AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

BPA NO.	1. CONTRACT ID CODE	PAGE	OF PAGES
		1	

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
A00006	10-14-2015	675-16-1-3252-0001	615-14-150

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE
Department of Veterans Affairs Orlando VA Medical Center 5201 Raymond Street Orlando FL 32803		Department of Veterans Affairs Network Contracting Activity 8 (NCO 8) Orlando VA Medical Center 5201 Raymond Street Orlando FL 32803	00675

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(X)	9A. AMENDMENT OF SOLICITATION NO.
To all Offerors/Bidders		VA248-15-R-2022
	X	9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X)	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this Amendment is to:
1) Provide the following new or revised specifications
a. 09 06 00 – Finish Schedule. Revised to correct paragraph numbers. See Attachment 1,
b. 09 67 23.20 – Resinous Flooring Added. See Attachment 2,
c. 27 15 00 – Communications Horizontal Cabling. Added. See Attachment 3,
2) Revise construction documents by replacing each specific drawing with the revised drawing as listed – E100, E200 and E500. Refer to clouds to identify specific details of the revision. See Attachments 4-6, (three separate PDF files),
3) Provide A500 sketch to add Acoustical ceiling curtain track detail. See Attachment 7,
4) Provide A502 sketch Updated Door Schedule. See Attachment 8, and
5) Provide the update RFI Tracking Log (RFIs 1-58). See Attachment 9.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED

Attachment 1 _09 06 00 - Schedule for Finishes_ 10 Pages…… Page 3

Attachment 2_ 09 67 23.20 Resinous Floor_14 Pages……. Page 13

Attachment 3_ 271500 - Communications Horizontal Cabling_30 Pages…… Page 27

Attachment 4_ E100-add 1_ 1 Page……... Page 57

Attachment 5_ E200-add 1_1 Page…… Page 58

Attachment 6_ E500-add 1_1 Page…… Page 59

Attachment 7_ Sketch A500-add 1_ 1 Page…….. Page 60

Attachment 8_ Sketch A502-add 1_2 Page…… Page 61

Attachment 9_RFI Tracking Log_ 675-14-150 _VA248-15-R-2022_ RFI_ 1-58_ 11 Pages… Page 62

SECTION 09 06 00
SCHEDULE FOR FINISHES

Addendum 1
October 9, 2015

SECTION 09 06 00-SCHEDULE FOR FINISHES

VAMC: Viera Clinic

Location: Viera VA Outpatient Clinic 2900 Veterans Way, Viera, FL 32940

Project no. and Name:675-14-150 Renovate Laboratory & Radiology Department

Submission Final

Date:07 AUG 2015

INSTRUCTIONS FOR PREPARATON OF
SECTION 09 06 00-SCHEDULE FOR FINISHES

PART I – GENERAL

1.1 DESCRIPTION

This section contains a coordinated system in which requirements for materials specified in other sections shown are identified by abbreviated material names and finish codes in the room finish schedule or shown for other locations.

1.2 MANUFACTURERS

Manufacturer’s trade names and numbers used herein are only to identify colors, finishes, textures and patterns. Products of other manufacturer’s equivalent to colors, finishes, textures and patterns of manufacturers listed that meet requirements of technical specifications will be acceptable upon approval in writing by contracting officer for finish requirements.

1.3 SUBMITALS

Submit in accordance with SECTION 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLESprovide quadruplicate samples for color approval of materials and finishes specified in this section.

1.4 APPLICABLE PUBLICATIONS

A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in text by basic designation only.

B. MASTER PAINTING INSTITUTE: (MPI)

2001.....Architectural Painting Specification Manual

PART 2- PRODUCTS

2.1 DIGITAL COLOR PHOTOS

2.2 DIVISION 06WOOD, PLASTICS, AND COMPOSITES

A. SECTION 06 10 00, ROUGH CARPENTRY

Item	Finish	Color

B. SECTION 06 20 00, FINISH CARPENTRY

1. RECEPTION COUNTER

Room No. and Name	Component	Material		Finish	Color
Reception C103	Countertop	Solid Surface (Dupont Quartz)		As Specified	Zodiaq Autumn Light
	Vertical Surface(s)Walls	Painted GW3		Eggshell	SW 6112 Biscuit
	Base	Rubber Cove		As Specified	Johnsonite 150 Wetlands

2. VANITIES (TYPES S4, S4 M)

Room No. and Name	Component	Finish/Color
C116, C117, C119 Ultrasound	Countertop Solid Surface	Zodiaq Autumn Light

2.3 DIVISION 08 - OPENINGS

A. SECTION 08 11 13, HOLLOW METAL FRAMES

Paint both sides of door and frames same color including ferrous metal louvers, and hardware attached to door

Component	Color of Paint Type and Gloss
Frame	Painted to match existing color and gloss level

B. SECTION 08 14 00, WOOD DOORS

Component	Finish/Color
Doors	Refinish if damaged to match existing

C. SECTION 08 71 00, BUILDERS HARDWARE

Item	Material	Finish
Hinges	Match Existing	Match Existing
Door Closers	Match Existing	Match Existing
Closer/ Holder	Match Existing	Match Existing
Lock/ Latches	Match Existing	Match Existing
Kick Mop Plates	Metal Plastic	Match Existing

D. SECTION 09 30 13

Finish Code	Manufacturer	Mfg. Color Name/No.
Floor	Note: Owner (VA) is currently renovating existing toilet rooms in the Radiology/Lab Area. Consult VA for C.T. Materials and colors to match.	
Wall		

Addendum 1
October 9, 2015

E. SECTION 09 51 00, ACOUSTICAL CEILINGS

Finish Code	Component	Color Pattern	Manufacturer	Mfg Name/No.
	Exposed Suspension System	White	Armstrong	Prelude ML15/16” Exposed Tee
	Type III	White Non-Directional	Armstrong	Ortega T04

F. SECTION 09 65 19, RESILIENT TILE FLOORING

Finish Code	Size	Material/Component	Manufacturer	Mfg Name/No.
		VCT	TBD	TBD
		R	TBD	TBD

G. SECTION 09 65 16, VINYL SHEET FLOORING, HEAT WELDED SEAMS (WSF)

Finish Code	Pattern name	Manufacturer	Mfg. Color Name/No.

1. SECTION 09 65 16, WELDING RODS (WSF)

Finish code	Manufacturer	Mfg. Color Name/No.

2. SECTION 09 65 16, CAP STRIPS (WSF)

Finish Code	Manufacturer	Mfg. Color Name/No.

~~G~~H. SECTION 09 65 13, RESILIENT BASE STAIR TREADS AND ACCESSORIES

Finish Code	Item	Height	Manufacturer	Mfg Name/No.
	Rubber Base (RB)	4″	Johnsonite	150 Wetlands

Addendum 1
October 9, 2015

I. SECTION 09 67 23, EPOXY RESINOUS FLOORING (ERF)

Finish Code	Manufacturer	Mfg. Name/No.
	FlowCrete	Flowfast Flakes, Desert Tan

~~H~~J. SECTION 09 91 00, PAINT AND COATINGS

1. MPI Gloss and Sheen Standards

		Gloss @60	Sheen @85
Gloss Level 1	a traditional matte finish-flat	max 5 units, and	max 10 units
Gloss Level 2	a high side sheen flat-“a velvet-like” finish	max 10 units, and	10-35 units
Gloss Level 3	a traditional “egg-shell like” finish	10-25 units, and	10-35 units
Gloss Level 4	a “satin-like” finish	20-35 units, and	min. 35 units
Gloss Level 5	a traditional semi-gloss	35-70 units	
Gloss Level 6	a traditional gloss	70-85 units	
Gloss level 7	a high gloss	more than 85 units	

2. Paint code	Gloss	Manufacturer	Mfg. Color Name/No.
P-1	Eggshell	SW	6112 Biscuit

2.4 DIVISION 10 - SPECIALTIES

A. SECTION 10 21 23, HOSPITAL CUBILCE CURTAINS AND INTRAVENOUS SUPPORT TRACKS

Finish Code	Manufacturer	Mfg. Color Name/No.

B. SECTION 10 26 00, WALL GUARDS AND CORNER GUARDS

Item	Material	Manufacturer	Mfg. Color Name/No.
Corner Guards	Plastic	INPRO	Match Existing
Wall Guards and Handrail	Plastic	INPRO	Match Existing

C. SECTION 10 13 00 / 10 14 00, INTERIOR SIGNS

Sign Type	Component	Manufacturer	Mfg. Color Name/No.
Match Existing	Match Existing	Match Existing	Match Existing

D. SECTION 12 36 00, COUNTERTOPS AND ACCESSORIES

Methyl Methacrylate	Dupont Quartz Zodiaq Autumn Light

2.5 DIVISION 22 - PLUMBING

A. SECTION 22 40 00, PLUMBING FIXTURES AND TRIM

Item	Color
Lavatories	White (Solid Surface – Integral to Countertop

PART III EXECUTION

3.1 FINISH SCHEDULES & MISCELLANEOUS ABBREVIATIONS

FINISH SCHEDULE & MISCELLANEOUS ABBREVIATIONS	
Term	Abbreviation
Acoustical Ceiling	AT
Paint	P
Rubber Base	RB

3.2 FINSIH SCHEDULE SYMBOLS

Symbol Definition
** Same finish as adjoining walls
- No color required
E Existing
XX To match existing
EFTR Existing finish to remain
RM Remove

3.3 ROOM FINISH SCHEDULE

A. Match adjoining or existing similar surfaces colors, textures or patterns where disturbed or damaged by alterations or new work when not scheduled.

B. ROOM FINISH SCHEDULE

All rooms (Except as noted below and on Drawings as marked.)in project boundry to receive:

1. New paint on all wall surfaces.
2. New VCT Flooring.
3. New Base.
4. New Ceiling Grid and Tile.

Exceptions:

1. RM C207 – Pathology Lab – Replace ceiling grid and tile only.
2. Corridor C200A – Pathology Lab – Replace ceiling grid and tile only.
3. Waiting C101 and C201 – Replace carpet tile to match existing; New Paint and New Base.

--- E N D---

THIS PAGE LEFT INTENTIONALLY BLANK

Addendum 1
October 9, 2015

SECTION 09 67 23.20
RESINOUS (EPOXY BASE) WITH VINYL CHIP BROADCAST (RES-2)
05-11

PART 1 - GENERAL

1.1 DESCRIPTION

A. This section specifies Resinous (Resinous acrylic base with vinyl chip flake broadcast) flooring:
   1. Res-2 Resinous (acrylic) vinyl chip flake broadcast flooring system: Methyul methacrylate flooring system

1.2 RELATED WORK

A. Color and location of each type of resinous flooring: As indicated in Section 09 06 00, SCHEDULE FOR FINISHES.
B. Floor Drains: Division 22, PLUMBING.

1.3 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Manufacturer's Literature and Data:
   1. Description of each product to be provided.
   2. Application and installation instructions.
   3. Maintenance Instructions: Submit manufacturer’s written instructions for recommended maintenance practices.
C. Qualification Data: For Installer.
D. Sustainable Submittal:
   1. Product data for products having recycled content, submit documentation indicating percentages by weight of post-consumer and pre-consumer recycled content.
      a. Include statements indicating costs for each product having recycled content.
   2. Product data for field applied, interior, paints, coatings, and primers, include printed statement of VOC content indicating compliance with environmental requirements.
E. Samples:
   1. Each color and texture specified in Section 09 06 00, SCHEDULE FOR FINISHES.
   2. Samples for verification: For each (color and texture) resinous flooring system required, 6 inches (152 mm) square, applied to a rigid backing by installer for this project.
   3. Sample showing construction from substrate to finish surface in thickness specified and color and texture of finished surfaces.

Finished flooring must match the approved samples in color and texture.

F. Shop Drawings: Include plans, sections, component details, and attachment to other trades. Indicate layout of the following:
   1. Edge configuration.
G. Certifications and Approvals:
   1. Manufacturer's certification of material and substrate compliance with specification.
   2. Manufacturer's approval of installer.
   3. Contractor's certificate of compliance with Quality Assurance requirements.
H. Warranty: As specified in this section.

1.4 QUALITY ASSURANCE

A. Manufacture Certificate: Manufacture shall certify that a particular resinous flooring system has been manufactured and in use for a minimum of five (5) years.
B. Installer Qualifications: Engage an experienced installer (applicator) who is experienced in applying resinous flooring systems similar in material, design, and extent to those indicated for this project for a minimum period of five (5) years, whose work has resulted in applications with a record of successful in-service performance, and who is acceptable to resinous flooring manufacturer.
   1. Engage an installer who is certified in writing by resinous flooring manufacturer as qualified to apply resinous flooring systems indicated.
   2. Contractor shall have completed at least ten (10) projects of similar size and complexity. Include list of at least five (5) projects. List must include owner (purchaser); address of installation, contact information at installation project site; and date of installation.
   3. Installer's Personnel: Employ persons trained for application of specified product.
C. Source Limitations:
   1. Obtain primary resinous flooring materials including primers, resins, hardening agents, grouting coats and finish or sealing coats from a single manufacturer.
   2. Provide secondary materials, including patching and fill material, joint sealant, and repair material of type and from source recommended by manufacturer of primary materials.

D. Mockups: Apply mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and establish quality standards for materials and execution.
   1. Apply full-thickness mockups on 48 inch (1200 mm) square floor area selected by VA COR.

   2. Approved mockups not damaged during the testing may become part of the completed work if undisturbed at time of Substantial Completion.
   3. Sign off from VA COR on texture for slip resistance and clean ability must be complete before installation of flooring system.

E. Pre-Installation Conference:
   1. Convene a meeting not less than thirty days prior to starting work.
   2. Attendance:
      a. Contractor
      b. VA COR
      c. Manufacturer and Installer's Representative
   3. Review the following:
      a. Environmental requirements
         1) Air and surface temperature
         2) Relative humidity
         3) Ventilation
         4) Dust and contaminates
      b. Protection of surfaces not scheduled to be coated
      c. Inspect and discus condition of substrate and other preparatory work performed
      d. Review and verify availability of material; installer’s personnel, equipment needed
      e. Design and edge conditions.
      f. Performance of the coating with chemicals anticipated in the area receiving the resinous (flooring system
      g. Application and repair
      h. Field quality control
      i. Cleaning
      j. Protection of coating systems
      k. One-year inspection and maintenance
      l. Coordination with other work

F. Manufacturer’s Field Services: Manufacturer’s representative shall provide technical assistance and guidance for surface preparation and application of resinous flooring systems.

G. Contractor Job Site Log: Contractor shall document daily; the work accomplished environmental conditions and any other condition event significant to the long term performance of the urethane and epoxy mortar/cement flooring materials installation. The Contractor shall maintain these records for one year after Substantial Completion.

1.5 MATERIAL PACKAGING DELIVERY AND STORAGE

A. Deliver materials to the site in original sealed packages or containers, clearly marked with the manufacturer's name or brand, type and color, production run number and date of manufacture.

B. Protect materials from damage and contamination in storage or delivery, including moisture, heat, cold, direct sunlight, etc.

C. Maintain temperature of storage area between 60 and 80 degrees F (15 and 26 degrees C).

D. Keep containers sealed until ready for use.

E. Do not use materials beyond manufacturer’s shelf life limits.

F. Package materials in factory pre-weighed and in single, easy to manage batches sized for ease of handling and mixing proportions from entire package or packages. No On site weighing or volumetric measurements are allowed.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Comply with resinous flooring manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting resinous flooring applications.

1. Maintain material and substrate temperature between 65 and 85 degrees F (18 and 30 degrees C) during resinous flooring application and for not less than 24 hours after application.

B. Lighting: Provide permanent lighting or, if permanent lighting is not in place, simulate permanent lighting conditions during resinous flooring application.

C. Close spaces to traffic during resinous flooring application and for not less than 24 hours after application, unless manufacturer recommends a longer period.

D. Concrete substrate shall be properly cured for a minimum of 30 days. A vapor barrier must be present for concrete subfloors on or below grade. Otherwise, an osmotic pressure resistant grout must be installed prior to the resinous flooring.

1.7 WARRANTY

A. Work subject to the terms of the Article “Warranty of Construction” FAR clause 52.246-21.

B. Warranty: Manufacture shall furnish a single, written warranty covering the full assembly (including substrata) for both material and workmanship for a extended period of three (3) full years from date of installation, or provide a joint and several warranty signed on a single document by manufacturer and applicator jointly and severally warranting the materials and workmanship for a period of three (3) full years from date of installation. A sample warranty letter must be included with bid package or bid may be disqualified.

1.8 APPLICABLE PUBLICATIONS

A. The publication listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.

B. ACI (American Concrete Institute):

Comm. 503.1-92.....Four Epoxy Specifications (Reapproved 2003).

C. American Society for Testing and Materials (ASTM):

C109.....Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2” or 50 mm Cube Specimens)

C150.....Standard Specification for Portland Cement

C219-07a.....Standard Terminology Relating to Hydraulic Cement

C267-01(2006).....Standard Test Methods for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacings and Polymer Concretes

C307-03 (2008).....Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings

C413-01(2006).....Standard Test Method for Absorption of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings and Polymer Concretes

C501-84(2002).....Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Abraser

C579-01(2006).....Standard Test Method for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes

C580-02(2008).....Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes

C722-04.....Standard Specification for Chemical-Resistant Monolithic Floor Surfacings
C811-98(2008).....Standard Practice for Surface Preparation of Concrete for Application of Chemical-Resistant Resin Monolithic Surfacings
C881/C881M-02.....Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
D1308-02(2007).....Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
D1652-04.....Standard Test Method for Epoxy Content of Epoxy Resins
D2240-05.....Standard Test Method for Rubber Property — Durometer Hardness
D4060-07.....Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
E162-09.....Standard Test Method for Surface Flammability of Using a Radiant Heat Energy Source
E648-09a.....Standard Test Method for Critical Radiant Flux of Floor- Covering Systems Using a Radiant Heat Energy Source
F1869-09.....Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

D. Military Specification (Mil Spec):
MIL-PRF-3134.....Para. 4.7.3, Indentation, No Cracking or Loss of Bond Water Absorption
MIL-PRF-23003A.....Para. 4.6.11, Resistance to Immersion

E. National Association of Architectural Metal Manufacturers (NAAMM):
AMP 501.....Finishes for Aluminum

F. National Fire Protection Association (NFPA):
56A.....Inhalation Aesthetics replaced by NFPA 99 Standard for Health Care Facilities

G. The Society For Protective Coatings (SSPC):
SP6.....Commercial Blast Cleaning

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION FOR RES-2 (BROADCAST VINYL CHIP FLAKE)

A. System Descriptions:
1. Monolithic, multi-component methyl methacrylate (MMA) resinous flooring system. Primer with scatter sand at 0.1 lbs/sf. vinyl chip

flake broadcast media in desired flake size (1/8”, 1/4”). High performance multi-component epoxy and solvent free sealers.

B. Products: Subject to compliance with applicable fire, health, environmental, and safety requirements for storage, handling, installation, and clean up.

C. System Components: Verify specific requirements as systems vary by manufacturer. Verify build up layers of broadcast and installation method. Verify compatibility with substrate. Use manufacturer’s standard components, compatible with each other and as follows:

1. Primer with Broadcast quartz (primer coat):
   a. Resin: acrylic.
   b. Formulation Description: Multiple component high solids.
   c. Application Method: squeegee, back roll and broadcast.
   d. Thickness of coat(s): 2-3mil.
   e. Number of Coats: One.
   f. Aggregates: Quartz broadcast into wet epoxy primer.
2. Undercoat: (body coat)
   a. Resin: Epoxy.
   b. Formulation Description: Pigmented multi-component, high solids.
   c. Application Method: Notched squeegee and Back roll
   d. Number of Coats: One.
   e. Aggregates: vinyl chip flake broadcast into wet Undercoat.
   f. Thickness of coat(s): 20-30mil.
   g. Number of Coats: One.
3. Sealer coat:
   a. Resin: Epoxy.
   b. Formulation Description: Multiple component high solids, no solvent UV stable.
   c. Type/Finish: Clear Gloss.
   d. Thickness of coat(s): 2-3mil.
   e. Number of Coats: (2) two.
   f. Application: Squeegee and finish roll.

D. Physical Properties:

1. Physical Properties of flooring system when tested as follows:

Property	Test	Value
Tensile Strength	ASTM D638	5,200 psi
Volatile Organic Compound Limits (V.O.C.)	EPA & LEED	Below 100 g/l
Flexural Strength	ASTM D790	4,000 psi
Water Absorption	ASTM C413	0.056%
Coefficient of friction dry/slip index wet	ASTM D2047	>.79 dry >.65 wet
Impact Resistance	ASTM D4226	> 160 in. lbs
Abrasion Resistance	ASTM D4060 CS-17	0.03 gm maximum weight loss
Thermal Coefficient of Linear Expansion	ASTM C531	17 x 10^{-6} in/in ^{o}F
Hardness Shore D	ASTM D2240	85 to 90
Bond Strength	ASTM D7234	>300 psi 100% concrete failure
Chemical Resistance of the following: Acetic acid Ammonium hydroxide Citric Acid Fatty acid Motor Oil, 20W Hydrochloric acid Salt water Sodium Hydroxide Sulfuric acid Trisodium phosphate Urine Feces Hydrogen peroxide Distilled Water Sodium Hypochloride	ASTM D1380 5 percent 10 percent 50 percent 10 percent 10 percent 10 percent 5 percent 28 percent 5.28 percent	No Effect

E. System Characteristics:

1. Color and Pattern: As selected by COR from manufacturer's standard colors.
2. Integral cove base: 1 inch (25.4 mm) radius epoxy mortar cove keyed into concrete substrate and or resinous flooring mortar system. No fillers integral cove base must be troweled in place with specified resinous mortar base.
3. Overall System Thickness: Nominal 3/16 to 1/4 inches (4.76 to 6.35 mm).

4. Finish: texture finish or anti-slip resistant.
5. Temperature Range: Systems vary by manufacturer; approximate range from a minimum of 45 to 150 degrees F.

F. Physical Properties:
1. Physical Properties of flooring system when tested as follows:

2.2 SUPPLEMENTAL MATERIALS

A. Textured Top Coat: Type recommended or produced by manufacturer of seamless resinous flooring system, slip resistance type and profile of for desired final finish.

B. Joint Sealant: Type recommended or produced by resinous flooring manufacturer for type of service or joint conditioned indicated.

E. Crack Isolation Membrane: Type recommended or produced by manufacturer of resinous flooring for conditions as specified.

F. Anti-Microbial Additive: Incorporate anti-microbial chemical additive to prevent growth of most bacteria, algae, fungi, mold, mildew, yeast, etc.

G. Patching and Fill Material: Resinous product of or approved by resinous coating manufacturer for application indicated. Resinous based materials only. Cementitious or single component products are not expectable.

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine the areas and conditions where monolithic resinous system with integral base is to be installed with the VA COR.

B. Moisture Vapor Emission Testing: Perform moisture vapor transmission testing in accordance with ASTM F1869 to determine the MVER of the substrate prior to commencement of the work. See section 3.4, 3.

3.2 PROJECT CONDITIONS

A. Maintain temperature of rooms (air and surface) where work occurs, between 70 and 90 degrees F (21 and 32 degrees C) for at least 48 hours, before, during, and 24 hours after installation. Maintain temperature at least 70 degrees F (21 degrees C) during cure period.

B. Maintain relative humidity less than 75 percent.

C. Do not install materials until building is permanently enclosed and wet construction is complete, dry, and cured.

D. Maintain proper ventilation of the area during application and curing time period.
1. Comply with infection control measures of the VA Medical Center.

3.3 INSTALLATION REQUIREMENTS

A. The manufacturer's instructions for application and installation shall be reviewed with the VA COR for the seamless resinous (urethane and epoxy mortar) flooring system with integral cove base.

B. Substrate shall be approved by manufacture technical representative.

3.4 PREPARATION

A. General: Prepare and clean substrates according to resinous flooring manufacturer's written instructions for substrate indicated. Provide clean, dry, and neutral Ph substrate for resinous flooring application.

B. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.

1. Prepare concrete substrates as follows:

   a. Comply with ASTM C 811 requirements, unless manufacturer's written instructions are more stringent.

2. Repair damaged and deteriorated concrete according to resinous flooring manufacturer's written recommendations.

3. Verify that concrete substrates are dry.

   a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m**)** in 24 hours.

   b. MVT threshold for monolithic resinous flooring shall not exceed 3 lbs/1000 square feet (0.0001437 kPa) in a 24 hour period.

   c. When MVT emission exceeds this limit, apply manufacturer’s recommended vapor control primer or other corrective measures as recommended by manufacturer prior to application of flooring or membrane systems.

   d. Perform in situ probe test, ASTM F2170. Proceed with application only after substrates do not exceed a maximum potential equilibrium relative humidity of 75-80 percent.

   e. Provide a written report showing test placement and results.

4. Verify that concrete substrates have neutral Ph and that resinous flooring will adhere to them. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.

C. Resinous Materials: Mix components and prepare materials according to resinous flooring manufacturer's written instructions.

D. Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.

E. Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through resinous flooring according to manufacturer's written recommendations. Allowances should be included for flooring manufacturer recommended joint fill material, and concrete crack treatment.

F. Prepare wall to receive integral cove base:

1. Verify wall material is acceptable for resinous flooring application, if not, install material (e.g. cement board) to receive base.
2. Fill voids in wall surface to receive base, install undercoats (e.g. water proofing membrane, and/or crack isolation membrane) as recommended by resinous flooring manufacturer.
3. Install base prior to flooring if required by resinous flooring manufacturer.
4. Grind, cut or sand protrusions to receive base application.

3.5 APPLICATION

A. General: Apply components of resinous flooring system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface of thickness indicated.

1. Coordinate application of components to provide optimum adhesion of resinous flooring system to substrate, and optimum intercoat adhesion.
2. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
3. At substrate expansion and isolation joints, provide joint in resinous flooring to comply with resinous flooring manufacturer's written recommendations.
   a. Apply joint sealant to comply with manufacturer's written recommendations.

B. Apply Primer: over prepared substrate at manufacturer's recommended spreading rate for all areas to receive integrated cove base.

C. Apply cove base: Trowel to wall surfaces at a 1 inch radius, before applying flooring. Apply according to manufacturer's written instructions and details including those for taping, mixing, priming, and troweling, sanding, and top coating of cove base. Round internal and external corners.

D. Apply Primer: over prepared substrate at manufacturer's recommended spreading rate.

E. Trowel mortar base: Mix mortar material according to manufacturer's recommended procedures. Climatic and non-climatic resinous flooring systems may vary slightly on mode of application. Application should be based upon the following: Uniformly spread mortar over substrate using a specially designed screed box adjusted to manufacturer's recommended height. Metal trowel (hand or power) single mortar coat in thickness indicated for flooring system, grout to fill substrate voids. When cured, sand to remove trowel marks and roughness.

F. Broadcast: Immediately broadcast quartz silica aggregate into the primer using manufacturer's spray caster. Strict adherence to manufacturer's installation procedures and coverage rates is imperative.

G. Undercoat: Mix base material according to manufacturer's recommended procedures. Uniformly spread mixed material over previously primed substrate using manufacturer's installation tool. Roll material with strict adherence to manufacturer's installation procedures and coverage rates.

H. Broadcast: Immediately broadcast vinyl flakes into the body coat. Strict adherence to manufacturer's installation procedures and coverage rates is imperative.

I. First Sealer: Remove excess un-bonded flakes by lightly brushing and vacuuming the floor surface. Mix and apply sealer with strict adherence to manufacturer's installation procedures.

J. Second Sealer: Lightly sand first sealer coat. Mix and apply second sealer coat with strict adherence to manufacturer's installation procedures.

3.6 TOLERANCE

A. From line of plane: Maximum 1/8 inch (3.18 mm) in total distance of flooring and base. Broadcast resinous flooring system will contour substrate. Deviation and tolerance are subject to concrete tolerance.

B. From radius of cove: Maximum of 1/8 inch (3.18 mm) plus or 1/16-inch (1.59 mm) minus.

3.7 CURING, PROTECTION AND CLEANING

A. Cure resinous flooring materials in compliance with manufacturer's directions, taking care to prevent contamination during stages of application and prior to completion of curing process.

B. Close area of application for a minimum of 24 hours.

C. Protect resinous flooring materials from damage and wear during construction operation.
   1. Cover flooring with kraft type paper.
   2. Optional 6 mm (1/4 inch) thick hardboard, plywood, or particle board where area is in foot or vehicle traffic pattern, rolling or fixed scaffolding and overhead work occurs.

D. Remove temporary covering and clean resinous flooring just prior to final inspection. Use cleaning materials and procedures recommended by resinous flooring manufacturer.

- - - E N D - - -

This Page Left Intentionally Blank

Addendum 1
October 9, 2015

SECTION 27 15 00
COMMUNICATIONS HORIZONTAL CABLING

PART 1 - GENERAL

1.1 DESCRIPTION

A. This Section specifies the furnishing, installing, certification, testing, and guaranty of a complete and operating Voice and Digital Cable Distribution System (here-in-after referred to as "*the System*"), and associated equipment and hardware to be installed in the VA Out Patient Clinic here-in-after referred to as "the Facility". The System shall include, but not be limited to: telecommunications outlets (TCO); copper distribution cables, connectors, "patch" cables, and/or "break out" devices.

B. The System shall be delivered free of engineering, manufacturing, installation, and functional defects. It shall be designed, engineered and installed for ease of operation, maintenance, and testing.

C. The term "provide", as used herein, shall be defined as: designed, engineered, furnished, installed, certified, and tested, by the Contractor.

D. . At a minimum , the System shall be installed according to NFPA, Section 70, National Electrical Code (NEC), Article 517 and Chapter 7; NFPA, Section 99, Health Care Facilities, Chapter 3-4; NFPA, Section 101, Life Safety Code, Chapters 7, 12, and/or 13; Joint Commission on Accreditation of Health Care Organization (JCAHCO), Manual for Health Care Facilities, all necessary Life Safety and/or Support guidelines; this specification; and the original equipment manufacturer's (OEM) suggested installation design, recommendations, and instructions. The OEM and Contractor shall ensure that all management, sales, engineering, and installation personnel have read and understand the requirements of this specification before the System is designed, engineered, delivered, and provided.

E. The VA Project Manager (PM) and/or if delegated, Contracting Officer's Representative (COR) are the approving authorities for all contractual and mechanical changes to the System. The Contractor is cautioned to obtain in writing, all approvals for system changes relating to the published contract specifications and drawings, from the PM and/or the COR before proceeding with the change.

F. System Performance:

1. At a minimum, the System shall be able to support the following voice and data operations for Category 6 Certified Telecommunication Service:
   A. System Sensitivity: Satisfactory service shall be provided for at least 3,000 feet for all voice and data
2. At a minimum the System shall support the following operating parameters:b. Telecommunications Outlet (TCO):
   1) Voice:
      a) Isolation (outlet-outlet): 24 dB.
      b) Impedance: 600 Ohms, balanced (BAL).
      c) Signal Level: 0 deciBel per mili-Volt (dBmV) ± 0.1 dBmV.
      d) System speed: 100 mBps, minimum.
   B. System data error: 10 to the -6 Bps, minimum.
   2) Data:
      a) Isolation (outlet-outlet): 24 dB.
      b) Impedance: 600 Ohms, BAL.
      c) Signal Level: 0 dBmV ± 0.1 dBmV.
      d) System speed: 120 mBps, minimum.
      e) System data error: 10 to the -8 Bps, minimum.

1.2 RELATED WORK

A. Specification Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Specification Section 27 05 26, GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS.

1.3 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in text by basic designation only. Except for a specific date given the issue in effect (including amendments, addenda, revisions, supplements, and errata) on the date the system’s submittal is technically approved by VA, shall be enforced.
B. National Fire Protection Association (NFPA):

70	NATIONAL ELECTRICAL CODE (NEC)
75	Protection of Electronic Computer/Data Processing Equipment
77	Recommended Practice on Static Electricity
	Standard for Health Care Facilities

101	Life Safety Code
1221	Emergency Services Communication Systems

C. Underwriters Laboratories, Inc. (UL):

65	Wired Cabinets
96	Lightning Protection Components
96A	INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS
467	Grounding and Bonding Equipment
497/497A/497B	PROTECTORS FOR PAIRED CONDUCTORS/ COMMUNICATIONS CIRCUITS/DATA COMMUNICATIONS AND FIRE ALARM CIRCUITS
884	Underfloor Raceways and Fittings

D. ANSI/EIA/TIA Publications:

568B	Commercial Building Telecommunications Wiring Standard
569B	Commercial Building Standard for Telecommunications Pathways and Spaces
606A	ADMINISTRATION STANDARD FOR THE TELECOMMUNICATIONS INFRASTRUCTURE OF COMMERCIAL BUILDINGS
607A	Grounding and Bonding Requirements for Telecommunications in Commercial Buildings
758	Grounding and Bonding Requirements for Telecommunications in Commercial Buildings

E. Federal Information Processing Standards (FIPS) Publications.

F. Joint Commission on Accreditation of Health Care Organization (JCAHO): Comprehensive Accreditation Manual for Hospitals.

G. National and/or Government Life Safety Code(s): The more stringent of each listed code.

1.4 QUALITY ASSURANCE

A. The authorized representative of the OEM, shall be responsible for the design, satisfactory total operation of the System, and its certification.

B. The OEM shall meet the minimum requirements identified in Paragraph 2.1.A. Additionally, the Contractor shall have had experience with three or more installations of systems of comparable size and complexity with regards to coordinating, engineering, testing,

certifying, supervising, training, and documentation. Identification of these installations shall be provided as a part of the submittal as identified in Paragraph 1.5.

C. The System Contractor shall be authorized by the OEM to certify and warranty the installed equipment. In addition, the OEM and System Contractor shall accept complete responsibility for the design, installation, certification, operation, and physical support for the System. This documentation, along with the System Contractor and OEM certification must be provided in writing as part of the Contractor's Technical Submittal.

D. All equipment, cabling, terminating hardware, TCOs, and patch cords shall be sourced from the certifying OEM or at the OEM's direction, and support the System design, the OEM's quality control and validity of the OEM's warranty.

E. The Contractor's technicians assigned to the System shall be fully trained, qualified, and certified by the OEM on the engineering, installation, and testing of the System. The Contractor shall provide formal written evidence of current OEM certification(s) for the installer(s) as a part of the submittal or to the COR before being allowed to commence work on the System.

1.5 SUBMITTALS

A. Provide submittals in accordance with Specification Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES. The COR shall retain one copy for review and approval.

1. If the submittal is approved the COR shall retain one copy for Official Records and return three (3) copies to the Contractor.
2. If the submittal is disapproved, three (3) copies will be returned to the Contractor with a written explanation attached that indicates the areas the submittal deviated from the System specifications. The COR shall retain one copy for Official Records.

B. Documents: The submittal shall be separated into sections for each subsystem and shall contain the following:

1. Title page to include:
   a. VA Medical Center.
   b. Contractor's name, address, and telephone (including FAX) numbers.
   c. Date of Submittal.
   d. VA Project No.

2. A List of the equipment to be furnished. The quantity, make, and model number of each item is required. Select the required equipment items quantities that will satisfy the needs of the system and edit accordingly. Delete equipment items that are not required add additional items required, and renumber section as per system design. The following is the minimum equipment required by the system:

QUANTITY	UNIT
As required	Telecommunications Outlets (TCO)
As Required	Distribution Cables
As required	TCO Connection Cables
As required	System Connectors
As required	Terminators

3. Equipment technical literature detailing the electrical and technical characteristics of each item of equipment to be furnished.

C. Test Equipment List:

1. The Contractor is responsible for furnishing all test equipment required to test the system in accordance with the parameters specified. Unless otherwise stated, the test equipment shall not be considered part of the system. The Contractor shall furnish test equipment of accuracy better than the parameters to be tested.
2. The test equipment furnished by the Contractor shall have a calibration tag of an acceptable calibration service dated not more than 12 months prior to the test. As part of the submittal, a test equipment list shall be furnished that includes the make and model number of the following type of equipment as a minimum:
   a. Spectrum Analyzer.
   b. Signal Level Meter.
   c. Volt-Ohm Meter.
   d. Time Domain Reflectometer (TDR) with strip chart recorder (Data and Optical Measuring).
   e. Bit Error Test Set (BERT).

D. Samples: A sample of each of the following items shall be furnished to the COR for approval prior to installation.

1. TCO Wall Outlet Box 4" x 4"x 2.5" with:
   a. One each telephone (or voice) rj45 jack installed.
   b. Two each multi pin data rj45 jacks installed.

c. Cover Plate installed.

2. 610 mm (2 ft.) section of each copper cable to be used with cable sweep tags as specified in paragraph 2.4.H and connectors installed.

E. Certifications:

1. Submit written certification from the OEM indicating that the proposed supervisor of the installation and the proposed provider of the contract maintenance are authorized representatives of the OEM. Include the individual's exact name and address and OEM credentials in the certification.
2. Submit written certification from the OEM that the wiring and connection diagrams meet National and/or Government Life Safety Guidelines, NFPA, NEC, UL, this specification, and JCAHCO requirements and instructions, requirements, recommendations, and guidance set forth by the OEM for the proper performance of the System as described herein. The VA will not approve any submittal without this certification.
3. Preacceptance Certification: This certification shall be made in accordance with the test procedure outlined in paragraph 3.2.B.

F. Equipment Manuals: Fifteen (15) working days prior to the scheduled acceptance test, the Contractor shall deliver four complete sets of commercial operation and maintenance manuals for each item of equipment furnished as part of the System to the COR. The manuals shall detail the theory of operation and shall include narrative descriptions, pictorial illustrations, block and schematic diagrams, and parts list.

G. Record Wiring Diagrams:

1. Fifteen (15) working days prior to the acceptance test, the Contractor shall deliver four complete sets of the Record Wiring Diagrams of the System to the COR. The diagrams shall show all inputs and outputs of electronic and passive equipment correctly identified according to the markers installed on the interconnecting cables, Equipment and room/area locations.
2. The Record Wiring Diagrams shall be in hard copy and two compact disk (CD) copies properly formatted to match the Facility’s current operating version of Computer Aided Drafting (AutoCAD) system. The COR shall verify and inform the Contractor of the version of AutoCAD being used by the Facility.

H. Surveys Required As A Part Of The Technical Submittal: The Contractor shall provide the following surveys that depict various system features

and capacities are required in addition to the on site survey requirements described herein. Each survey shall be in writing and contain the following information (the formats are suggestions and may be used for the initial Technical Submittal survey requirements), as a minimum:

1. Cable Distribution System Design Plan: A design plan for the entire cable distribution systems requirements shall be provided with this document. A specific cable count shall coincide with the total growth items as described herein. It is the Contractor's responsibility to provide the Systems entire cable requirements and engineer a distribution system requirement plan using the format of the following paragraph(s), at a minimum:
   a. UTP (and/or STP) Requirements/Column Explanation:

Column	Explanation
FLOOR	Identifies the floor by number (i.e. 1st, 2nd, etc.) cabling and TCOs are to be provided
TC ROOM NUMBER	Identifies the floor signal closet room, by room number, which cabling shall be provided
ROOM NUMBER	Identifies the room, by number, from which cabling and TCOs shall be provided
NUMBER OF CABLE PAIR	Identifies the number of cable pair required to be provided on each floor designated OR the number of cable pair (VA Owned) to be retained
NUMBER OF STRANDS USED/SPARE	Identifies the number of strands provided in each run

2. Telecommunication Outlets: The Contractor shall clearly and fully indicate this category for each outlet location and compare the total count to the locations identified above as a part of the technical submittal. Additionally, the Contractor shall indicate the total number of spares.

PART 2 - PRODUCTS

2.1 EQUIPMENT AND MATERIALS

A. System Requirements:

1. The System shall provide the following minimum services that are designed in accordance with and supported by an Original Equipment Manufacturer (OEM), and as specified herein. The System shall provide continuous voice and data service.

   c. Be compatible with and able to provide direct digital connection to existing equipment.

2. Cable Systems - Twisted Pair and Fiber optic:

   a. General:

      1) The Contractor shall be responsible for providing a new system conforming to current and accepted telephone and digital industrial/commercial cable distribution standards. The distribution cable installation shall be fully coordinated with the Facility, the PM, the COR and the Contractor prior to the start of installation.

      2) The Contractor is responsible for complete knowledge of the space and cable pathways (i.e. equipment rooms, TCs, conduits, wireways, etc.) of the Facility. The Contractor shall at a minimum design and install the System using the Pathway Design Handbook H-088C3, TIA/EIA Telecommunications Building Wiring Standards, and Facility Chief of Information Resource Management’s (IRM) instructions, as approved in writing by the PM and/or COR.

      3) The System cables shall be fully protected by cable duct, trays, wireways, conduit (rigid, thin wall, or flex), and when specifically approved, flexible innerduct. It is the responsibility of the Contractor to confirm all contract drawings and the Facility’s physical layout to determine the necessary cable protective devices to be provided. If flexible innerduct is used, it shall be installed in the same manner as conduit.

      4) Cable provided in the system shall conform to accepted industry and OEM standards with regards to size, color code, and insulation. The pair twists of any pair shall not be exactly the same as any other pair within any unit or sub-unit of cables that are bundled in twenty-five (25) pairs or less.

The absence of specifications regarding details shall imply that best general industry practices shall prevail and that first quality material and workmanship shall be provided. Certification Standards, (i.e., EIA, CCITT, FIPPS, and NFPA) shall prevail.

5) Some areas of this Facility may be considered “plenum”. All wire and cable used in support of the installation in those areas (if any) shall be in compliance with national and local codes pertaining to plenum environments. It is the responsibility of the Contractor to review the VA’s cable and wire requirements with the COR and the IRM prior to installation to confirm the type of environment present at each location.
6) The Contractor shall provide inside plant cables that furnishes the number of cable pairs required in accordance with the System requirements described herein. The Contractor shall fully coordinate and obtain approval of the design with the OEM, COR and the IRM prior to installation.
7) All metallic cable sheaths, etc. shall be grounded by the Contractor (i.e.: risers, underground, station wiring, etc.) as described herein.
8) If temporary cable and wire pairs are used, they shall be installed so as to not present a pedestrian safety hazard and the Contractor shall be responsible for all work associated with the temporary installation and for their removal when no longer necessary. Temporary cable installations are not required to meet Industry Standards; but, must be reviewed and approved by the COR and the IRM prior to installation.
9) Conductors shall be cabled to provide protection against induction in voice and data circuits. Crosstalk attenuation within the System shall be in excess of -80 dB throughout the frequency ranges specified.
10) The System’s cables shall be labeled on each end and been fully tested and certified in writing by the Contractor to the COR before proof of performance testing can be conducted. The as-installed drawings shall identify each cable as labeled, used cable, and bad cable pairs. Minimum test requirements are for impedance compliance, inductance, capacitance, signal

level compliance, opens, shorts, cross talk, noise, and distortion, and split pairs on all cables in the frequency ranges specified. The tests required for data cable must be made to guarantee the operation of this cable at not less than 10 mega (m) Hertz (Hz) full bandwidth, fully channel loaded and a Bit Error Rate of a minimum of 10-6 at the maximum rate of speed. All cable installation and test records shall be made available at acceptance testing by the COR or Contractor.

11) The Contractor shall coordinate with the COR and the IRM to provide and establish circuits throughout the Facility for all voice, data, and any low voltage circuits as described herein.

12) The Contractor shall provide proper test equipment to guarantee that cable pairs meet each OEM's standard transmission requirements, and guarantee the cable will carry data transmissions at the required speeds, frequencies, and fully loaded bandwidth.

b. Horizontal and Station Cable:

1) A Four (4) UTP 24 AWG station wiring cable shall be installed from the top TCO jack to the TC and shall be of a type designed to support Category 6 communications (250 mega-Hertz [mHz] or above). At the jack location, terminate all four pair on the RJ-45/11 jack. At the signal closet, all four pair shall be terminated on the modular punch down blocks dedicated to telephone applications.

Addendum 1
October 9, 2015

2) A Four (4) UTP 24 AWG (in thermoplastic jacket unless otherwise specified by RE) station wiring cable shall be installed from each of the ~~two (2) bottom~~ three (3) remaining TCO RJ-45 jacks (shall conform to EIA/TIA 568 Standard "T568A" and NFPA) to the TC and shall be of a type designed to support Category 6 communications (250 mHz or above).

c. Telecommunication Outlets (TCO), Jacks: All TCO's shall have a minimum of ~~three (3)~~ four (4) RJ-45 type jacks. The top left jack shall be an eight pin RJ-45/11 compatible jack, labeled, and designated for telephone applications only. The ~~bottom two~~ remaining three jacks shall be eight pin RJ-45 type unkeyed (sometimes called center keyed) jacks, labeled, and designated for data.

3. Specific Subsystem Requirements:k. Horizontal Cabling (HC): The HC distribution cabling systems connects the distribution field of the voice and data HCCS, in a “Star” Topology, to each TCO or connector and as shown on the drawings.
   1) Horizontal cables shall consist of insulated, UTP or STP conductors that are rated for Category 6 telecommunications service for voice and data systems.
   2) The horizontal cable length to the farthest system outlet shall be limited to a maximum of 90M (or 295 ft). These maximum lengths must be derated, adjusted and reduced to include cross-connection and distribution system losses. 4) The splitting of pairs within a cable between different jacks shall not be permitted.
   3) The installation of the HC shall conform to appropriate OEM recommendations and standards outlined herein. This requirement will insure adequate protection for Electro-Magnetic Interference (EMI) sources.
   4) A system design where “looping” the HC distribution cables from room to room shall not be permitted.
4. System Telecommunication Outlets (TCO): The System shall be capable of receiving the specified telephone (or voice) and data signals acquired from the LEC, FTS contracted carrier and computer system and shall process and distribute them to the designated TCO’s and as shown on the drawings.

   Addendum 1
   October 9,2015

   1) Each TCO shall consist of ~~three~~ four multipin modular RJ45 jacks, one designated for telephone and ~~two~~ three for data service. Each TCO with appropriate jacks installed shall be provided by the Contractor in each designated location and as shown on the drawings.2) The Contractor shall connect each telephone multipin modular RJ45 jack to a separate “right side as you look at it” telephone HC distribution system HCCS “punch down” 110A block or approved IDC terminating device in each associated RTC. The modular RJ45 jack shall be able to accept and operate with smaller modular RJ11 plugs while providing proper connection and not damaging the modular jack. he OEM shall warrant all modular RJ45/11 jacks in such a manner to be usable for modular RJ11 plugs.

2) The Contractor shall connect each TCO data multipin modular RJ45 jack to a separate lower row jack on the HCCS “patch panel” in each associated RTC. The Contractor is not to “cross-connect” VCCS and HCCS data distribution cables or provides active electronic data distribution equipment as a part of the System.
3) A non-impact termination method, using either a stuffer cap with installation tool or full-cycle terminating tool having both tactile and audible feedback to indicate proper termination shall be used. High impact installation tools shall not be used.
4) Each terminated conductor end shall be properly trimmed to assure a minimum clearance of 6.35 mm (0.250 in) clearance between the conductors of adjacent modules.
5) The multipin RJ45 jack shall be modular in construction that will accept and operate with a modular UTP and STP RJ45 connector and its pin assignments.

B. System Performance:
1. At a minimum, the System shall be able to support the following voice and data operations for Category 6 Certified Telecommunication Service:
a. System Sensitivity: Satisfactory service shall be provided for at least 3,000 feet for all voice and datalocations.
2. At a minimum the System shall support the following operating parameters:
a. Telecommunications Outlet (TCO):
1) Voice:
a) Isolation (outlet-outlet): 24 dB.
b) Impedance: 600 Ohms, balanced (BAL).
c) Signal Level: 0 deciBel per mili-Volt (dBmV) ± 0.1 dBmV.
d) System speed: 100 mBps, minimum.
e) System data error: 10 to the -6 Bps, minimum.
2) Data:
a) Isolation (outlet-outlet): 24 dB.
b) Impedance: 600 Ohms, BAL.
c) Signal Level: 0 dBmV ± 0.1 dBmV.
d) System speed: 120 mBps, minimum.
e) System data error: 10 to the -8 Bps, minimum.

C. General:

1. All equipment to be supplied under this specification shall be new and the current model of a standard product of an OEM of record. An OEM of record shall be defined as a company whose main occupation is the manufacture for sale of the items of equipment supplied and which:
   a. Maintains a stock of replacement parts for the item submitted.
   b. Maintains engineering drawings, specifications, and operating manuals for the items submitted.
   c. Has published and distributed descriptive literature and equipment specifications on the items of equipment submitted at least 30 days prior to the Invitation for Bid.
2. Specifications of equipment as set forth in this document are minimum requirements, unless otherwise stated, and shall not be construed as limiting the overall quality, quantity, or performance characteristics of items furnished in the System. When the Contractor furnishes an item of equipment for which there is a specification contained herein, the item of equipment shall meet or exceed the specification for that item of equipment.
3. The Contractor shall provide written verification, in writing to the COR at time of installation, that the type of wire/cable being provided is recommended and approved by the OEM. The Contractor is responsible for providing the proper size and type of cable duct and/or conduit and wiring even though the actual installation may be by another subcontractor.
4. Active electronic component equipment shall consist of solid state components, be rated for continuous duty service, comply with the requirements of FCC standards for telephone equipment, systems, and service.
5. All passive distribution equipment shall meet or exceed -80 dB radiation shielding specifications.
6. All interconnecting twisted paircables shall be terminated on equipment terminal boards, punch blocks, breakout boxes, splice blocks. The Contractor shall not leave unused or spare twisted pair wire cable unterminated, unconnected, loose or unsecured.
7. Color code all distribution wiring to conform to the Telephone Industry standard, EIA/TIA, and this document, which ever is the more stringent. At a minimum, all equipment, cable duct and/or

conduit, enclosures, wiring, terminals, and cables shall be clearly and permanently labeled according to and using the provided record drawings, to facilitate installation and maintenance.

8. Noise filters and surge protectors shall be provided for each equipment interface cabinet, switch equipment cabinet, control console, local, and remote active equipment locations to ensure protection from input primary AC power surges and noise glitches are not induced into low Voltage data circuits.

D. Equipment Functional Characteristics:

FUNCTIONS	**CHARACTERISTICS**
Input Voltage	105 to 130 VAC
POWER LINE FREQUENCY	60 HZ ±2.0 HZ
Operating Temperature	O to 50 degrees (°) Centigrade (C)
Humidity	80 percent (%) minimum rating

E. Equipment Standards and Testing:

1. All supplies and materials shall be listed, labeled or certified by UL or a nationally recognized testing laboratory where such standards have been established for the supplies, materials or equipment.
2. The provided active and passive equipment required by the System design and approved technical submittal must conform with each UL standard in effect for the equipment, as of the date of the technical submittal (or the date when the COR approved system equipment necessary to be replaced) was technically reviewed and approved by VA. Where a UL standard is in existence for equipment to be used in completion of this contract, the equipment must bear the approved UL seal.
3. Each item of electronic equipment to be provided under this contract must bear the approved UL seal or the seal of the testing laboratory that warrants the equipment has been tested in accordance with, and conforms to the specified standards.

2.2 DISTRIBUTION EQUIPMENT AND SYSTEMS

A. Telecommunication Outlet (TCO):

1. The TCO shall consist of one telephone multipin jack and three data multipin jacks mounted in a steel outlet box. A separate 100mm (4in.) x 100mm (4in.) x 63mm (2.5in.) steel outlet box with a

labeled stainless steel faceplate will be used.2. All telephone multipin connections shall be RJ-45/11 compatible female types.3. The TCO shall be fed from the appropriate CCS located in the respective RTC in a manner to provide a uniform and balanced distribution system.4. Interface of the data multipin jacks to appropriate patch panels (or approved “punch down” blocks) in the associated RTC, is the responsibility of the Contractor. The Contractor shall extend data cables from the RTCs to data terminal equipment and install data terminal equipment.

2. The wall outlet shall be provided with a stainless steel or approve alternate cover plate to fit the telephone multipin jack, data multi- pin jacksB. Distribution Cables: Each cable shall meet or exceed the following specifications for the specific type of cable. Each cable reel shall be sweep tested and certified by the OEM by tags affixed to each reel. The Contractor shall turn over all sweep tags to the COR or PM. Additionally, the Contractor shall provide a 610 mm (2 ft.) sample of each provided cable, to the COR and receive approval before installation. Cables installed in any outside location (i.e. above ground, under ground in conduit, ducts, pathways, etc.) shall be filled with a waterproofing compound between outside jacket (not immediately touching any provided armor) and inter conductors to seal punctures in the jacket and protect the conductors from moisture.
3. Remote Control:
   a. The remote control cable shall be multi-conductor with stranded (solid is permissible) conductors. The cable shall be able to handle the power and voltage necessary to control specified system equipment from a remote location. The cable shall be UL listed and pass the FR-1 vertical flame test, at a minimum. Each conductor shall be color-coded. Combined multi-conductor and coaxial cables are acceptable for this installation, as long as all system performance standards are met.
   b. Technical Characteristics:

Length	As required, in 1K (3,000 ft.) reels minimum
Connectors	As required by system design
Size	18 AWG, minimum, Outside

	20 AWG, minimum, Inside
Color coding	Required, EIA industry standard
Bend radius	10X the cable outside diameter
Impedance	As required
Shield coverage	As required by OEM specification
Attenuation	
Frequency in mHz	dB per 305 M (1,000ft.), maximum
0.7	5.2
1.0	6.5
4.0	14.0
8.0	19.0
16.0	26.0
20.0	29.0
25.0	33.0
31.0	36.0
50.0	52.0

4. Telephone:
   a. The System cable shall be provided by the Contractor to meet the minimum system requirements of Category Six service. The cable shall interconnect each part of the system. The cable shall be completely survivable in areas where it is installed.
   b. Technical Characteristics:

Length	As required, in 1K (3,000 ft.) reels minimum
Cable	Voice grade category six
Connectors	As required by system design
Size	22 AWG, minimum, Outside 24 AWG, minimum, Inside
Color coding	Required, telephone industry standard
Bend radius	10X the cable outside diameter
Impedance	120 Ohms $\pm$ 15%, BAL
Shield coverage	As required by OEM specification
Attenuation	
Frequency in mHz	dB per 305 M (1,000ft.), maximum
0.7	5.2

1.0	6.5
4.0	14.0
8.0	19.0

5. Data Multi-Conductor:
   a. The cable shall be multi-conductor, shielded or unshielded cable with stranded conductors. The cable shall be able to handle the power and voltage used over the distance required. It shall meet Category Six service at a minimum.
   b. Technical Characteristics:

Wire size	22 AWG, minimum
Working shield	350 V
Bend radius	10X the cable outside diameter
Impedance	100 Ohms ± 15%, BAL
Bandwidth	100 mHz, minimum
DC RESISTANCE	10.0 Ohms/100M, maximum
Shield coverage	
Overall Outside (if OEM specified)	100%
Individual Pairs (if OEM specified)	100%
Attenuation	
Frequency in mHz	dB per 305 M (1,000ft.), maximum
0.7	5.2
1.0	6.5
4.0	14.0
8.0	19.0
16.0	26.0
20.0	29.0
25.0	33.0
31.0	36.0
62.0	52.0
100.0	68.0

6. AC Power Cable: AC power cable(s) shall be 3-conductor, no. 12 AWG minimum, and rated for 13A-125V and 1,625W. Master AC power,

installation specification and requirements, are given in the NEC and herein.

D. System Connectors:

1. Solderless (Forked Connector):

a. The connector shall have a crimp-on coupling for quick connect/disconnect of wires or cables. The crimp-on connector shall be designed to fit the wire or cable furnished. The connector barrel shall be insulated and color-coded.

b. Technical Characteristics:

Impedance	As required
Working Voltage	500 V

2. Multipin:

a. The connector shall have a crimp-on coupling for quick connect/disconnect of wires or cables. The crimp-on connector shall be designed to fit the wire or cable furnished. The connector housing shall be fully enclosed and shielded. It shall be secured to the cable group by screw type compression sleeves.

b. Technical Characteristics:

Impedance	As required
Working Voltage	500 V
Number of pins	As requires, usually 25 pairs minimum

3. Modular (RJ-45/11 and RJ-45): The connectors shall be commercial types for voice and high speed data transmission applications. he connector shall be compatible with telephone instruments, computer terminals, and other type devices requiring linking through the modular telecommunications outlet to the System. The connector shall be compatible with UTP and STP cables.

a. Technical Characteristics:

Type	Number of Pins
RJ-11/45	Compatible with RJ45
RJ-45	Eight
Dielectric	Surge

Voltage	1,000V RMS, 60 Hz @ one minute, minimum
Current	2.2A RMS @ 30 Minutes or 7.0A RMS @ 5.0 seconds
Leakage	100 μA, maximum
Connectability	
Initial contact resistance	20 mili-Ohms, maximum
Insulation displacement	10 mili-Ohms, maximum
Interface	Must interface with modular jacks from a variety of OEMs. RJ-11/45 plugs shall provide connection when used in RJ-45 jacks.
Durability	200 insertions/withdrawals, minimum

2.3 INSTALLATION KIT

The kit shall be provided that, at a minimum, includes all connectors and terminals, labeling systems, spade lugs, barrier strips, punch blocks or wire wrap terminals, heat shrink tubing, cable ties, solder, hangers, clamps, bolts, conduit, cable duct, and/or cable tray, etc., required to accomplish a neat and secure installation. All wires shall terminate in a spade lug and barrier strip, wire wrap terminal or punch block. Unfinished or unlabeled wire connections shall not be allowed. Turn over to the COR all unused and partially opened installation kit boxes, and twisted pair cable reels, conduit, cable tray, and/or cable duct bundles, wire rolls, physical installation hardware. The following are the minimum required installation sub-kits:

A. System Grounding:
   1. The grounding kit shall include all cable and installation hardware required.
   2. This includes, but is not limited to:
      a. Control Cable Shields.
      b. Data Cable Shields.
      c. Equipment Cabinets.
      d. Conduits.
      e. Duct.
      f. Connector Panels.
      g. Grounding Blocks.

B. Wire and Cable: The wire and cable kit shall include all connectors and terminals, spade lugs, barrier straps, punch blocks, wire wrap strips, heat shrink tubing, tie wraps, solder, hangers, clamps, labels etc., required to accomplish a neat and orderly installation.

C. Conduit, Cable Duct, and Cable Tray: The kit shall include all conduit, duct, trays, junction boxes, back boxes, cover plates, feed through nipples, hangers, clamps, other hardware required to accomplish a neat and secure conduit, cable duct, and/or cable tray installation in accordance with the NEC and this document.

D. Equipment Interface: The equipment kit shall include any item or quantity of equipment, cable, mounting hardware and materials needed to interface the systems with the identified sub-system(s) according to the OEM requirements and this document.

E. Labels: The labeling kit shall include any item or quantity of labels, tools, stencils, and materials needed to completely and correctly label each subsystem according to the OEM requirements, as-installed drawings, and this document.

F. Documentation: The documentation kit shall include any item or quantity of items, computer discs, as installed drawings, equipment, maintenance, and operation manuals, and OEM materials needed to completely and correctly provide the system documentation as required by this document and explained herein.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Product Delivery, Storage and Handling:

1. Delivery: Deliver materials to the job site in OEM's original unopened containers, clearly labeled with the OEM's name and equipment catalog numbers, model and serial identification numbers. The COR may inventory the cable, patch panels, and related equipment.
2. Storage and Handling: Store and protect equipment in a manner, which will preclude damage as directed by the COR.

B. System Installation:

1. After the contract’s been awarded, and within the time period specified in the contract, the Contractor shall deliver the total system in a manner that fully complies with the requirements of this specification. The Contractor shall make no substitutions or changes in the System without written approval from the COR and PM.

2. The Contractor shall install all equipment and systems in a manner that complies with accepted industry standards of good practice, OEM instructions, the requirements of this specification, and in a manner which does not constitute a safety hazard. The Contractor shall insure that all installation personnel understands and complies with all the requirements of this specification.
3. All passive equipment shall be connected according to the OEM's specifications to insure future correct termination, isolation, impedance match, and signal level balance at each telephone/data outlet.
4. Equipment installed indoors shall be installed in metal cabinets with hinged doors and locks with two keys.

C. Conduit and Signal Ducts:

1. Conduit:
   a. The Contractor shall employ the latest installation practices and materials. The Contractor shall provide conduit, junction boxes, connectors, sleeves, and associated sealing materials not specifically identified in this document as GFE. Conduit penetrations of walls, ceilings, floors, interstitial space, fire barriers, etc., shall be sleeved and sealed. The minimum conduit size shall be 19 mm (3/4 in.).
   b. All cables shall be installed in separate conduit and/or signal ducts. Conduits shall be provided in accordance with Section 26 05 33, RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS, and NEC Articles 517 and 800 for Communications systems, at a minimum.
   c. Conduit (including GFE) fill shall not exceed 40%. Each conduit end shall be equipped with a protective insulator or sleeve to cover the conduit end, connection nut or clamp, to protect the wire or cable during installation and remaining in the conduit. Electrical power conduit shall be installed in accordance with the NEC. AC power conduit shall be run separate from signal conduit.
   d. When metal, plastic covered, etc., flexible cable protective armor or systems are specifically authorized to be provided for use in the System, their installation guidelines and standards shall be as specified herein, Section 26 05 33, RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS, and the NEC.
2. Signal Duct, Cable Duct, or Cable Tray:

a. The Contractor shall use existing signal duct, cable duct, and/or cable tray, when identified and approved by the COR.
b. Approved signal and/or cable duct shall be a minimum size of 100 mm x 100 mm (4 in. X 4 in.) inside diameter with removable tops or sides, as appropriate. Protective sleeves, guides or barriers are required on all sharp corners, openings, anchors, bolts or screw ends, junction, interface and connection points.
c. Approved cable tray shall be fully covered, mechanically and physically partitioned for multiple electronic circuit use, and be UL certified and labeled for use with telecommunication circuits and/or systems. The COR shall approve width and height dimensions.

D. Distribution System Signal Wires and Cables:
1. Wires and cables shall be provided in the same manner and use like construction practices as Fire Protective and other Emergency Systems that are identified and outlined in NFPA 101, Life Safety Code, Chapters 7, 12, and/or 13, NFPA 70, National Electrical Code, Chapter 7, Special Conditions. The wires and cables shall be able to withstand adverse environmental conditions in their respective location without deterioration. Wires and cables shall enter each equipment enclosure, console, cabinet or rack in such a manner that all doors or access panels can be opened and closed without removal or disruption of the cables.
a. Each wire and cable shall terminate on an item of equipment by direct connection. Spare or unused wire and cable shall be provided with appropriate connectors (female types) that are installed in appropriate punch blocks, barrier strips, patch, or bulkhead connector panels.
b. All cable junctions and taps shall be accessible. Provide an 8″ X 8″ X 4″ (minimum) junction box attached to the cable duct or raceway for installation of distribution system passive equipment. Ensure all equipment and tap junctions are accessible.
2. Routing and Interconnection:
a. Wires or cables between ATU’s, cabinets, racks and other equipment shall be in an approved conduit, signal duct, cable duct, or cable tray that is secured to building structure.
b. Wires and cables shall be insulated to prevent contact with signal or current carrying conductors. Wires or cables used in

assembling consoles, panels, equipment cabinets and racks shall be formed into harnesses that are bundled and tied. Harnessed wires or cables shall be combed straight, formed and dressed in either a vertical or horizontal relationship to equipment, controls, components or terminations.

c. Harnesses with intertwined members are not acceptable. Each wire or cable that breaks out from a harness for connection or termination shall have been tied off at that harness or bundle point, and be provided with a neatly formed service loop.
d. Wires and cables shall be grouped according to service (i.e.: AC, grounds, signal, DC, control, etc.). DC, control and signal cables may be included with any group. Wires and cables shall be neatly formed and shall not change position in the group throughout the conduit run. Wires and cables in approved signal duct, conduit, cable ducts, or cable trays shall be neatly formed, bundled, tied off in 600 mm to 900 mm (24 in. to 36 in.) lengths and shall not change position in the group throughout the run. Concealed splices are not allowed.
e. Separate, organize, bundle, and route wires or cables to restrict EMI, channel crosstalk, or feedback oscillation inside any enclosure. Looking at any enclosure from the rear (wall mounted enclosures, junction, pull or interface boxes from the front), locate AC power, DC and speaker wires or cables on the left; coaxial, control, microphone and line level audio and data wires or cables, on the right. This installation shall be accomplished with ties and/or fasteners that will not damage or distort the wires or cables. Limit spacing between tied off points to a maximum of 150 mm (6 inches).
f. Do not pull wire or cable through any box, fitting or enclosure where change of cable tray or signal or cable duct alignment or direction occurs. Ensure the proper bend radius is maintained for each wire or cable as specified by it's OEM.
g. Employ temporary guides, sheaves, rollers, and other necessary items to protect the wire or cable from excess tension or damage from bending during installation. Abrasion to wire or cable jackets is not acceptable and will not be allowed. Replace all cables whose jacket has been abraded. The discovery of any abraded and/or damaged cables during the proof of performance

test shall be grounds for declaring the entire system unacceptable and the termination of the proof of performance test. Completely cover edges of wire or cable passing through holes in chassis, cabinets or racks, enclosures, pull or junction boxes, conduit, etc., with plastic or nylon grommeting.

h. Cable runs shall be splice free between conduit junction and interface boxes and equipment locations.

i. Cables shall be installed and fastened without causing sharp bends or rubbing of the cables against sharp edges. Cables shall be fastened with hardware that will not damage or distort them.

j. Cables shall be labeled with permanent markers at the terminals of the electronic and passive equipment and at each junction point in the System. The lettering on the cables shall correspond with the lettering on the record diagrams.

k. Completely test all of the cables after installation and replace any defective cables.

l. Wires or cables installed outside of conduit, cable trays, wireways, cable duct, etc.

1) Only when specifically authorized as described herein, will wires or cables be identified and approved to be installed outside of conduit. The wire or cable runs shall be UL rated plenum and OEM certified for use in air plenums.

2) Wires and cables shall be hidden, protected, fastened and tied at 600 mm (24 in.) intervals, maximum, as described herein to building structure.

3) Closer wire or cable fastening intervals may be required to prevents sagging, maintain clearance above suspended ceilings, remove unsightly wiring and cabling from view and discourage tampering and vandalism. Wire or cable runs, not provided in conduit, that penetrate supporting walls, and two hour fire barriers shall be sleeved and sealed with an approved fire retardant sealant.

E. Outlet Boxes, Back Boxes, and Faceplates:

1. Outlet Boxes: Signal, power, interface, connection, distribution, and junction boxes shall be provided as required by the system design, on-site inspection, and review of the contract drawings.

2. Back Boxes: Back boxes shall be provided as directed by the OEM as required by the approved system design, on-site inspection, and review of the contract drawings.
3. Face Plates (or Cover Plates): Faceplates shall be of a standard type, stainless steel, anodized aluminum or UL approved cycolac plastic construction and provided by the Contractor for each identified system outlet location. Connectors and jacks appearing on the faceplate shall be clearly and permanently marked.

F. Connectors: Circuits, transmission lines, and signal extensions shall have continuity, correct connection and polarity. A uniform polarity shall be maintained between all points in the system.
   1. Wires:
      a. Wire ends shall be neatly formed and where insulation has been cut, heat shrink tubing shall be employed to secure the insulation on each wire. Tape of any type is not acceptable.
      b. Audio spade lugs shall be installed on each wire (including spare or unused) end and connect to screw terminals of appropriate size barrier strips. AC barrier strips shall be provided with a protective cover to prevent accidental contact with wires carrying live AC current. Punch blocks are approved for signal, not AC wires. Wire Nut or "Scotch Lock" connectors are not acceptable for signal wire installation.
   2. Cables: Each connector shall be designed for the specific size cable being used and installed with the OEM's approved installation tool. Typical system cable connectors include; but, are not limited to: Audio spade lug, punch block, wirewrap, etc.

G. AC Power: AC power wiring shall be run separately from signal cable.

H. Grounding:
   1. General: The Contractor shall ground all Contractor Installed Equipment and identified Government Furnished Equipment to eliminate all shock hazards and to minimize, to the maximum extent possible, all ground loops, common mode returns, noise pickup, crosstalk, etc. The total ground resistance shall be 0.1 Ohm or less.
      a. The Contractor shall install lightning arrestors and grounding in accordance with the NFPA and this specification.

b. Under no conditions shall the AC neutral, either in a power panel or in a receptacle outlet, be used for system control, subcarrier or audio reference ground.
c. The use of conduit, signal duct or cable trays as system or electrical ground is not acceptable and will not be permitted. These items may be used only for the dissipation of internally generated static charges (not to be confused with externally generated lightning) that may applied or generated outside the mechanical and/or physical confines of the System to earth ground. The discovery of improper system grounding shall be grounds to declare the System unacceptable and the termination of all system acceptance testing.

2. Equipment: Equipment shall be bonded to the cabinet bus with copper braid equivalent to at least #12 AWG. Self grounding equipment enclosures, racks or cabinets, that provide OEM certified functional ground connections through physical contact with installed equipment, are acceptable alternates.
3. Cable Shields: Cable shields shall be bonded to the cabinet ground buss with #12 AWG minimum stranded copper wire at only one end of the cable run. Cable shields shall be insulated from each other, faceplates, equipment racks, consoles, enclosures or cabinets; except, at the system common ground point. In all cases, cable shield ground connections shall be kept to a minimum.

I. Labeling: Provide labeling in accordance with ANSI/EIA/TIA-606-A. All lettering for voice and data circuits shall be stenciled using laser printers . Handwritten labels are not acceptable.
1. Cable and Wires (Hereinafter referred to as “Cable”): Cables shall be labeled at both ends in accordance with ANSI/EIA/TIA-606-A. Labels shall be permanent in contrasting colors. Cables shall be identified according to the System “Record Wiring Diagrams”.
2. Equipment: System equipment shall be permanently labeled with contrasting plastic laminate or bakelite material. System equipment shall be labeled on the face of the unit corresponding to its source.
3. Conduit, Cable Duct, and/or Cable Tray: The Contractor shall label all conduit, duct and tray, including utilized GFE, with permanent marking devices or spray painted stenciling a minimum of 3 meters

(10 ft.) identifying it as the System. In addition, each enclosure shall be labeled according to this standard.

4. Termination Hardware: The Contractor shall label workstation outlets and patch panel connections using color coded labels with identifiers in accordance with ANSI/EIA/TIA-606-A and the “Record Wiring Diagrams”.

3.2 TESTS

A. Interim Inspection:

1. This inspection shall verify that the equipment provided adheres to the installation requirements of this document. The interim inspection will be conducted by a factory-certified representative and witnessed by a Government Representative. Each item of installed equipment shall be checked to insure appropriate UL certification markings. This inspection shall verify cabling terminations in telecommunications rooms and at workstations adhere to color code for T568B T568A pin assignments and cabling connections are in compliance with ANSI/EIA/TIA standards. Visually confirm Category 6 marking of outlets, faceplates, outlet/connectors and patch cords.
2. The Contractor shall notify the COR, in writing, of the estimated date the Contractor expects to be ready for the interim inspection, at least 20 working days before the requested inspection date.
3. Results of the interim inspection shall be provided to the COR and PM. If major or multiple deficiencies are discovered, a second interim inspection may be required before permitting the Contractor to continue with the system installation.
4. The COR and/or the PM shall determine if an additional inspection is required, or if the Contractor will be allowed to proceed with the installation. In either case, re-inspection of the deficiencies noted during the interim inspection(s), will be part of the proof of performance test. The interim inspection shall not affect the Systems’ completion date. The Contracting Officer shall ensure all test documents will become a part of the Systems record documentation.

B. Pretesting:

1. Upon completing the installation of the System, the Contractor shall align and balance the system. The Contractor shall pretest the entire system.
2. Pretesting Procedure:

a. During the system pretest, the Contractor shall verify (utilizing the approved spectrum analyzer and test equipment) that the System is fully operational and meets all the system performance requirements of this standard.
b. The Contractor shall pretest and verify that all System functions and specification requirements are met and operational, no unwanted aural effects, such as signal distortion, noise pulses, glitches, audio hum, poling noise, etc. are present.

3. The Contractor shall provide four (4) copies of the recorded system pretest measurements and the written certification that the System is ready for the formal acceptance test shall be submitted to the COR.

C. Acceptance Test: After the System has been pretested and the Contractor has submitted the pretest results and certification to the COR, then the Contractor shall schedule an acceptance test date and give the COR 30 days written notice prior to the date the acceptance test is expected to begin. The System shall be tested in the presence of a Government Representative and an OEM certified representative. The System shall be tested utilizing the approved test equipment to certify proof of performance and Life Safety compliance. The test shall verify that the total System meets the requirements of this specification. The notification of the acceptance test shall include the expected length (in time) of the test.

D. Performance Testing:

1. Perform Category 6 tests in accordance with ANSI/EIA/TIA-568-B.1 and ANSI/EIA/TIA-568-B.2. Test shall include the following: wire map, length, insertion loss, return loss, NEXT, PSNEXT, ELFEXT, PSELFEXT, propagation delay and delay skew.

E. Total System Acceptance Test: The Contractor shall perform verification tests for UTP / STP copper cabling system(s) after the complete telecommunication distribution system and workstation outlet are installed.

3.3 WARRANTY

A. Comply with FAR clause 52.246-21, except that warranty shall be as follows:

1. The Contractor shall warranty that all installed material and equipment will be free from defects, workmanship, and will remain so for a period of one year from date of final acceptance of the System

by the VA. The Contractor shall provide OEM’s equipment warranty documents, to the COR (or Facility Contracting Officer if the Facility has taken procession of the building(s)), that certifies each item of equipment installed conforms to OEM published specifications.

2. The Contractor's maintenance personnel shall have the ability to contact the Contractor and OEM for emergency maintenance and logistic assistance, remote diagnostic testing, and assistance in resolving technical problems at any time. The Contractor and OEM shall provide this contact capability at no additional cost to the VA.
3. All Contractor installation, maintenance, and supervisor personnel shall be fully qualified by the OEM and must provide two (2) copies of current and qualified OEM training certificates and OEM certification upon request.

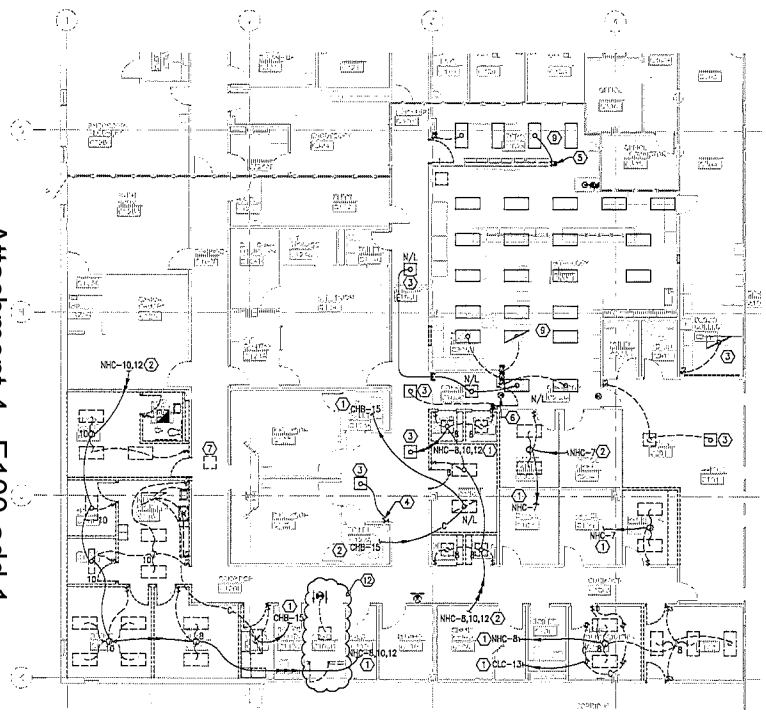
B. Work Not Included: Maintenance and repair service shall not include the performance of any work due to improper use, accidents, other vendor, contractor, owner tampering or negligence, for which the Contractor is not directly responsible and does not control. The Contractor shall immediately notify the COR or Facility Contracting Officer in writing upon the discovery of these incidents. The COR or Facility Contracting Officer will investigate all reported incidents and render findings concerning any Contractor’s responsibility.

- - - E N D - - -

THIS PAGE INTENTIONALLY LEFT BLANK

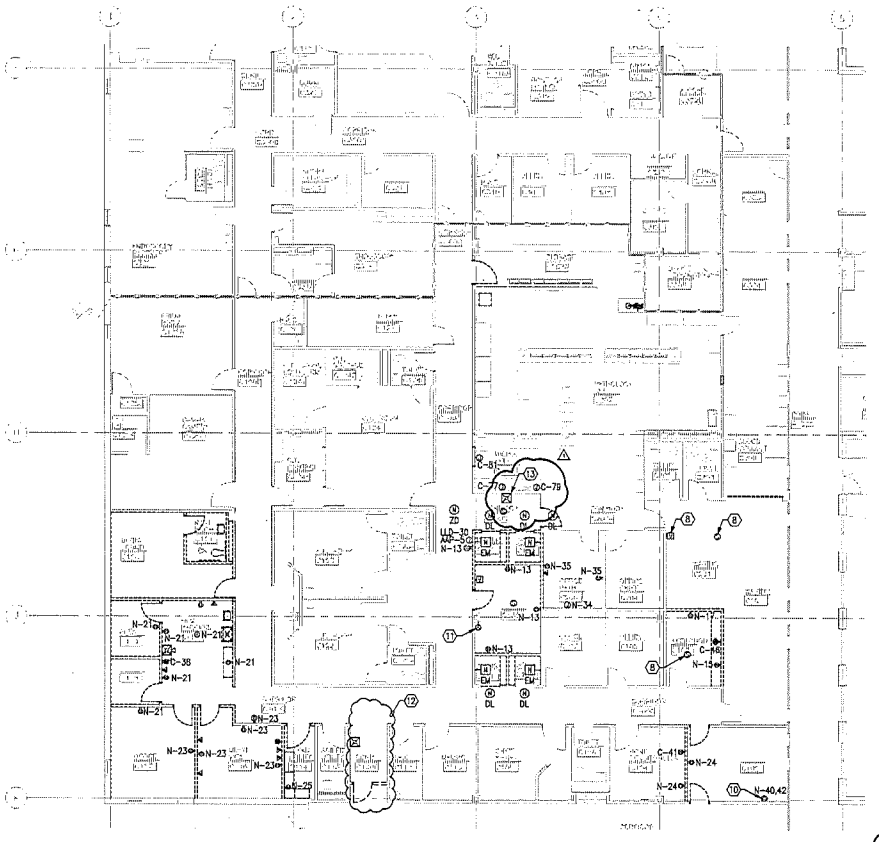
VA248-15-R-2022 A00006

Attachment 4_ E100-add 1



RADIOLOGY DEMOLITION PLAN - LIGHTING

SCALE: 1/8" = 1'-0"



RADIOLOGY DEMOLITION PLAN - ELECTRICAL

SCALE: 1/8" = 1'-0"

SHEET NOTES

A. EXISTING CIRCUITING INDICATED ON THIS SHEET IS BASED ON AVAILABLE AS-BUILTS AND MAY DIFFER FROM ACTUAL WIRING. DESIGN INTENT IS TO ENSURE THAT EXISTING-TO-REMAIN DOWNSTREAM DEVICES ARE RECONNECTED TO THE SAME EXISTING CIRCUITS, IF UPSTREAM DEVICES ARE DEMOLISHED.

B. CONDUIT AND CONDUCTORS FEEDING ONLY TO-BE-DEMOLISHED DEVICES SHALL BE COMPLETELY REMOVED BACK TO THE NEAREST JUNCTION BOX WITH CONDUCTORS FEEDING EXISTING-TO-REMAIN DEVICES.

C. PANEL NAMES IN CIRCUIT CALLOUTS ON THIS SHEET HAVE BEEN ABBREVIATED FOR DRAWING CLARITY.

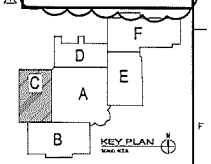
"C" REFERS TO "CLC"
"N" REFERS TO "NLCA"

D. LIGHT FIXTURES DEPICTED IN BOLD AND DASHED LINEWEIGHTS SHALL BE DEMOLISHED. LIGHT FIXTURES DEPICTED IN LIGHT AND SOLID LINEWEIGHTS ARE EXISTING, AND SHALL REMAIN OR BE RELOCATED AS NOTED ON PLAN.

E. DEVICES DEPICTED IN BOLD LINEWEIGHTS ON THIS SHEET SHALL BE DEMOLISHED, U.N.O.

SHEET KEYNOTES

1. EXIST. CIRCUIT(S) ARE CONNECTED TO INDICATED PANEL BUT ALSO FEED EXIST.-TO-REMAIN UPSTREAM LIGHTING FIXTURES.
2. EXIST. CIRCUIT(S) FEED EXIST.-TO-REMAIN DOWNSTREAM LIGHTING FIXTURES.
3. EXIST.-TO-REMAIN FIXTURE.
4. REPLACE EXIST. 4-WAY SWITCH WITH NEW 3-WAY SWITCH, REMOVE UN-USED WIRE AFTER REPLACING SWITCH.
5. REPLACE EXIST. 3-WAY SWITCH WITH NEW 2-WAY SWITCH, REMOVE UN-USED WIRE AFTER REPLACING SWITCH.
6. REMOVE EXIST. EXIT SIGN AND RELOCATE TO NEW DOOR LOCATION.
7. REMOVE EXIST. FIXTURE AND REPLACE WITH ANTI-GLARE FIXTURE.
8. RELOCATE EXIST. SPEAKER SYSTEM DEVICE.
9. LAB CEILING TO BE REPLACED. TEMPORARILY REMOVE AND REINSTALL CEILING COMPONENTS IN LAB AREA (INCLUDING LIGHTING FIXTURES).
10. REMOVE RECEPTACLE AND CONDUCTORS BACK TO PANEL. RE-USE RACEWAY BACK TO PANEL FOR NEW RECEPTACLE CIRCUITS.
11. EXIST. 240V TREADMILL RECEPT. SHALL BE REMOVED AND RE-INSTALLED IN NEW STRESS TEST RM. C120. DEMO EXIST. TREADMILL CIR. #C2-15,17.
12. DEDUCTIVE ALTERNATE NO. 1: DO NOT DEMOLISH BOOTH.
13. RELOCATE FIRE ALARM STROBE - SEE DWG. E-200.



FINAL DESIGN SUBMITTAL
APPROVED FOR CONSTRUCTION

Revisions:	Date
ADDENDUM NO.1	10-8-15

CONSULTANTS:

ENGINEER-OF-RECORD: RANDALL A. HEWLETT — Dept. D.C. No.

ARCHITECT/ENGINEERS:

AKEA INC.
3603 NW 98th Street, Suite B
Gainesville, FL 32605
Phone: (352) 474-6124
Fax: (352) 474-6324
COA: FL #26593
AKEA Project No. 088-14

Drawing Title: ELECTRICAL DEMOLITION PLANS

Approved: Project Director

Project Title: RENOVATE LABORATORY AND RADIOLOGY DEPARTMENTS

Location: VIERA VA OUTPATIENT CLINIC

Date: AUGUST 7, 2015 | Checked: RAH | Drawn: KLL

Project Number: 675-14-150

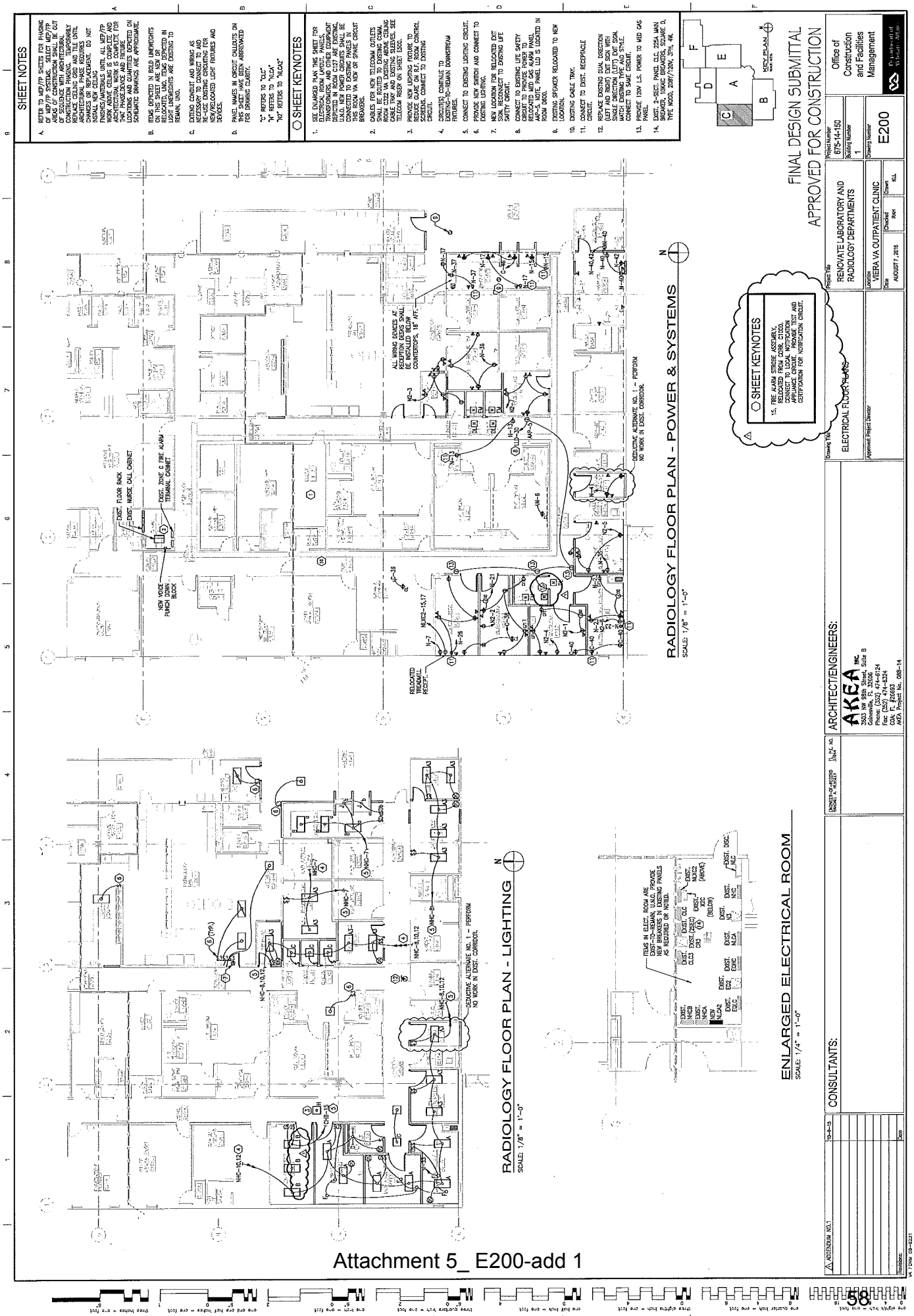
Building Number: 1

Drawing Number: E100

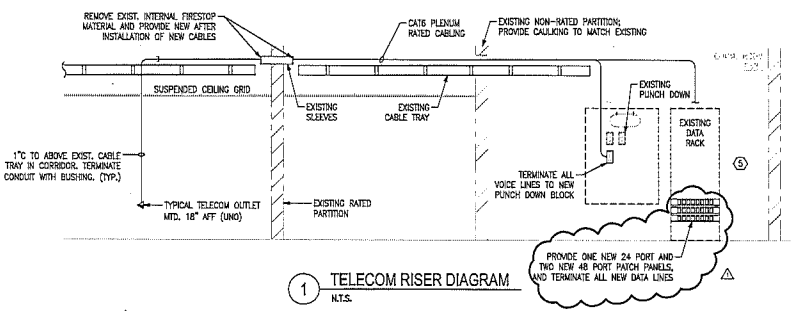
Office of Construction and Facilities Management

Department of Veterans Affairs

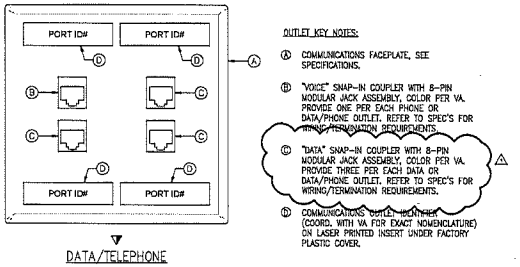
VA FORM 08-0231



Attachment 5_ E200-add 1



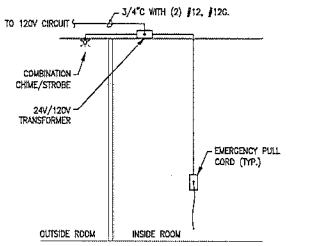
1 TELECOM RISER DIAGRAM
N.T.S.



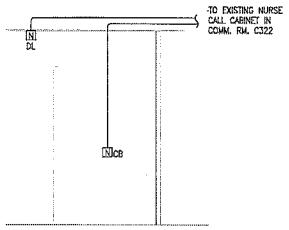
2 TYPICAL TELECOM OUTLET
N.T.S.

SHEET KEYNOTES

1. EXISTING PANEL NHC, SQUARE D TYPE NF, 480Y/277V, 3PH, 4W, 35KAIC, 600A BUS, FED FROM 400/3 BREAKER IN MDP.
2. EXISTING PANEL NLCA, SQUARE D TYPE NQOD, 225A MAX. BUS, 3PH, 4W, 208Y/120V, 10KAIC. PROVIDE NEW 100A/3P BRANCH BREAKER TO FEED NEW PANEL NLCA2. SEE PANEL SCHEDULE FOR ADDITIONAL MODIFICATIONS.
3. EXISTING DISCONNECT SWITCH, FUSED AT 150A.
4. PROVIDE NEW PANEL. SEE PANEL SCHEDULE.
5. CONTRACTOR SHALL PROVIDE TURN-KEY INSTALLATION OF VOICE AND DATA SYSTEMS AND EQUIPMENT REQUIRED FOR FULLY OPERATIONAL SYSTEMS, INCLUDING TERMINATIONS AND PATCH CABLES AS NEEDED. COORD. ALL WORK IN COMM. RM. WITH VA COR AND IT DEPARTMENT.
6. ALL CONDUIT AND/OR CABLING PENETRATIONS OF FIRE RATED PARTITIONS SHALL BE SEALED WITH A FIRESTOP MATERIAL AS MANUFACTURED BY A SINGLE SUPPLIER. FOR ANY GIVEN PENETRATION, ONLY ONE FIRESTOP SEALANT MANUFACTURER SHALL BE PERMITTED.

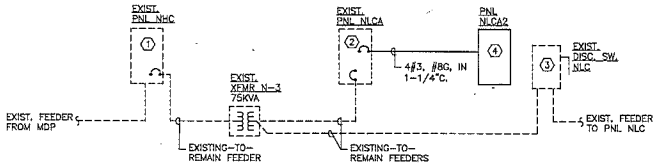


3 TYPICAL EMER. CALL SYSTEM DETAIL
N.T.S.



NOTE:
REMOVE EXISTING CODE BLUE BUTTON IN CURRENT STRESS TEST ROOM AND TURN OVER TO THE VA. PROVIDE NEW CODE BLUE BUTTON AND DOME LIGHT IN NEW STRESS TEST ROOM C120. MATCH AND EXTEND EXISTING CONDUCTORS AND CONDUIT FROM CURRENT STRESS TEST ROOM AS REQUIRED. CONFIRM EXACT WALL LOCATION AND HEIGHT OF BUTTON WITH COR PRIOR TO ROUGH-IN. EXISTING CODE BLUE AND NURSE CALL SYSTEM IS RAULAND-BORG.

4 CODE BLUE ALARM DETAIL
N.T.S.



5 NORMAL POWER RISER DIAGRAM
N.T.S.

Attachment 6_ E500-add 1

FINAL DESIGN SUBMITTAL
APPROVED FOR CONSTRUCTION

ADDENDUM NO.1	10-5-15
Revisions:	Date

CONSULTANTS:

DESIGNER-OF-RECORD: RANDEL A. HENSLEY, P.E. FL. LIC. NO. 57844

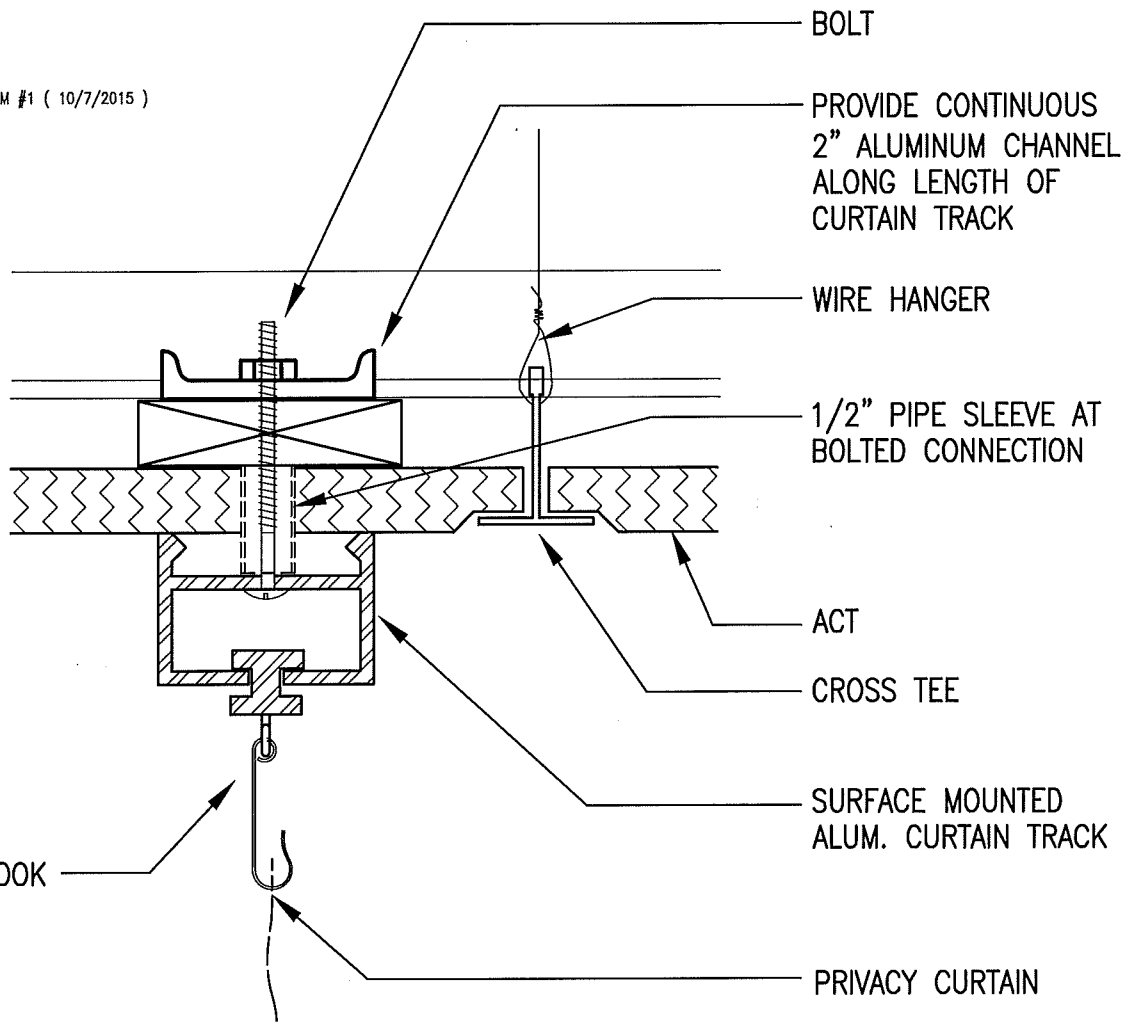
ARCHITECT/ENGINEERS:
AKEA INC.
3603 NW 98th Street, Suite B
Gainesville, FL 32606
Phone: (352) 474-5124
Fax: (352) 474-6324
COA: FL #26683
AKEA Project No. 088-14

Drawing Title: SYSTEMS DETAILS, RISERS, AND PANEL SCHEDULES
Approved: Project Director
Project Title: RENOVATE LABORATORY AND RADIOLOGY DEPARTMENTS
Location: VIERA VA OUTPATIENT CLINIC
Date: AUGUST 7, 2015
Checked: RAH
Drawn: KLL
Project Number: 675-14-150
Building Number: 1
Drawing Number: E500

Office of Construction and Facilities Management
Department of Veterans Affairs

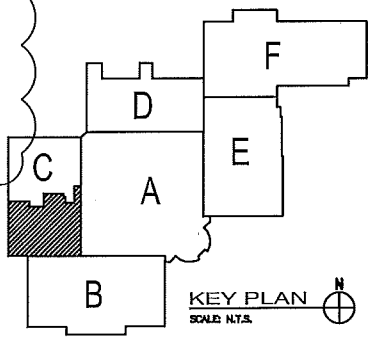
VA FORM 08-6231

ADDENDUM #1 (10/7/2015)



3 ACOUSTICAL CEILING CURTAIN TRACK DETAIL

6" = 1'-0"



FINAL DESIGN SUBMITTAL
APPROVED FOR CONSTRUCTION

ing Title: DETAILS	Project Title: RENOVATE LABORATORY AND RADIOLOGY DEPARTMENTS	Project Number: 675-14-150	Office of Construction and Facilities Management
		Building Number: 1	
oved: Project Director	Location: VIERA VA OUTPATIENT CLINIC	Drawing Number: A500	Department of Veterans Affairs
	Date: AUGUST 7, 2015 / Checked: THG / Drawn: JG		

DOOR MARK	ROOM TYPE	DOOR TYPE	DOOR SIZE	HDWR SET	DOOR MATERIA	FRAME TYPE	FRAME MATERIA	DETAIL HEAD	DETAIL JAMB	REMARKS
C111	STORAGE	A	S	4F	WD	1	HM	4	5	PHASE 1
C207	PATHOLOGY LAB	B	S	4G	WD	1	HM	4	5	PHASE 1
C109	RAD OFFICE	A	S	3E	WD	1	HM	4	5	PHASE 1
C209	BLOOD COLLECT	A	U	4G	WD	1	HM	4	5	PHASE 1
C113	MAMO READ	A	X	4G	WD	1	HM	4	5	PHASE 2
C115	BONE DENSITOMETER	A	X	4G	WD	1	HM	4	5	PHASE 2
C117	ULTRASOUND	A	X	4G	WD	1	HM	4	5	PHASE 2
C118	TOILET	A	S	2G	WD	1	HM	4	5	PHASE 2
C119	ULTRASOUND	A	X	4G	WD	1	HM	4	5	PHASE 2
C120	STRESS TEST	A	X	4G	WD	1	HM	4	5	PHASE 2
C102	QA PROCESS	A	S	3E	WD	1	HM	4	5	PHASE 3
C110	MAMMOGRAPHY									PHASE 4 Add floor door stop

ADDENDUM #1 (10/7/2015)

DOOR TYPE

2

23

HARDWARE SET

MODIFICATION

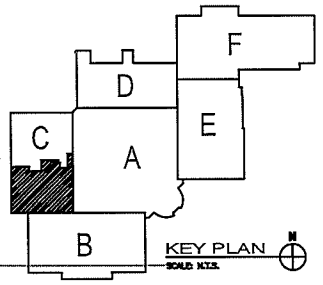
: ELEVATIONS)

R LOUVER REQUIRED
FICATION

R LOUVER REQUIRED
ATION TYPE

DOOR NOTES

1. ALL DOORS SHALL BE 1 3/4" FLUSH UNLESS NOTED OTHERWISE.
2. ALL GLAZING IN DOORS SHALL BE TEMPERED ULLESS NOTED OTHERWISE.
3. ALL METAL DOOR FRAMES ARE TO BE BACK PRIMED.
4. PROVIDE SEALANT AROUND ALL EXTERIOR DOOR FRAMES
5. PROVIDE 1 HOUR DOOR IN 1 HOUR STAIR PARTITIONS
6. PROVIDE 45 MIN. DOOR IN OTHER 1 HOUR PARTITIONS
7. PROVIDE 1 1/2 HOUR DOOR IN 2 HOUR PARTITIONS
8. PROVIDE HOSPITAL STOPS ON ALL HOLLOW METAL FRAMES EXCEPT SOUND-RATED, LEAD-LINED, FIRE-RATED, EXTERNAL & DOUBLE EGRESS DOORS



FINAL DESIGN SUBMITTAL
APPROVED FOR CONSTRUCTION

HITECT/ENGINEERS:

KEA INC.
NW 98th Street, Suite B
ville, FL 32606
: (352) 474-6124
352) 474-6324
FL #26693
Project No. 088-14

Drawing Title: DOOR AND FRAME ELEVATIONS

Approved: Project Director

Project Title: RENOVATE LABORATORY AND RADIOLOGY DEPARTMENTS

Location: VIERA VA OUTPATIENT CLINIC

Date: AUGUST 7 , 2015 | Checked: THG | Drawn: JG

Project Number: 675-14-150

Building Number: 1

Drawing Number: A502

Office of Construction and Facilities Management

Department of Veterans Affairs

VA248-15-R-2022 A00006

Attachment 8 _ Sketch A502-add 1

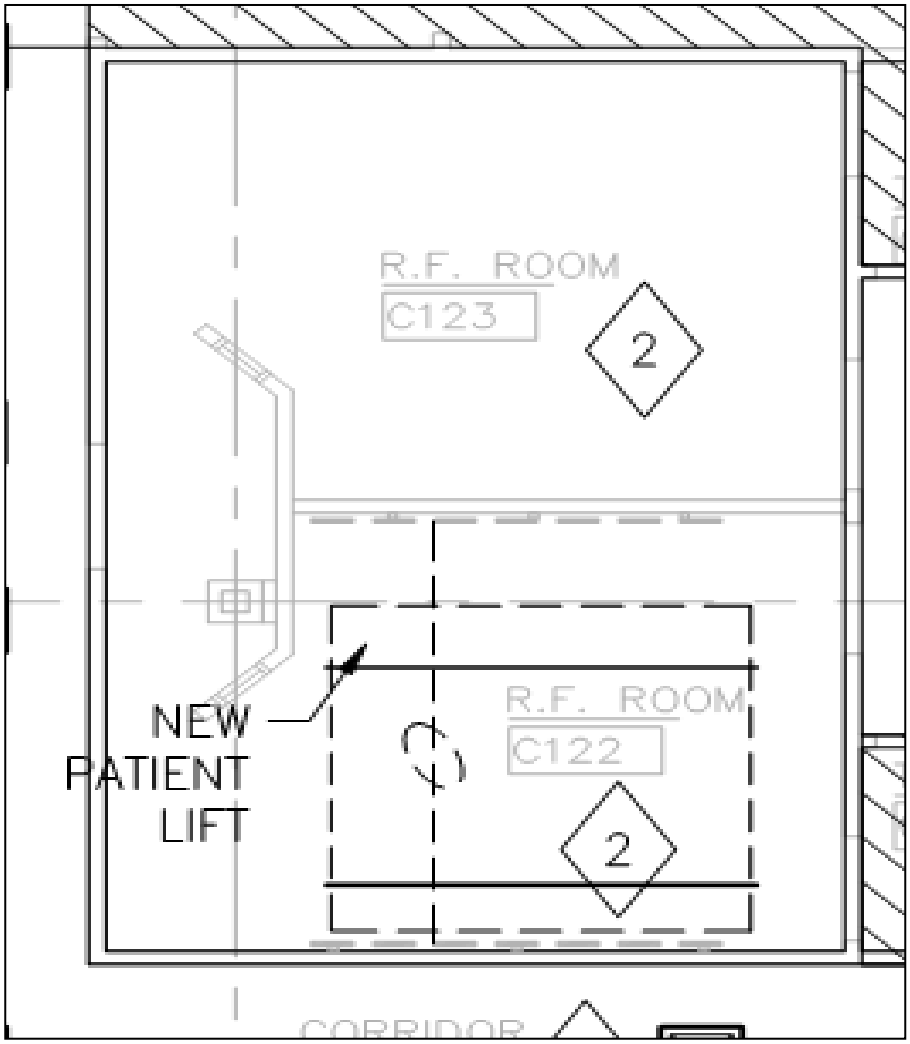
Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

RFI NBR	Question Response	Submitted By	Dated Received
1.	In downloading the documents for this solicitation from fbo.gov I did not see any drawings included in the posted documents. Also, the solicitation makes reference to being performed under (NAICS) Code is 238320, Painting and Wall Covering Contractors with a size standard of 15.0 MM. This seems very unusual for a project scope that includes flooring and other finishes plus mechanical and electrical trades. Is this intended?	ARGO Systems	09/19/15
Reply	At the date/time of receipt of this RFI all available drawings were posted with amendmentA00001 which was posted on 09/19/2015. The size standard was also corrected in Amendment A00001.		
2.	Please clarify the site visit date and time. The Solicitation states Thursday September 18, 2015 at 4:00 PM. Should that be Thursday September 24, 2015?	Hammer Logistics	09/21/15
Reply	The site visit date is Thursday, 24 September. Clarified in Amendment A00002		
3	1. In looking at the solicitation reference above, I did not see ant Structural Drawings, are they going to be uploaded at a later date?	FEDCO,LLC	09/27/15
Reply	There are no structural drawings required. Refer to Attachment 7 of Amendment A00005 entitled "New Lift Site Plan". Note 1: There are now five lifts to be installed under this project and updated Patient Lift System spec 117300 issued as an Attachment 5 in Amendment A00005. Note 2: All Lifts are wall/floor mounted. Lifts shall be Hill-Rom. Hill-Rom Manufacturer Representative is Michelle Unger-Koop (312)-502-6691.		
4	2. I could not find the Ceiling Mounted Patient Lifts System support drawing?	FEDCO LLC	09/27/15
Reply	See response to RFI #3		
5	On the front page of the Solicitation, under item 6, it states that the RFI submission period ends 10 calendar days prior to the proposal submission due date. The proposal submission due date is stated as October 19th. This would make the GC RFI submission deadline October 9th, however it was stated in the prebid meeting that the GC RFI submission deadline was October 1st. We need as much time as possible to gather all pertinent questions from all subcontractors associated with this project. What is the GC RFI submission deadline	Blue Cord	09/28/15
Reply	Cut off for RFI submission is revised to be 10/07/2015. Refer to Amendment A00003		
6	1. Is there a basis of design for the manufacturer of the patient lift equipment?	Contract & Purchasing Solutions	10/01/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

		(CPS)	
Reply	See response to RFI #3		
7	2. Please confirm the loading for the patient lift supports. In one instance, it requires 2205 lbs (which is far greater than our historical data shows) and in another instance, the requirement is 440 lbs (which is the low end of the standard).	Contract & Purchasing Solutions (CPS)	10/01/15
Reply	The lift capacity has been increased to 550lb – see revised spec - See response to RFI #3		
8	3. If available, please provide any structural as-builts for the area.	Contract & Purchasing Solutions (CPS)	10/01/15
Reply	See response to RFI #3 – If still need structural as-builts – specify what for and resubmit question.		
9	4. Is the structure steel beam, concrete, or bar joists?	Contract & Purchasing Solutions (CPS)	10/01/15
Reply	See response to RFI #3 – If still need this question answered – specify what for and resubmit question.		
10	5. If available, please provide any information you have on the interstitial spaces.	Contract & Purchasing Solutions (CPS)	10/01/15
Reply	See response to RFI #3 – If still need this question answered – specify what information is needed and resubmit question.		

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

11	6. Are we correct in assuming that RF equipment supports are existing in place in Rooms C19, C122, and C125? See sketch below. 	Contract & Purchasing Solutions	10/01/15
Reply	We would like clarification on question #6 below: Your RFI #6 references RF Equipment supports" but the RF Equipment is only in Room C122. The other two rooms are Ultrasound and Gamma – Did you mean "lift" equipment supports? And we assume C19 is room C119. There is no longer a lift in room C122 – it is now in the hallway outside the room. See response to RFI #3.		
12	6. Provide additional details as to how the patient lift and supports will integrate with the existing RF equipment in Room C122. Also, please confirm if Rooms C119 and C125 are included in the patient lift scope of work.	CPS	10/05/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

Reply	See answer to RFI #3 and RFI #11.		
13	Upon review of the above referenced solicitation, we have noticed that Evaluation Factor 2 (pg. 17) requires the "prime contractor shall provide a valid General Contractor's License". Does this need to be a General Contractors License specifically issued by the state of FL, or will another state suffice as long as it is a "valid GC license"?	G&C Fab-CON	10/06/15
Reply	A valid GC license is required. GC license may be from any state.		
14	Can you help me? I am trying to determine the structure/floor height of the VA VIERA OUTPATIENT CLINIC Solicitation: VA248-15-R-2022	MCM Services	10/08/15
Reply	Ceiling height is 9' unless otherwise indicated. Height between ceiling and roof structure is approximately 7'.		
15	1. Please confirm the project number…the SF 1442, Block 6 states "615-14-150" and throughout the body of the solicitation states "675-14-150."	CPS	10/08/15
Reply	The project number is 675-15-150		
16	2. Page 21 of the solicitation, Proposal Content Format, Paragraph A: there are two (2) TAB Ds listed…please confirm second one should be TAB E.	CPS	10/08/15
Rely	This was a typographical error. It is corrected to be "Tab E"		
17	3. Please consider extending the proposal due date of 19Oct15 by at least one day to 20Oct15. This would help prevent having to lose Saturday (17th) & Sunday (18th) because the proposal would need to be mailed out no later than Friday (16th) afternoon in order to reach your office by the 19th.	CPS	10/08/15
Reply	Proposal Due Date is extended to Tuesday, October 20, 2015. Time 1:00 PM Local	CPS	10/08/15
18	4. Are there any fire alarms being demolished or relocated? Is Fire Alarm Recertification for AHCA required?		
Reply	Sheet E100 shows fire alarm devices being demolished. AHCA has no jurisdiction in a VA facility.		
19	5. Line Item 0003, Deduct Alternate No. 2, says to deduct finishes in C112 and C114. The Finish Schedule does not list any new finishes for these rooms. Please clarify.	CPS	10/08/15
Reply	C112 and C114 are not part of Deduct Alternate No. 2 – that was a typo. Those two rooms are being painted as part of the Base Bid under Phase 4 as indicated in the revised finish schedule issued in Amendment A00004.		
20	6. The Finish Schedule indicates new ACT in C105 and C107, but the Reflected Ceiling Plan does not. Are new ceilings to be provided in these rooms?	CPS	10/08/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

Reply	Read General Plan note #1 on sheet A300. Yes C105 and C107 get new ceilings. The new ceilings can be installed after HVAC work is complete.		
21	7. What are the existing wall, floor, and ceiling finishes in C123 and C122?	CPS	10/08/15
Reply A00005	See Revised finish schedule issued in Amendment A00004. C122 has painted walls, VCT floor tile (ETR) and ACT ceiling. C123 is not included in Finish Schedule – it only has replacement of ACT for ceiling finish if damaged during HVAC work. Also see revised drawings issued with Amendment A00005.		
Reply A00006	C123 contractor to salvage existing grid and ATC and reinstall after HVAC work done in ceiling space. Any damaged grid or tile that must be replaced due to this work shall match existing.		
22	8. Please confirm that there are no new finishes required in C108, C110, and C204.	CPS	10/08/15
Reply	See Revised finish schedule issued in Amendment A00004 and revised drawings issued with A00005. C108 gets new paint only + new ACT if damaged during HVAC process. C110 has one wall (west wall) of wall covering to be removed and then whole room is painted + new ACT if damaged during HVAC process. C204 gets all new finishes in accordance with new finish schedule issued in A00004 and revised drawings in A00005. Note work in C108 and C110 shall be performed during Phase 4. Work in C204 Lab Supervisor's office is shown as part of Phase 1 on drawings and as part of Phase 4 in revised finish schedule. C204 will be occupied during both Phases 1 and 4 during clinic hours. All Work in C204 (finish replacement) shall be performed during either Phase 1 or 4 over a weekend as coordinated with and approved by the COR.		
23	9. Please provide a model number or detail for the INPRO handrails and bumper guards.	CPS	10/08/15
Reply	In Pro Corporation, 800 Series Handrails; 160BN corner guards; 700 Series Wall Guards; color for all: White Sand.		
24	10. The Phase 2 Demolition Plan shows dashed lines along one side of some partition walls. Are we correct in assuming the GWB will be removed on that face of the wall to the stud?	CPS	10/08/15
Reply	Yes you are correct.		
25	11. Please provide details, specifications, etc. for the pass window in Phase 4.	CPS	10/08/15
Reply	See Sheet A500 details 1 and 2. It is not a manufactured item.		
26	12. Please provide manufacturer and model for VCT flooring and carpet.	CPS	10/08/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

Reply A00005	Amendment. New carpet tile spec 096800 is provided as part of Amendment A00005.		
Reply A00006	Manufacturer and model of VCT is Armstrong Imperial Texture Standard EXCELEON – Main color is Cool White #51899 – Up to 1/3 of VCT in hallways will be one to two accent color(s) to be selected during submittal phase. Manufacturer and model of Carpet Tiles is Shaw Contract Group Style Charisma Style number 59561 color Aristocrat 61750.		
27	13. Please confirm the ATC ceilings will be Armstrong Prelude ML 15/16" grid and Armstrong Cortega Tiles	CPS	10/08/15
Reply	Yes to match existing		
28	14. The plans call for cubical curtain track and curtains. Please provide specification, manufacturer, and model for the curtains	CPS	10/08/15
Reply	VA provides the curtains		
29	15. Please provide a detail for mounting the cubical curtain track.	CPS	10/08/15
Reply	See A500 sketch of Acoustical ceiling curtain track detail in Amendment A00006.		
30	16. The specifications describe a perimeter seal for the ATC suspension system. Is this required?	CPS	10/08/15
Reply	No		
31	17. The Floor Plan and the Door Schedule state all doors in the project are to receive Hardware Set 23. There is no Hardware Set 23 listed in the Hardware Schedule. Please clarify.	CPS	10/08/15
Reply	See revised A502 Updated Door/Hardware Schedule in Amendment A00006.		
32	18. The Floor Plan and Door Schedule do not show any modifiers, fire rating, louver, lead, etc. Please confirm this is correct.	CPS	10/08/15
Reply	Correct – no modifiers. We do not have any lead lining, louvers, fire ratings etc.		
33	1. Reference: Panel NHCB, Question: a. Who is the manufacturer? b. What type of breaker is in the Panel? c. What is the K.A.I.C rating?	Maverick Constructors	10/08/15
Reply	See revised Elec drawing E201 issued with Amendment A00005.		
34	2. Reference: Fixture Schedule and Lighting Floor Plan Question: The floor plan shows a fixture with the designation as B3, but B3 is not on the schedule. Please provide the Schedule info.	Maverick Constructors	10/08/15
Reply	See revised Elec drawing E200 issued with Amendment A00005.		
35	1. There is a conflict in the specs and drawings. Do the Telecom outlets get 2 or 3 data outlets? The specs call for 2 in one place 27-15-00-11.	Orion	10/08/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

	Spec call for 3 on sheet 27-15-00-15.		
Reply	See Revised drawing E500 issued with Amendment A00006 and revised Spec section 271500 issued with Amendment A00006.		
36	2. Sheet E500 Telecom Riser call for 2 24 port patch panels which is not enough ports for 2 or 3 data cables per faceplate. Does this need to be 2 48 port patch panel?	Orion	10/08/15
Reply	See Revised drawing E500 issued with Amendment A00006 and revised Spec section 271500 issued with Amendment A00006.		
37	1. Drawing PL100 & PL101: Are all hex notes describing existing conditions with no new work required?	Blue Cord	10/08/15
Reply	Drawings PL100 and PL101 describe existing conditions. Hex notes refer to existing conditions. Round notes refer to Demolition work. These are labeled on the drawings.		
38.	2. Drawing PL200 & PL202: Are all hex notes describing existing conditions with no new work required?	Blue Cord	10/08/15
Reply	Drawings PL200 and PL202 describe new work. Hex notes refer to existing conditions. Round notes refer to new work. These are labeled on the drawings.		
39.	3. Please specify VCT flooring. There is no spec in 09 06 00 Schedule for Finishes and spec section 09 65 19 Resilient Tile Flooring lists 12" x 12" VCT. Most floors in the hospital are welded sheet vinyl.	Blue Cord	10/08/15
Reply	VCT Section 09 65 19 and 09 06 00 are included in the documents: match existing tile.		
40.	4. Please specify carpet. There is no spec in 09 06 00 Schedule for Finishes and no flooring spec section to refer to.	Blue Cord	10/08/15
Reply	New carpet tile spec 096800 is provided as part of Amendment A00005. For Manufacturer see RFI #26		
41.	5. Please provide a spec for resinous flooring.	Blue Cord	10/08/15
Reply	See Resinous Flooring spec provided in Amendment A00006		
42.	6. Our firm bids on projects requiring Past Performance Questionnaire (PPQ) forms very often, and we make frequent and repeated requests to previous clients to satisfy this requirement. So that we do not burden them with repeated requests, may we submit CCASS evaluations for the Past Performance evaluation factor? Please advise	Blue Cord	10/08/15
Reply	Past Performance Evaluation from CCASS submitted in response to the solicitation are acceptable		
43.	7. Note 4 on drawing A100 states that "Functions in the areas shown for renovation will be relocated before phase construction begins". We assume this means The VA will relocate furniture and functions of specific areas prior to our work beginning and that this will happen between each phase. The construction duration schedule shown on	Blue Cord	10/08/15

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

	page 8 of the Solicitation shows the following: a) Submittal Review – 45 Days b) **Phase I – 21 days.** 1) **NOTE**: Reception Area (C103, C101, and C201) shall be functional during normal business hours. c) **Phase II – 45 days:** 1) **NOTE**: C115, C116, C117, C118, C119, C120, C121 will be vacated during this phase 2) **NOTE:** Deduct Alternate #1 (Rm C113 Mammo Reading Room) will be performed during Phase IV, **NOT** Phase II. d) **Phase III – 14 days** 1) **NOTE:** C104 and C102 will be vacated during this phase e) **Phase IV – 45 days** 1) **NOTE:** Laboratory shall be functional during normal business hours. Rm C125B will be vacated during this phase. 2) **NOTE:** Deduct Alternate #1 (Rm C113 Mammo Reading Room) shall be performed during the last portion of Phase IV. Intent is to close off the corridor at the last portion of the project. f) **Project Closeout/Punch list – 21 days** The time required by The VA for their relocation activities is not shown in the above schedule. How much time will The VA require between phases for this relocation?		
Reply	Note Phase 2 and 3 switched per Amendment A00004 and revised drawings issued in A00005. FOR Phase 1 (21 calendar days): Prior to Phase 1 area being turned over to Contractor the VA will remove/relocate any furniture, Medical or IT equipment in Demo rooms C109, C111, C130, C131, C132 and C206 and Corridor C100C that is not to be disposed of by the Contractor. Work shown to be done in sections of the lab area (closing up doorway, installing doorway and electrical/communication work) will need to be isolated from the rest of the lab when that work is being performed – the Contractor will need to coordinate with the COR prior to doing the work to ensure that the lab stays functional during regular clinic hours. See comments in RFI #22 pertaining to C204. C105 and C107 will also be occupied during Clinic hours. All work in C105 and C107 (finish replacement) shall be performed over a weekend as coordinated with and approved by the COR The VA will remove/relocate any furniture, Medical or IT equipment from rooms C105, C107 and C204 that is not to be disposed of by the Contractor. The Phase 1 area will be available within 45 calendar days of the NTP date. FOR Phase 2 (14 calendar days) (Demo Rooms C102 and C104): Prior to Phase 2 area being turned over to Contractor the VA will remove/relocate any furniture, Medical or IT equipment from rooms C102 and C104 that is not to be disposed of by the Contractor. The Phase 2 area will be available as soon as Phase 1 is complete.		

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

	FOR Phase 3 (45 calendar Days) (Demo Rooms C114, C115, C116, C117, C118, C119, C120 and C121): Prior to Phase 3 area being turned over to Contractor the VA will remove/relocate any furniture, Medical or IT equipment that is not to be disposed of by the Contractor. The Phase 3 area will be available within 3 work days of Phase 2 being complete. FOR Phase 4 (45 calendar days): All work shall be closely coordinated with the COR to ensure all Phase 4 areas are functional during regular clinic hours. Any medical or IT equipment to be moved by the VA will need to be coordinated with the COR. Contractor will be required to move furniture that is in the way of their work. Room C125B Breakroom shall be available to the Contractor within 3 work days of Phase 3 being complete. Patient Lifts will be installed during Phase 4 unless otherwise approved by the COR.		
44.	8. This project is planned by The VA to be completed in specific phased areas of work and indicated as such on the construction drawings. Some of the work is indicated to be done behind barricades for 3-6 weeks at a time and other areas are not indicated to be done behind barricades which need to be ready for use by staff and patients on all weekdays without interruption. Drawing MH200 and MH801 shows the proposed above ceiling mechanical work in five distinct phases. Mechanical Phase 2, corridors C100A, C100D, C100E, rooms C106, C108, C110, C113, C114, C125 & C125B all show above ceiling mechanical work that will not occur behind barricades. After careful study of this non barricaded mechanical work we have determined that even when broken into small areas that a weekend will not be enough to accomplish this work in the areas listed above. Will The VA allow these listed areas to be barricaded area by area for several days at a time?	Blue Cord	10/08/15
	To be answered in a future Amendment		
45	9. Further to the problem stated above regarding non barricaded mechanical work, HVAC work on one section of duct does not guarantee that it will have the upstream or downstream portions completed to be able to ensure proper HVAC is maintained at all times. Will The VA require temporary HVAC be brought in and retrofitted to the existing ductwork and diffusers to be able to maintain proper HVAC in all areas when specific areas are taken out of service?	Blue Cord	10/08/15
	To be answered in a future Amendment		

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

46	1. The existing Dilution Tank to be removed, will it be empty and free of contaminants not suitable for landfill disposal?	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
47	2. Are we to remove the Dilution Tank only, or will it be necessary to remove the below grade tank housing as well or leave in place?	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
48	3. If tank housing demolition is required, what is the constructed material? Ex., fiberglass, prefabricated concrete, etc.	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
49	4. After removal of the dilution tank and sanitary tie in, we are to backfill, compact and patch concrete to match existing. It appears from the site visit that the access lid is approximately 3'x3' square, is the tank housing below grade the same dimension and what is the overall depth of the tank?	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
50	5. There does not appear to be any information in the project specifications for the existing building slab to be patched back. Ie., concrete strength, concrete reinforcement, concrete additives, slab thickness. Please provide.	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
51	6. Drawing A503, Detail 1 Emergency Exit Plan Sign is not on the sign schedule or indicated on the Life Safety or Architectural drawings. Is this sign required and at what locations? Are there existing Emergency Exit signs to remain, do they requiring new graphic map inserts, and how many?	ARGO, Systems	10/12/15
	To be answered in a future Amendment		
52	7. Amendment 003, File; VA248-15-R-2022-A00003003 Supplemental Proposal Breakout. Upon Review it appears that several of the line items do not apply. It also appears that several items are missing. Will a corrected form be provided?	ARGO, Systems	10/12/15
Reply	No - a corrected form will not be provided – the form provided is a minimum. If you do not think a line item applies, put $0 and if you think another line item is required then add it. You can create your own spreadsheet form. You may add more information.		
53	8. Please indicate site laydown area for office trailer and storage as required.	ARGO, Systems	10/12/15
Reply	Site laydown area will be north of the Viera VA Clinic east of the chiller plant in the grassy area.		
54	9. Under the requirements for SSHO, can this person be the project superintendent?	ARGO, Systems	10/12/15
Reply	For this specific VA project if the superintendent meets the requirements		

Request for Information (RFI) Tracking Log
Solicitation: VA-248-15-R-2022
Project: 675-14-150
Title: Renovate Laboratory and Radiology Department
RFI Tracking Log RFI# 1-58
10/14/2015

	for SSHO and can adequately perform the SSHO duties while performing the Superintendent duties it will be allowed. If the VA determines either the Superintendent duties or the SSHO duties are not adequately being performed the Contractor will need to replace the individual or provide additional qualified personnel to perform the duties.		
55	10. At the site visit it was mentioned that the VA would be responsible for moving furniture and VA equipment out. Please verify.	ARGO, Systems	10/12/15
Reply	The VA will move all medical and IT equipment. If the VA is vacating an area to turn over to the contractor for an entire phase the VA will remove any furniture it does not want disposed of. The Contractor will dispose of any furniture left in the area – usually items attached to the wall. If furniture in an office/area needs to be moved temporarily to allow the contractor to replace finishes the contractor will move the furniture to an adjacent area while that work is done overnight or over a weekend. The Contractor will put the furniture back in place when they are done and before the clinic reopens.		
56	11. For pricing deductive alternates. Are we to provide total project pricing less the deductive alternates? Or a total deductive number of the deductive scope?	ARGO, Systems	10/12/15
Reply	Example Line Item 0001: Base Bid: $500.00 Line Item 0002: Alternate No.1 $100.00 (Your amount for the alternate) Line Item 0003: Alternate No.2 $ 75.00 (Your amount for the alternate)		
57	12. For the Supplemental Proposal Breakout, are we to provide (3) versions of this form? (1) Base Bid, (2) Deductive Alt. 1, (3) Deductive Alt. 2	ARGO, Systems	10/12/15
Reply	Yes. Also see reply to RFI #52		
58	13. What is the deck height from finish floor level?	ARGO, Systems	10/12/15
Reply	See RFI # 14		