23	Intercommunications and Program Systems

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

28 05 00	Common Work Results for Electronic Safety and Security
28 05 13	Conductors and Cables for Electronic Safety and Security
28 05 26	Grounding and Bonding for Electronic Safety and Security
28 05 28.33	Conduits and Backboxes for Electronic Safety and Security
28 08 00	Commissioning of Electronic Safety and Security Systems
28 13 00	Physical Access Control System
28 23 00	Video Surveillance
28 31 00	Fire Detection and Alarm

DIVISION 31 - EARTHWORK

31 20 00	Earthwork
31 23 19	Dewatering
31 63 26	Drilled Caissons

DIVISION 33 - UTILITIES

33 08 00	Commissioning of Site Utility Systems
33 10 00	Water Utilities
33 30 00	Sanitary Sewer Utilities
33 40 00	Storm Sewer Utilities

- - - END - - -

**SECTION 00 01 15
LIST OF DRAWING SHEETS**

The drawings listed below accompanying this specification form a part of the contract.

<u>Drawing No.</u>	<u>Title</u>	<u>Sheet No. (of 145)</u>
GENERAL		
G001	COVER PAGE & LOCATION MAP	1
G002	INDEX OF DRAWINGS	2
CIVIL		
C101	GENERAL NOTES Addendum #1(August 17,2015)	3
C102	GENERAL NOTES	4
C201	NPDES, EROSION AND SEDIMENT CONTROL NOTES & DETAILS	5
C301	DEVELOPMENT AREA & EXISTING CONDITIONS	6
C401	DEMOLITION AND EROSION CONTROL PLAN	7
C501	PROPOSED SITE PLAN	8
C601	GRADING PLAN	9
C602	DRAINAGE PLAN	10
C701	SITE UTILITY PLAN Addendum #1(August 17,2015)	11
C801	PROJECT DETAILS	12
C802	PROJECT AND LIFT STATION DETAILS Addendum #1(August 17,2015)	13
STRUCTURAL		
S001	GENERAL NOTES	14
S002	GENERAL NOTES & WIND	15
S003	SPECIAL INSPECTIONS	16
S010	DEMOLITION PLAN	17
S100	FOUNDATION & CRAWL SPACE PLAN Addendum #1(August 17,2015)	18
S110	BASEMENT LEVEL FRAMING PLAN Addendum #1(August 17,2015)	19
S120	FIRST FLOOR FRAMING PLAN Addendum #1(August 17,2015)	20
S130	ROOF FRAMING PLAN Addendum #1(August 17,2015)	21
S200	BUILDING SECTIONS Addendum #1(August 17,2015)	22
S300	CONCRETE DETAILS Addendum #1(August 17,2015)	23
S301	CONCRETE DETAILS Addendum #1(August 17,2015)	24
S302	CONCRETE DETAILS Addendum #1(August 17,2015)	25
S303	CONCRETE BEAM ELEVATIONS	26
S304	CONCRETE BEAM ELEVATIONS Addendum #1(August 17,2015)	27
S400	FOUNDATION DETAILS	28
S401	FOUNDATION DETAILS	29
S402	FOUNDATION DETAILS	30
S403	FOUNDATION DETAILS	31
S500	TYPICAL DETAILS Addendum #1(August 17,2015)	32

<u>Drawing No.</u>	<u>Title</u>	<u>Sheet No. (of 145)</u>
S501	TYPICAL DETAILS Addendum #1(August 17,2015)	33
S502	SECTIONS AND DETAILS Addendum #1(August 17,2015)	34
LIFE SAFETY		
LS101	BASEMENT LIFE SAFETY PLAN	35
LS102	FIRST FLOOR LIFE SAFETY PLAN	36
ARCHITECTURAL		
A101	BASEMENT FLOOR PLAN Addendum #1(August 17,2015)	37
A102	FIRST FLOOR PLAN Addendum #1(August 17,2015)	38
A110	BASEMENT REFLECTED CEILING PLAN Addendum #1(August 17,2015)	39
A111	FIRST FLOOR REFLECTED CEILING PLAN Addendum #1(August 17,2015)	40
A120	ROOF PLAN Addendum #1(August 17,2015)	41
A201	EXTERIOR ELEVATIONS Addendum #1(August 17,2015)	42
A202	EXTERIOR ELEVATIONS Addendum #1(August 17,2015)	43
A210	INTERIOR ELEVATIONS Addendum #1(August 17,2015)	44
A301	WALL SECTIONS Addendum #1(August 17,2015)	45
A302	WALL DETAILS Addendum #1(August 17,2015)	46
A310	STAIR SECTIONS & DETAILS Addendum #1(August 17,2015)	47
A311	ELEVATOR SECTION Addendum #1(August 17,2015)	48
A401	ENLARGED PARTIAL FLOOR PLAN - BASEMENT SOUTH LABS Addendum #1(August 17,2015)	49
A402	ENLARGED PARTIAL FLOOR PLAN - BASEMENT NORTH LABS Addendum #1(August 17,2015)	50
A403	ENLARGED PARTIAL FLOOR PLAN - 1ST FLOOR EXAM ROOMS Addendum #1(August 17,2015)	51
A501	ROOF DETAILS Addendum #1(August 17,2015)	52
A502	P-TYPES & FRAMING DETAILS Addendum #1(August 17,2015)	53
A503	INTERIOR / FINISH DETAILS	54
A601	DOOR SCHEDULE & DETAILS	55
A602	LABORATORY CASEWORK LEGEND & EQUIPMENT SCHEDULE	56
I101	BASEMENT FINISH PLAN	57
I102	FIRST FLOOR FINISH PLAN	58
I103	BASEMENT - FLOOR PATTERN PLAN	59
I104	FIRST FLOOR - FLOOR PATTERN PLAN	60
I105	SINAGE SCHEDULE	61
FIRE PROTECTION		
FP100	CRAWL SPACE FIRE PROTECTION PLAN	62
FP101	BASEMENT FIRE PROTECTION PLAN	63
FP102	FIRST FLOOR FIRE PROTECTION PLAN	64

<u>Drawing No.</u>	<u>Title</u>	<u>Sheet No. (of 145)</u>
FP501	FIRE PROTECTION DETAILS	65
FP502	FIRE PROTECTION DETAILS	66
MECHANICAL		
M000	HVAC LEGEND AND NOTES	67
M001	SITE MECHANICAL DEMOLITION PLAN	68
M100	CRAWL SPACE HVAC PLAN	69
M101	BASEMENT HVAC PLAN	70
M102	FIRST FLOOR HVAC PLAN	71
M103	BASEMENT HVAC PIPING PLAN	72
M104	FIRST FLOOR HVAC PIPING PLAN	73
M301	CHILLED WATER FLOW/RISER DIAGRAM	74
M302	HEATING WATER & STEAM FLOW/RISER DIAGRAM	75
M401	ENLARGED BASEMENT LEVEL MECHANICAL ROOM HVAC PLAN Addendum #1(August 17,2015)	76
M402	ENLARGED FIRST FLOOR MECHANICAL ROOM HVAC PLAN	77
M403	ENLARGED BASEMENT LEVEL MECHANICAL ROOM B3 HVAC PLAN	78
M501	HVAC DETAILS	79
M502	HVAC DETAILS	80
M503	HVAC DETAILS	81
M504	HVAC DETAILS	82
M505	HVAC DETAILS	83
M506	HVAC DETAILS	84
M507	HVAC CONTROLS Addendum #1(August 17,2015)	85
M508	HVAC CONTROLS Addendum #1(August 17,2015)	86
M509	HVAC CONTROLS Addendum #1(August 17,2015)	87
M510	HVAC CONTROLS	88
M511	HVAC CONTROLS	89
M512	HVAC CONTROLS	90
M513	HVAC AHU ELEVATIONS	91
M601	HVAC SCHEDULES Addendum #1(August 17,2015)	92
M602	HVAC SCHEDULES	93
PLUMBING		
P000	PLUMBING LEGENDS AND NOTES	94
P101	EXISTING CRAWL SPACE PLAN - PLUMBING	95
P102	NEW CRAWL SPACE PLAN - PLUMBING	96
P103	ROOF PLAN - PLUMBING	97
P401	BASEMENT FLOOR PLAN (PART "A") – PLUMBING	98
P402	BASEMENT FLOOR PLAN (PART "B") – PLUMBING	99
P403	FIRST FLOOR PLAN (PART "A") – PLUMBING	100

<u>Drawing No.</u>	<u>Title</u>	<u>Sheet No. (of 145)</u>
P404	FIRST FLOOR PLAN (PART "B") – PLUMBING	101
P501	PLUMBING RISER DIAGRAMS	102
P502	PLUMBING DETAILS	103
P503	PLUMBING DETAILS	104
P504	PLUMBING DETAILS	105
P601	PLUMBING SCHEDULES	106
P602	PLUMBING SCHEDULES	107
ELECTRICAL		
ES100	ELECTRICAL SITE - DEMOLITION	108
ES101	ELECTRICAL SITE - COMMUNICATIONS	109
ES102	ELECTRICAL SITE - POWER	110
E001	ELECTRICAL LEGEND Addendum #1(August 17,2015)	111
E101	LIGHTING FLOOR PLAN – BASEMENT Addendum #1(August 17,2015)	112
E101.1	EMERGENCY EGRESS LIGHTING PLAN - BASEMENT	113
E102	LIGHTING FLOOR PLAN - FIRST FLOOR	114
E102.1	EMERGENCY EGRESS LIGHTING PLAN - FIRST FLOOR	115
E103	CRAWL SPACE - ELECTRICAL PLAN	116
E201	POWER FLOOR PLAN – BASEMENT Addendum #1(August 17,2015)	117
E202	POWER FLOOR PLAN - FIRST FLOOR Addendum #1(August 17,2015)	118
E203	MECHANICAL CONNECTIONS FLOOR PLAN – BASEMENT Addendum #1(August 17,2015)	119
E204	MECHANICAL CONNECTIONS FLOOR PLAN - FIRST FLOOR	120
E205	MECHANICAL CONNECTIONS FLOOR PLAN - ROOF	121
E301	SPECIAL SYSTEMS FLOOR PLAN - BASEMENT	122
E302	SPECIAL SYSTEMS FLOOR PLAN - FIRST FLOOR Addendum #1(August 17,2015)	123
E401	ENLARGED POWER FLOOR PLAN – BASEMENT Addendum #1(August 17,2015)	124
E402	ENLARGED POWER FLOOR PLAN – BASEMENT Addendum #1(August 17,2015)	125
E501	ELECTRICAL DETAILS	126
E502	ELECTRICAL DETAILS	127
E503	ELECTRICAL DETAILS	128
E504	ELECTRICAL DETAILS Addendum #1(August 17,2015)	129
E601	LIGHTING FIXTURE & POWER CONNECTION SCHEDULE Addendum #1(August 17,2015)	130
E602	ONE-LINE DIAGRAM – POWER Addendum #1(August 17,2015)	131
E603	ONE-LINE DIAGRAM - EMERGENCY POWER SERVICE	132
E604	PANEL SCHEDULES Addendum #1(August 17,2015)	133
E605	PANEL SCHEDULES Addendum #1(August 17,2015)	134

<u>Drawing No.</u>	<u>Title</u>	<u>Sheet No. (of 145)</u>
E606	PANEL SCHEDULES Addendum #1(August 17,2015)	135
F001	FIRE ALARM LEGEND & RISER	136
F101	FIRE ALARM FLOOR PLAN - BASEMENT	137
F102	FIRE ALARM FLOOR PLAN - FIRST FLOOR	138
T001	TELECOMMUNICATIONS LEGEND & RISER	139
T101	TELECOMMUNICATIONS FLOOR PLAN - BASEMENT	140
T102	TELECOMMUNICATIONS FLOOR PLAN - FIRST FLOOR	141
T501	TELECOMMUNICATIONS DETAILS	142
T502	TELECOMMUNICATIONS DETAILS	143
PT-1	BASEMENT LEVEL - SCHEMATIC PNEUMATIC TUBE ROUTING Addendum #1(August 17,2015)	144
PT-2	FIRST FLOOR - SCHEMATIC PNEUMATIC TUBE ROUTING Addendum #1(August 17,2015)	145

- - - E N D - - -

Outpatient Services Center
G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01 00 00
GENERAL REQUIREMENTS

TABLE OF CONTENTS

1.1 SAFETY REQUIREMENTS.....	1
1.2 GENERAL INTENTION.....	1
1.3 STATEMENT OF BID ITEM(S)	1
1.4 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR	2
1.5 CONSTRUCTION SECURITY REQUIREMENTS.....	2
1.6 OPERATIONS AND STORAGE AREAS.....	5
1.7 ALTERATIONS.....	9
1.8 DISPOSAL AND RETENTION	11
1.9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS.....	14
1.10 RESTORATION.....	12
1.11 PHYSICAL DATA	13
1.12 PROFESSIONAL SURVEYING SERVICES	13
1.13 LAYOUT OF WORK.....	14
1.14 AS-BUILT DRAWINGS.....	15
1.15 USE OF ROADWAYS.....	16
1.16 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT	16
1.17 TEMPORARY TOILETS.....	18
1.18 AVAILABILITY AND USE OF UTILITY SERVICES.....	18
1.19 NEW TELEPHONE EQUIPMENT	18
1.20 TESTS.....	19
1.21 INSTRUCTIONS.....	19
1.22 GOVERNMENT-FURNISHED PROPERTY.....	20

Outpatient Services Center
G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS

1.23 CONSTRUCTION SIGN.....	21
1.24 SAFETY SIGN.....	25

SECTION 01 00 00
GENERAL REQUIREMENTS

06-01-15

1.1 SAFETY REQUIREMENTS

Refer to section 01 35 26, SAFETY REQUIREMENTS for safety and infection control requirements.

1.2 GENERAL INTENTION

- A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor and materials and perform work for an approximately 300,000 SF addition to the G.V. (Sonny) Montgomery VA Medical Center in Jackson, MS as required by drawings and specifications.
- B. Visits to the site by Bidders may be made only by appointment with the Medical Center Engineering Officer.
- C. Offices of AKEA, Inc. 3603 NW 98th Street, Suite B, Gainesville, FL 32606, as Architect-Engineers, will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or his duly authorized representative.
- D. Before placement and installation of work subject to tests by testing laboratory retained by Department of Veterans Affairs, the Contractor shall notify the COR in sufficient time to enable testing laboratory personnel to be present at the site in time for proper taking and testing of specimens and field inspection. Such prior notice shall be not less than three work days unless otherwise designated by the COR.
- E. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.

1.3 STATEMENT OF BID ITEM(S)

- A. General Construction.

ITEM I (Base Bid): Furnish all labor, materials, equipment, and supervision necessary to construct the Outpatient Services Center at the G.V. (Sonny) Montgomery VA Medical Center, Jackson, MS. Work includes general construction; site preparation to include demolition and removal of existing structures and relocation and protection of conflicting utilities; excavation for caisson foundations; construction of new utility services; poured-in-place concrete structure; elevators and stairs; clinical laboratories; outpatient clinics; and mechanical, electrical, plumbing, fire protection, and other associated work as required by the specifications and drawings. Web based building management system: Allow \$395,000.00 for labor and materials associated with installation of the web based building management system and related components. The AE team and Owner will obtain proposals for the system review for compliance with the specifications and then submit the successful Vendor's proposal to the General Contractor for execution of subcontract. Work covered will include Section 23 09 00 - Web based building management system, Section 23 05 15 - Variable frequency drives and motor starters and Section 23 09 25 - Airflow Measuring Stations. Completion time: 20 months.

Item II (Deduct Alternate #1): Includes all work in Bid Item I, except deduct all material costs and installation costs for the casework (including sinks, fittings, and electrical raceways in the casework for Room P024A Special Chemistry shown on the Basement Floor Plan sheet A110. The Base Bid includes all utilities run to capped connection points, junction boxes, etc. for future connection to the casework sinks, fixtures, raceways, lights, and other equipment connection points. All electrical devices, plumbing, data connections, etc. shown in constructed floors, walls and ceilings are Base Bid items. Completion time 20 months.

Item III (Deduct Alternate #2): Includes all work in bid Item I and II except deduct all material costs and installation costs for the casework (including sinks, fittings, and electrical raceways in the casework for Room #P021A Imaging Pathology shown on the Basement Floor Plan sheet A110. The Base Bid includes all utilities run to capped connection points, junction boxes, etc. for future connection to the casework sinks, fixtures, raceways, lights, and other equipment connection points. All electrical devices, plumbing, data connections,

etc. shown in constructed floors, walls and ceilings are Base Bid items. Completion time 20 months.

Item IV (Deduct Alternate 3): Includes all work in bid Items I, II and III except deduct all material costs and installation costs for the casework (including sinks, fittings, and electrical raceways in the casework for Room #P025A Clinical Microbiology shown on the Basement Floor Plan sheet A110. The Base Bid includes all utilities run to capped connection points, junction boxes, etc. for future connection to the casework sinks, fixtures, raceways, lights, and other equipment connection points. All electrical devices, plumbing, data connections, etc. shown in constructed floors, walls and ceilings are Base Bid items. Completion time 20 months.

Item V (Deduct Alternate 4): Includes all work in bid Items I, II ,III and IV except deduct all material costs and installation costs for the casework (including sinks, fittings, and electrical raceways in the casework for Room #P009 Blood Bank shown on the Basement Floor Plan sheet A110. The Base Bid includes all utilities run to capped connection points, junction boxes, etc. for future connection to the casework sinks, fixtures, raceways, lights, and other equipment connection points. All electrical devices, plumbing, data connections, etc. shown in constructed floors,walls and ceilings are Base Bid items. Completion time 20 months.

Item VI (Deduct Alternate 5): Includes all work in bid Items I, II ,III, IV and V except deduct all material costs and installation costs for the casework (including sinks, fittings, and electrical raceways in the casework for Room #P115B Hematology (Routine) shown on the Basement Floor Plan sheet A110. The Base Bid includes all utilities run to capped connection points, junction boxes, etc. for future connection to the casework sinks, fixtures, raceways, lights, and other equipment connection points. All electrical devices, plumbing, data connections, etc. shown in constructed floors, walls and ceilings are Base Bid items. Completion time 20 months.

Item VII (Deduct Alternate 6): Includes all work in bid Items I, II ,III, IV, V and VI except deduct the provision of a new air-cooled chiller, ACC-1 and all associated labor and materials. In lieu of providing new chiller, remove and reinstall existing air cooled chiller from its

location on the site to the locations shown for ACC-1 in the mechanical yard. Route new piping from existing chiller to point of connection to existing piping, as shown for ACC-1 on sheet M401. Mechanical contractor to provide startup of the existing chiller following re-installation. Electrical contractor shall make modifications as shown on the 'Power Connection Schedule' to serve the existing chiller intis new location. Completion time 20 months.

Item VIII (Deduct Alternate 7): Includes all work in bid Items I,II,III,IV,V,VI and VII except deduct cast iron piping. In lieu of cast iron piping, contractor to provide and install Schedule 40 PVC piping for sanitary waste and vent, as well as storm drain distribution. Hangers, supports, sleeving and firestopping to be per the requirements of 2012 International Building Code. Schedule 40 PVC piping to comply with ASTM D2729, joined by solvent welding. Joints, fittings and solvent welding to comply with ASTM D2855 and D2564. Completion Time 20 months.

Item IX (Deduct Alternate 8): Includes all work in bid Items I,II,III,IV,V,VI,VII,AND VIII except delete all horizontal and backbone (copper and fiber) communications cabling shown or referred to on Sheets T001, T101, T102 and associated details. This includes cabling serving television and AV functions. Also omit termination of cabling, associated termination devices and cover plates. Contractor shall provide all infrastructure including but not limited to conduit, pathways, sleeves, junction boxes, pull strings, etc. to be used in installation of cabling by others. Completion time 20 months.

Item X (Deduct Alternate 9): Includes all work Item I,II,III,IV,V,VI,VII, VIII and IX except delete all cabling and hardware associated with installation of the video surveillance system. This includes, but is not limited to, cameras, cabling, network switches, etc. Contractor shall provide all infrastructure including but not limited to conduit, pathways, sleeves, junction boxes, pull strings, etc. to be used in installations of video surveillance system by others. Completion time 20 months.

1.4 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. Drawings and contract documents may be obtained from the website where the solicitation is posted. Additional copies will be at Contractor's expense.

1.5 CONSTRUCTION SECURITY REQUIREMENTS

A. Security Plan:

1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project.
2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

1. General Contractor's employees shall not enter the project site without appropriate badge. They may also be subject to inspection of their personal effects when entering or leaving the project site.
2. Before starting work the General Contractor shall give one week's notice to the Contracting Officer so that security can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
3. No photography of VA premises is allowed without written permission of the Contracting Officer.
4. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

C. Guards:

1. The General Contractor shall provide unarmed guards at the project site after construction hours.
2. The Contractor shall provide the guards and VA police with communication devices as directed.

3. The general Contractor shall install equipment for recording guard rounds to ensure systematic checking of the premises.

D. Key Control:

1. The General Contractor shall provide duplicate keys and lock combinations to the Contracting officers representative (COR) for the purpose of security inspections of every area of project including tool boxes and parked machines and take any emergency action.
2. The General Contractor shall turn over all permanent lock cylinders to the VA locksmith for permanent installation. See Section 08 71 00, DOOR HARDWARE and coordinate.

E. Document Control:

1. Before starting any work, the General Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The General Contractor is responsible for safekeeping of all drawings, project manual and other project information. This information shall be shared only with those with a specific need to accomplish the project.
3. Certain documents, sketches, videos or photographs and drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified". Secure such information in separate containers and limit the access to only those who will need it for the project. Return the information to the Contracting Officer upon request.
4. These security documents shall not be removed or transmitted from the project site without the written approval of Contracting Officer.
5. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
6. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".

7. All electronic information shall be stored in specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
 - a. Security, access and maintenance of all project drawings, both scanned and electronic shall be performed and tracked through the EDMS system.
 - b. "Sensitive information" including drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed.

F. Motor Vehicle Restrictions

1. Vehicle authorization request shall be required for any vehicle entering the site and such request shall be submitted 24 hours before the date and time of access. Access shall be restricted to picking up and dropping off materials and supplies.
2. A limited number of (2 to 5) permits shall be issued for General Contractor and its employees for parking in designated areas only. Construction employees shall park in areas designated by the VA.

1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

- C. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.
- D. Working space and space available for storing materials shall be as determined by the COR.
- E. Workmen are subject to rules of Medical Center applicable to their conduct.
- F. Execute work so as to interfere as little as possible with normal functioning of Medical Center as a whole, including operations of utility services, fire protection systems and any existing equipment, and with work being done by others. Use of equipment and tools that transmit vibrations and noises through the building structure, are not permitted in buildings that are occupied, during construction, jointly by patients or medical personnel, and Contractor's personnel, except as permitted by COR where required by limited working space.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities sufficient for not more than two work days. Provide unobstructed access to Medical Center areas required to remain in operation.
 - 3. Where access by Medical Center personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.
- F*. Utilities Services: Where necessary to cut existing pipes, electrical wires, conduits, cables, etc., of utility services, or of fire protection systems or communications systems (except telephone), they

shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COR. All such actions shall be coordinated with the COR or Utility Company involved:

1. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.

G. Phasing:

The Medical Center must maintain its operation 24 hours a day 7 days a week. Therefore, any interruption in service must be scheduled and coordinated with the COR to ensure that no lapses in operation occur. It is the CONTRACTOR'S responsibility to develop a work plan and schedule detailing, at a minimum, the procedures to be employed, the equipment and materials to be used, the interim life safety measure to be used during the work, and a schedule defining the duration of the work with milestone subtasks.

To insure such executions, Contractor shall furnish the COR with a schedule of approximate dates on which the Contractor intends to accomplish work in each specific area of site, building or portion thereof. In addition, Contractor shall notify the COR two weeks in advance of the proposed date of starting work in each specific area of site, building or portion thereof.

- H. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum height, around the construction area indicated on the drawings. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. Remove the fence when directed by COR.
- I. When a building and/or construction site is turned over to Contractor, Contractor shall accept entire responsibility including upkeep and maintenance therefore:

1. Contractor shall maintain a minimum temperature of 4 degrees C (40 degrees F) at all times, except as otherwise specified.
2. Contractor shall maintain in operating condition existing fire protection and alarm equipment. In connection with fire alarm equipment, Contractor shall make arrangements for pre-inspection of site with Fire Department or Company (Department of Veterans Affairs or municipal) whichever will be required to respond to an alarm from Contractor's employee or watchman.

J. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COR.

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of COR. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work on any energized circuits or equipment shall not commence without a detailed work plan, the Medical Center Director's prior knowledge and written approval. Refer to specification Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS and 28 05 11, REQUIREMENTS FOR ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.
2. Contractor shall submit a request to interrupt any such services to COR, in writing, 7 days in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Medical Center. Interruption time

- approved by Medical Center may occur at other than Contractor's normal working hours.
4. Major interruptions of any system must be requested, in writing, at least 15 calendar days prior to the desired time and shall be performed as directed by the COR.
 5. In case of a contract construction emergency, service will be interrupted on approval of COR. Such approval will be confirmed in writing as soon as practical.
 6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam, payment of such fee shall be the responsibility of the Government and not the Contractor.
- K. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped or plugged at the main, branch or panel they originate from. The lines shall not be capped in finished areas, but shall be removed and sealed, capped or plugged in ceilings, within furred spaces, in unfinished areas, or within walls or partitions; so that they are completely behind the finished surfaces.
- L. To minimize interference of construction activities with flow of Medical Center traffic, comply with the following:
1. Keep roads, walks and entrances to grounds, to parking and to occupied areas of buildings clear of construction materials, debris and standing construction equipment and vehicles. Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times with approval.
 2. Method and scheduling of required cutting, altering and removal of the existing roads, walks and entrances must be approved by the COR.
- M. Coordinate the work for this contract with other construction operations as directed by COR. This includes the scheduling of traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.

1.7 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the COR and a representative of VA Supply Service, of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by both, to the Contracting Officer. This report shall list by rooms and spaces:
1. Existing condition and types of resilient flooring, doors, windows, walls and other surfaces not required to be altered throughout affected areas of building.
 2. Existence and conditions of items such as plumbing fixtures and accessories, electrical fixtures, equipment, venetian blinds, shades, etc., required by drawings to be either reused or relocated, or both.
 3. Shall note any discrepancies between drawings and existing conditions at site.
 4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and COR.
- B. Any items required by drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of COR and/or Supply Representative, to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by Contractor with new items in accordance with specifications which will be furnished by Government. Provided the contract work is changed by reason of this subparagraph B, the contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236-2) and "CHANGES" (FAR 52.243-4 and VAAR 852.236-88).
- C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and COR together shall make a thorough re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing, of resilient flooring, doors, windows, walls and other surfaces as compared with conditions of same as noted in first condition survey report:

1. Re-survey report shall also list any damage caused by Contractor to such flooring and other surfaces, despite protection measures; and, will form basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workmen in executing work of this contract.

D. Protection: Provide the following protective measures:

1. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.

1.8 DISPOSAL AND RETENTION

A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:

1. Reserved items which are to remain property of the Government are identified by attached tags as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where directed by COR.
2. Items not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period,

such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.

1.9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.
- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

1.10 RESTORATION

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the COR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the COR before it is disturbed. Materials and workmanship used in restoring work, shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.

- B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.
- C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are not scheduled for discontinuance or abandonment.
- D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) and "DIFFERING SITE CONDITIONS" (FAR 52.236-2).

1.11 PHYSICAL DATA

- A. Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.
 - 1. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by Burns Cooley Dennis, Inc. 551 Sunnybrook Rd Ridgeland, MS 39157.

(FAR 52.236-4)

- B. Subsurface conditions have been developed by core borings and test pits. Logs of subsurface exploration are shown diagrammatically on drawings.
- C. A copy of the soil report will be made available for inspection by bidders upon request to the Engineering Officer at the VA Medical Center, Jackson, MS and shall be considered part of the contract documents.

- D. Government does not guarantee that other materials will not be encountered nor that proportions, conditions or character of several materials will not vary from those indicated by explorations. Bidders are expected to examine site of work and logs of borings; and, after investigation, decide for themselves character of materials and make their bids accordingly. Upon proper application to Department of Veterans Affairs, bidders will be permitted to make subsurface explorations of their own at site.

1.12 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall perform services specified herein and in other specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this contract.

1.13 LAYOUT OF WORK

- A. The Contractor shall lay out the work from Government established base lines and bench marks, indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at Contractor's own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(FAR 52.236-17)

- B. Establish and plainly mark center lines for each building and corner of column lines and/or addition to each existing building, and such other lines and grades that are reasonably necessary to properly assure that

location, orientation, and elevations established for each such structure and/or addition, roads, parking lots, are in accordance with lines and elevations shown on contract drawings.

- C. Following completion of general mass excavation and before any other permanent work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of work. Survey shall include, but not be limited to, location of lines and grades of footings, exterior walls, center lines of columns in both directions, major utilities and elevations of floor slabs:

1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the COR before any work (such as footings, floor slabs, columns, walls, utilities and other major controlling features) is placed.

- D. During progress of work, and particularly as work progresses from floor to floor, Contractor shall have line grades and plumbness of all major form work checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the COR before any major items of concrete work are placed. In addition, Contractor shall also furnish to the COR certificates from a registered land surveyor or registered civil engineer that the following work is complete in every respect as required by contract drawings.

1. Lines of each building and/or addition.
2. Elevations of bottoms of footings and tops of floors of each building and/or addition.
3. Lines and elevations of sewers and of all outside distribution systems.

- E. Whenever changes from contract drawings are made in line or grading requiring certificates, record such changes on a reproducible drawing bearing the registered land surveyor or registered civil engineer seal, and forward these drawings upon completion of work to COR.

- F. The Contractor shall perform the surveying and layout work of this and other articles and specifications in accordance with the provisions of Article "Professional Surveying Services".

1.14 AS-BUILT DRAWINGS

- A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, to include all contract changes, modifications and clarifications.
- B. All variations shall be shown in the same general detail as used in the contract drawings. To insure compliance, as-built drawings shall be made available for the COR's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings in the electronic version (scanned PDF) to the COR [Chief Engineer][Chief of Facilities Management] within 15 calendar days after each completed phase and after the acceptance of the project by the COR.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.15 USE OF ROADWAYS

- A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the COR, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed and restoration performed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.
- B. When new permanent roads are to be a part of this contract, Contractor may construct them immediately for use to facilitate building operations. These roads may be used by all who have business thereon within zone of building operations.
- C. When certain buildings (or parts of certain buildings) are required to be completed in advance of general date of completion, all roads leading thereto must be completed and available for use at time set for completion of such buildings or parts thereof.

1.16 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT

- A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light and power will be permitted subject to written approval and compliance with the following provisions:
1. Permission to use each unit or system must be given by COR in writing. If the equipment is not installed and maintained in accordance with the written agreement and following provisions, the COR will withdraw permission for use of the equipment.
 2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e. transformers, relays, circuit breakers, fuses, conductors, motor controllers and their overload elements shall be properly sized, coordinated and adjusted. Installation of temporary electrical equipment or devices shall be in accordance with NFPA 70, National Electrical Code, (2014 Edition), Article 590, *Temporary Installations*. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
 3. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
 4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
 5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
 6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to prevent corrosion internally and externally during use; and cleaned,

maintained and inspected prior to acceptance by the Government. Boilers, pumps, feedwater heaters and auxiliary equipment must be operated as a complete system and be fully maintained by operating personnel. Boiler water must be given complete and continuous chemical treatment.

- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal, shall be replaced with identical replacements, at no additional cost to the Government.
- C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.
- D. Any damage to the equipment or excessive wear due to prolonged use will be repaired replaced by the contractor at the contractor's expense.

1.17 TEMPORARY TOILETS

- A. Provide where directed, (for use of all Contractor's workmen) ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by COR, provide suitable dry closets where directed. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean.

1.18 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. The amount to be paid by the Contractor for chargeable electrical services shall be the prevailing rates charged to the Government. The Contractor shall carefully conserve any utilities furnished without charge.
- B. The Contractor, at Contractor's expense and in a workmanlike manner, in compliance with code and as satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and

associated paraphernalia and repair restore the infrastructure as required.

C. Contractor shall install meters at Contractor's expense and furnish the Medical Center a monthly record of the Contractor's usage of electricity as hereinafter specified.

D. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials:

E. Electricity (for Construction and Testing): Furnish all temporary electric services.

1. Obtain electricity by connecting to the Medical Center electrical distribution system. The Contractor shall meter and pay for electricity required for electric cranes and hoisting devices, electrical welding devices and any electrical heating devices providing temporary heat. Electricity for all other uses is available at no cost to the Contractor.

F. Water (for Construction and Testing): Furnish temporary water service.

1. Obtain water by connecting to the Medical Center water distribution system. Provide reduced pressure backflow preventer at each connection as per code. Water is available at no cost to the Contractor.
2. Maintain connections, pipe, fittings and fixtures and conserve water-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at COR discretion) of use of water from Medical Center's system.

1.19 NEW TELEPHONE EQUIPMENT

The contractor shall coordinate with the work of installation of telephone equipment by others. This work shall be completed before the building is turned over to VA.

1.20 TESTS

- A. As per specification section 23 05 93 the contractor shall provide a written testing and commissioning plan complete with component level, equipment level, sub-system level and system level breakdowns. The plan will provide a schedule and a written sequence of what will be tested, how and what the expected outcome will be. This document will be submitted for approval prior to commencing work. The contractor shall document the results of the approved plan and submit for approval with the as built documentation.
- B. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.
- C. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- D. Mechanical and electrical systems shall be balanced, controlled and coordinated. A system is defined as the entire system which must be coordinated to work together during normal operation to produce results for which the system is designed. For example, air conditioning supply air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air, steam, chilled water, refrigerant, hot water, controls and electricity, etc. Another example of a system which involves several components of different disciplines is a boiler installation. Efficient and acceptable boiler operation depends upon the coordination and proper operation of fuel, combustion air, controls, steam, feedwater, condensate and other related components.
- E. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably period of time during which operating and environmental conditions remain reasonably constant and are typical of the design conditions.

- F. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

1.21 INSTRUCTIONS

- A. Contractor shall furnish Maintenance and Operating manuals (hard copies and electronic) and verbal instructions when required by the various sections of the specifications and as hereinafter specified.
- B. Manuals: Maintenance and operating manuals and one compact disc (four hard copies and one electronic copy each) for each separate piece of equipment shall be delivered to the COR coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.
- C. Instructions: Contractor shall provide qualified, factory-trained manufacturers' representatives to give detailed training to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different items of equipment that are component parts of a complete system, shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until

instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter-related systems. All instruction periods shall be at such times as scheduled by the COR and shall be considered concluded only when the COR is satisfied in regard to complete and thorough coverage. The contractor shall submit a course outline with associated material to the COR for review and approval prior to scheduling training to ensure the subject matter covers the expectations of the VA and the contractual requirements. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the COR, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.22 GOVERNMENT-FURNISHED PROPERTY

- A. The Government shall deliver to the Contractor, the Government furnished property shown on the Schedule and drawings.
- B. Equipment furnished by Government to be installed by Contractor will be furnished to Contractor at the Medical Center.
- C*. Storage space for equipment will be provided by the Government and the Contractor shall be prepared to unload and store such equipment therein upon its receipt at the Medical Center.
- D. Notify Contracting Officer in writing, 60 days in advance, of date on which Contractor will be prepared to receive equipment furnished by Government. Arrangements will then be made by the Government for delivery of equipment.
 - 1. Immediately upon delivery of equipment, Contractor shall arrange for a joint inspection thereof with a representative of the Government. At such time the Contractor shall acknowledge receipt of equipment described, make notations, and immediately furnish the Government representative with a written statement as to its condition or shortages.
 - 2. Contractor thereafter is responsible for such equipment until such time as acceptance of contract work is made by the Government.

- E. Equipment furnished by the Government will be delivered in a partially assembled (knock down) condition in accordance with existing standard commercial practices, complete with all fittings, fastenings, and appliances necessary for connections to respective services installed under contract. All fittings and appliances (i.e., couplings, ells, tees, nipples, piping, conduits, cables, and the like) necessary to make the connection between the Government furnished equipment item and the utility stub-up shall be furnished and installed by the contractor at no additional cost to the Government.
- F. Completely assemble and install the Government furnished equipment in place ready for proper operation in accordance with specifications and drawings.
- G. Furnish supervision of installation of equipment at construction site by qualified factory trained technicians regularly employed by the equipment manufacturer.

1.23 CONSTRUCTION SIGN

- A. Provide a Construction Sign where directed by the COR. All wood members shall be of framing lumber. Cover sign frame with 0.7 mm (24 gage) galvanized sheet steel nailed securely around edges and on all bearings. Provide three 100 by 100 mm (4 inch by 4 inch) posts (or equivalent round posts) set 1200 mm (four feet) into ground. Set bottom of sign level at 900 mm (three feet) above ground and secure to posts with through bolts. Make posts full height of sign. Brace posts with 50 x 100 mm (two by four inch) material as directed.
- B. Paint all surfaces of sign and posts two coats of white gloss paint. Border and letters shall be of black gloss paint, except project title which shall be blue gloss paint.
- C. Maintain sign and remove it when directed by the COR.
- D. Detail Drawing of construction sign showing required legend and other characteristics of sign is shown on the drawings.

1.24 SAFETY SIGN

- A. Provide a Safety Sign where directed by COR. Face of sign shall be 19 mm (3/4 inch) thick exterior grade plywood. Provide two 100 mm by 100 mm (four by four inch) posts extending full height of sign and 900 mm

(three feet) into ground. Set bottom of sign level at 1200 mm (four feet) above ground.

- B. Paint all surfaces of Safety Sign and posts with one prime coat and two coats of white gloss paint. Letters and design shall be painted with gloss paint of colors noted.
- C. Maintain sign and remove it when directed by COR.
- D. Standard Detail Drawing Number SD10000-02(Found on VA TIL) of safety sign showing required legend and other characteristics of sign is shown on the drawings.
- E. Post the number of accident free days on a daily basis.

- - - E N D - - -

SECTION 01 32 16.15
PROJECT SCHEDULES
(SMALL PROJECTS - DESIGN/BID/BUILD)

PART 1- GENERAL

1.1 DESCRIPTION:

- A. The Contractor shall develop a Critical Path Method (CPM) plan and schedule demonstrating fulfillment of the contract requirements (Project Schedule), and shall keep the Project Schedule up-to-date in accordance with the requirements of this section and shall utilize the plan for scheduling, coordinating and monitoring work under this contract (including all activities of subcontractors, equipment vendors and suppliers). Conventional Critical Path Method (CPM) technique shall be utilized to satisfy both time and cost applications.

1.2 CONTRACTOR'S REPRESENTATIVE:

- A. The Contractor shall designate an authorized representative responsible for the Project Schedule including preparation, review and progress reporting with and to the Contracting Officer's Representative (COR).
- B. The Contractor's representative shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the requirements of this specification section.
- C. The Contractor's representative shall have the option of developing the project schedule within their organization or to engage the services of an outside consultant. If an outside scheduling consultant is utilized, Section 1.3 of this specification will apply.

1.3 CONTRACTOR'S CONSULTANT:

- A. The Contractor shall submit a qualification proposal to the COR, within 10 days of bid acceptance. The qualification proposal shall include:
 - 1. The name and address of the proposed consultant.
 - 2. Information to show that the proposed consultant has the qualifications to meet the requirements specified in the preceding paragraph.
 - 3. A representative sample of prior construction projects, which the proposed consultant has performed complete project scheduling services. These representative samples shall be of similar size and scope.
- B. The Contracting Officer has the right to approve or disapprove the proposed consultant, and will notify the Contractor of the VA decision within seven calendar days from receipt of the qualification proposal.

In case of disapproval, the Contractor shall resubmit another consultant within 10 calendar days for renewed consideration. The Contractor shall have their scheduling consultant approved prior to submitting any schedule for approval.

1.4 COMPUTER PRODUCED SCHEDULES

- A. The contractor shall provide monthly, to the Department of Veterans Affairs (VA), all computer-produced time/cost schedules and reports generated from monthly project updates. This monthly computer service will include: three copies of up to five different reports (inclusive of all pages) available within the user defined reports of the scheduling software approved by the Contracting Officer; a hard copy listing of all project schedule changes, and associated data, made at the update and an electronic file of this data; and the resulting monthly updated schedule in PDM format. These must be submitted with and substantively support the contractor's monthly payment request and the signed look ahead report. The COR shall identify the five different report formats that the contractor shall provide.
- B. The contractor shall be responsible for the correctness and timeliness of the computer-produced reports. The Contractor shall also responsible for the accurate and timely submittal of the updated project schedule and all CPM data necessary to produce the computer reports and payment request that is specified.
- C. The VA will report errors in computer-produced reports to the Contractor's representative within ten calendar days from receipt of reports. The Contractor shall reprocess the computer-produced reports and associated diskette(s), when requested by the Contracting Officer's representative, to correct errors which affect the payment and schedule for the project.

1.5 THE COMPLETE PROJECT SCHEDULE SUBMITTAL

- A. Within 45 calendar days after receipt of Notice to Proceed, the Contractor shall submit for the Contracting Officer's review; three blue line copies of the interim schedule on sheets of paper 765 x 1070 mm (30 x 42 inches) and an electronic file in the previously approved CPM schedule program. The submittal shall also include three copies of a computer-produced activity/event ID schedule showing project duration; phase completion dates; and other data, including event cost. Each activity/event on the computer-produced schedule shall contain as a minimum, but not limited to, activity/event ID, activity/event

description, duration, budget amount, early start date, early finish date, late start date, late finish date and total float. Work activity/event relationships shall be restricted to finish-to-start or start-to-start without lead or lag constraints. Activity/event date constraints, not required by the contract, will not be accepted unless submitted to and approved by the Contracting Officer. The contractor shall make a separate written detailed request to the Contracting Officer identifying these date constraints and secure the Contracting Officer's written approval before incorporating them into the network diagram. The Contracting Officer's separate approval of the Project Schedule shall not excuse the contractor of this requirement. Logic events (non-work) will be permitted where necessary to reflect proper logic among work events, but must have zero duration. The complete working schedule shall reflect the Contractor's approach to scheduling the complete project. The final Project Schedule in its original form shall contain no contract changes or delays which may have been incurred during the final network diagram development period and shall reflect the entire contract duration as defined in the bid documents. These changes/delays shall be entered at the first update after the final Project Schedule has been approved. The Contractor should provide their requests for time and supporting time extension analysis for contract time as a result of contract changes/delays, after this update, and in accordance with Article, ADJUSTMENT OF CONTRACT COMPLETION.

- D. Within 30 calendar days after receipt of the complete project interim Project Schedule and the complete final Project Schedule, the Contracting Officer or his representative, will do one or both of the following:
1. Notify the Contractor concerning his actions, opinions, and objections.
 2. A meeting with the Contractor at or near the job site for joint review, correction or adjustment of the proposed plan will be scheduled if required. Within 14 calendar days after the joint review, the Contractor shall revise and shall submit three blue line copies of the revised Project Schedule, three copies of the revised computer-produced activity/event ID schedule and a revised electronic file as specified by the Contracting Officer. The revised

submission will be reviewed by the Contracting Officer and, if found to be as previously agreed upon, will be approved.

- E. The approved baseline schedule and the computer-produced schedule(s) generated there from shall constitute the approved baseline schedule until subsequently revised in accordance with the requirements of this section.

1.6 WORK ACTIVITY/EVENT COST DATA

- A. The Contractor shall cost load all work activities/events except procurement activities. The cumulative amount of all cost loaded work activities/events (including alternates) shall equal the total contract price. Prorate overhead, profit and general conditions on all work activities/events for the entire project length. The contractor shall generate from this information cash flow curves indicating graphically the total percentage of work activity/event dollar value scheduled to be in place on early finish, late finish. These cash flow curves will be used by the Contracting Officer to assist him in determining approval or disapproval of the cost loading. Negative work activity/event cost data will not be acceptable, except on VA issued contract changes.
- B. The Contractor shall cost load work activities/events for guarantee period services, test, balance and adjust various systems in accordance with the provisions in Article, FAR 52.232 - 5 (PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS) and VAAR 852.236 - 83 (PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS).
- C. In accordance with FAR 52.236 - 1 (PERFORMANCE OF WORK BY THE CONTRACTOR) and VAAR 852.236 - 72 (PERFORMANCE OF WORK BY THE CONTRACTOR), the Contractor shall submit, simultaneously with the cost per work activity/event of the construction schedule required by this Section, a responsibility code for all activities/events of the project for which the Contractor's forces will perform the work.
- D. The Contractor shall cost load work activities/events for all BID ITEMS including ASBESTOS ABATEMENT. The sum of each BID ITEM work shall equal the value of the bid item in the Contractors' bid.

1.7 PROJECT SCHEDULE REQUIREMENTS

- A. Show on the project schedule the sequence of work activities/events required for complete performance of all items of work. The Contractor Shall:
 - 1. Show activities/events as:

- a. Contractor's time required for submittal of shop drawings, templates, fabrication, delivery and similar pre-construction work.
 - b. Contracting Officer's and Architect-Engineer's review and approval of shop drawings, equipment schedules, samples, template, or similar items.
 - c. Interruption of VA Facilities utilities, delivery of Government furnished equipment, and rough-in drawings, project phasing and any other specification requirements.
 - d. Test, balance and adjust various systems and pieces of equipment, maintenance and operation manuals, instructions and preventive maintenance tasks.
 - e. VA inspection and acceptance activity/event with a minimum duration of five work days at the end of each phase and immediately preceding any VA move activity/event required by the contract phasing for that phase.
2. Show not only the activities/events for actual construction work for each trade category of the project, but also trade relationships to indicate the movement of trades from one area, floor, or building, to another area, floor, or building, for at least five trades who are performing major work under this contract.
 3. Break up the work into activities/events of a duration no longer than 20 work days each or one reporting period, except as to non-construction activities/events (i.e., procurement of materials, delivery of equipment, concrete and asphalt curing) and any other activities/events for which the COR may approve the showing of a longer duration. The duration for VA approval of any required submittal, shop drawing, or other submittals will not be less than 20 work days.
 4. Describe work activities/events clearly, so the work is readily identifiable for assessment of completion. Activities/events labeled "start," "continue," or "completion," are not specific and will not be allowed. Lead and lag time activities will not be acceptable.
 5. The schedule shall be generally numbered in such a way to reflect either discipline, phase or location of the work.
- B. The Contractor shall submit the following supporting data in addition to the project schedule:

1. The appropriate project calendar including working days and holidays.
2. The planned number of shifts per day.
3. The number of hours per shift.

Failure of the Contractor to include this data shall delay the review of the submittal until the Contracting Officer is in receipt of the missing data.

- C. To the extent that the Project Schedule or any revised Project Schedule shows anything not jointly agreed upon, it shall not be deemed to have been approved by the COR. Failure to include any element of work required for the performance of this contract shall not excuse the Contractor from completing all work required within any applicable completion date of each phase regardless of the COR's approval of the Project Schedule.
- D. Compact Disk Requirements and CPM Activity/Event Record Specifications: Submit to the VA an electronic file(s) containing one file of the data required to produce a schedule, reflecting all the activities/events of the complete project schedule being submitted.

1.8 PAYMENT TO THE CONTRACTOR:

- A. Monthly, the contractor shall submit an application and certificate for payment in accordance with the provisions of the following Article, PAYMENT AND PROGRESS REPORTING, as the basis upon which progress payments will be made pursuant to Article, FAR 52.232 - 5 (PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS) and VAAR 852.236 - 83 (PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS). The Contractor shall be entitled to a monthly progress payment upon approval of estimates as determined from the currently approved updated project schedule. Monthly payment requests shall include: a listing of all agreed upon project schedule changes and associated data; and an electronic file (s) of the resulting monthly updated schedule.
- B. Approval of the Contractor's monthly Application for Payment shall be contingent, among other factors, on the submittal of a satisfactory monthly update of the project schedule.

1.9 PAYMENT AND PROGRESS REPORTING

- A. Monthly schedule update meetings will be held on dates mutually agreed to by the COR and the Contractor. Contractor and their CPM consultant (if applicable) shall attend all monthly schedule update meetings. The Contractor shall accurately update the Project Schedule and all other

data required and provide this information to the COR three work days in advance of the schedule update meeting. Job progress will be reviewed to verify:

1. Actual start and/or finish dates for updated/completed activities/events.
 2. Remaining duration for each activity/event started, or scheduled to start, but not completed.
 3. Logic, time and cost data for change orders, and supplemental agreements that are to be incorporated into the Project Schedule.
 4. Changes in activity/event sequence and/or duration which have been made, pursuant to the provisions of following Article, ADJUSTMENT OF CONTRACT COMPLETION.
 5. Completion percentage for all completed and partially completed activities/events.
 6. Logic and duration revisions required by this section of the specifications.
 7. Activity/event duration and percent complete shall be updated independently.
- B. After completion of the joint review, the contractor shall generate an updated computer-produced calendar-dated schedule and supply the Contracting Officer's representative with reports in accordance with the Article, COMPUTER PRODUCED SCHEDULES, specified.
- C. After completing the monthly schedule update, the contractor's representative or scheduling consultant shall rerun all current period contract change(s) against the prior approved monthly project schedule. The analysis shall only include original workday durations and schedule logic agreed upon by the contractor and resident engineer for the contract change(s). When there is a disagreement on logic and/or durations, the Contractor shall use the schedule logic and/or durations provided and approved by the resident engineer. After each rerun update, the resulting electronic project schedule data file shall be appropriately identified and submitted to the VA in accordance to the requirements listed in articles 1.4 and 1.7. This electronic submission is separate from the regular monthly project schedule update requirements and shall be submitted to the resident engineer within fourteen (14) calendar days of completing the regular schedule update. Before inserting the contract changes durations, care must be taken to ensure that only the original durations will be used for the analysis,

not the reported durations after progress. In addition, once the final network diagram is approved, the contractor must recreate all manual progress payment updates on this approved network diagram and associated reruns for contract changes in each of these update periods as outlined above for regular update periods. This will require detailed record keeping for each of the manual progress payment updates.

- D. Following approval of the CPM schedule, the VA, the General Contractor, its approved CPM Consultant, RE office representatives, and all subcontractors needed, as determined by the SRE, shall meet to discuss the monthly updated schedule. The main emphasis shall be to address work activities to avoid slippage of project schedule and to identify any necessary actions required to maintain project schedule during the reporting period. The Government representatives and the Contractor should conclude the meeting with a clear understanding of those work and administrative actions necessary to maintain project schedule status during the reporting period. This schedule coordination meeting will occur after each monthly project schedule update meeting utilizing the resulting schedule reports from that schedule update. If the project is behind schedule, discussions should include ways to prevent further slippage as well as ways to improve the project schedule status, when appropriate.

1.10 RESPONSIBILITY FOR COMPLETION

- A. If it becomes apparent from the current revised monthly progress schedule that phasing or contract completion dates will not be met, the Contractor shall execute some or all of the following remedial actions:
1. Increase construction manpower in such quantities and crafts as necessary to eliminate the backlog of work.
 2. Increase the number of working hours per shift, shifts per working day, working days per week, the amount of construction equipment, or any combination of the foregoing to eliminate the backlog of work.
 3. Reschedule the work in conformance with the specification requirements.
- B. Prior to proceeding with any of the above actions, the Contractor shall notify and obtain approval from the COR for the proposed schedule changes. If such actions are approved, the representative schedule revisions shall be incorporated by the Contractor into the Project

Schedule before the next update, at no additional cost to the Government.

1.11 CHANGES TO THE SCHEDULE

- A. Within 30 calendar days after VA acceptance and approval of any updated project schedule, the Contractor shall submit a revised electronic file (s) and a list of any activity/event changes including predecessors and successors for any of the following reasons:
 - 1. Delay in completion of any activity/event or group of activities/events, which may be involved with contract changes, strikes, unusual weather, and other delays will not relieve the Contractor from the requirements specified unless the conditions are shown on the CPM as the direct cause for delaying the project beyond the acceptable limits.
 - 2. Delays in submittals, or deliveries, or work stoppage are encountered which make rescheduling of the work necessary.
 - 3. The schedule does not represent the actual prosecution and progress of the project.
 - 4. When there is, or has been, a substantial revision to the activity/event costs regardless of the cause for these revisions.
- B. CPM revisions made under this paragraph which affect the previously approved computer-produced schedules for Government furnished equipment, vacating of areas by the VA Facility, contract phase(s) and sub phase(s), utilities furnished by the Government to the Contractor, or any other previously contracted item, shall be furnished in writing to the Contracting Officer for approval.
- C. Contracting Officer's approval for the revised project schedule and all relevant data is contingent upon compliance with all other paragraphs of this section and any other previous agreements by the Contracting Officer or the VA representative.
- D. The cost of revisions to the project schedule resulting from contract changes will be included in the proposal for changes in work as specified in FAR 52.243 - 4 (Changes) and VAAR 852.236 - 88 (Changes - Supplemental), and will be based on the complexity of the revision or contract change, man hours expended in analyzing the change, and the total cost of the change.
- E. The cost of revisions to the Project Schedule not resulting from contract changes is the responsibility of the Contractor.

1.12 ADJUSTMENT OF CONTRACT COMPLETION

- A. The contract completion time will be adjusted only for causes specified in this contract. Request for an extension of the contract completion date by the Contractor shall be supported with a justification, CPM data and supporting evidence as the COR may deem necessary for determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract. Submission of proof based on revised activity/event logic, durations (in work days) and costs is obligatory to any approvals. The schedule must clearly display that the Contractor has used, in full, all the float time available for the work involved in this request. The Contracting Officer's determination as to the total number of days of contract extension will be based upon the current computer-produced calendar-dated schedule for the time period in question and all other relevant information.
- B. Actual delays in activities/events which, according to the computer-produced calendar-dated schedule, do not affect the extended and predicted contract completion dates shown by the critical path in the network, will not be the basis for a change to the contract completion date. The Contracting Officer will within a reasonable time after receipt of such justification and supporting evidence, review the facts and advise the Contractor in writing of the Contracting Officer's decision.
- C. The Contractor shall submit each request for a change in the contract completion date to the Contracting Officer in accordance with the provisions specified under FAR 52.243 - 4 (Changes) and VAAR 852.236 - 88 (Changes - Supplemental). The Contractor shall include, as a part of each change order proposal, a sketch showing all CPM logic revisions, duration (in work days) changes, and cost changes, for work in question and its relationship to other activities on the approved network diagram.
- D. All delays due to non-work activities/events such as RFI's, WEATHER, STRIKES, and similar non-work activities/events shall be analyzed on a month by month basis.

- - - E N D - - -

SECTION 01 33 23
SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- 1-1. Refer to Articles titled SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FAR 52.236-21) and, SPECIAL NOTES (VAAR 852.236-91), in GENERAL CONDITIONS.
- 1-2. For the purposes of this contract, samples (including laboratory samples to be tested), test reports, certificates, and manufacturers' literature and data shall also be subject to the previously referenced requirements. The following text refers to all items collectively as SUBMITTALS.
- 1-3. Submit for approval, all of the items specifically mentioned under the separate sections of the specification, with information sufficient to evidence full compliance with contract requirements. Materials, fabricated articles and the like to be installed in permanent work shall equal those of approved submittals. After an item has been approved, no change in brand or make will be permitted unless:
 - A. Satisfactory written evidence is presented to, and approved by Contracting Officer, that manufacturer cannot make scheduled delivery of approved item or;
 - B. Item delivered has been rejected and substitution of a suitable item is an urgent necessity or;
 - C. Other conditions become apparent which indicates approval of such substitute item to be in best interest of the Government.
- 1-4. Forward submittals in sufficient time to permit proper consideration and approval action by Government. Time submission to assure adequate lead time for procurement of contract - required items. Delays attributable to untimely and rejected submittals (including any laboratory samples to be tested) will not serve as a basis for extending contract time for completion.
- 1-5. Submittals will be reviewed for compliance with contract requirements by Architect-Engineer, and action thereon will be taken by Resident Engineer on behalf of the Contracting Officer.
- 1-6. Upon receipt of submittals, Architect-Engineer will assign a file number thereto. Contractor, in any subsequent correspondence, shall refer to this file and identification number to expedite replies relative to previously approved or disapproved submittals.
- 1-7. The Government reserves the right to require additional submittals, whether or not particularly mentioned in this contract. If additional

submittals beyond those required by the contract are furnished pursuant to request therefor by Contracting Officer, adjustment in contract price and time will be made in accordance with Articles titled CHANGES (FAR 52.243-4) and CHANGES - SUPPLEMENT (VAAR 852.236-88) of the GENERAL CONDITIONS.

- 1-8. Schedules called for in specifications and shown on shop drawings shall be submitted for use and information of Department of Veterans Affairs and Architect-Engineer. However, the Contractor shall assume responsibility for coordinating and verifying schedules. The Contracting Officer and Architect-Engineer assumes no responsibility for checking schedules or layout drawings for exact sizes, exact numbers and detailed positioning of items.
- 1-9. Submittals must be submitted by Contractor only and shipped prepaid. Contracting Officer assumes no responsibility for checking quantities or exact numbers included in such submittals.
 - A. Submit samples required by Section 09 06 00, SCHEDULE FOR FINISHES, in quadruplicate. Submit other samples in single units unless otherwise specified. Submit shop drawings, schedules, manufacturers' literature and data, and certificates in quadruplicate, except where a greater number is specified.
 - B. Submittals will receive consideration only when covered by a transmittal letter signed by Contractor. Letter shall be sent via first class mail and shall contain the list of items, name of Medical Center, name of Contractor, contract number, applicable specification paragraph numbers, applicable drawing numbers (and other information required for exact identification of location for each item), manufacturer and brand, ASTM or Federal Specification Number (if any) and such additional information as may be required by specifications for particular item being furnished. In addition, catalogs shall be marked to indicate specific items submitted for approval.
 1. A copy of letter must be enclosed with items, and any items received without identification letter will be considered "unclaimed goods" and held for a limited time only.
 2. Each sample, certificate, manufacturers' literature and data shall be labeled to indicate the name and location of the Medical Center, name of Contractor, manufacturer, brand, contract number and ASTM or Federal Specification Number as applicable and location(s) on project.
 3. Required certificates shall be signed by an authorized representative of manufacturer or supplier of material, and by Contractor.

- C. In addition to complying with the applicable requirements specified in preceding Article 1.9, samples which are required to have Laboratory Tests (those preceded by symbol "LT" under the separate sections of the specification shall be tested, at the expense of Contractor, in a commercial laboratory approved by Contracting Officer.
1. Laboratory shall furnish Contracting Officer with a certificate stating that it is fully equipped and qualified to perform intended work, is fully acquainted with specification requirements and intended use of materials and is an independent establishment in no way connected with organization of Contractor or with manufacturer or supplier of materials to be tested.
 2. Certificates shall also set forth a list of comparable projects upon which laboratory has performed similar functions during past five years.
 3. Samples and laboratory tests shall be sent directly to approved commercial testing laboratory.
 4. Contractor shall send a copy of transmittal letter to both COR and to Architect-Engineer simultaneously with submission of material to a commercial testing laboratory.
 5. Laboratory test reports shall be sent directly to COR for appropriate action.
 6. Laboratory reports shall list contract specification test requirements and a comparative list of the laboratory test results. When tests show that the material meets specification requirements, the laboratory shall so certify on test report.
 7. Laboratory test reports shall also include a recommendation for approval or disapproval of tested item.
- D. If submittal samples have been disapproved, resubmit new samples as soon as possible after notification of disapproval. Such new samples shall be marked "Resubmitted Sample" in addition to containing other previously specified information required on label and in transmittal letter.
- E. Approved samples will be kept on file by the Resident Engineer at the site until completion of contract, at which time such samples will be delivered to Contractor as Contractor's property. Where noted in technical sections of specifications, approved samples in good condition may be used in their proper locations in contract work. At completion of contract, samples that are not approved will be returned to Contractor only upon request and at Contractor's expense. Such request should be made prior to completion of the contract. Disapproved samples that are not requested for return by Contractor will be discarded after completion of contract.

- F. Submittal drawings (shop, erection or setting drawings) and schedules, required for work of various trades, shall be checked before submission by technically qualified employees of Contractor for accuracy, completeness and compliance with contract requirements. These drawings and schedules shall be stamped and signed by Contractor certifying to such check.
1. For each drawing required, submit one legible photographic paper or vellum reproducible.
 2. Reproducible shall be full size.
 3. Each drawing shall have marked thereon, proper descriptive title, including Medical Center location, project number, manufacturer's number, reference to contract drawing number, detail Section Number, and Specification Section Number.
 4. A space 120 mm by 125 mm (4-3/4 by 5 inches) shall be reserved on each drawing to accommodate approval or disapproval stamp.
 5. Submit drawings, ROLLED WITHIN A MAILING TUBE, fully protected for shipment.
 6. One reproducible print of approved or disapproved shop drawings will be forwarded to Contractor.
 7. When work is directly related and involves more than one trade, shop drawings shall be submitted to Architect-Engineer under one cover.
- 1-10. Samples (except laboratory samples), shop drawings, test reports, certificates and manufacturers' literature and data, shall be submitted for approval to

AKEA, Inc.

(Architect-Engineer)

3603 NW 98th Street Suite B

(A/E P.O. Address)

Gainesville, FL 32606

(City, State and Zip Code)

- 1-11. At the time of transmittal to the Architect-Engineer, the Contractor shall also send a copy of the complete submittal directly to the Resident Engineer.

- - - E N D - - -