	Request for Proposal **Solicitation No. BPM004541** **Communications Cabling Systems**	Arizona Department of Administration State Procurement Office 100 N 15th Avenue Phoenix, AZ 85007

Offer and Acceptance Form

SUBMISSION OF OFFER: Undersigned hereby offers and agrees to provide Communications Cabling Systems in compliance with the Solicitation indicated above and our Offer indicated by the latest dated version below:

Initial Offer:	5/18/2022 Date	Brian Rhynas Signature		
Revised Offers:	Date	Signature	Date	Signature
	Date	Signature	Date	Signature
Best and Final Offer:	9/20/22 Date	Brian Rhynas Signature		

Corporate Technology Solutions LLC
Offeror company name

1971 E 5th St., Ste 111
Address

Tempe, AZ 85281
City | State | ZIP

27-0884582
Federal tax identifier (EIN or SSN)

Brian Rhynas Digitally signed by Brian Rhynas Date: 2022.05.18 08:57:53 -07'00'
Signature of person authorized to sign Offer

Brian Rhynas - President
Printed name and title

Brian Rhynas - President
Contact name and title

brian@ctscabling.com
602-908-3788
Contact Email Address | Contact phone number

CERTIFICATION: By signature in the above, Offeror certifies that it:

1. will not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11246, [Arizona] State Executive Order 2009-9 or A.R.S. § 41 – 1461 through 1465;
2. has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to provide a valid signature affirming the stipulations required by this clause will result in rejection of the Offer. Signing the Offer with a false statement will void the Offer, any resulting contract, and may be subject to legal penalties under law;
3. complies with A.R.S. § 41-3532 when offering electronics or information technology products, services, or maintenance; ad
4. is not debarred from, or otherwise prohibited from participating in any contract awarded by federal, state, or local government.

ACCEPTANCE OF OFFER: State hereby accepts the initial Offer, Revised Offer, or Best and Final Offer identified by the latest date and number at the top of this form (the Accepted Offer). Offeror is now bound (as Contractor) to carry out the Work under the attached Contract, of which the Accepted Offer forms a part. Contractor is cautioned not to commence any billable work or to provide any material or perform any service under the Contract until Contractor receives the applicable Order or written notice to proceed from the Procurement Officer.

State's Contract Number is: CTR062453

Contract Effective Date: 10/2/2022

John R
Procurement Officer Signature

9/30/2022
Award Date

John Red Horse, Sr. Manager - Technology, SPO
Procurement Officer Name | Title

	Request for Proposal **Notice Page**	Arizona Department of Administration State Procurement Office 100 N 15th Avenue Phoenix, AZ 85007

Solicitation Number:	**BPM004541**
Description:	**Communications Cabling Systems**
Solicitation Due Date and Time:	**As indicated in APP**
Pre-Offer Conference:	None
	None

Proposals will only be accepted **online in "The State's e-Procurement System" at https://app.az.gov until the "Bid/Offer Due Date" indicated in "The State's e-Procurement System" for the Solicitation No. shown at the top of this page**. Proposals must be in the State Procurement Office's possession online no later than that deadline.

Submit technical inquiries about navigating and/or submitting proposals in the State's e-Procurement System to the State's e-Procurement System Help Desk by phone at (602) 542-7600, option 2; or by email to app@azdoa.gov

LATE PROPOSALS WILL NOT BE CONSIDERED. No extension or grace period will be given for delays or incomplete proposals caused by internet connectivity problems, file uploading difficulties, or misunderstanding of the requirements or procedures for online submission in "The State's e-Procurement System".

It is the responsibility of the supplier/offeror to routinely check the APP website for Solicitation Amendments. Additional instructions for preparing an Offer are included in this solicitation.

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Solicitation contact person. Requests shall be made as early as possible to allow time to arrange for the accommodation.

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	Solicitation Summary **Request for Proposal** **Solicitation No. BPM004541** **Communications Cabling Systems**	Arizona Department of Administration State Procurement Office 100 N 15th Avenue Phoenix, AZ 85007

1. What the State is Soliciting?

The Arizona Department of Administration, State Procurement Office (the State), as authorized under A.R.S. § 41-2501 is seeking to establish one or more "statewide" contracts to provide furnishing, installation, testing and warranty of Data/Voice/Video Communications Cabling Systems (CCS).

The State anticipates awarding contract(s) with the intent to secure service coverage statewide. Whether or not it actually enters into any contracts, how many contracts it enters into, and how the work is awarded between those contracts are all at the State's discretion. Furthermore, the State will use any awarded contracts on an as-needed basis, with no guarantee as to its actual spending under them.

The State reserves the right to accept any item or combination of items specified in the solicitation, unless the Offeror expressly restricts an item or combination of items in its Proposal, and conditions its response on receiving all items for which it provided a proposal. In the event of such restriction, the State will evaluate if an award on such basis will result with the best value and in the best interest for the State. The State may otherwise determine at its sole discretion that such restriction is non-responsive and deem the Offeror ineligible for further evaluation.

2. What is in the Solicitation?

2.1. At the time of publication, the following documents are included in the Solicitation:

2.1.1. Attachment: BPM004541 Solicitation Requirements

- 2.1.1.1. Notice / Cover Page
- 2.1.1.2. Table of Contents
- 2.1.1.3. Solicitation Summary
- 2.1.1.4. Scope of Work
- 2.1.1.5. Pricing Document
- 2.1.1.6. Special Terms and Conditions
- 2.1.1.7. Uniform Terms and Conditions

2.1.2. BPM004541 Solicitation Instructions

- 2.1.2.1. Special Instructions to Offerors
- 2.1.2.2. Uniform Instructions to Offerors

2.1.3. Solicitation Attachments

- 2.1.3.1. BPM004541 Solicitation Attachment 1 - Offer and Acceptance
- 2.1.3.2. BPM004541 Solicitation Attachment 2 - Boycott of Israel Disclosure
- 2.1.3.3. BPM004541 Solicitation Attachment 3 - Confidential Information Designation
- 2.1.3.4. BPM004541 Solicitation Attachment 4 - Conformance Statements
- 2.1.3.5. BPM004541 Solicitation Attachment 5 - Key Personnel
- 2.1.3.6. BPM004541 Solicitation Attachment 6 - Letter of Insurability
- 2.1.3.7. BPM004541 Solicitation Attachment 8 - Proposed Subcontractors

2.1.3.8. BPM004541 Solicitation Attachment 9 - Experience and Capacity Questionnaire
2.1.3.9. BPM004541 Solicitation Attachment 10 – References
2.1.3.10. BPM004541 Solicitation Attachment 11 - Method of Approach
2.1.3.11. BPM004541 Solicitation Attachment 12 - Pricing Document

2.2. The State may issue a Solicitation Amendment at any time after solicitation publication, and before the proposal due date. It is the responsibility of the supplier/offeror to routinely check the APP website for any Solicitation Amendments and revised documents.

1. Purpose and Background

1.1. The purpose of this solicitation is to develop term contract coverage for the furnishing, installation, testing and warranty of Data/Voice/Video Communications cabling Systems (CCS). The actual requirements will be on an as needed and/or as ordered basis by the user agency. This contract does include new construction and is also intended to cover work on existing structures. All work shall be performed in accordance with the specifications included herein.

This document details the minimum services and practices the Contractor shall provide the State as part of their proposal for the installation of all low voltage cabling including voice, data, video, IoT cabling infrastructure. The requirements in this Scope of Work shall be incorporated in any proposal, contract, Blanket Purchase Agreement or task order to perform infrastructure cabling for the Government of the State as well as members of the State Purchasing Cooperative.

1.2. This solicitation replaces the current ADSPO17 Contracts and is intended to provide all statewide buying organizations with options to purchase a similar grouping of communications cabling elements and installed systems. The specifications for this solicitation have been updated to include current industry standards-based materials, components, and installed assemblies.

1. The resulting Contractor(s) from the solicitation shall provide CCS equipment and services to all units of government within Arizona, including cities, counties, school districts, institutions of higher education and other jurisdictions, and to all non-profit entities, known as Buyers, in accordance with the terms of this agreement. Number and incorporate all related terms and conditions, and acceptance by Contractor. The specifications outlined in this solicitation fully conforms to the State Enterprise Architecture (E/A) as defined by Arizona Strategic Enterprise Technology (ASET). These enterprise-wide architecture requirements can be viewed at URL: https://aset.az.gov/policies-standards-and-procedures.

2. Offerors may submit their proposals for either Materials ONLY or for both Labor and Materials as set out in the Pricing Sheet (see BPM004541 Solicitation Attachment 12 - Pricing Document).

2. Scope of Work

2.1. Contract Allowances and Restrictions (These exceptions would also apply to all installers of low voltage cabling for IT, Fire Control, HVAC unless the vendor also holds a high voltage license. All vendors must conform to installing fire block in all wall, core drill sleeve locations, as well as j-hooks to support cabling every 4'-5' per BICSI standards.)

1. This contract shall <u>allow</u> the following:
   - **Anchor 2 post rack in IDF** – Contractor shall confirm whether building is post tension concrete, and the depth thereof.

- **Installation of fire-rated backboard**
- **Cabling Wall Sleeves –** Light construction. Contractor must be certified and have the required training by the manufacturer of the product. The Arizona Department of Administration - General Services Division ("GSD") may require this be done by an approved General Contractor or Electrical contractor that is certified on the product they are installing.
- **Ground bus bars** - GSD electricians will be required to connect a #6 green ground wire to an approved building ground.

2. This contract **shall not** allow the following:

- **Cabling Wall sleeves (fire walls) -** GSD Electrical vendors must be certified and have the required training by the manufacturer of the product. GSD may require this be done by an approved General Contractor or Electrical contractor that is certified on the product they are installing.

- **Floor core drill** - All Contractors shall sub-contract this out and do not do this themselves as low voltage cable installers.

- **Exterior wall core drill** - All vendors sub-contract this out and do not do this themselves as low voltage cable installers.

- **Roof penetrations** - This work must be done by GSD contractors. A GSD representative is required to be on the walk through, or contacted for walk through. This would be for cabling for Satellite antennas, WAPs, Cell phone repeaters, etc. Cabling vendor will only utilize the new pathway installed by the GSD contractor.

2.2. Codes, Standards and Best Practices

1. All work and materials shall be in full accordance with the latest codes, standards, and best practices. It is the responsibility of the Contractor to have access to them. In the case that any code, standard or best practice has a ratified update or addendum, it shall be incorporated into this scope of work. If multiple codes, standards, and best practices provide different requirements, the strictest requirement shall be followed, as allowed by local code requirements.

2. Standards Referencing. Reference to known standards within these specifications shall mean and intend the latest edition or amendment published prior to date of these specifications, unless specifically specified otherwise, and to such portions of it that relate and apply directly to the material or installation called for on the project.

3. In general, the following codes and standards at a minimum shall be observed, and are incorporated herein by reference:

2.2.3.1. Codes and Regulations. All work specified herein shall be in direct accordance with all Federal, State, and Local Codes and regulations including (but not limited to):

- Applicable Construction Code;
- FCC 47 CFR 68;
- FCC Docket 88-57;
- City/County codes and regulations;
- State of Arizona codes and regulations;
- National Fire Protection Agency (ANSI/NFPA – 70), National Electrical Code (NEC);
- NFPA 101 – Life Safety Code;
- NEC - Article 250 (Grounding);
- NEC - Article 770 (Optical Fiber Cable);
- NEC - Article 800 (Communications circuits);

4. Standards. All work specified herein shall meet or exceed all requirements set forth in the following standards:

- ANSI C.8.47-1977: Polyolefin Insulated Thermoplastic Jacketed Communication Cables;
- ANSI/TIA/EIA – Measurement of Optical Power Loss of Installed Multimode Fiber Cable Plant;
- ANSI/TIA/EIA -310, Racks, Panels, and Associated Equipment;
- ANSI/TIA/EIA -464, PBX Switching Equipment for Voiceband Applications;
- ANSI/TIA/EIA – 526-7 – Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant;
- ANSI/TIA/EIA - 568-B.1, Commercial Building Telecommunications Cabling Standard Part 1: General Requirements;
- ANSI/TIA/EIA - 568-B.2, Commercial Building Telecommunications Cabling Standard Part 2: Balanced Twisted-Pair Cabling Components;
- ANSI/TIA/EIA - 568-B.2-1, Commercial Building Telecommunications Cabling Standard Part 2: Balanced Twisted Pair Cabling Components, Addendum 1 – Transmission Performance Specifications for 4-pair 100 Category 6 Cabling;
- ANSI/TIA/EIA - 568-B.3, Commercial Building Telecommunications Cabling Standard Part 3: Optical Fiber Cabling Components;
- ANSI/TIA-568.3D: Fiber Testing Standard SM & MM
- ANSI/TIA/EIA – 569, Commercial Building Standard for Telecommunications Pathways and Spaces;
- ANSI/TIA/EIA – 570, Residential Telecommunications Cabling Standard;
- ANSI/TIA/EIA – 606, Administration Standard for Telecommunications Infrastructure of Commercial
- ANSI/TIA/EIA–607, Commercial Building Grounding and Bonding Requirements for Telecommunications;
- ANSI/ TIA/EIA – 758, Customer-Owned Outside Plant Telecommunications Cabling Standard;

- ANSI/TIA/EIA - 942, Telecommunications Infrastructure Standard for Data Centers;
- STM - Designations and standard testing specifications;
- ASTM – Fire stopping, ASTM E 814 Fire Tests of Through-Penetration Fire Stops;
- BICSI - Telecommunications Distribution Methods Manual (latest edition);
- BICSI - Cabling Installation Manual (latest edition);
- BICSI – Customer-Owned Outside Plant Design Manual (latest edition);
- EIA/TIA-TSB-36: Technical Systems Bulletin, Additional Cable Specifications for Unshielded Twisted Pair Cables;
- EIA/TIA-TSB-40: Technical Systems Bulletin, Additional Transmission Specifications for UTP Connecting Hardware;
- EIA/TIA-TR-67: Latest Draft Revision; and
- EIA RS-354: Standard Colors for Identification and Coding;
- EIA RS-455: Standard Test Procedures for Fiber Optic Communication Cables;
- GITA Guidance Documents: Enterprise Architecture Domain Documents;
- GITA Guidance Documents: Policies, Standards, and Recommended Practices;
- IEEE - 02.31 Carrier sense Multiple Access with Collision Detection (10/1000/1000Base-T Wiring Plant);
- IEEE - 805.5b/D10 Token Ring Access Method (Token Ring Wiring Plant);
- ISO/IEC 11801 (International) Generic Cabling for Customer Premises Standard (including all the latest amendments and applicable addenda);
- NEMA – 250;
- NEMA TC 9-1983: Smooth Wall Coilable Polyethylene Electrical Plastic Conduit;
- NEMA VE 1-1991: Metallic Cable Tray Systems;
- NETA - Standard testing specifications;
- OSHA - Latest edition with all amendments in effect as of the date of this application;
- PN-3012: Fiber Optic Premises Cable Guide (Latest Draft).
- IEC 61300-3-35: Fiber End Face Cleaning Standard
- UL - All materials furnished, for which Underwriters Laboratories, Inc. standards have been established, shall be listed and bear the UL label or the listing label of an equivalent independent test laboratory:
  - UL 94 V-0 Burn Characteristics;
  - UL 444: Standard for Safety, Communications Cables;
  - UL 497: Standard for Safety, Protectors for Communications Circuits;
  - UL 497A: Standard for Safety, Secondary Protectors for Communications Circuits;
  - UL 4978: Standard for Safety, Protectors for Data Communications and Fire Alarm Circuits;
  - UL 969: Standard for Marking and Labeling Systems;
  - UL 1459: Standard for Safety, Telephone Equipment;
  - UL 1863: Standard for Safety, Communications Circuit Accessories;
  - UL 1479 Fire Tests of Through-Penetration Firestops; and
  - UL Building Materials Directory (Through-Penetration Firestops Systems; and Fill, Void or Cavity Materials).

5. Specifications.
   - Specification - Fire Stop;

- Specificat*i*on - Fiber optic Cabling; and
- Specification - Copper Cabling.

6. Drawings
   - Project Drawing Set; to include as builts with cable run paths and station jack numbering.

1.2.

2.3. SCOPE OF PRODUCTS AND SERVICES

1. General Requirements. This scope of work defines requirements for the Cabling Contractor (hereafter referred to as Contractor) to furnish, fabricate, install, test and a warrant complete, operable data/voice/video communications cabling system (“CCS”).

2. General. The following major CCS elements, implemented per BICSI standards, and adherent to the Arizona Enterprise Architecture, are included in this scope:

   - Complete horizontal data/voice/video wiring closet-to-classroom/office workstation drops (Station Drops);
   - Complete copper risers;
   - Complete fiber optic risers;
   - Wiring Closet Infrastructure;
   - Outside Plant;
   - Determine capability, capacity, and limitations of existing network infrastructure and components
   - Recommend applicable network infrastructure enhancements that improve operational capabilities and efficiency
   - Assist with the definition and assessment of user-level cable and network requirements
   - Provide comprehensive network infrastructure design and support services and create as-built drawings, and geographic information system (“GIS”) attribute data, as need.
   - CCS documentation, as stated here in. Prepare technical design drawings to specifications and provide hard and soft copies. Hard copies will be posted in the IDF/MDFs at the completion of the work.
   - Install, test, and certify cabling and conduit systems associated with classified and unclassified telecommunications and local area networks, i.e., voice, data, video and audio networks
   - Provide, install, and configure support structures and components needed for end-to-end network operations per project specifications in individual task orders—cable trays, equipment racks, cabinets, fire-rated plywood backboards, blocks, patch panels, jacks, outlets, patch cords, labels, tie wraps, d-rings, j-hooks.
   - Install, test, and certify cabling and conduit systems associated with electrical power distribution
   - Provide and maintain configuration files and document network configurations
   - Provide additional related telecommunications networking services and support, and network installation and configuration support
   - Assess, evaluate, and document existing network infrastructure (i.e., telecommunications spaces, cable pathways, grounding, wiring, and components)
   - Recommend enhancements that increase operational efficiency and effectiveness of existing infrastructure

- Design, provide, install, and configure specialized network infrastructures and components—multi- and single-mode fiber optic cable, video distribution systems, card reader systems, and electrical and power production systems
- Furnish rapid response services and support
- Support simultaneous installation efforts at various geographical facilities
- Provide cable and telecommunications equipment installation services and support in asbestos environments that have been abated.
- Provide and install electrical power or power cords or strips needed to support telecommunications and networking devices
- Support special projects and requirements associated with telecommunications networks
- Maintain site records regarding the installations and provide detailed administration of telecommunications/data documentation—record-keeping, drawings, labeling, schematics—data outlet boxes, connectors, cables, termination hardware, patching and cross-connect facilities, conduits, other pathways, telecommunications/data closets and other spaces
- Obtain all trade permits necessary to accomplish the work
- Provide Network integration support
- Perform site surveys
- Design installation packages using Computer Aided Drafting (CAD) system or equivalent software, including geographic information systems
- Design classified and unclassified network infrastructure
- Provide As-Built/Red line drawings in soft and hard copies.
- Provide and maintain all installation design drawing files
- Install data cabling in accordance with Scope pf Work
- Track installation projects from initial planning stages to conclusion of the project
- Coordinate each phase of the installation
- Provide material necessary to perform any minor construction for required installations
- Perform soldering, welding, sheet metal, carpentry, hydraulic and manual conduit bending, and core- drilling functions as part of installation
- Provide test equipment to be kept on-site. Test all cables installed to certify performance
- Design, install and support Category up to 6 UTP and any fiber optic cable system
- Provide qualified Network Integrators

3. Location of Work: Work is located at:

   - Locations throughout the State of AZ. as specified by the Buying Agency on its Purchase Order; and
   - Location of project meetings shall be at the designated location of the Buying Agency.

4. Specific Tasks. Contractor shall perform the following tasks for each assigned project:

   - Provide project specific submittals as stated here in;
   - Mobilize its resources to initiate .and complete specific portions of the CCS within agreed to time periods;

- Provide status of all on-going project activity via generating/updating project Gantt chart and attending weekly meetings; and
- Coordination of activities.

5. Compensation. Contractor charges shall be based on the base-offer and unit pricing presented in its Offer.

- Specific Items Not Included. The following items are specifically not included in this solicitation:
- User-level CPE;
- Mobile wireless systems or services; and
- Leased carrier services.

2.4. Coordination

1. Coordination with System Vendors and Contractors. Contractor shall coordinate, as required, with all related system vendors (including the furniture vendor) and associated contractors. Depending upon the specific system vendors' products, the specific CCS issues can vary, therefore Contractor shall fully coordinate with the System Vendors and Contractors to ensure that all proper CCS is provided and installed.

2. Coordination with Campus Fiber Facilities. Contractor shall coordinate, as required, with Owner's Data Communications Representative regarding all fiber facilities, which make up a part of the building data wiring plant.

3. Coordination of Voice and Data Closets. Contractor shall coordinate with all related trades and Owner's Representative to determine exact locations for the voice, video, and data station drop terminations within the Main Distribution Frame (MDF) and Intermediate Distribution Frame (IDF) closets. In general the voice, video, and data drops specified herein home-run in the following fashion to:
   - Same voice, video, and data (MDF and IDF) closets; and
   - Closets in the same building as the station drop location.

2.5. Project Submittals

1. Shop Drawing Submittal. Contractor shall provide complete shop (installation) drawings and a Bill of Materials (BOM). Shop drawings shall be submitted within 7 days after Notice to Proceed. No site work shall proceed prior to Contractor receiving reviewed Shop Drawings back from Owner.

2. Conflicts in the Specifications/Drawings. Specifications and drawings are complementary. Work items that are required in one shall be binding as if stated in both. In the event that there exist conflicts between the specifications/drawings that are not further delineated during the procurement process, the stricter requirement shall supersede. Contractor shall provide the stricter requirement in all cases as part of its Base-Bid.

3. Level of Detail. The shop drawings shall provide complete documentation of the proposed work, and as a minimum shall include the following:

    - Legend of all schematic symbols, including all system design and component parameters utilized;
    - Complete system schematic diagrams, including reference designators for all components, cable lengths;
    - Installation details shall indicate equipment locations, cable routing, and all other specific location details, including cable pair allocation that are necessary for installation, testing, and maintenance; and
    - Separate drawings (or layers on VISIO files) shall be prepared for voice, video, and data portions of the work.
4. Scope. Shop drawings and manufacturer's data sheets are required for all major components including:

    - Cabling, riser, and station;
    - Punch-down, cross-connect assemblies, and grounding details in the main distribution frame room (MDF) and intermediate distribution frame rooms (IDF);
    - Patch Panels, IDF; and
    - Station jacks in modular and walled offices
5. As-builts. Contractor shall provide complete as-built drawings prepared in the CSI format or equivalent, BOM, and configuration tables for all Work.

6. Backgrounds. Contractor is responsible for obtaining the building drawing backgrounds (VISIO) from Owner's original drawings and utilizing these backgrounds to generate the as-builts for this project.

7. Preliminary Submittal. Two (2) copies of preliminary CCS as-builts shall be submitted for Owner review and approval. This submittal shall be concurrent with the cutover of the CCS to Owner. This drawing set shall reflect actual CCS as-built configuration, including the following:

    - All deviations from original shop drawings, such as quantity and description of items;
    - Position of all cables and terminations, accurately dimensioned or scaled;
    - Labeling scheme and identification of all labels; and
    - Configuration Tables in compliance with all labeling/inventory/record-keeping requirements of EIA/TIA 606 and UL 969, and the Owner configuration requirements.
8. Final Submittals. Final submittal of all as-built drawings, BOM, and Configuration Tables must be received and approved by Owner before the work is considered to be complete,

and prior to any final invoice being paid. Final project construction specifics shall be provided on:

- Reproducible drawings;
- Electronic media:
  - Drawings: compact disk, with "ACAD 2000" or VISIO format; Bills of Materials: compact disk, with "EXCEL" compatible spreadsheet format (This BOM shall be utilized to establish the Schedule of Value for payments); and
  - Configuration Tables: compact disk, or memory key with "EXCEL" compatible spreadsheet format

9. As-Built Drawings. One (1) set of reproducible drawings and "VISIO of CCS as-builts shall be submitted, with Owner-directed changes. The VISIO files shall have all "as- built" information, arranged to conform to Owner's CAD layouts, conduit pathways, and feed cable source/destination shall be included.

10. As-Built Bills of Materials and Configuration Tables. Provide final BOM and configuration tables with "MS Excel" compatible spreadsheet format. Configuration Tables shall comply with all labelling/inventory/record-keeping requirements of EIA/TIA 606 and UL 969. Include the following parameters in the spreadsheet; source/destination end points, and end station equipment identifier.

11. Performance Test Data.

    - Fiber Test Data. Contractor shall deliver test data of optical time domain reflect-a-meter (OTDR) measurements taken on all optical fibers, which are longer than 100 meters, per the solicitation;
    - Copper Test Data. Contractor shall deliver test data of all copper CCS element measurements, per the solicitation.

2.6. FIRE-STOP REQUIREMENTS:

1. General. Local code-approved fire-stop means shall be applied at each interface between floors and between all fire-rated spaces.

2. Cable Tray/Ladder Penetrations. Pillow type firestop material shall be used for cable tray/ladder penetrations.

3. Wall and Floor Penetrations. Putty/sleeve type firestop shall be used for wall and floor penetrations.

4. Inspection Requirements. All necessary shop drawings, showing fire-stop means and materials, shall be developed by Contractor as required by site inspection officials.

2.7. CCS PERFORMANCE CRITERIA

1. Copper Station-Cable. All copper (voice/data/video,IoT) station-cabling shall comply with all physical and functional requirements of their designated EAi/TiA Category Level (e.g., CAT6) and with Cable Specification per the solicitation. Compliance shall be shown in the following parameters:
   - 100% operating pair-count (no non-operational, non-compliant pairs); and
   - Conformity with cable specifications

2. Copper Riser Cable. All copper riser-cable systems shall be in accordance with ANSI/NFPA-70, Article 800

3. Copper Plenum Cable. All cables deployed in plenum spaces shall be in accordance with ANSI/NFPA- 70, Article 800

4. Copper Cross-Connect Wire/Cables. All copper cross-connect wire and cables shall be in accordance with ANSI/NFPA-70, Article800.

2.8. CCS STATION CONNECTIVITY REQUIREMENTS

1. General. All station locations shall be cabled with the specific connectivity as marked on the specific project drawings. All station cables shall home-run to their respective IDF closet. Specific IDF closet locations shall be coordinated between Contractor and Owner. All station connectivity shall be served with separate cables. All stations (unless otherwise identified) shall have the following voice, video, IoT, and data connectivity:

USAGE	PAIRS	TYPE/CAT.	AWG	RJ	COLOR CODE	LABEL
1OT/1OOT/Gigabit - Ethernet	4	UTP/CAT6 or greater	24/28 or current small diameter	45	blue=data	DATA-1 & -2, etc.

2.9. STATION DROP NUMBERING SYSTEM

1. General. All station drops (voice and data) shall be numbered as follows or as directed by the Owner's representative:

   Floor #:

   IDF Locations (North – N, East – E, South – S, West- W) Example: 4S-17F-3 (4th floor South, Jack 17F-3), or 4S-1 (number 1-999) for locations that get reconfigured often, or per cooperative members specification.

2.10. CCS BACKBOARD CABLE PUNCH-DOWN BLOCK COLOR-CODE

1. General. All CCS backboard (MDF & IDF Punch-Block Designator-Color) standard color-codes shall be as follows or as directed by the Owner's representative:
   Blue: Horizontal cables to/from stations, or as designated by specification.

2.11. CCS STANDARD 4-PAIR PIN-OUT SCHEDULE

1. Data Pin-Out Schedule. All data station jacks shall be wired per the EIA/TIA 568B pin-out standard. All eight (8) conductors of each data cable shall be connected at a separate station RJ-45 (8P8C) jack.
2. All eight (8) conductors of each station cable (IDF/MDF end) shall be terminated into patch panels.

2.12. SAFETY AND PROTECTION

1. General. These criteria are included to help ensure that equipment is constructed such that it is not hazardous to users, installers or repair persons.
2. Audible Noise Emission. Equipment noise emission shall not subject user to sound levels greater than those allowed in Occupational Safety and Health Acts (OSHA) regulation. 1910.95, considering exposure time and place of installation. It is desirable that the noise level of the equipment be limited to 50dBA continuously, or 75dBA intermittently (less than a 10 percent duty cycle), at normal distances as measured on the "A" scale of a standard sound level meter at a slow response. In addition, impulse or impact noise shall not exceed 130 dB peak sound pressure level.

2.13. CCS IMPLEMENTATION

1. General.
    - Contractor shall assure that all voice copper station cables will result in a complete and complementary interface with the existing voice switching system, and have cross-connect capability;
    - Contractor shall assure that all data copper work will result in a complete and compliant EIA/TIA 568 Category-6 station cabling system; and
    - Contractor shall assure that all fiber work will result in a complete and complementary fiber cabling system for associated opto-electronic equipment having a 4 dB power budget.

2.14. Safety Issues.

1. Contractor and Owner shall adhere to all applicable health, safety, and environmental laws, rules, and regulations, including the Occupational Safety and Health Administration (OSHA) Rules and Regulations (hereafter referred to as Safety Regulations);
2. Owner does not contemplate nor include as an undertaking of the Contractor, unless specified in writing, work in any area where a hazardous substance is present. Hazardous substance means any substance regulated by any Safety Regulation and includes, but is not limited to, asbestos in either a friable or non- friable condition. Contractor shall cease all operations in any area where the existence of a hazardous substance is encountered, and shall immediately notify Owner in writing;
3. Contractor shall not re-initiate work in or around identified hazardous substance areas prior to receiving written permission from Owner. All safety issues relating to hazardous substances shall be solely administered between Owner and Contractor; and

4. It is solely the Contractor's responsibility to assure that all installation personnel are familiar with safety procedures, identification of hazardous substances, and proper operation of related equipment.

2.15. EXECUTION

1. General. All work described in this section shall be performed in direct accordance with all Occupational Safety and Health Administration (OSHA) regulations and local codes/regulations.
2. Cable Routing. All media shall be routed as follows:
    - Vertical Runs. All riser cables shall run parallel to the riser system;
    - Horizontal Runs. All horizontal bundles of cable shall run parallel or perpendicular to the walls, and main trunks routed down aisle ways and not over cubicles, if possible.

2.16. INSPECTION AND COORDINATION

1. Site Conditions. Examine the areas and conditions under which work of this section will be installed. Verify that work of other trades is sufficiently complete and in the proper condition to receive the work of this section. In the event of discrepancies, immediately notify Owner's Representative. Owner will be responsible for:
    - Providing access to workstation jack locations (i.e., moving existing user materials, storage containers, etc.)
    - Powering-down and logging-out existing user devices from their host equipment prior to new station drops being deployed (Contractor shall. physically de-link user devices)
    - Defining specific areas in each MDF/IDF that are available for mounting Contractor supplied items
    - Providing cross-references for specific workstation connectivity to existing Owner host/network equipment (port numbers, etc.).
2. Site Coordination. Coordinate with Owner personnel, manufacturers, and other contractor personnel as required to assure proper and adequate provisions for the Work.
3. Exact Location of Station Drops. Contractor shall verify locations of all station outlets and related connections prior to installation. Owner reserves the right to make reasonable changes in the locations (up to 10'-0") of station outlets. Such changes shall be made at no additional cost to Owner.

2.17. CCS INSTALLATION

1. General. CCS media shall be installed as indicated on reviewed shop-drawings, and as provided for in this specification, with referenced documents.
2. Accessibility. All components and assemblies, etc., shall be installed so as to be readily accessible for the operation, servicing, maintaining, and repairing of related communication system elements. Items installed in unsuitable locations shall be removed and relocated as directed by the Owner, at no change in contract time or amount. All code-

required clearances shall be maintained with respect to adjacent electrical equipment and housings.

3. Identification of Components. All CCS wiring, interconnect points, cabinets, enclosures, and other apparatus shall be properly and completely identified by means of neatly installed machine-printed identification nameplates. See specification for required color-coding and station numbering schemes.
4. Excess Raceway (Conduit, Etc.) Fill Volume. If situations occur where larger cross-sections of station drop cables are required than the installed raceways will accommodate, then Contractor shall route excess station cable(s) adjacent to existing raceways. Where station cable(s) adjacent to existing raceways cross fire-rated barriers, fire-stop shall be provided at all such fire-rated barriers. Coordinate with the Owner's Representative prior to performing this type of work.
5. Acceptance Spacing. All CCS shall have the following minimum separations (per EIA/TIA 570) from the following types of conductors:

APPLICATION	TYPE OF CONDUCTOR INVOLVED	MINIMUM SEPARATION
Electrical Distribution	Bare (no insulation) power wiring and Service Entrances	5 feet
Electrical Distribution		2inches
Electrical Distribution	Open (no metallic raceway) power wiring, < 300 Vac	1 inch
Electrical Distribution	Power wiring in grounded metallic raceway	1 inch
Radio & TV Signal/Control Wires	Power wiring in grounded metallic conduit Antenna lead and ground wires, without grounded shield	4 inches
	Open high-frequency wiring, not over 300 Vac	1 inch
CATV Cables Telephone Service Drop Signage	Community TV system coaxial cables w/ grounded shield	None
	Aerial or buried	2inches
Lightning System Components		6 inches
	Lightning rods, down conductors, etc	6 feet
60 Hz PowerTransformer	Power wiring in grounded metallic enclosures, < 600 Vac	2 feet

6. Cable Labels and Pathway Markers

2.17.6.1. General Requirements

- Each cable shall be labeled at each end that is terminated in MDF/IDF closet and at the station end of the cable prior to the station jack.
- Labels shall be unique numbers that conform to the CCS labeling system;
- Label construction shall be as specified in Section 5;
- Label information shall be confirmed with Owner prior to labeling of cables; and

- Handwritten labels are not acceptable

7. Riser and OSP Fiber optic Cabling Labeling
   - Contractor shall label each individual fiber 3-inches from the LC/SC/MPO connector with a Panduit #PMDR-0-9 GMM polyester film marker tape (or functional equivalent) as a "flag" designated in numerical sequence starting with fiber-1;
   - Contractor shall furnish and install an Osburn Associates F04002 1-3/4 inch by 3-inch fiber optic caution flag (or functional equivalent) every 4 feet on any innerduct exposed between entrance and equipment rack;
   - Contractor shall label the front of each fiber distribution center with the label furnished with such housing, using Owner's approved scheme; and
   - Labeling within and on Splice Cases. Contractor shall identify all binder groups utilizing color- coded zip ties and labeling the plant pair count for each binder group utilizing flag markers. Contractor shall furnish and install stamped metal band labels on all OSP and riser cables indicating cable size, gauge, and plant pair count. Contractor shall label splice cases using 2-inch letters with machine-produced black typeface on an orange background.
8. OSP Pathway Markers
   - Provide marker tape in designated duct pathway from property line entrance to MPOP location for Telco Provider service.
   - Provide marker tape in designated duct pathways from each building MDF to MPOP

2.18. COPPER PAIR CABLE INSTALLATION

1. Precautions. Contractor shall practice the following precautions throughout the deployment of this work:
   - Cable installation personnel shall be familiar with safety procedures, equipment operation, and the cable manufacturer's installation requirements such as maximum pulling tensions;
   - Cable shall be pulled with a pulling-eye of the type that is recommended by the cable manufacturer, as required
   - Pull-throughs with offsets shall be riffed with two (2) sheaves, as required
2. Racking. Contractor shall practice the following racking related approaches throughout the deployment of this work:
   - In long pull-throughs racking, slack shall be obtained by the use of bending shoes or equivalent to avoid sheath damage
   - Cable shall be secured in a neat and organized manner with plastic tie-wraps
   - Excess cable in splicing cable vaults shall be neatly coiled for storage prior to splicing

- After splicing is completed, splice cases shall be properly secured to racks with plastic tie-wraps

3. Pulling Methods. Pulling methods, and all associated equipment required, shall be consistent with the cable manufacturer's recommendations. The following installation related approaches shall be practiced:
   - Cable pulling-lubricant shall be used as required and shall be acceptable to the cable manufacturer and Owner.
   - The manufacturer's pulling tension limitations shall not be exceeded under any circumstances.
4. Splicing. No copper splicing shall be allowed within the CCS.
5. Copper Data Pair Terminations
   - All pairs shall be terminated on 110-type blocks with proper punch-down tools, by methods prescribed for EIA/TIA 568 Category - performance in:
     EIA/TIA 568;
     EIA/TIA TSB-36;
     EIA/TIA TSB-40; and
     EIA/TIA TR-67 Draft, Latest Revision
   - The designated pair count shall be consistent with binding post assignment;
   - Binding post shall be clearly and accurately labeled with assigned pair identity;
   - All cables shall be dressed in a neat and organized manner and secured to the backboard at the terminal locations, without creating "tightly bound or cinched" cable bundles (per TSB-36/40/67);
   - Cable pairs shall be fanned and terminated in a neat and orderly fashion;
   - Only the minimum amount of sheathing required to obtain access for termination of individual pairs shall be removed (less than 0.5 inches per TSB-36/40/67);
   - Extreme care shall be taken to assure that the "native twist rate" is maintained for all station data UTP wiring pairs at their termination points (note actual twist rate, i.e., twists/inch, will vary for each pair within the EIA/TIA Category-6 or greater station cable); and
   - All data station terminations on 110 blocks shall be made via punch-down tools and methods certified to achieve data grade connections.

2.19. FIBER OPTIC CABLE INSTALLATION

1. Fiber optic Cables. All fibers shall be installed in a 1" innerduct that shall be contained within existing raceways. Two (2) additional 1" innerduct shall be installed in each (inter- and intra-building) 4” conduit used. When existing enclosed raceways are not available, plenum-grade fiber optic cabling and plenum- grade innerduct shall be utilized per ANSI/NFPA 70. Optical fibers shall be installed from stations to IDFs to the MDF as indicated on the Project Drawings.

2. Execution. All work described in this section shall be performed in direct accordance with all Occupational Safety and Health Administration ("OSHA") regulations and local codes/regulations.

3. Routing. Contractor shall route all OSP and riser fiber optic cables to the equipment racks, through the specified wire management elements. All fiber optic cable directional changes shall have a gradual sweep to maintain proper bend radii.

4. Bundling and securing. All fiber optic cables shall be uniformly bundled and secured such cables every nine inches. Contractor shall bundle data, video, IoT, and voice cables independently of each other. Contractor shall furnish and install all requirements for cable dressing.

5. Physical Support and Cable Management. Contractor shall provide physical support and cable management means for all fiber runs and termination points. Particular care shall be exercised to assure that all fiber cables are adequately supported between floors and from floor-sleeves to adjacent patch- panel racks. In all cases the innerduct shall be physically attached to the rack, cabinet, or other physical entity at each end of run of innerduct. Cable ladder should be attached to the backboard in the IDF for vertical runs to secure cable or fiber.

6. Precautions

    - Cable installation personnel shall be familiar with safety procedures, equipment operation, and the cable manufacturer's installation;
    - The specific amount of sheathing recommended by the manufacturer for termination of individual pairs shall be removed;
    - Cable shall be continuous in length throughout the entire project except for predesignated splice points;
    - Cable shall be pulled with a pulling-eye type that is recommended by the cable manufacturer;
    - Contractor shall assure that innerducts are restrained in the appropriate pulling configuration with light- duty ties, and longitudinal restraints shall be provided in both directions to prevent migration of the innerducts;
    - Pull-throughs with severe offsets shall be rigged with two (2) sheaves; and
    - Optical fibers shall be supported periodically along their length (per manufacturer's recommendations) during the installation of long vertical runs.

7. Racking. All racking components and equipment required shall be supplied by the Contractor. The following racking elements shall be adhered to:

    - Since there is a substantial risk of damage to the optical fibers by careless handling during racking, much care must be exercised in this procedure, especially with regard to observing the minimum bending-radius limit;

- Slack for racking shall be pulled by hand. Where necessary, intermediate assistance from the adjacent pull-station shall be provided;
- Cables shall be secured to the proper rack position with plastic cable ties; or Velcro
- Excess cable in splicing-cable boxes shall be neatly coiled for storage;
- Non-terminated cable ends shall be properly sealed to prevent ingress of moisture;
- After splicing is completed, cable coils shall be racked in a safe location; and
- Identification/warning tags shall be securely attached to the cables in a minimum of two (2) locations in each cable box.

8. Cable Preparation. Cable ends shall be prepared in accordance with the manufacturer's recommended methods prior to being pulled into place.

9. Installation

    - Pulling methods and all associated equipment required shall be consistent with the cable manufacturer's recommendations and must be approved by Owner prior to the start of the installation operation;
    - Cable pulling-lubricant shall be used as required and must be acceptable to the cable manufacturer and Owner;
    - Manual intermediate assist may be required on some pulls. The maximum benefit can be obtained when this assistance is applied near the feed-end of the cable, including pushing the cable at the feed point. When pushing the cable, only modest forces may be applied to avoid buckling the cable;
    - The pulling eye/sheath termination hardware on the fiber optic cable shall not be pulled over any sheaves;
    - When power equipment is used to install the cable, low speeds shall be used, not to exceed 30 meters per minute, with gradual hand-assisted starting. It is desirable to pull entire lengths non-stop; and
    - The manufacturer's minimum bending radius and pulling tension limitations shall not be exceeded under any circumstances.

10. Optical-Fiber Splices. Mechanical splices ARE NOT acceptable; fusion splices ARE the ONLY acceptable method of Fiber Splicing:

    - The average splice loss of each fiber shall be 0.2 db or less;
    - Documentation shall be generated to indicate the splice loss of each splice; and
    - Each individual splice shall be secured and protected in a splice organizer, in a neat and organized manner, subject to Owner approval.

11. Optical-Fiber Terminations

    - The average splice loss of each fiber shall be 0.2 db or less;
    - Documentation shall be generated to indicate the termination loss of each termination;

- Patch panels shall be installed at all termination locations to provide functional interface with the multiplexing equipment and as approved by Owner;
- The optical fiber cables shall be terminated in patch panels; and
- The installation of patch panels, mounting of hardware, and the methods employed in doing so, shall be consistent with the recommendations of the manufacturer.

12. Fiber Optic Cable Slack Storage. Contractor shall coil the following minimum lengths of fiber optic cable at each termination point:

- 20-feet in all MDF/IDF fiber optic patch panels; and
- 30-feet coiled in all OSP hand holes, manholes, and cabinets.

2.20. TEST, QUALITY ASSURANCE, AND ACCEPTANCE

1. General. This section defines the provisions for performance testing the copper and fiber optic CCS. These testing provisions shall assure compliance to this document of the completed CCS installation.
2. On-Site Inspection of Work. Owner reserves the right to have its representative make on-site inspections of all work to verify compliance with performance requirements.
3. Performance Testing. Contractor shall provide the necessary personnel and test equipment to test and document the CCS materials and installation quality.

2.21. ALL FIBER OPTIC CABLE ACCEPTANCE TESTING

1. Fiber optic cables less than 25 meters. Power meter testing shall be performed on 100% of the fibers of each cable (less than 100 meters in length) installed by Contactor. Contractor shall perform the following measurement attenuation tests using the Insertion Method. Contractor must first determine a reference measurement to determine the injection power level of the stabilized source. Contractor shall connect the source directly to the optical power level meter using the reference cable and connection. The reference level shall be checked and documented periodically in dB transferred to the remote end by a member of the test crew. The received level at this point will be measured. The measured attenuation shall be obtained by subtracting the reference level from the receive level. Owner may request OTDR testing only in place of Power Meter testing.

2. Power Meter Test Results. Contractor shall furnish attenuation assessments on each fiber less than 100 meters in each cable in both directions, with the following information:

- Date of test;
- Name of test personnel;
- Fiber cable type and part number;
- Cable number;
- Fiber number;
- TX wavelength;
- TX location;

- RX location;
- TX model number and serial number;
- RX model number and serial number;
- Attenuation dB or dBm; and
- Calibration date of all test equipment used must be on report. All test equipment must have a current calibration.

3. Fiber optic cables greater than 100 meters. Contractor shall test (in one direction) each fiber strand in each cable (installed by Contractor), utilizing an OTDR for both distance (in meters) and attenuation (dB/km) at 850 nm and 1300 nm. A launch and tail fiber test cord should be utilized when testing in one direction. The owner may request Bi-directional testing in place of testing only in one direction. The OTDR scope scale shall be such that anomalies of the magnitude of 0.2 dB are readily apparent on the trace. The refractive index will be set and verified in writing as follows:

    - Refractive index 1.4776 at 850 nm
    - Refractive index 1.4719 at 1300 nm

4. OTDR Test Results. Contractor shall furnish "tracer recordings" on each fiber strand greater than 100 meters in each and cable in both directions, with the following information:

    - Date of test;
    - Name of test personnel;
    - Test wavelength;
    - Pulse duration(s) and scale range(s);
    - Index of refraction;
    - Fiber cable type and part number;
    - Cable Number;
    - Fiber number;
    - Fiber tube and/or fiber strand number;
    - Direction of test;
    - Overall distance in meters; and
    - Attenuation in dB or dBm
    - Calibration date of all test equipment used must be on report.

    All test equipment shall have a certificate of calibration from its manufacturer (or certified test laboratory).

5. Post Installation Tests. Contractor shall perform the following tests after placement of all inside and outside plant cable.

6. Fiber Segment OTDR Distance and Attenuation Assessments. Contractor shall test each and every fiber strand utilizing an OTDR for both distance (in meters) and attenuation

(dB/km), prior to splicing. Contractor shall furnish Owner with "tracer recordings" of such tests.

7. Link Loss Calculations. Contractor shall use the length measurements to calculate the loss value for each span or segment, using the pre-installation or factory acceptance test measurement for dB/km.

Example:

Segment Distance = 500 m
Attenuation / unit length = 3.0 dB/km
Calculation = 500 m x 0.0030 dB/m = 1.5 dB
Splice Loss = 0.2 dB/ splice x 2 splices Connector Loss = 0.4 dB
Connector Loss = 0.4 dB/ mate x 2 connectors = 0.8 dB
Segment Link Loss = 2.7 dB

8. Loss Factors. Contractor shall factor in splice loss (0.2 dB) and mated pair loss (0.4 dB) in determining like loss value and shall reflect each individual loss value in the link loss documentation.

9. Final Acceptance test. All installed fibers in all installed links shall be tested at 850 nm and 1300 nm for power attenuation (dB/km), using a stabilized light source and OTDR. These tests shall be performed in compliance with Fotec-Fiber Optic System Testing Guide, Single Cable Testing (one way loss). There shall be a jumper added, where applicable, at each end of the link-under-test in order that the end connectors may be validated. Test results shall be reported in terms of "dB-loss" from the transmitting point, through all the patch panel connectors, where applicable, to the receiving end of the link-under-test. 100% of all fibers in each fiber optic link shall be within test specifications.

10. Unsatisfactory Test Results. If any segment of cable is found to have unsatisfactory test results, that specific cable link shall be replaced with a new link of cable. The replacement cable link shall be tested to demonstrate acceptability.

11. Owner may request in their Statement of Work both Power Meter testing & OTDR per their specification.

2.22. ALL TWISTED PAIR COPPER CCS TESTING

1. Category 6 or greater Cabling System Acceptance Tests. In no event shall the Contractor test by tone. After the cabling is fully installed, Contractor shall perform end-to-end tests (via methods appropriate to the cabling installation) that:

   - Demonstrate complete electrical continuity (no opens);

- Demonstrate that no improper grounds or shorts exist within the copper cable plant;
- Demonstrate proper termination (e.g., no reversed-pairs, no split-pairs, crossed pairs, transposed groups, etc.) and proper labeling to the satisfaction of Owner's Representative; and
- Establish complete operational integrity for an EIA/TIA Category CCS. These tests shall include specific measurements of all factors that are required for certification of cable plant to the Category level of performance.
- Printouts of the test results for all pairs are required for each data cable drop. Acceptable printed output is as generated by the Calibrated Fluke data tester, or equivalent;
- All test results for all pairs of all drops shall be within all parameters specified for Category station drops; and
- Test results shall be provided in both printed form (hard copy) and in soft copy; All reports shall include calibration date of test equipment used

2. Unsatisfactory Test Results. If any segment of cable is found to have unsatisfactory test results, that specific cable link shall be replaced with a new link. The new cable link shall be tested to demonstrate acceptability to EIA/TIA Category requirements. Test results performed by test equipment that is out of calibration will require all cabling to be retested with a calibrated tester.

2.23. PHYSICAL SUPPORT AND CABLE MANAGEMENT

1. General. Contractor shall:

   - Use cable tray for physical support where available;
   - Provide physical support and cable management means for all copper and fiber runs (vertical and horizontal), where not provided by others; and
   - All burrs and sharp edges shall be removed from those portions of the physical support and cable management components that might come into contract with cable.

2. Minimum Bend Radius. No individual cable shall be positioned with an unloaded bend radius of less than 10 times its diameter OR a loaded bend radius of 20 times its diameter:

   - At power pole inlets;
   - Within modular furniture raceways; and
   - Transitions from cable trays and equipment rack(s)

3. Vertical Supports

- Between floors per NEC requirements; and
- At 8’ intervals maximum

4. Horizontal Supports

- MPOP/MDF/IDF to stations via cable hangers, J-hooks, etc. mounted to building structural members; and
- At 4'-5’ intervals maximum

5. Within Telecommunications Closets

- Within MPOP/MDF/IDF via cable tray/ladder, per Fig 17930-1; and
- Between cable tray and equipment rack(s), without stress points, per current TSB - at time of installation

6. Equipment Racks

- General. Each equipment rack must include the furnishing and installation of both horizontal and vertical wire-management systems; unless horizontal wire management is removed to utilize 8” patch cords in a patch panel, switch patch panel rack layout.
- Vertically, on each equipment rack/backboard. Each rack must have minimum of 1 vertical cable management trough, (see section 2 for manufacturers) with the specified height for floor standing racks to accommodate the routing and organization of patch cords and cables between patch panels and network hub equipment. Vertical cable management trough shall extend from the floor to the top of the rack; and
- Horizontally, on each equipment rack/backboard, at maximum intervals of 48 patch-panel ports. Horizontal wire management should be installed above and below every patch panel and every switch, unless horizontal wire management is removed to utilize 8” patch cords in a patch panel, switch patch panel rack layout.
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2.24. CABLE TRAY/LADDER/J-HOOK INSTALLATION

1. General. Where drawings require, cable tray/ladder shall be installed for the purpose of supporting and containing all media cables. Where possible all cable tray/ladders shall be installed at one elevation, and shall allow for easy addition and/or removal of cables.

2. Components. Only standard prefabricated elbows, reducers, crossovers, tees, and elevation change tray sections shall be utilized to construct a continuous cable tray/ladder assembly. Acceptable support members include threaded rods, trapeze, and cantilever brackets

3. Code Compliance. All cable trays/ladders shall be installed per ANSI/IEEE 70 (National Electric Code), as amended by the local jurisdiction.

4. Grounding. All cable tray/ladders shall be grounded to the nearest building steel and/or continuous cold water pipe.
5. Bonding. All cable tray/ladder segments shall be bonded to each adjacent section of cable tray/ladder with #6 green ground wire.
6. Supports. All cable tray/ladder assemblies shall be supported from only "local structural elements" and shall be supported at 8' intervals, maximum.
7. J-Hooks. All cables shall be supported from the point that they exit the cable tray/ladder system until they penetrate into the vertical raceways (e.g., wall-mounted conduits, etc.) with a combination of threaded rod and J-hook style hangers, installed 4 to 5 feet apart. Contractor shall furnish and install J-hook supports where required.

2.25. MDF/IDF BACKBOARD AND RACK ORGANIZATION

1. Equipment Rack, Top to Bottom Sequence
2. Vertical fiber terminations;
3. Copper station cable terminations (patch panels);
4. Networking equipment;
5. Internet working equipment; and
6. Uninterruptible power system
7. Splice Cases. Contractor shall install transition splice cases and lateral/riser cable splice cases for all indoor entrance splices. Contractor shall locate splice cases to minimize their impact on the available backboard space and to accommodate protector swivel stubs. Contractor shall perform straight splices. Contractor shall secure all cables in the splice case(s) and the end plates in accordance with manufacturer's specifications.
8. Electrical Power. Electrical power branch circuits contained within grounded metal conduit are the only acceptable form of electrical power conductors, which can be attached to the backboards or equipment racks.
9. Backboards must be fire-rated and, if painted, at least one fire-rated stamp must be left visible.

2.26. WALL & FLOOR PENETRATIONS, SLEEVES AND CONDUITS

1. Code Compliance. All wall and floor penetrations shall be installed per ANSI/IEEE 70 (National Electric Code}, as amended by the local jurisdiction.

2. Non-Rated Walls and floors. Wherever station cables must penetrate a wall, Contractor shall core a 4-inch hole and fit an EMT conduit sleeve in the opening. The conduit sleeve shall extend a minimum of 5-inches on both sides of the wall. Conduit sleeve shall be fit with a plastic bushing on each end to minimize damage to the cable during the installation process.

3. Rated Walls and floors. Contractor shall fire stop all sleeves and conduits per specification.

4. Grounding. All cable trays/ladders shall be grounded to the nearest building steel or electrical panel to meet all city or State building codes.

2.27. FIRESTOPPING

1. General

1.1 Work Included

- Installation of fire stopping materials at openings and voids in, or at, periphery of fire-rated construction; and
- All poke-throughs and flooring core-drilled holes

1.2 Quality Assurance

- Materials shall meet and be acceptable for use by all three model-building codes: Basic Building Code, Uniform Building Code, Standard Building Code, and applicable local codes; and
- Materials shall meet the requirements of NFPA 101---LIFE Safety Code, and NFPA 70--- National Electric Code.

2.28. PRODUCTS

1. Acceptable Manufacturers: 3M Contractor Products Or equal

2. Fire stopping Materials

3. Fire stopping materials shall constitute one or more of the following products:

4. (3M Brand) Caulk CP-25 N/S No Sag;

5. (3M Brand) Caulk CP-25 S/L Self Leveling;

6. (3M Brand) Warp/Strip FS-195;

7. (3M Brand) Composite Sheet CS-195;

8. (3M Brand) Penetrating Sealing Systems 7900 Series; and
9. Or equal
10. Fire stopping materials shall be asbestos-free and capable of maintaining an effective barrier against flame, smoke, and gases in compliance with the requirements of ASTM E 814, and UL 1479;
11. Materials shall be suitable for the fire stopping of penetrations made by steel, glass, plastic, and insulated pipe;
12. On insulated pipe, the fire-rating classification must not require removal of the insulation; and
13. The rating of the firestops shall be two (2) hours, but in no case less than the rating of the time-rated floor or wall assembly.

2.29. SUMMARY OF WORK

1. GENERALPROJECTREQUIREMENTS
2. Work Included. Work under the Base Bid of the Contract shall include all Building Wiring system (CCS) work requested by AZ State government entities.
3. Work Specifically Not Included. All work associated with the removal of asbestos from all facilities is specifically not included in the scope of this Work. If asbestos is identified at any given site where Work is to be performed, the Owner will contract separately for the complete removal of such asbestos from that site. Owner would in that case coordinate the activities of both the Contractor and Asbestos Removal Contractor.
4. Safety Issues. Contractor and Owner shall adhere to all applicable health, safety, and environmental laws, rules and regulations, including the Occupational Safety and Health Administration (OSHA) Rules and Regulations (hereafter referred to as Safety Regulations). Owner does not contemplate nor include as an undertaking of Contractor, unless specified in writing, work in any area where a hazardous substance is present. Hazardous substance means any substance regulated by and Safety Regulations and includes, but is not limited to, asbestos in either a friable or non-friable condition. Contractor shall cease all operations in any area where the existence of a hazardous substance is encountered and shall immediately notify the Owner in writing. Contractor shall not re- initiate work in or around identified hazardous substance areas prior to written permission from the Owner. All safety issues relating to hazardous substances shall be solely administered between the Owner and Contractor. It is solely the Contractor's responsibility to assure that all installation personnel are familiar with safety procedures, identification of hazardous substances, and proper operation of related equipment.

5.

2.30. DISPOSITION OF UTILITIES

1. Utilities Rules and Regulations. Observe rules and regulations governing the respective utilities in executing all work under this heading.
2. Protection of Active Utilities. Adequately protect active utilities from damage, and remove or relocate only as indicated or specified
3. Change Order:
4. Change Order Procedure. The normal procedure for altering a contract is by change order executed before the work covered by it is done. This change order shall be prepared by Contractor as follows:
5. Request for Change Order Cost Estimate. Owner may request an estimate from the Contractor for adding to or subtracting from the contract an amount for certain alterations to the project.
6. Preparation of Change Order. Contractor shall prepare the change order, itemizing all changes. This shall include a cost breakdown of each item. Change orders shall be supplemented with necessary detailed drawings to fully describe all changes. The Owner's Representative will review and sign all copies of the change order, prior to submitting to the Owner. Six (6) copies of change order shall be submitted.
7. Routing. Owner's Representative shall then forward all copies to Owner, for review and signature and make proper distribution thereof.
8. Authorization. Signature of Owner will be authorization for Contractor to proceed with the changes listed on the change order. Prior to the Owner's signature, no additional work shall be started.
9. Distribution. Distribution of Change Orders:

Owner's Representative	2 Copies
Contractor	1 Copy

2.31. FIELD ORDERS:

1. General. Where at all possible, the aforementioned change order method should be used to alter contracts. There will be occasion, however, when insistence on this procedure would necessitate stopping the work on the job, and it is for this contingency that the limited and controlled use of field orders is provided.

2. No Verbal Commitments. All field orders will be in writing and will be issued before any work covered thereby is executed. No verbal instructions committing Owner to additional cost may be given by anyone.

3. Temporary Pricing. All field orders will state a price, even if it must be an "upset" price subject to later adjustment, which the field orders should so state. Contractor's copy will show this price, and its acceptance of it will be deemed as its acceptance as an "upset" price.

4. Signature Requirements. The field orders will bear the signature of Owner, Owner's Representative, and Contractor.

5. Distribution. Distribution of Field Orders:

6. Owner's Representative 2Copy Contractor 1Copy

7.

2.32. MEETINGS

1. General. During the course of the project construction period, the Contractor shall provide personnel for weekly schedule and coordination meetings. These meetings shall be held at the job-site.

2.

2.33. CONSTRUCTION SCHEDULE:

1. General. Contractor shall, within fourteen (14) calendar days after Owner's notice to Contractor of award and contact, submit for approval a construction schedule, as specified below, to demonstrate Contractor's plan for fulfilling all of the contract requirements in a written outline form.

2. Scope. Information in this schedule shall represent all activities including submittals and procurement necessary to complete this contract.

3. Basis for Progress Payments. Contractor shall assign the cost of work (a sum including allocation for materials, labor, equipment, overhead and profit) to each activity and this cost will be the basis for progress payments.

4. Format. Submit specific narrative statements relating to control and expediting of submittals, fabrication and delivery of specific materials and equipment, and to supplement progress reports and successive revisions of the project schedule. Include a detailed explanation where possible of known, or suspected, operation by others which must be completed or of conditions which must be met or changed prior to specific activity starting or being completed.

5. Minimum Content. The following information shall be provided in the schedule for each of the activities:
6. Activity description;
7. Location designation;
8. Start and finish dates; and
9. Cost and Labor-Hour allocations
10. Coordination. Contractor shall cooperate with the Owner's Representative and other contractors in achieving a master schedule for the entire project.
11.

2.34. OBSERVATION REPORTS:

1. General. During the course of the project, Owner will forward observation reports to Contractor, who shall take appropriate action.

2.35. PROJECT CLOSEOUT

1. SCOPE:
2. Final closeout procedures;
3. Final cleaning;
4. Final post install inspection of Work with Owner;
5. Project record documents;
6. Warranties;
7. Spare parts and maintenance materials;
8. Configuration table;
9. As-Built (Hard copy for IDF 24” x 18” or 24” x 24”);
10. As-Built with cable paths and jack locations; and
11. Passing test results. Test results must have calibration information, equipment manufacturer, model and be a certified report.
12. GENERAL
13. Close-Out Requirements. All requirements and procedures for submittal of pertinent data relating to closing out the project upon completion of the project work.

14.

2.36. FINAL PAYMENT:

1. Prerequisite for Final Payment. Receipt and approval of all items specified in this section is a prerequisite for final payment.

2.37. FINAL CLOSEOUT PROCEDURES:

1. Contractor Certification. Contractor shall submit written certification that the work has been completed in accordance with Project Documents, punch list items have been resolved, Contractor has inspected the work, and the Project is ready for Owner's final inspection.
2. Contractor Submittal Requirements. Contractor shall submit the following items at that time:
3. Warranties;
4. Record Documents (As-builts, configuration table, test results); and
5. Owner signed list, showing receipt of Spare Parts and Maintenance Materials and Agreements 5.37FINAL CLEANING:
6. 5.37.1 General. Perform final cleaning prior to final inspection.

2.38. POST INSTALLTION INSPECTION WITH OWNER:

1. General. Before acceptance and final payment, at a time arrived at with Owner, a post installation inspection complete checkout and test shall be made of all installed devices, etc., with Owner. For this purpose, each trade concerned shall provide a skilled technician for a period of at least one day. All final documentation and test results must be received prior to final payment.

2.39. PROJECT RECORD DOCUMENTS:

1. Site Record Document Set. Maintain on site, one set of the following Record Documents; and record actual revisions to the Work:
2. Contract Drawings;
3. Change Orders and other Modifications to the Contract; and
4. Reviewed shop drawings, product data, and samples
5. Final Record Drawings. Prepare final Record Drawings including Shop Drawings, and legibly mark each item to record actual construction.

6. Submittal. Submit documents to Owner with final Application for Payment.

7. The final 24” x 24” or greater As-built with cable path running lines and station jack numbers must be posted in the MDF/IDFs.

2.40. WARRANTIES:

1. General. Provide copies of all warranties. Execute and assemble warranty documents from Subcontractors, suppliers, and manufacturers.

2. Submittal. Submit at time of final inspection.

3. Delayed Work. For items of Work delayed beyond date of Substantial Completion, provide updated warranty submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

2.41. SPARE PARTS AND MAINTENANCE MATERIALS:

1. General. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.

2. List. Prepare an itemized list containing items required in individual specification sections.

3. Submittal. Deliver items to Owner, have list signed by Owner's Representative and forward signed-list to Owner.

2.42. CLEAN-UP

1. General. This section describes labor, materials, equipment, and services necessary to perform the clean-up of the building and site as specified or indicated. Remove all temporary facilities, scaffolding, etc. Clean all areas of debris and remove them from site.

2.43. CLEANING AND REPAIRS

1. General. The work of each section shall include removing all tools, scaffolding, surplus materials, temporary walks, debris and rubbish from the project promptly upon completion of that portion of work.

2. Scope. All exposed surfaces shall be thoroughly cleaned.

3. Above Ceilings. All construction debris (e.g., wire clippings, connectors, packaging, etc.) shall be removed from the cavities above dropped ceilings.

4. Workstations and Offices. All construction debris (e.g., ceiling tile debris, drill shavings, wire clippings, connectors, packaging, etc.) shall be removed from all office, workstation and closet areas.

5. Contractor Responsibility. Contractor shall be responsible for leaving the area of operations completely clean and free of the above items in a manner suitable to Owner.

6. Frequency of Clean-Up. Clean up daily all refuse, rubbish, scrap materials and debris caused by operations, to the end that at all times the site of work shall present a neat, orderly and professional appearance.

7. Means of Disposal. Provide for the disposal of all waste products, trash, debris, etc., and make all necessary arrangements for such disposal.

8. Removal of Surplus Materials. Remove all surplus materials, temporary structures, and debris of every nature resulting from operations, and put the site in a neat, orderly condition. Owner shall have the first right-of-refusal for all major equipment and materials removed from the site.

2.44. SUPPORT OF GREEN BUILDINGS (GOING GREEN)

1. In order to have the most efficient cooling, cabling must be properly designed, remediated and routed to allow the air to flow in an unobstructed manner. TIA-942 and other complimentary standards around the globe suggest that horizontal and vertical cabling be run accommodating growth so that these areas do not need to.be revisited. There are several reasons for this requirement, including:

2. Eliminating the adverse effects of removing floor tiles and decreasing static pressure under raised floors during MAC work.

3. Assuring that pathways are run in a manner that will allow the flow of cold air in cold aisles to be unobstructed by cabling; and a potential benefit to cooling as the cabling can be installed to provide a baffle of sorts, channeling cool air into cold aisles.

4. In support of the (GOING GREEN) initiative, The State is requesting that contractors include in their response provisions for the removal of abandoned cabling. The Owner shall provide a 4’ x 4’ Gaylord box (or equivalent) from State surplus for any removed abandoned cabling. The removal of the Gaylord box should be scheduled with State surplus.

2.45. BLUE STAKE SERVICES

1. Blue Staking is the act of marking underground facilities such as electric, telephone, cable or other underground facilities so that these networks are not damaged during excavation, trenching or digging activities. It is a state law that all underground facilities must be marked prior to excavation, trenching or other digging. The law is sometimes referred to as the Underground Facilities Law or, simply, the Blue Stake Law. (ARS Chapter 2, Article 6.3, Sections 40-360.21 through 40-360.32.) Suggestion- maybe we need to add if there is any underground work that is being down, the Owner needs to contact companies that are on the State of Arizona Bluestake contract to have marking completed prior to any excavation, trenching or digging activities.

2.46. IN BUILDING CABLING AND INTER-BUILING PRODUCTS

1. LIST OF PRODUCTS AND ANY REQUIREMENTS ASSOCIATED WITH SAID PRODUCTS

    2.46.1.1. Cabling

    2.46.1.2. Fiber

    2.46.1.3. Patch Cords

    2.46.1.4. etc

2. MINIMUM PRODUCT REQUIREMENTS, WARRANTY,CERTIFICATIONS AND STANDARDS

    All proposed products and services shall be certified as meeting the following standards and testing procedures, as applicable:

    2.46.2.1. ADA; ANSI; ASTM; BIFMA; etc.

    2.46.2.2. Other certifications and standards, as applicable.

3. RESPONDING TO A CUSTOMERS QUOTE REQUEST

    2.46.3.1. Site Surveys are required, at no charge, when a customer requests a quote be provided. When the quote is provided to the customer it shall include at a minimum the following:

- Scope of Work.
- Materials.
- Labor.
- Time Line.

- Tax is paid by the Contractor and should be included in the material cost. Per Department of Revenue Prime Contracting Tax law, there is no tax line item permitted on the quote.
- Warranty.

4. INSTALLATION REQUIREMENTS

The Customers require the following detail be provided once a Contractor has been selected to perform an Installation:

2.46.4.1. Installation Plan.

- Scope of Work.
- Key Personnel.
- Responsibilities.
- Time Line:
- Installation Cost.
- Support.
- Post installation inspection
- Final Acceptance.

5. Key Assumptions

- Installer will be manufacturer certified to install and terminate cable.
- Contractor has all necessary tools to accomplish service requests.
- Contractor understands and agrees to late night and/or overnight working hours if needed.

6. Warranties

Every installation shall provide a 25-year warranty on any installed cabling solutions by the product manufacturers. The extended warranty shall include, but is not limited to, product, performance, and application guarantees.

7. COORDINATION

2.46.7.1. Coordination with System Vendors and Contractors. Contractor shall coordinate, as required, with all related system vendors (including the furniture vendor) and associated contractors. Depending upon the specific system vendors' products, the specific CCS issues can vary, therefore Contractor shall fully coordinate with the System Vendors and Contractors to ensure that all proper CCS is provided and installed.

2.46.7.2. Coordination with Telco System. Contractor shall coordinate, as required, with Owner's Telecommunications Representative and related facilities that make up a part of the building voice plant. All voice cables shall be labeled per instructions from the Owner's Telecommunications Representative. All cross-connects shall be coordinated with the Owner's Telecommunications Representative.

2.46.7.3. Coordination with Campus Fiber Facilities. Contractor shall coordinate, as required, with Owner's Data Communications Representative regarding all fiber facilities, which make up a part of the building data wiring plant.

2.46.7.4. Coordination of Voice and Data Closets. Contractor shall coordinate with all related trades and Owner's Representative to determine exact locations for the voice and data station drop terminations within the Main Distribution Frame (MDF) and Intermediate Distribution Frame (IDF) closets. In general the voice and data drops specified herein home-run in the following fashion to:

- Same voice and data (MDF and IDF) closets; and
- Closets in the same building as the station drop location

Exhibit 1 of Scope of Work: Specifications

FIBER AND COPPER
COMMUNICATIONS CABLING ELEMENT

A. CCS PRODUCTS GENERAL

All products shall meet all Standards Code, and Regulation requirements set forth in this specification. All products shall comply with the labeling requirements of EIA/TIA 606 and UL 969

B. RACEWAYS

All raceways and sleeves, except as noted herein, shall be provided by Electrical Contractor per ANSI/IEEE 70 (National Electric Code) as shown on the project Drawings. Contractor shall coordinate with Electrical Contractor.

TABLE 1-1, RACEWAYS

Raceway Location	Raceway Description	Primary Use Cable Type

Building –to-building	4” EMT	Voice, Copper
		Data, Copper
		Data, Fiber
		Video
Lateral-Tie Cables (within a building)	Cable Tray and J-Hooks	Voice, Copper
		Data, Copper
		Data, Fiber
		Video
Riser Cables	4” EMT Sleeves	Voice, Copper
		Data, Copper
		Data, Fiber
		Video
Station Cables	J-Hooks + Mud Rings	GYP. Board Walls
	J-Hooks + Modular Raceways	Modular Walls
Wiring Closet Wall Sleeves/Tray	1-Hour rates assembly	Fire-Rated Walls
	Non-Rated 4” EMT sleeves	Non-Fire-Rated Walls

C. CABLING

Cables. All copper cables shall be per Copper Cable Specifications (as applicable), and the Project Drawings. All voice and data station cable shall bear the UL certification for its respective EIA/TIA Category. All station connectivity shall be provided in separate cables for each type of connectivity required. The following Table shall be utilized by the Buying Agency to define the cabling counts for each specific Purchase Order ("TBD's should be replaced with the specific quantities as required for each Purchase Order).

TABLE 1-2, CABLES

Raceway Location	Primary Use (Cable Type)	Cable Pair Count
Building –to-building	Voice, Copper	N/A
	Data, Copper	
	Data, Fiber	
	Video	
Lateral-Tie Cables (within a building)	Voice, Copper	MDF to each IDF on different floor
	Data, Copper	
	Data, Fiber	
	Video	A/R

Riser Cables, Riser Related	Data, Copper	MDF to each IDF on different floor
	Data, Fiber	
	Video	1-Coax, DF to each IDF on different floor
Station Cables, Plenum Rated		
	Data or voice	Category workstation cables per station drop
	Modular Walls	
	Non-Fire-Rated Walls	

D. VOICE TERMINATION HARDWARE

1. General Termination Requirements

1.1 Complete 11O punch-down assemblies (66 punch-down assemblies if applicable), include designation strip kit (AT&T 110). Colors (GREEN, BLUE) shall be per this specification section; If applicable, complete 66 punch-down assemblies, include designation strip kit {AT&T 66). Colors (GREEN, BLUE) shall be per this specification section;

1.2 Include wire management means (D-rings, brackets, etc.), vertical and horizontal; and

1.3 Comply with all labeling requirements of EIA/TIA 606 and UL 969

E. DATA TERMINATION HARDWARE

1. General Termination Hardware Requirements. All data terminations shall adhere to the following characteristics:

1.1 Equal to or exceed functional requirements of (fully compliant with) EIA/TIA Category-6 or greater, as tested/certified by UL; and

1.2 Equal to or exceed requirements of EIA/TIA-TSB-36/40/67: UTP Connecting Hardware 1Specification, Category.

1.3 Compliance to all labeling requirements of EIA/TIA 606 and UL 969;

1.4 All MDF/IDF terminations shall be included; Wire management means (D-rings, brackets, etc.), vertical and horizontal;

1.5 Pairs shall be consecutively labeled at each end (MDF and IDF).

F. UNIVERSAL WORKSTATION OUTLET

1. General. All station connectivity shall terminate at the station in one (1) universal workstation outlet (“UWO”). UWO color shall match adjacent electrical receptacle cover (or provide color as specified by the owner's Representative). Provide and install blank plastic faceplates (single/double-gang, matching voice/electrical faceplate color) at all station outlets (e.g., mud-rings or J-boxes) not used for data/voice connectivity. All data/voice outlets shall be located per ADA standards. Contractor shall coordinate all ADA issues with the site construction manager.

2. UWO Physical Configurations. UWO's shall be configured for wall mount, modular furniture mount, or floor mount as follows:

2.1 Wall mount UWO:
2.1.1 Single-gang; and
2.1.2 Flush mount.

2.2 Modular furniture mount UWO:
2.2.1 Surface mounts (provide with back-box);
2.2.2 Front access; and
2.2.3 Provide with mounting bracket for specific modular furniture.

2.3 Floor mount UWO:
2.3.1 Single-gang or double gang; and
2.3.2 Flush mount.

3. UWO Manufacturers. The following manufacturers are examples of desired UWO requirements:
3.1 Wall (single-gang flush) mount UWO: Ortronics, AVAYA AMP or equal; and
3.2 Modular furniture (surface mount) UWO: Ortronics, AVAYA AMP or equal

G. PROTECTORS

1. Outside Plant Copper Cabling Primary Surge Protectors. Primary surge protectors shall be provided and installed at each termination (end) of all outside plant copper cabling. These protectors shall meet or exceed the requirements of ANSI/NFPA 70, EIA/TIA 571, and UL 497/497A Primary surge protector maximum let- through voltage shall be less than the maximum allowed for Owner's voice switch and data equipment.
2. Quantity. Quantity of protectors shall be as required to protect each pair of all TELCO/Building-to-Building cable, at each building entry point.
3. Protector Terminal Block. Protector terminal block shall be AVAYA 188B1-100 or equivalent.
4. Plug-In Protectors. Plug-in protectors shall be AVAYA 3C1S, or equivalent.

H. CABLE TIES

1. General. Riser/ Plenum rated cable ties shall be used throughout the Work.
1.1 Velcro® style cable ties shall be used for all MDF/IDF horizontal cable bundling; and
1.2 Manufacturer.· Panduit, 3M or equivalent.

I. "D" RINGS

1. General. "D" rings shall be metal, sized for application with 80% fill max.
1.1 Manufacturer. AVAYA 13"X" series (2',4',6') or equivalent.

J. CABLE BONDING SHIELD

1. General. Cable bonding shields shall be capable of attaching copper cables to local grounding means, as required by ANSI/IEEE 70 (National Electrical Code).
2. Manufacturers. 3M Scotchlock series 4460, or equivalent.
3. Usage. Properly sized cable bonding shields shall be provided and installed at all termination points for all copper:
   3.1 Building-to-building cables;
   3.2 Lateral cables; and
   3.3 Riser cables

K. CABLE LADDERS

1. General. All Cable ladders shall be 1.5" high tubular steel, painted, with cross members on 1O" centers (Maximum). Only factory supplied hardware shall be used.
2. MDF/IDF Cable Ladders. Overhead cable ladders shall be supplied and installed in each MDF/IDF as follows. These ladders shall be installed as a continuous, bonded, grounded plane:
   2.1 Between the plywood backboards and all associated equipment racks;
   2.2 Parallel to, in front of, and above the plywood backboard; and
   2.3 Parallel to, in front of, and above equipment racks
3. Arrangement. All ladders shall be arranged to provide:
   3.1 Continuous cable support from the rack/cabinet mounted equipment to the backboard
   3.2 6" vertical cable-restraining posts at each internal corner of the ladder-system.
4. Configuration. All ladders shall be bonded at each section and grounded at both ends. All ladders shall be grounded per NEC requirements for electrical equipment housings.

L. EQUIPMENT RACKS/CABINENTS

1. MDF Racks. EIA 19" wide, 7" tall, racks shall be supplied and installed in each MDF by Contractor. Each rack shall be grounded per NEC requirements for electrical housings. All racks shall be physically secured via anchoring to the sub-flooring.
2. IDF Racks. 19" wide, 7" tall, racks shall be supplied and installed per Owner reviewed shop drawings that are specific to each IMDF.
3. IDF Cabinets. When space limitations require that a wall mounted cabinet be used rather than racks, provide an install one (1) each equipment cabinet per IDF. Wall mount cabinets must adhere to OSHA clearances.
4. Rack Construction. MDF/IDF racks shall be fabricated from, 6061 aluminum alloy, with EIA/TIA standard 19" drilled and tapped hole pattern, self-supporting.
5. Interior Cabinet Construction. MDF/IDF cabinets shall be sectional, wall mount type, constructed to NEMA 1 standards with baked enamel finish and lockable door. Cabinet shall have standard EIA 19" vertical mounting members (drilled and tapped holes) with a minimum of 15" dept. Height shall be as required for the application, with a minimum of 30". Construction shall allow for venting of heat generated by internal electronic equipment,

knock-outs top and bottom, and a "swing-out" design such that connections at rear of electronic equipment can be accessed. Locks on all cabinets shall have the same key.

6. Exterior Cabinet Construction. Cabinet shall have standard EIA 19" vertical mounting members (drilled and tapped holes) with a minimum of 15" dept. Height shall be as "swing-out" design such that connections at rear of electronic equipment can be accessed. Locks on all cabinets shall have the same key. Cabinets shall be CPI or equivalent w/ fan.

M. EQUIPMENT SHELVES:

MDF/IDF Equipment Shelves. Unit pricing shall be provided for equipment shelves installed.

N. PATCH CORDS

1. General

1.1 Compliance. Compliance to all labeling requirements of EIA/TIA 606 and UL 969

1.2 Certifications. Tested and certified to EIA/TIA Category-6 or greater requirements

1.2 Patch chords shall labeled as follows in 3 lines:

1.2.1 Switch

1.2.2 Port

1.2.3 Jack

e.g. SW-4 PORT-38 19B-3

2. Requirements

2.1 Length: Length of patch cords shall be:

2.1.1 Sufficiently long to provide proper connectivity;

2.1.2 Uniform for each type of application; and

2.1.3 Actual lengths shall be jointly determined by Owner and Contractor.

2.2 Labeled:

2.2.1 Each patch cord shall be labeled at each end (within 3" connector);

2.2.2 Labels shall be unique, consecutive numbers; and

2.2.3 Label construction shall be as specified herein.

2.2.4 8” small diameter patch cords do not require a label, unless Owner requests labeling.

2.3 Functional Characteristics:

2.3.1 Equal to or exceed functional requirements of specific protocol(s) intended for use; and

2.3.2 Equal to or exceed requirements of specification.

2.4 Factory made-up, tested, and certified for EIA/TIA Category.

O. FIBER OPTIC FAN-OUT KITS

1. General. Contractor shall provide fiber-optic cabling fan-out kits at all riser fiber cable terminations.

2. Manufacturers. Acceptable manufacturers are:

2.1 Siecor fan-out kits; and
2.2 Or functional equivalent

P. VERTICAL WIRE MANAGEMENT

1. General. Contractor shall provide vertical wire management on each side of all racks. At minimum (1) vertical wire manager must be installed on every equipment rack and must have a cover.
2. Manufacturers. Acceptable manufacturers are:
   2.1 Ortronics, Panduit; and
   2.2 Or functional equivalent

Q. HORIZONTAL WIRE MANAGEMENT

1. General. Contractor shall provide horizontal wire management above and below every patch panel and switch wire management must have covers on all racks with patch panels. Horizontal wire management is not required for a patch panel, switch, patch panel rack configuration.
2. Manufacturers. Acceptable manufacturers are:
   2.1 Panduit or equivalent; and
   2.2 Or functional equivalent

R. ELECTRICAL POWER TERMINAL STRIPS

1. General. All terminal strips shall be UL listed (1449), with TVSS, thermal overload means, on/off switch, and twelve (12) each (NEMA 5-15 R1) power sockets. All terminal strips shall be firmly attached to their intended mounting surface, and ground referenced to the same grounding point as the associated signal ground reference. TVSS max let-through voltage rating shall be 400 V per UL 1449.
2. Quantity of Power Terminal Strips:
   2.1 MDF 1 ea. Power Strip per rack, mounted at bottom of each rack;
   2.2 IDF 1 ea. Power Strip per rack, mounted at bottom of each rack or cabinet; and
3. Power Cord Length. Power cord(s) shall be sufficiently long to safely reach available power socket and be tie-wrap attached to the rack, cable tray, and backboard, 10-foot minimum.

S. CONDUIT BUSHINGS

1. General. All conduit and sleeve insulating end bushings shall be UL approved.
2. Quantity. Contractor is responsible for inspecting all conduits and sleeves prior to cable pulling and fitting insulating end bushings on all conduits and sleeve ends that are not so equipped.

T. CABLE LABELS

1. General. Permanent, legible, cable labels shall be provided and installed at the CCS cabling points identified within this specification, including each-end of all riser, lateral, station, and patch cables: All cable labels shall comply with the labeling requirements of EIA/TIA 606 and UL 969. Cable labels must be placed on both ends of the installed cabling.
2. Types. Acceptable cable types are:
   2.1 Shrink wrap; and
   2.2 Pre-Approved equivalents.
3. Manufacturers. Acceptable cable label manufacturers are:
   3.1 Panduit, Brady; and
   3.2 3M.

U. FIBER OPTIC CABLING

1. General. All fiber optic cabling shall be per Specification provided by the Owner.
2. Quantity. Fiber optic cabling quantities and lengths shall be as required by the Owner's Representative.

V. FIBER OPTIC CABLING TERMINATION HARDWARE

1. Fiber optic connectors: Connectors shall be SC/LC/MPO type with the following characteristics:
   1.1 Loss. Mated pair loss (without rotational optimization) shall not exceed:
      1.1.1 1.5 dB maximum for multimode cable at 850 nm;
      1.1.2 1.5 dB maximum for multimode cable at 1300 nm;
      1.1.3 0.5 dB maximum for single mode cable at 850 nm; and
      1.1.4 0.5 dB maximum for single mode cable at 1300 nm.
2. Pull Strength. Pull strength between connectors and attached fiber shall be 50 lbs. minimum.
   2.1 Types. Acceptable types are: fused pig-tails w/ factory installed connectors;
3. Manufacturers. Acceptable manufacturers are:
   3.1 AVAYA, AMP;
   3.2 Siecor; or equivalent;
   3.3 Or equivalent.

W. FIBER OPTIC PATCH PANELS

1. General. All fiber optic cables entering each termination room (e.g., MDF, IDFs), shall terminate on fiber optic patch panels and associated hardware shall:
   1.1 Provide and integrated connector panel;
   1.2 Provide a splice shelf for storage of 20 feet of fiber;
   1.3 Accept all major connector types (SC, LC and MPO);
   1.4 Provide a splice cradle that will accept fusion.
   1.5 Allow top and bottom cable entry;
   1.6 Mount on an industry standard EIA 19" rack or wall;

1.7 Provide power and signal grounding capability per the NEC; and

1.8 Be suitable for terminating, interconnecting, splicing and testing

2. Types. Acceptable types are:
2.1 Painted, aluminum; and
2.2 Pre-Approved equivalents

3. Manufacturers. Acceptable manufacturers are:
3.1 Connector or high density cassette-based panel housings;
3.1.1 Panduit, Corning Siecor CPH-072, or equivalent.
3.2 Multimode connector panels;
3.2.1 Panduit, Corning, or equivalent.
3.3 Single mode connector panels;
3.3.1 Panduit, Corning, or equivalent.

X. FIBER OPTIC PATCH CORDS

1. General. Fiber optic patch cord quantities and lengths shall be as required by the Owner's Representative.

Y. POWER POLES

1. General. All power poles shall be UL listed, with a minimum of two (2) shielded cavities that run the entire length of the power poles. Pre-punched knock-outs shall be provided near the bottom of each power pole (per ADA requirements).

2. Types. Acceptable types are:
2.1 Painted, aluminum extrusions; and
2.2 Pre-Approved equivalents.

3. Manufacturers. Acceptable manufacturers are:
3.1 Wiremold Series 30TP2V; and
3.2 Or equivalent.

Z. POKE-THROUGHS

1. General. All poke-throughs shall be UL listed as a minimum of 1-hour fire stop, and have a minimum of one (1) ¾" opening for CCS cable to penetrate through the fire-stopped assembly. Actual fire-stop rating shall be equal to the rating of the floor in which the particular fire-stop is utilized.

2. Types. Acceptable types are:
2.1 All UL listed poke-throughs.

AA. SURFACE-MOUNTED RACEWAYS

1. General. Surface-mounted raceways shall be designed and manufactured specifically for CCS applications and shall be UL listed for that purpose.
2. Types. Acceptable types are:
   - 2.1 Metallic; and
   - 2.2 Non-metallic.
3. Manufacturers. Acceptable manufacturers are:
   - 3.1 Panduit, Type LD;
   - 3.2 Wiremold, Uni-duct series; and
   - 3.3 Or functional equivalent.

AB. SPLICE CASES

1. General. Contractor shall provide splice cases for all indoor entrance splices
2. Manufacturers. Acceptable manufacturers are:
   - 2.1 AT&T, Type 2000FR; and
   - 2.2 Or functional equivalent

AC. CERTIFICATION IN WRITING. All warranties and/or guarantees shall be certified in writing.

1. 15-Year Guarantee

Guarantee that the Category- 6 or greater Cable Plant, which is installed at the OWNER'S FACILITY, has been done in accordance with these specifications, and that the work as installed will fulfill the requirements of those specifications. Agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced by so doing that may prove to be defective in its quality of materials, ordinary wear and unusual abuse or neglect excepted.

2. Warranty

Warranty that the Category- 6 or greater Cable Plant, which is installed at the OWNER'S FACILITY has been done in accordance with all associated manufacturer's requirements such that a valid one year Category- Cable Plant Warranty has been issued by all the associated manufacturers.

AD. FIBER OPTIC GENERAL

1. This specification defines fiber optic cable for inter-building (outside) and intra-building (inside) applications. Actual usage of cable types and quantities of conductors shall be as stated in the Contract Documents and as required for the described physical connectivity requirements.
2. PRODUCTS
   - 2.1 Major Elements. The fiber optic cable shall consist of, but not be limited to, glass-fiber sub-cables, dielectric fillers, strength-member, and protective outer sheathing;
   - 2.2 Type. All cables shall meet ANSI/NFPA-70 requirements and be UL listed for Types OFN or OFNR, as specified by the controlling

document, and as required by the ANSI/NFPA-70 application requirements and local codes for specific application conditions;

2.3 Construction. All fiber optic cables utilized for outside plant applications shall be of the loose tube construction type. All fiber optic cables utilized for inside plant applications shall be of the tight-buffered construction type;

- 2.4 Core Design. Core design shall be loose-tube type, with no more than six (6) fibers per tube, up to 14 tubes. When more than 14 loose tubes are required to meet the fiber-count, there shall be no more than twelve (12) fibers per tube;

2.5 Sub-cables. Single fiber optic sub-cables shall consist of optical fiber(s) surrounded by a synthetic yarn strength-member and a color-coded jacket. Each fiber shall have a uniquely colored jacket;

2.6 Tensile Strength-Member. Fiber optic cables with more than four (4) sub-cables shall be assembled by:

2.6.1 Stranding sub-cables and any fillers around a central, non-buckling, strength-member, or

2.6.2 Support strands surrounding the optical fibers·

Any given sub-cable shall contain either 50/125 (micron) multimode fibers or single-mode fibers, as specified in the Construction Drawings and Specifications, and required to support the specified connectivity level.

2.7 Outer Jacket. Fiber optic cable outer jacket shall be smooth and free from holes, splits, blisters, and other surface flaws. Outer jacket shall be flame retardant; and

2.8 Surface Markings. Fiber optic cable surface markings shall be as required by the NEC for the type of cable, and shall include the cable manufacturer's name. Markings shall be repeated on 18" +/- intervals throughout the length of the cable.

AE. MULTIMODE FIBER OPTIC CABLE FIBERS

1. Core Type. Multimode fiber optic cable fiber-core type shall be graded-index glass.
2. Performance Requirements. Multimode fiber optic cable fibers shall meet or exceed the following parameters after cabling:

2.1 Core Diameter: 50 +/- 3 microns;

2.2 Clad Diameter: 125 +/- 3 microns;

2.3 Numerical Aperture: 0.29;

2.4 Maximum Attenuation per km (-40 to 70 C); and 850 nm 4.0 dB
1300nm 2.5 dB

2.5 Minimum Bandwidth: 850 nm 160 MHz
1300 nm500 MHz

AF. SINGLE-MODE FIBER OPTIC CABLE FIBERS

1. Core Type. Single-mode fiber optic cable fiber-core type shall be graded-index glass.

2. Performance Requirements. Single-mode fiber optic cable fibers shall meet or exceed the following parameters after cabling:

2.1 Mode Field Diameter: 9-11 microns;

2.2 Core-Clad Offset: +/- 1 micron;

2.3 Clad Diameter: 125 +/- 3 microns, individual fiber+/- 0.5 micron;

2.4 Maximum Bandwidth:

1300 nm 1.0 dB

1500 nm 1.0 dB;

2.5 Minimum Bandwidth:

1300 nm 600 MHz; and

2.6 Maximum Pulse Dispersion:

1285 to 1330 nm 3.5 PS/nm-km

1530 to 1570 nm 20 PS/nm-km

AG. OUTSIDE FIBER OPTIC CABLE

1. General. Outside fiber optic cable shall be suitable for outside use between buildings in a campus environment. It shall be suitable for runs in buried conduits and aerial units.

2. Armor Sheath. Laminated non-metallic sheath shall be provided.

3. Temperature Range. Minimum cable temperature ranges shall be as follows:

3.1 Operating Range: -20 to 70 C; and

3.2 Storage Range: -20 to 70 C

4. Minimum Pulling Tensile Strength. Minimum cable tensile strength shall be 2500 newtons (N).

5. Maximum outside Diameter. Maximum cable outside diameter (OD) shall be consistent with its utilization in industry standard innerduct.

6. Minimum Bend Radii. Minimum cable bend radii shall be:

6.1 No Load: 10 times cable OD; and

6.2 Maximum Tension: 20 times cable OD

7. Fiber Identification. Fibers shall be color coded (by fiber) and marked or color-coded by group of fibers.

8. Crush Resistance. Cable crush resistance shall be:

8.1 Tight buffer: 300 N/cm

8.2 Loose Tube: 50 N/cm

9. Cyclic Flex Resistance. Cable shall be capable of 2000 flex cycles per EIARS-455, without optical degradation.

10. Moisture Resistance. Fiber optical and mechanical performance shall not be degraded and the cable shall not be damaged in any way by long-term immersion in ground water.
11. Fungus Resistance. Cable outer jacket shall be fungus inert.
12. Sunlight/UV Resistance. Cable outer jacket shall be suitable for long-term exposure to sunlight and weather, with a life expectancy greater than 20 years.
13. Outside Plant Fiber optic Cable. Outside plant fiber optic cable shall be Corning, General Cable or equivalent. Outside plant fiber optic cable is not required to be "gel filled" for short runs e.g., as between buildings of less than 100 meters where continuous conduit is provided.

AH. INSIDE FIBER OPTIC CABLE

1. General. Inside fiber optic cable shall be suitable for intra-building use, per the NEC. It shall be suitable for runs in metallic conduits, nonmetallic conduits, and innerduct-only runs.
2. Sheath. Polyethlyene or copolymer sheath shall be provided per NEC requirements for the specific application, e.g., plenum or non-plenum grades.
3. Temperature Range. Minimum cable temperature ranges shall be as follows:
   3.1 Operating Range: -20 to 70 C; and
   3.2 Storage Range: -20 to 70 C
4. Minimum Pulling Tensile Strength. Minimum pulling tensile strength shall be 2500 newtons (N).
5. Maximum outside Diameter. Maximum cable outside diameter (OD) shall be consistent with its utilization in industry standard innerduct.
6. Minimum Bend Radii. Minimum cable bend radii shall be:
   6.1 No Load: 10 times cable OD; and
   6.2 Maximum Tension: 20 times cable OD
7. Fiber Identification. Fiber identification shall be by color coding (by fiber) and marked or color coded by group.
8. Crush Resistance. Cable crush resistance shall be:
   8.1 Tight buffer: 300 N/cm
   8.2 Loose Tube: 50 N/cm
9. Cyclic Flex Resistance. Cable shall be capable of 2000 flex cycles per EIA RS-455, without optical degradation.
10. Moisture Resistance. Fiber optical and mechanical performance shall not be degraded and the cable shall not be damaged in any way by long-term immersion in ground water.
11. Fungus Resistance. Cable outer jacket shall be fungus inert.
12. Riser Fiber optic Cable. Riser fiber optic cable shall be Corning, Panduit, General Cable or equal, per ANSI/NFPA-70 Art. 770- 6.
13. Workstation Fiber optic Cable. Workstation fiber optic cable shall be Corning, Panduit, General Cable or equivalent, per ANSI/NFPA-70.

14. Patch-Cable Fiber optic Cable. Patch-cable fiber optic cable shall be Panduit Low Smoke Zero Halogen (LSZH), or equivalent.

AI. PRODUCTS

1. Construction elements. The copper cable shall consist of, but not be limited to, copper conductor and dielectric insulation, with color codes as required. Copper cable shall be suitable for intra-building use, per the ANSI/NFPA-70.
2. Type. All cables shall meet the current National Electrical Code and be UL listed for the Types as required by the ANSE/NFPA-70 per application, location, and service conditions.
3. Outer Jacket. Copper cable outer jacket shall be smooth and free from holes, splits, blisters, and other surface flaws. Sheath shall be provided per ANSI/NFPA-70 requirements for the specific application, e.g., general purpose, riser, or plenum.
4. Surface Markings. Copper cable surface markings shall be as required by the ANSI/NFPA-70 for the type of cable, and shall include the cable manufacturer's name. Markings shall be repeated on the 18" +/- intervals throughout the length of the cable.
5. Moisture Resistance. Electrical and mechanical performance shall not be degraded and the cable shall not be damaged in any way by long-term exposure to 95% RH, with condensation.
6. Fungus Resistance. Cable outer jacket shall be fungus inert.
7. Sunlight/UV Resistance. Cable outer jacket shall be suitable for long-term exposure to sunlight and weather, with a life expectancy greater than 20 years.
8. Temperature Range. Minimum cable temperature ranges shall be as follows:
   8.1 Operating Range: -20 to 70 C; and
   8.2 Storage Range: -20 to 70 C

AJ. RISER COPPER CABLE

1. Ratings. Riser copper cable shall be per BELL DESIGN" ARMM, with:
   1.1 Non-Plenum: UL types CM, or CMR, per ANSI/NFPA-70 Article 800-3(d); and
   1.2 Plenum: UL type CMP, per ANSI/NFPA-70 Article 800-3(d)
2. Characteristics. Riser copper cable shall have the following characteristics:
   2.1 Gauge: 24AWG; or 28AWG
   2.2 Impedance: 100 ohms above 1 MHz, nominal;
   2.3 Attenuation: 0.8 dB/100 ft.; and
3. Unshielded Twisted Pair (UTP) Data Workstation Cabling:
   3.1 Ratings. UTP workstation data cable shall be EIA/TIA TSB-36 Category-6 or greater:
      3.1.1 Non-Plenum: UL types CM or CMR
      3.1.2 Plenum: UL types CMP, per ANSI/NFPA-70 Article 800-3(d)

4. Characteristics. UTP workstation data cable shall have the following characteristics:
   - 4.1 Gauge: 24 AWG, or 28AWG
   - 4.2 DC Resistance (Norn): 20-30 Ohms/1000 ft
   - 4.3 Impedance (Norn): 100 +/- 15 ohms from 1 to 16 MHz
5. Manufacturers. The following manufacturers are acceptable:
   - 5.1 Com Scope, Berk-Tek, Panduit, or Belden or equal
6. Patch-Cable Copper Cable:
   - 6.1 General. All data patch-cables shall utilize twisted pair cabling, with stranded copper conductors, and having an EIA/TIA TSB-36 Category-6 rating, except for impedance, which shall range within the acceptable Category 4 tolerances. Cables shall be inspected specifically for the maintenance of the required level twisting at each connector location. Untwisted (e.g., silver satin) patch cords are expressly not allowed. Unshielded patch-cable copper cables shall be as follows:
     - 6.1.1 Unshielded Data Patch-Cables. Shall be UL types CM or CMR. Conductor size shall be 24 AWG, or 28AWG.
7. Coax Cable. Coax CATV cable shall be RG6NRG11/RG58 (rated to 900 MHz), with:
   - 7.1 Dielectric: PE
   - 7.2 Shielding: 2-inner shields (1-foil, 1-braid) plus 1 outer braid shield
   - 7.3 Jacket: Plenum rated
   - 7.4 Impedance: 75 ohm

AK. SAFETY

1. Safety Issues. Contractor and Owner shall adhere to all applicable health, safety, and environmental laws, rules, and regulations, including the Occupational Safety and Health Administration (OSHA) Rules and Regulations (hereafter referred to as Safety Regulations). Owner does not contemplate nor include as an undertaking of the Contractor, unless specified in writing, work in any area where a hazardous substance is present. Hazardous substance means any substance regulated by any Safety Regulation and includes, but is not limited to, asbestos in either a friable or non-friable condition. Contractor shall cease all operations in any area where the existence of a hazardous substance is encountered, and shall immediately notify Owner in writing. Contractor shall not re-initiate work in or around identified hazardous substance areas prior to receiving written permission from Owner. All safety issues relating to hazardous substances shall be solely administered between Owner and Contractor. It is solely the Contractor's responsibility to assure that all installation personnel are familiar with safety procedures, identification of hazardous substances, and proper operation of related equipment.

1. Deliverables
2. Exhibits

2.1. X

2.2. X

1. Compensation method

Contractor will be compensated based on the final detailed written quote approved by the Customer.

2. Pricing

2.1. Contractor's Best Pricing. Supplier warrants that, for the term of the Contract, the prices and discounts set out in BPM004541 Solicitation Attachment 12 - Pricing Document, including any subsequent agreed amendment to it (the "Contract Pricing"), will be equal to or better than the lowest prices and largest discounts, both separately and in combination, at which Contractor sells equivalent services, items of equipment and materials.

2.1.1. That price-plus-discount equivalence ("Contractor's Best Pricing") is intended to be irrespective of whether or not those other sales have special purchase terms, conditions, rebates or allowances.

2.1.2. If Contractor's Best Pricing for equivalent services, items of equipment and materials is better than the Contract Pricing, then Contractor agrees to adjust the Contract Pricing to match the Contractor's Best Pricing for all sales related to the Contractor made after the date when the Contractor's Best Pricing was first better than the Contract Pricing.

2.1.3. For clarification of intent, that date is intended to be the date when the difference first occurred, which might have been before the difference was first identified. If it was before, then Supplier agrees to charge at less than the Contract Pricing until the extended difference that would have been realized (i.e., if the Contractor's Best Pricing had been applied when it should have been) has been settled.

2.2. Pricing is all-inclusive, including any ancillary fees and costs required to accomplish the Scope of Work and all aspects of Contractor's offer as accepted by State. Details of service not explicitly stated in the Scope of Work or in Contractor's Offer, but necessarily a part of, are deemed to be understood by Contractor and included herein. All administrative, reporting, or other requirements, all overhead costs and profit and any other costs toward the accomplishment of the requirements in the Contract are included in the pricing provided.

2.3. Price Increase. The State may review a fully documented request for a price increase. The requested increase shall be in writing and be based upon a cost increase to the contractor that was clearly unpredictable at the time of the offer and is directly correlated to the price of the product concerned. Contractor must provide conclusive evidence of a need for any

price increases such as being substantiated by the Producer Price Index, Consumer Price Index, or similar pricing guide.

2.3.1. Initial Contract prices will be honored for one year after award of Contract.

2.3.2. All written requests for price adjustments made by the contractor shall be initiated thirty (30) days in advance of any desired price increase to allow the State sufficient time to make a fair and equitable determination to any such requests. This may be waived upon proper documentation demonstrating the urgency of the request.

2.3.3. All price adjustments will be implemented by a formal contract amendment. State shall determine whether the requested price increase or an alternate option is in the best interest of State.

2.4. Price Reductions. Price reductions shall be immediately passed along to State and may be submitted in writing to State for consideration at any time during the Contract period. The contractor shall offer State a price reduction on the Contract product(s) concurrent with a published price reduction made to other customers. The State at its own discretion may accept a price reduction. The price reduction request shall be in writing and include documentation showing the actual reduction of cost. Sales promotions requests shall include difference in pricing, begin, and end date of promotion along with the products covered.

2.5. Additional Charges. Any charges or fees not delineated in the Contract may not be added, billed, or invoiced under the Contract.

2.6. Travel. Contractor shall get written approval prior to any travel under the Contract in which reimbursement of expenses will be requested. Contractor will be reimbursed for actual expenses incurred in accordance with the current rates specified in the State's Travel Policy. Contractor shall itemize all per diem and lodging charges. State Travel Policy, including State rates, may be located at https://gao.az.gov/travel. The Eligible Entity / Customer shall reject any claim for travel reimbursement without prior written approval.

3. Funding

No particular funding considerations apart from paragraph 4.4 Availability of Funds for the Next State fiscal year and 4.5 Availability of Funds for the current State fiscal year of the Uniform Terms and Conditions have been identified as of the Solicitation date.

4. Invoicing

4.1. Invoices Go To Buying Entity. Contractor shall submit all billing notices or invoices to the ordering Eligible Entity/Customer (e.g. Eligible Agency or Co-Op Buyer) at the address indicated on the applicable Order document or by utilizing the Buying Entity’s purchasing tool/process.

4.2. Minimum Invoice Requirements. Every invoice must include the following information:

- 4.2.1. Bill-to name and address
- 4.2.2. Contractor name and contact information
- 4.2.3. Remit-to address
- 4.2.4. Invoice number and date
- 4.2.5. State contract number
- 4.2.6. Order number (APP PO number)
- 4.2.7. Date the services performed
- 4.2.8. Applicable payment terms
- 4.2.9. Material or Service description (Itemized)
- 4.2.10. Quantity delivered or performed
- 4.2.11. Line item unit of measure
- 4.2.12. Item price
- 4.2.13. Extended pricing
- 4.2.14. Taxes (as a separate invoice line item)
- 4.2.15. Mailing fees (if applicable)
- 4.2.16. Total invoice amount due

4.3. No Invoice Without Authorization. Contractor shall not seek payment for any:

4.3.1. Materials or Services that have not been authorized on an acknowledged Order;

4.3.2. Expediting, overtime, premiums, or upcharges absent State's express prior approval; or

4.3.3. Materials or Services that are the subject of a Contract Amendment that has not been fully signed.

4.4. Submitting Invoices. Contractor shall submit an invoice to the ordering Eligible Agency or Co-Op Buyer using the form and/or process provided or required by the order ing Eligible Entity/Customer (Eligible Agency or Co-Op Buyer). Every invoice must be signed by Contractor's authorized representative and accompanied by all supporting information and documentation required by the Contract and applicable laws.

4.5. Defective Invoices. Without prejudice to its other rights under the Contract or further obligation to Contractor, the ordering Eligible Entity/Customer (Eligible Agency or Co-Op Buyer) may, at its discretion, reject any materially defective invoice.

4.5.1. The ordering Authorize Entity/Customer (Eligible Agency or Co-Op Buyer) shall notify the Contractor within 5 (five) business days after receipt if it determines an invoice to be materially defective.

4.5.2. Invoices will be deemed automatically rejected upon delivery if they:

4.5.2.1. are sent to an incorrect address;

4.5.2.2. do not reference the correct State contract or APP Order number; or

4.5.2.3. are payable to any Person other than the Contractor.

4.5.3. The ordering Eligible Entity/Customer (Eligible Agency or Co-Op Buyer) will have no obligation to pay against a defective invoice unless and until Contractor has re-submitted it free of defects.

5. Payments

5.1. Payment. The applicable Eligible Agency or Co-Op Buyer shall pay undisputed amounts due to Contractor within the time period specified in Section 4.0 Costs and Payments of the Uniform Terms and Conditions

5.2. Joint checks or direct pay. Applicable Eligible Agency or Co-Op Buyer may, but is under no obligation to, pay by joint check or to pay directly to any Subcontractor or other creditor to whom any portion of Contractor's requested payment is owed.

5.3. Recovery of overpayment. If applicable, Eligible Agency or Co-Op Buyer determines that an over-payment has been made to Contractor on any prior invoice, it shall inform Contractor of the amount and date of the overpayment and may deduct the overpaid amount from amounts then or thereafter due to Contractor.

5.4. Payment to subcontractors. Contractor shall make payment of all undisputed amounts due to Subcontractors within thirty (30) days of receipt of funds from applicable Eligible Agency or Co-Op Buyer applicable to their services.

5.5. Purchasing card. Applicable Eligible Agency or Co-Op Buyer may pay invoices for some or all Orders using a purchasing card. Any and all fees related to payment using a Purchasing Card are the responsibility of the Contractor. Unless otherwise stated in the Contract there will be no additional fees or increase in prices associated with this method of payment.

5.6. Automated clearing house. Applicable Eligible Agency or Co-Op Buyer may pay invoices for some or all Orders through an Automated Clearing House (ACH). In order to receive payments in this manner from Eligible Agencies, the Contractor must complete an ACH Vendor Authorization Form (form GAO-618) within 30 (thirty) days after the effective date of the Contract. The form is available online at: **https://gao.az.gov/afis/vendor-information**

6. Exhibits to the Pricing Document

See 'BPM004541 Solicitation Attachment 12 - Pricing Document'

The Special Terms and Conditions modify the Uniform Terms and Conditions and its Appendices. It can modify them by replacing, deleting, appending to, or revising the text of an existing provision or by inserting a new paragraph into an existing article. No other document modifies or adds to the Uniform Terms and Conditions, except as may subsequently be otherwise and expressly agreed and incorporated by Contract Amendment.

1. Definition of Terms and Acronyms: As used in the Contract, the terms listed below are defined as follows:

   1.1. Acceptance: The document titled “Offer and Acceptance Form” bearing the State contract number once Procurement Officer has signed it to signify (1) State’s formal acceptance of the Accepted Offer and (2) the formation of the Contract. For clarity of intent, the foregoing is not to be confused with the term “acceptance” used throughout the Contract in the context of delivery, inspection, etc., with respect to Materials or Services.

   1.2. Accepted Offer:

      1.2.1. If State did not request a Revised Offer, then “Accepted Offer” means the Initial Offer.

      1.2.2. If State requested a Revised Offer but not a Best and Final Offer, then “Accepted Offer” means the latest Revised Offer.

      1.2.3. If State requested a Best and Final Offer, then “Accepted Offer” means the Best and Final Offer.

   1.3. Arizona Procurement Code, Arizona Revised Statutes (A.R.S.) and Arizona Administrative Code (A.A.C.) are each defined in the Instructions to Offerors.

   1.4. Arizona Transaction Privilege Tax (TPT): For information, refer to the Arizona Department of Revenue (DOR) website at: https://www.azdor.gov/business/transactionprivilegetax.aspx

   1.5. Attachment. Any item that:

      1.5.1. The Solicitation required Offeror to submit as part of the Offer (e.g., Initial Offer, Revised Offer, or Best and Final Offer);

      1.5.2. Was attached to an Offer when submitted; and

      1.5.3. Was included in the Accepted Offer.

   1.6. Arizona Strategic Enterprise Technology Office (“ASET”). The Arizona Strategic Enterprise Technology (ASET) Office develops and executes the statewide information technology strategy, while also providing capabilities, services, and infrastructure to ensure the continuity of mission-critical and essential systems. In alignment with the strategic missions of state agencies, the goal of ASET is to transform Arizona into a nationwide leader of advanced IT strategies, methodologies, services, and business processes.

1.7. Pricing Document. The Pricing Document Section of the Solicitation Requirements document of the Solicitation Documents, provided that, if there is no such Section in the Contract, then "Pricing Document" is to be construed as referring to whatever item in the Contract contains the contracted pricing and payment provisions.

1.8. Contract Amendment. A document signed by the Procurement Officer that has been issued for the purpose of making changes to the Contract after execution.

1.9. Contract Terms and Conditions. The Special Terms and Conditions and the Uniform Terms and Conditions taken collectively.

1.10. Contractor. The Person identified on the Accepted Offer who has entered into the Contract with the State.

1.11. Contractor Indemnitor. Contractor or any of its owners, officers, directors, agents, employees, or Subcontractors.

1.12. Co-Op Buyer. A member of the State Purchasing Cooperative that has entered into a "Cooperative Purchasing Agreement" with the Arizona Department of Administration State Procurement Office under A.R.S. §41-2632. Unless there is an applicable Cooperative Purchasing Agreement in effect at the time, a State Purchasing Cooperative member cannot be a Co-Op Buyer. For reference, "Co-Op Buyer" is to be construed as encompassing an "eligible procurement unit" under A.A.C. R2-7-101(23).

NOTE: Membership in the State Purchasing Cooperative is open to all Arizona political subdivisions, including cities, counties, school districts, and special districts. Membership is also available to non-profit organizations, other state governments, the federal government and tribal nations. For reference, "non-profit organizations" are defined in A.R.S. § 41-2631(4) as any nonprofit corporation as designated by the IRS under Section 501(c)(3) through 501(c)(6) of the tax code.

1.13. Communications Cabling Systems ("CCS"). All low voltage cabling including voice, data, video, and Internet of Things ("IoT") cabling infrastructure.

1.14. Eligible Agency.

1.14.1. If the Special Terms and Conditions indicate that the Contract is a "single-agency" contract, then "Eligible Agency" means the particular State of Arizona agency, university, commission, or board identified therein.

1.14.2. If the Special Terms and Conditions indicate that the Contract is a "statewide" contract, then "Eligible Agency" means any State of Arizona department, agency, university, commission, or board.

1.14.3. If the Special Terms and Conditions indicate that the Contract is a "statewide" and "cooperative" contract, then "Eligible Agency" means any State of Arizona department, agency, university, commission, board or any Co-Op Buyer.

1.15. Fire Stopping. The application of material, or combination of materials, to retain the integrity of time-rated construction by maintaining an effective barrier against the spread of flame, smoke, and gases. It shall be used in specific locations as follows:

- Duct, cables, Conduit, and piping penetrations through time-rated partitions or firewalls;
- Opening and penetrations in time-rated partitions or firewalls containing fire doors; and
- Locations where specifically shown on the drawings or where specified in other sections

1.16. Intermediate Distribution Frame communications closet ("IDF")

1.17. Indemnified Basic Claims. "Indemnified Basic Claims" means any and all claims, actions, liabilities, damages, losses, or expenses, including court costs, attorneys' fees, costs of claim processing, investigation and litigation for bodily injury or personal injury, including death, or loss or damage to any real or tangible or intangible personal property, collectively.

1.18. Instructions to Offerors. "Instructions to Offerors" means the Solicitation Instructions document of the Solicitation.

1.19. Main Distribution Frame communications closet ("MDF")

1.20. Order. The instrument by which the State authorizes a Contractor to perform some or all of the Work. Whether the Contract will have one Order or many Orders depends on the scope of the Contract and how the State will use it. The Special Terms and Conditions provide that information. Any of the following are construed as being an "Order":

1.20.1. "Release" or "Release Purchase Order: in The State's e-Procurement System;

1.20.2. "task order," "service order," or "job order" when a Release Purchase Order for Services has already been created in The State's e-Procurement System; or

1.20.3. "purchase order" for buying by Co-Op Buyers, if co-op buying applies

1.21. The State's e-Procurement System. The State's official electronic procurement system, established pursuant to A.A.C. R2-7-201 as set forth in the Arizona Department of Administration State Procurement Office policy document Technical Bulletin No. 020, The State's e-Procurement System–The Official State eProcurement System. Technical Bulletin No. 020 is available online at:

https://spo.az.gov/sites/default/files/documents/files/TB_020_APP_20181024.pdf

1.22. State. With respect to the Contract generally, "State" means the State of Arizona and its department, agency, university, commission, or board that has executed the Contract. With respect to administration or rights, remedies, obligations and duties under the Contract for a given Order, "State" means each Eligible Agency or Co-Op Buyer who has issued the Order.

1.23. State Indemnitees. Collectively, the State of Arizona, its departments, agencies, universities, commissions, and boards and, and their respective officers, agents, and employees.

1.24. Subcontractor. A.R.S. §41-2503(38), which, for convenience of reference only, is "… a person who contracts to perform Work or render service to … [C]ontractor or to another [S]ubcontractor as a part of a contract with a state governmental unit . . ." The Contract is to be construed as "a contract with a state governmental unit" for purposes of the definition. For clarity of intent, a Person carrying out any element of the Work is a Subcontractor from the moment they first carry out that element of the Work regardless of whether or not a Subcontract exists then or subsequently.

1.25. Telecommunications carrier or provider ("Telco") or ("Telco Provider")

1.26. Work**.** The totality of the Materials and the Services and all the acts of administration, creation, production, and performance necessary to fulfill and incidental to fulfilling all of Contractor's obligations and duties under the Contract in conformance with the Contract and applicable laws.

2. Contract Interpretations

2.1. Usage. Where the Contract:

2.1.1. assigns obligations to Contractor, any reference to "Contractor" is to be construed to be a reference to the Contractor and all Subcontractors, whether they are first-tier subcontractors, sub-subcontractors, suppliers, sub-suppliers, consultants, or sub-consultants, as well as all of Contractor's and the Subcontractor's respective agents, representatives, and employees in every instance unless the context plainly requires that it is a reference only to Contractor as apart from Subcontractors.

2.1.2. uses the permissive "may" with respect to a party's actions, determinations, etc., the terms is to be interpreted as in A.A.C. R2-7-101(31) [*Definitions*]. For clarity of intent, any right given to State using "State may" or a like construction denotes discretion and freedom to act so far as any regulatory or operative constraints permit in the relevant circumstances, provided that: (a) where written "may, at its discretion," the discretion extends to whatever is most advantageous to State; and (b) where written only as "may," the discretion is constrained by 1. what is fair, reasonable, and as accommodating of the respective best interests of both parties as practicable under the circumstances;

2.1.3. uses the imperative "shall" with respect to a party's actions, duties, etc., the term is to be interpreted as in A.A.C. R2-7-101(43) [*Definitions*]. Conversely, the phrase "shall not" is to be interpreted as an imperative prohibition.

2.1.4. uses the term "must" with respect to a requirement, criterion, etc., the term is to be interpreted as conveying compulsion or strict necessity, and is to be read as though written "*must, if [the subject] is to be entitled to have [the object] considered or credited as being compliant with, conforming to, or satisfying [the requirement, criterion, constraint, etc.], otherwise, [the object] will be considered or debited as being non-compliant, non-conforming, or unsatisfactory for its Contract-related purposes*" in every instance;

2.1.5. uses the term "might" with respect to an event, outcome, action, etc., the term is to be interpreted as conveying contingency or non-discretionary conditionality; and

2.1.6. uses the term "will" or the phrases "is to be" or "are to be" with respect to an event, outcome, action, etc., the term or phrase is to be interpreted as conveying such certainty or imperativeness that "shall" is either unnecessary or irrelevant in that instance.

2.2. Contract Order of Precedence

2.2.1. Complementary Documents. All of the documents forming the Contract are complementary. If certain work, requirements, obligations, or duties are set out only in one but not in another, Contractor shall carry out the Work as though the relevant Work, requirements, obligations, or duties had been fully described in all, consistent with the other documents forming the Contract and as is reasonably inferable from them as being necessary to produce complete results.

2.2.2. Conflicts. In case of any inconsistency, conflict, or ambiguity among the documents forming the Contract and their provisions, they are to prevail in the following order, descending from most dominate to most subordinate, provided that, among categories of documents or provisions having the same rank, the document or provision with the latest date prevails. Information being identified in one document but not in another is not to be considered a conflict or inconsistency.

2.2.2.1. Contract Amendments;

2.2.2.2. The final Solicitation Documents, in the following order:

(1) Special Terms and Conditions;

(2) Exhibits to the Special Terms and Conditions;

(3) Uniform Terms and Conditions;

(4) Scope of Work;

(5) Exhibits to the Scope of Work;

(6) Pricing Document;

(7) Exhibits to the Pricing Document;

(8) Specifications; and

(9) Any other documents referenced or included in the Solicitation;

2.2.2.3. Orders, in reverse chronological order; and

2.2.2.4. Accepted Offer.

2.2.3. Attachments and Exhibits. For clarity of intent, if an item was an Attachment in the Solicitation Documents or an Offer (either Initial, Revised, Best and Final, or Accepted) and was subsequently made into an Exhibit, or its content was incorporated into one of the other Contract documents, then that Attachment no longer exists contractually as an "Attachment" since it has at that point been made into some other Contract document. In every other case, an Attachment and the Offeror data therein remain part of the Accepted Offer for purposes of precedence and contractual effect.

2.3. Independent Contractor. Contractor is an independent contractor and shall act in an independent capacity in performance under the Contract. Neither party is or is to be construed as being the employee or agent of the other party, and no action, inaction, event, or circumstance will be grounds for deeming it to be so.

2.4. Complete Integration. The Contract, including any documents incorporated into the Contract by reference, is intended by the parties as a final and complete expression of their agreement. There are no prior, contemporaneous, or additional agreements, either oral or in writing, pertaining to the Contract.

3. Contract Administration and Operation

3.1. Term of Contract. The term of the Contract will commence on the date indicated on the Acceptance and continue for three (3) years unless cancelled, terminated, or permissibly extended.

3.2. Contract Extensions. State may at its discretion extend the initial Contract term in increments of one or more years and do so one or more times, provided that the maximum aggregate term of the Contract including extensions cannot exceed the maximum aggregate term of five (5) years.

3.3. Any project with estimated requirements greater than or equal to $10,000.00 must make a best effort to obtain a minimum of three quotations from Contractors awarded through this Solicitation.

3.4. Notices and Correspondence

3.4.1. To Contractor. State shall address all Contract correspondence other than formal notices to the email address indicated as “Default for Type” for “General Mailing Address” in Contractor’s corresponding State’s e-Procurement System Vendor Profile; and address any required notices to Contractor to the “Contact Name and Title” at the “Mailing Address” indicated on the Accepted Offer, as that address might have been amended during the term of the Contract.

3.4.2. To State. Contractor shall address all Contract correspondence other than format notices to the email address indicated in “Contact Instructions” in the The State’s e-Procurement System Summary for State; and address any required notices to State to the Procurement Officer identified as “Purchaser” in the State’s e-Procurement System Summary at the following mailing address:

Arizona Department of Administration
State Procurement Office
100 N 15th Avenue
Phoenix, AZ 85007

3.4.3. Changes. State may change the designated Procurement Officer, update contact information, or change the applicable mailing address.

3.5. Signing of Contract Amendments. Contractor’s counter-signature – or “approval” in The State’s e-Procurement System, in the case of an amendment, – is not required to give effect if the Contract Amendment only covers either:

3.5.1. extension of the term of the Contract within the maximum aggregate term;

3.5.2. revision to Procurement Officer appointment or contact information; or

3.5.3. modifications of a clerical nature that have no effect on terms, conditions, price, scope, or other material aspect of the Contract.

In every case other than those listed in *(1)*, *(2)*, and *(3)* above, both parties’ signatures – or “approval” in The State’s e-Procurement System, in the case of an Amendment – are required to give it effect.

3.6. Click Through Terms and Conditions If either party uses a web-based ordering system, an electronic purchase order system, an electronic order acknowledgement, a form of an electronic acceptance, or any software based ordering system with respect to the Contract

(each an "Electronic Ordering System"), the parties acknowledge and agree that an Electronic Ordering System is for ease of administration only, and Contractor is hereby given notice that the persons using Electronic Ordering Systems on behalf of State do not have any actual or apparent authority to create legally binding obligations that vary from the terms and conditions of the Contract. Accordingly, where an authorized State user is required to "click through" or otherwise accept or be made subject to any terms and conditions in using an Electronic Ordering Systems, any such terms and conditions are deemed void upon presentation. Additionally, where an authorized State user is required to accept or be made subject to any terms and conditions in accessing or employing any Materials or Services, those terms and conditions will also be void.

3.7. Books and Records

3.7.1. Retain Records. By A.R.S. §41-2548(B), Contractor shall retain and shall contractually require each Subcontractor to retain books and records relating to any cost and pricing data submitted in satisfaction of § 41-2543 for the period specified in the statute

3.7.2. Right To Audit. The retained books and records are subject to audit by State during that period. By A.R.S. §41-2548(B), Contractor shall retain and shall contractually require each Subcontractor to retain books and records relating to performance under the Contract for the period specified in the statute and those retained books and records are subject to audit by State during that period.

3.7.3. Auditing. Contractor or Subcontractor shall either make all such books and records under subparagraphs 3.6.1 and 3.6.2 available to State at all reasonable times or produce the records at a designated State office on State's demand, the choice of which being at State's discretion. For the purpose of this paragraph, "reasonable times" are during normal business hours and in such a manner so as to not unreasonably interfere with normal business activities.

3.8. Contractor Licenses. Contractor shall maintain current federal, state and local licenses and permits required for the operation of its business in general, for its operations under the Contract, and for the Work itself.

3.9. Inspection and Testing. By A.R.S. §41-2547, State may at reasonable times inspect the part of Contractors' or Subcontractors' plant or places of business related to performance under the Contract. Accordingly, Contractor agrees to permit (for itself) and ensure (for Subcontractors) access for inspection at any reasonable time to its facilities, processes, and services. State may inspect or test, at its own cost, any finished goods, work-in-progress, components, or unfinished materials that are to be supplied under the Contract or that will be incorporated into something to be supplied under the Contract. If the inspection or testing shows non-conformance or defects, then Contractor will owe State reimbursement or payment of all costs it incurred in carrying out or contracting for the inspection and testing,

as well as for any reinspection or retesting that might be necessary. Neither inspection of facilities nor testing of goods, work, components, or unfinished materials will of itself constitute acceptance by State of those things.

3.10. Ownership of Intellectual Property

3.10.1. Rights In Work Product. All intellectual property originated or prepared by Contractor pursuant to the Contract, including but not limited to, inventions, discoveries, intellectual copyrights, trademarks, trade names, trade secrets, technical communications, records reports, computer programs and other documentation or improvements thereto, including Contractor's administrative communications and records relating to the Contract, are considered work product and Contractor's property, provided that, State has Government Purpose Rights to that work product as and when it was delivered to State.

3.10.1.1. "Government Purpose Rights" are:

3.10.1.1.1. the unlimited, perpetual, irrevocable, royalty free, non-exclusive, worldwide right to use, modify, reproduce, release, perform, display, sublicense, disclose and create derivatives from that work product without restriction for any activity in which State is a party;

3.10.1.1.2. the right to release or disclose that work product to third parties for any State government purpose; and

3.10.1.1.3. the right to authorize those to whom it rightfully releases or discloses that work product to use, modify, release, create derivative works from the work product for any State government purpose; such recipients being understood to include the federal government, the governments of other states, and various local governments.

3.10.1.2. "Government Purpose Rights" do not include any right to use, modify, reproduce, perform, release, display, create derivative works from, or disclose that work product for any commercial purpose or to authorize others to do so.

3.10.2. Joint Developments. The parties may each use equally any ideas, concepts, know-how, or techniques developed jointly during the course of the Contract, and may do so at their respective discretion, without obligation of notice or accounting to the other party.

3.10.3. Pre-existing Material. All pre-existing software and other materials developed or otherwise obtained by or for Contractor or its affiliates independently of the Contract

or applicable Purchase Orders are not part of the work product to which rights are granted State under subparagraph 3.9.1 above, and will remain the exclusive property of Contractor, provided that:

3.10.3.1. any derivative works of such pre-existing material or elements thereof that are created pursuant to the Contract are part of that work product;

3.10.3.2. any elements of derivative work of such pre-existing material that was not created pursuant to the Contract are not part of that work product; and

3.10.3.3. except as expressly stated otherwise, nothing in the Contract is to be construed to interfere or diminish Contractor's or its affiliates' ownership of such pre-existing materials.

3.10.4. Developments Outside Of Contract. Unless expressly stated otherwise in the Contract, does not preclude Contractor from developing competing materials outside the Contract, irrespective of any similarity to materials delivered or to be delivered to State hereunder.

3.11. Subcontract

3.11.1. Initial list. At the time of Contract execution, Contractor's candidate Subcontractors were identified in Attachment Proposed Subcontractors to the Accepted Offer [Proposed Subcontractors]. Agreeing to them being included in the Accepted Offer signified Procurement Officer's advance consent for Contractor to enter into a Subcontract with each candidate, which Contractor shall do as promptly as necessary to ensure its ability to carry out the Work in a timely manner.

3.11.2. Additional names. Contractor shall not enter into a Subcontract without first obtaining Procurement Officer's written consent with any prospective Subcontractor that (a) was not listed on the Attachment Proposed Subcontractors at time of Contract execution or (b) is for any Materials or Services categories other than the ones for which they were previously consented. For either case (a) or (b), Contractor shall submit a written request sufficiently in advance of the need date for those materials or services so that performance under the Contract is not impaired. Procurement Officer may request any additional information he or she determines is necessary to assess the submittal, and may withhold consent pending it.

3.11.3. Flow-down. Contractor shall incorporate the provisions, terms, and conditions of the Contract into every Subcontract by inclusion or by reference, as appropriate. When making any post-execution consent requests, Contractor shall include its warrant that it will do the same for the pending Subcontracts covered by the request. Entering into Subcontracts will not relieve Contractor of any of its obligations or

duties under the Contract, including, among other things, the duty to supervise and coordinate the work of Subcontractors. Nothing contained in any Subcontract will create or is to be construed as creating any contractual relationship between State and the Subcontractor.

3.12. Orders

3.12.1. Order Sufficiency. The Contract was awarded in accordance with the Arizona Procurement Code; the transactions and procedures required by the code for competitive source selection have been met. An Order issued that cites the correct State contract number will suffice to authorize the Contractor to provide the Materials and perform the Services covered by that Order.

3.12.2. Order Terms. All Orders are subject to the Contract Terms and Conditions; an Order cannot modify the Contract Terms and Conditions.

3.12.3. Orders Are Obligatory. Until the expiration or earlier termination of the Contract, State may issue and Contractor shall accept Orders that make proper reference to the Contract and are permissible hereunder, provided that, Contractor is not obliged to accept any Order that is not consistent with the then-current pricing, lead times, specifications, or payment provisions of the Contract. Contractor shall fulfill and complete any Orders that are begun but not yet completed as of expiration or earlier termination of the Contract unless State instructs otherwise at the time.

3.12.4. Special Case. In the special case where both the following conditions are true, Procurement Officer's signature on the Acceptance is Contractor's authorization to perform and therefore no Order is required: (a) the Contract is identified as being a "single-agency/single-project" contract and (b) the Contract was created in The State's e-Procurement System as something other than a "Master/ Blanket" type.

3.12.5. No Minimums Or Commitments. (a) Contractor shall not impose any minimum dollar amount, item count, services volume, or services duration on Orders; (b) State makes no commitment of any kind concerning the quantity or monetary value of activity actually initiated or completed during the term of the Contract; (c) Contractor shall only deliver or perform as authorized by Orders; and (d) State is not limited as to the number of Orders it may issue for the Contract. For clarity of intent, the foregoing applies equally whether an Eligible Agency issues the Order or, if applicable, a Co-Op Buyer issues it.

3.12.6. Non-contracted Materials Or Services. Any attempt to knowingly represent for sales, marketing, or related purposes that goods or services not specifically awarded are under a State contract is a violation of the Contract and law.

3.13. Statewide Contract Provisions

The Contract is a "statewide" contract for multiple purchases, projects, or assignments, and can be purchased against by some or all Eligible Agencies and any Co-Op Buyers that elect to participate. Even if only one Eligible Agency needs or elects to purchase against the Contract, it is to be construed as being a "statewide" contract hereunder.

The Contract is an indefinite delivery, indefinite quantity (ID/IQ) type of contract; it is to be construed as a "delivery order" sub-type of ID/IQ contract to the extent the Work is Materials, and a "task order" sub-type to the extent the Work is Services.

3.13.1. Contractor shall verify if an ordering entity is a bona fide Co-Op Buyer before selling Materials to or providing Services for them under the Contract. The current list of Co-Op Buyers is available on the State Procurement Office website:

https://spo.az.gov/programs/cooperative

3.13.2. Contractor shall sell to Co-Op Buyers at the same price and on the same lead times and other terms and conditions under which it sells to Eligible Agencies, with the sole exception of any legitimately additional costs for extraordinary shipping or delivery requirements if the Co-Op Buyer is having Materials delivered or installed or Services performed at locations not contemplated in the contracted pricing (e.g. delivery to a location outside Arizona).

3.13.3. Contractor shall pay State an administrative fee against all Contract sales to Co-Op Buyers, as provided for under A.R.S. § 41-2633. The fee rate is one (1%) percent. Failure to remit the administrative fees is a material breach of contract, and will entitle the State to its remedies under Article 8 and its right to terminate for default under Article 9. Method of calculation, payment procedures, and other details are provided on the State Procurement Office website:

https://spo.az.gov/suppliers/usage-reporting

3.13.4. Contractor shall submit to State a quarterly usage report documenting all Contract sales to both Eligible Agencies and Co-Op Buyers, itemized separately. Contractor shall further itemize divisions, groups or areas within a given Eligible Agency if they place Orders independently of each other. Failure to submit the report is a material breach of contract, and will entitle the State to its remedies under Article 8 and its right to terminate for default under Article 9. Contractor shall submit the report using the forms and following the instructions on the State Procurement Office website:

https://spo.az.gov/suppliers/usage-reporting

3.13.5. Contractor shall acknowledge each Order from Eligible Agencies within 1 (one) business day after receipt by either: (a) "approving" the Order electronically in The State's e-Procurement System, which will indicate Contractor's unqualified

acceptance of the Order as-issued; or (b) "rejecting" the Order electronically in The State's e-Procurement System, with a concurrent explanation by email to relevant originator as to the reason for rejecting it. By way of reminder, the only grounds on which the Contractor may reject or refuse an Order are those set out in subparagraph 3.11.3 [*Orders are Obligatory*]. Unless and until Contractor has approved the Order in The State's e-Procurement System, it will have no effect under the Contract and will not oblige either State or Contractor. If the relevant Eligible Agency explicitly instructs at the time that a verbal acceptance is sufficient because of urgency or other unusual circumstances and Contractor duly gives its verbal acceptance, then Contractor will be deemed to have accepted the Order immediately upon commencing performance, provided that, Contractor must follow-up its verbal acceptance by accepting the Purchase Order electronically in The State's e-Procurement System within 3 (three) business days. Contractor shall thereafter be barred from subsequently rejecting the Order in The State's e-Procurement System and if it does so the rejection will be void.

3.13.6. Contractor shall acknowledge each Order from Co-Op Buyers in conformance with each buyer's instructions given at the time of ordering or in any supplemental participating agreement Contractor might have with them. Orders from Co-Op Buyers create no obligation on State's part, since they are entirely between the Co-Op Buyer and Contractor. That notwithstanding, Contractor's obligation under the Contract is to service Co-Op Buyers commercially as though they were with an Eligible Agency, and Contractor's refusal to do so would be a material breach of the Contract.

3.14. Multiple-Use Provisions. Eligible Agencies may issue Orders for Services in several forms, all of which become final and effective by a "Release Purchase Order" in The State's e-Procurement System. Orders issued by Co-Op Buyers will be in whatever form the Co-Op Buyer normally uses. Regardless of origin, Orders must cite the State contract number to be valid. State may, at its discretion in each instance, determine the scope, schedule, and price for each Order in any of the following ways:

3.14.1. By choosing some or all of the Materials or Services items covered by the Contract for which a price is established in the Pricing Document, then preparing an Order using those prices (e.g., filling out an order form), and sending it to the Contractor.

3.14.2. By instructing Contractor to provide a comprehensive proposal of item quantities, combinations, etc., or services hours, personnel, etc., for a defined scope using those established prices as a basis, then validating and negotiating the proposal with Contractor and issuing an Order if and when reaching agreement.

3.14.3. As described in (2) above but requesting the proposal from both Contractor and other vendors who are contracted within the applicable scope categories and locations, either sequentially or concurrently, then selecting the proposal or proposals combination that is most advantageous to State.

3.14.4. As described in (3) above but introducing ad-hoc commercial competition by making the selection and ordering conditional on obtaining more favorable prices than the contractually-established ones.

3.15. Other Contractors. State may undertake with its own forces or award other contracts to the same or other vendors for additional or related work. In such cases, Contractor shall cooperate fully with State's employees and such other vendors and carefully coordinate, fit, connect, accommodate, adjust, or sequence its work to the related work by others. Where the Contract requires handing-off Contractor's work to others, Contractor shall cooperate as State instructs regarding the necessary transfer of its work product, services, or records to State or the other vendors. Contractor shall not commit or permit any act that interferes with the State's or other vendors' performance of their work, provided that, State shall enforce the foregoing section equitably among all its vendors so as not to impose an unreasonable burden on any one of them.

3.16. Work on State Premises

3.16.1. Compliance With Rules. Contractor is responsible for ensuring that its personnel comply with State's rules, regulations, policies, documented practices, and documented operating procedures while delivering or installing Materials or performing Services on State's grounds or in its facilities. For clarity of intent, the foregoing means that if Contractor is required to comply with certain security requirements in order to deliver, install, or perform at that particular location, then it shall do so nonetheless and without entitlement to any additional compensation or additional time for performance if those particular requirements are not expressly stated in the Contract. Contractor is reminded that violation of the prohibition under A.R.S. § 13-1502 against possession of weapons on State's property by anyone for whom Contractor is responsible is a material breach of contract and grounds for termination for default.

3.16.2. Protection Of Grounds And Facilities. Contractor shall deliver or install the Materials and perform the Services without damaging any State grounds or facilities. Contractor shall repair or replace any damage it does cause promptly and at its own expense, subject to whatever instructions and restrictions State needs to make to prevent inconvenience or disruption of operations. If Contractor fails to make the necessary repairs or replacements in a timely manner, State will be entitled to exercise its remedies under paragraph 8.5 of the Uniform Terms and Conditions [Right of Offset].

4. Costs and Payments

4.1. Payments

4.1.1. Payment Deadline. State shall make payments in compliance with Arizona Revised Statutes Titles 35 and 41. Unless and then only to the extent expressly stated

otherwise in the Pricing Document, State shall make payment in full for Materials that have been delivered and accepted and Services that have been performed and accepted within the time specified in A.R.S. § 35-342 after both of the following become true: (a) all of the Materials being invoiced have been delivered or installed (as applicable) and accepted and all of the Services being invoiced have been performed and accepted; and (b) Contractor has provided a complete and accurate invoice in the form and manner called for in the Pricing Document, provided that, State will not make or be liable for any payments to Contractor until Contractor has registered properly in The State's e-Procurement System and provided a current IRS Form W-9 to State unless excused by law from providing one.

4.1.2. Payments Only To Contractor. Unless compelled otherwise by operation of law or order of a court of competent jurisdiction, State will only make payment to Contractor under the federal tax identifier indicated on the Accepted Offer.

4.2. Applicable Taxes

4.2.1. Contractor To Pay All Taxes. State is subject to Arizona TPT. Therefore, Arizona TPT applies to all sales under the Contract and Arizona TPT is Contractor's responsibility (as seller) to remit. Contractor's failure to collect Arizona TPT or any other applicable sales or use taxes from an Eligible Agency or Co-Op Buyer (as buyer) will not relieve the Contractor of any obligation to remit sales or use taxes that are due under the Contract or laws. Unless stated otherwise in the Pricing Document, all prices therein include Arizona TPT as well as every other manner of transaction privilege or sales/use tax that is due to a municipality or another state or its political subdivisions. Contractor shall pay all federal, state, and local taxes applicable to its operations and personnel.

4.2.2. Tax Indemnity. Contractor shall hold State harmless from any responsibility for taxes or contributions, including any applicable damages and interest, that are due to federal, state, and local authorities with respect to the Work and the Contract, as well as any related costs; the foregoing expressly includes Arizona TPT, unemployment compensation insurance, social security, and workers' compensation insurance.

5. Contract Changes

5.1. Contract Amendments: The Contract is issued for State under the authority of Procurement Officer. Only a Contract Amendment can modify the Contract, and then only if it does not change the Contract's general scope. Purported changes to the Contract by a person not expressly authorized by Procurement Officer or made unilaterally by Contractor will be void and without effect; Contractor will not be entitled to any claim made under the Contract based on any such purported changes.

5.2. Assignment and Delegation.

5.2.1. In Whole. Contractor shall not assign in whole its rights or delegate in whole its duties under the Contract without Procurement Officer's prior written consent, which consent Procurement Officer may withhold at his or her discretion. If Contractor's proposed assignment or delegation stems from a split, sale, acquisition, or other non-merger change in control, then no such consent will be given in any event without the assignee or delegate giving State satisfactory and equivalent evidence or assurance of its financial soundness, competency, capacity, and qualification to perform as that which Contractor possessed when State first awarded it the Contract.

5.2.2. In Part. Subject to paragraph 3.10 [Subcontracts] with respect to subcontracting, Contractor may assign particular rights or delegate particular duties under the Contract, but shall obtain Procurement Officer's written consent before doing so. Procurement Officer shall not unreasonably withhold consent so long as the proposed assignment or delegation does not attempt to modify the Contract in any way or to alter or impair State's rights or remedies under the Contract or laws.

6. Risk and Liability

6.1. Risk of Loss. Contractor shall bear all risk of loss to Materials while in pre-production, production, storage, transit, staging, assembly, installation, testing, and commissioning, if and as those duties are within the scope of the Work, until they have been accepted as conforming by State in the particular location and situation specified in the Order, or as specified generally elsewhere in the Contract if the Order does not provide particulars, provided that, risk of loss for nonconforming Materials will remain with Contractor notwithstanding acceptance to the extent the loss stems from the nonconformance.

6.2. Contractor Insurance

6.2.1. **Indemnification Clause**

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of, or recovered under, the Workers' Compensation Law or arising out of the failure of such Contractor to conform to any federal, state, or local law, statute, ordinance, rule,

regulation, or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense, and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the State of Arizona, its officers, officials, agents, and employees for losses arising from the work performed by the Contractor for the State of Arizona.

This indemnity shall not apply if the contractor or sub-contractor(s) is/are an agency, board, commission or university of the State of Arizona.

6.2.2. **Insurance Requirements**

Contractor and subcontractors shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Contract, insurance against claims for injury to persons or damage to property arising from, or in connection with, the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

The Insurance Requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that arise out of the performance of the work under this Contract by the Contractor, its agents, representatives, employees or subcontractors, and the Contractor is free to purchase additional insurance

6.2.3. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below.

6.2.3.1. Commercial General Liability (CGL) – Occurrence Form

Policy shall include bodily injury, property damage, and broad form contractual liability coverage.

• General Aggregate	$2,000,000
• Products – Completed Operations Aggregate	$1,000,000
• Personal and Advertising Injury	$1,000,000
• Damage to Rented Premises	$50,000
• Each Occurrence	$1,000,000

a. The policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with

respect to liability arising out of the activities performed by or on behalf of the Contractor.

b. Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

6.2.3.2. Business Automobile Liability

Bodily Injury and Property Damage for any owned, hired, and/or non-owned automobiles used in the performance of this Contract.

• Combined Single Limit (CSL) $1,000,000

a. Policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by, or on behalf of, the Contractor involving automobiles owned, hired and/or non-owned by the Contractor.

b. Policy shall contain a waiver of subrogation endorsement as required by this written agreement in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

6.2.3.3. Workers' Compensation and Employers' Liability

• Workers' Compensation	Statutory
• Employers' Liability	
o Each Accident	$1,000,000
o Disease – Each Employee	$1,000,000
o Disease – Policy Limit	$1,000,000

a. Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities,

officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

b. This requirement shall not apply to each Contractor or subcontractor that is exempt under A.R.S. § 23-901, and when such Contractor or subcontractor executes the appropriate waiver form (Sole Proprietor or Independent Contractor).

6.2.3.4. Professional Liability (Errors and Omissions Liability)

Each Claim	$2,000,000
Annual Aggregate	$4,000,000

a. In the event that the Professional Liability insurance required by this Contract is written on a claims-made basis, the Contractor warrants that any retroactive date under the Policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.
b. The Policy shall cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Work of this Contract

6.2.3.5. Additional Insurance Requirements

The policies shall include, or be endorsed to include, as required by this written agreement, the following provisions:

6.2.3.5.1. The Contractor's policies, as applicable, shall stipulate that the insurance afforded the Contractor shall be primary and that any insurance carried by the Department, its agents, officials, employees or the State of Arizona shall be excess and not contributory insurance, as provided by A.R.S. § 41-621 (E).

6.2.3.5.2. Insurance provided by the Contractor shall not limit the Contractor’s liability assumed under the indemnification provisions of this Contract.

6.2.3.6. Notice of Cancellation

Applicable to all insurance policies required within the Insurance Requirements of this Contract, Contractor’s insurance shall not be permitted to expire, be suspended, be canceled, or be materially changed for any reason without thirty (30) days prior written notice

to the State of Arizona. Within two (2) business days of receipt, Contractor must provide notice to the State of Arizona if they receive notice of a policy that has been or will be suspended, canceled, materially changed for any reason, has expired, or will be expiring. Such notice shall be sent directly to the Department and shall be mailed, emailed, hand delivered or sent by facsimile transmission to (State Representative's Name, Address & Fax Number).

6.2.3.7. **Acceptability of Insurers**

Contractor's insurance shall be placed with companies licensed in the State of Arizona or hold approved non-admitted status on the Arizona Department of Insurance List of Qualified Unauthorized Insurers. Insurers shall have an "A.M. Best" rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

6.2.3.8. **Verification of Coverage**

Contractor shall furnish the State of Arizona with certificates of insurance (valid ACORD form or equivalent approved by the State of Arizona) evidencing that Contractor has the insurance as required by this Contract. An authorized representative of the insurer shall sign the certificates.

6.2.3.8.1. All such certificates of insurance and policy endorsements must be received by the State before work commences. The State's receipt of any certificates of insurance or policy endorsements that do not comply with this written agreement shall not waive or otherwise affect the requirements of this agreement.

6.2.3.8.2. Each insurance policy required by this Contract must be in effect at, or prior to, commencement of work under this Contract. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

6.2.3.8.3. All certificates required by this Contract shall be sent directly to the Department. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require

complete copies of all insurance policies required by this Contract at any time.

6.2.3.9. Subcontractors

Contractor's certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall be responsible for ensuring and/or verifying that all subcontractors have valid and collectable insurance as evidenced by the certificates of insurance and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum Insurance Requirements identified above. The Department reserves the right to require, at any time throughout the life of the Contract, proof from the Contractor that its subcontractors have the required coverage.

6.2.3.10. Approval and Modifications

The Contracting Agency, in consultation with State Risk, reserves the right to review or make modifications to the insurance limits, required coverages, or endorsements throughout the life of this contract, as deemed necessary. Such action will not require a formal Contract amendment but may be made by administrative action.

6.2.3.11. Exceptions

In the event the Contractor or subcontractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a certificate of self-insurance. If the Contractor or subcontractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

6.3. Patent and Copyright Indemnification.

CONTRACTOR/VENDOR (NOT PUBLIC AGENCY). With respect to Materials or Services provided or proposed by a Contractor Indemnitor for performance under the Contract, Contractor shall indemnify, defend and hold harmless State Indemnitees against any third-party claims for liability, costs, and expenses, including, but not limited to reasonable attorneys' fees, for infringement or violation of any patent, trademark, copyright, or trade secret by the Materials and the Services. With respect to the defense and payment of claims under this subparagraph:

6.3.1. State shall provide reasonable and timely notification to Contractor of any claim for which Contractor may be liable under this paragraph;

6.3.2. Contractor, with reasonable consultation from State, shall have control of the defense of any action on an indemnified claim including all negotiations for its settlement or compromise;

6.3.3. State may elect to participate in such action at its own expense; and

6.3.4. State may approve or disapprove any settlement or compromise, provided that, (i) State shall not unreasonably withhold or delay such approval or disapproval and (ii) State shall cooperate in the defense and in any related settlement negotiations.

If Contractor is a public agency, this paragraph 6.4 does not apply.

6.4. Force Majeure

6.4.1. Definition. For this paragraph, “force majeure” means an occurrence that is

6.4.1.1. beyond the control of the affected party,

6.4.1.2. occurred without the party’s fault or negligence, and

6.4.1.3. something the party was unable to prevent by exercising reasonable diligence. Without limiting the generality of the foregoing, force majeure expressly includes acts of God, acts of the public enemy, war, riots, strikes, mobilization, labor disputes, civil disorders, fire, flood, lockouts, injunctions-intervention-acts, failures or refusals to act by government authorities, and, subject to paragraph 7.6 [Performance in Public Health Emergency], declared public health emergencies. Force majeure expressly does not include late delivery caused by congestion at a manufacturer’s plant or elsewhere, an oversold condition of the market, late performance by a Subcontractor unless the delay arises out of an occurrence of force majeure, or inability of either Contractor or any Subcontractor to acquire or maintain any required insurance, bonds, licenses, or permits.

6.4.2. Relief From Performance. Except of sums due, the parties are not liable to each other if an occurrence of force majeure prevents its performance under the Contract. If either party is delayed at any time in the progress of their respective performance under the Contract by an occurrence of force majeure, the delayed party shall notify the other no later than the following working day after the occurrence, or as soon as it could reasonably have been expected to recognize that the occurrence had effect in cases where the effects were not readily apparent. In any event, the notice must make specific reference to this paragraph specifying the causes of the delay in the notice and, if the effects of the occurrence are on-going, provide an initial notification and thereafter the delayed party shall provide regular updates until such time as the effects are fully known. To the extent it is

able, the delayed party shall cause the delay to cease promptly and notify the other party when it has done so. The parties shall extend the time of completion by Contract Amendment for a period equal to the time that the results or effects of the delay prevented the delayed party from performing.

6.4.3. Excusable Delay Is Not Default. Failure in performance by either party will not constitute default hereunder or give rise to any claim for damages or loss of anticipated profits if and to the extent that such failure was or is being caused by an occurrence of force majeure.

6.4.4. Default Diminishes Relief. Entitlement to relief from the effects of an occurrence of force majeure is diminished to the extent that the delay did or will result from the affected party's default unrelated to the occurrence, in which case and to that extent the other party's normal remedies and the affected party's obligations would apply undiminished.

7. Warranties

7.1. Conformity to Requirements. Contractor warrants that, unless expressly provided otherwise elsewhere in the Contract, the Materials and Services will for 1 (one) year after acceptance and in each instance: (1) conform to the requirements of the Contract, which by way of reminder include without limitation all descriptions, specifications, and drawings identified in the Scope of Work and any Contractor affirmations included as part of the Contract; (2) be free from defects of material and workmanship; (3) conform to or perform in a manner consistent with current industry standards; and (4) be fit for the intended purpose or use described in the Contract. Mere delivery or performance does not substitute for express acceptance by the State. Where inspection, testing, or other acceptance assessment of Materials or Services cannot be done until after installation, the forgoing warranty will not begin until State's acceptance.

7.2. Contractor Personnel. Contractor warrants that its personnel will perform their duties under the Contract in a professional manner, applying the requisite skills and knowledge, consistent with industry standards, and in accordance with the requirements of the Contract. Contractor further warrants that its key personnel will maintain any certifications relevant to their work, and Contractor shall provide individual evidence of certification to State's authorized representatives upon request.

7.3. Intellectual Property. Contractor warrants that the Materials and Services do not and will not infringe or violate any patent, trademark, copyright, trade secret, or other intellectual property rights or laws, except only to the extent the Specifications do not permit use of any other product and Contractor is not and cannot reasonably be expected to be aware of the infringement or violation.

7.4. Licenses and Permits Contractor warrants that it will maintain all licenses required under paragraph 3.7 [Contractor Licenses] and all required permits valid and in force.

7.5. Operational Continuity Contractor warrants that it will perform without relief notwithstanding being sold or acquired; no such event will operate to mitigate or alter any of Contractor's duties hereunder absent a consented delegation under paragraph 5 [Assignment and Delegation] that expressly recognizes the event.

7.6. Performance in Public Health Emergency Contractor warrants that it will:

7.6.1. have in effect, promptly after commencement, a plan for continuing performance in the event of a declared public health emergency that addresses, at a minimum:

7.6.1.1. identification of response personnel by name;

7.6.1.2. key succession and performance responses in the event of sudden and significant decrease in workforce; and

7.6.1.3. alternative avenues to keep sufficient product on hand or in the supply chain;

7.6.2. provide a copy of its current plan to State within 3 (three) business days after State's written request. If Contractor claims relief under paragraph 6.5 [Force Majeure] for an occurrence of force majeure that is a declared public health emergency, then that relief will be conditioned on Contractor having first implemented its plan and exhausted all reasonable opportunity for that plan implementation to overcome the effects of that occurrence, or mitigate those effects to the extent that overcoming entirely is not practicable.

7.6.3. A request from the State related to this Section does not necessarily indicate that there has been an occurrence of force majeure, and the Contractor will not be entitled to any additional compensation or extension of time by virtue of having to implement a plan .

7.6.4. Failure to have or implement an appropriate plan will be a material breach of contract.

7.7. Lobbying

7.7.1. Prohibition. Contractor warrants that it will not engage in lobbying activities, as defined in 40 Code of Federal Regulations (CFR) part 34 and A.R.S. § 41-1231, et seq., using monies awarded under the Contract, provided that, the foregoing does not intend to constrain Contractor's use of its own monies or property, including without limitation any net proceeds duly realized under the Contract or any value thereafter derived from those proceeds; and upon award of the Contract, it will disclose all lobbying activities to State to the extent they are an actual or potential

conflict of interest or where such activities could create an appearance of impropriety. Contractor shall implement and maintain adequate controls to assure compliance with (a) above. Contractor shall obtain an equivalent warranty from all Subcontractors and shall include an equivalent no-lobbying provision in all Subcontracts.

7.7.2. Exception. This paragraph does not apply to the extent that the Services are defined in the Contract as being lobbying for State's benefit or on State's behalf.

7.8. Survival of Warranty. All representations and warranties made by Contractor under the Contract will survive the expiration or earlier termination of the Contract.

8. This section intentionally left blank.

9. This section intentionally left blank.

10. This section intentionally left blank.

11. **General Provisions for Materials**

11.1. **Applicability.** Article 11 applies to the extent the Work is or includes Materials.

11.2. **Off-Contract Materials.** Contractor shall ensure that the design and/or procedures for the Materials ordering method prevents Orders for off-contract items or excluded items. Notwithstanding that State might have its own internal administrative rules regarding off-contract or excluded item ordering, and endeavors to prevent such orders from occurring, Contractor is responsible for not accepting any such Orders. State may, at its discretion, return any such items under subparagraph 11.17 or cancel any such Order under subparagraph 11.18, in either case being without obligation and at Contractor's expense. As used above, "off-contract item" refers to any product not included in the scope of the Contract and for which no price or compensation has been established contractually, and "excluded item" refers to any product expressly stated in the Contract as being excluded from the Contract.

11.3. **Compensation for Late Deliveries.** Contractor shall have clear, published policies in place regarding late delivery, order cancelation, discounts, or rebates given to compensate for late deliveries, etc., and make them readily available to those Eligible Agencies, and Co-Op Buyers if applicable, that are likely to need them.

11.4. **Indicate Shipping Costs on Order.** Contractor shall identify and provide the required substantiating documentation for the amount it intends to add for shipping in the Order acknowledgment if shipping is additional to the contracted price or rate for an item; otherwise, Contractor shall indicate that shipping is included in the Order price (in other words, every Order must indicate clearly whether or not shipping is included in the Order price, and if not included, how much is to be added and why that amount is the correct or appropriate one)

11.5. **Current Products.** Contractor shall keep all products being offered under the Contract: (a) in current and ongoing production; (b) in its advertised product lines; (c) as models or types that are actively functioning in other paying customer environments; and (d) in conformance to the requirements of the Contract.

11.6. **Maintain Comprehensive Selection.** Contractor shall provide at all times the comprehensive selection of products for which a price is established in the Commercial Document for ordering by Eligible Agencies, and Co-Op Buyers if applicable.

11.7. **Additional Products.** State, at its discretion, may modify the scope of the Contract by Contract Amendment to include additional products or product categories so long as they are within the general scope of the ones originally covered by the Contract. Once the Contract Amendment has been fully executed, Contractor shall then update all applicable catalogs and price lists and make them available to all affected entities at no additional cost. Either party may make the request to add products to the Contract; regardless of who makes the request, the parties shall negotiate in good faith a fair price for any additional products, but State may elect not to add some or all of the products in question if no agreement is reached on pricing in a timely manner. Contractor's request or proposal in response to State's request must include: (a) documentation demonstrating that the additional products meet or exceed the specifications for the original products while remaining in the same product groups as the original ones; and (b) documentation demonstrating that the proposed price for the additional products is both fair and reasonable and at the same level of discount relative to market price as were the original ones. Demonstration of *(b)* typically requires showing how prices at which sales are currently or were last made to a significant number of buyers compare to the prices or discounts (as applicable) being proposed for the additional products.

11.8. **Discontinued Products** If a product or groups of products covered by the Contract are discontinued by the manufacturer, Contractor shall notify State within 5 (five) business days after receiving the manufacturer's notification. State, at its discretion, will either allow Contractor to provide substitutes for the discontinued products or delete the products from the scope of the Contract, both of which will be accomplished by Contract Amendment. Contractor shall then update all applicable catalogs and price lists and make them available to all affected entities at no additional cost. The parties shall negotiate in good faith a fair price for any substitute product, but State may elect to delete the products from the scope of the Contract if no agreement is reached on substitute pricing in a timely manner. When notifying State of the discontinuance, Contractor shall provide: (a) manufacturer's announcement or documentation stating that the products have been discontinued, with identification by model/part number; (b) documentation demonstrating that the substitute products meet or exceed the specifications for the discontinued products while remaining in the same product groups as were the discontinued ones; and (c) documentation demonstrating that the proposed price for the substitute products is both fair and reasonable and at the same level of discount relative to market price as were the discontinued ones.

11.9. **Forced Substitutes.** Forced substitutions will not be permitted; Contractor shall obtain State's prior written consent before making any discretionary substitution for any product covered by the Contract.

11.10. **Recalls.** In the event of a recall notice, technical service bulletin, or other important notification affecting a product offered under the Contract (collectively, "recalls" hereinafter), Contractor shall send timely notice to State for each applicable Order referencing the affected Order and product. Notwithstanding whatever protection Contractor might have under A.R.S. §12-684 with respect to a manufacturer, Contractor shall handle recalls entirely and without obligation on State's part, other than to permit removal of installed products, retrieval of stored products, etc., as necessary to implement the recall.

11.11. **Delivery**

11.11.1. PRICING. Unless stated otherwise in the Purchase Order, all Materials prices set forth therein are Free Carrier (FCA seller's dock) Incoterms®2010, with "seller's dock" meaning the last place of manufacturing, assembly, integration, final packing, or warehousing before departure to designated point of delivery to State. For reference, the foregoing is to be construed as equivalent to "F.O.B. Origin, Contractor's Facility" under FAR 52.247-30.

11.11.2. LIABILITY. Unless stated otherwise in the Purchase Order, Contractor's liability for all Materials is Delivered Duty Paid (DDP) (State-designated receiving point per Order) Incoterms®2010, but with unloading at destination included. For reference, the foregoing is to be construed as equivalent to "F.o.b. Destination, Within Consignee's Premises" under FAR 52.247-35.

11.11.3. PAYMENT. Unless stated otherwise in the Purchase Order, State shall reimburse Contractor the costs of the difference between DDP (State-designated receiving point per Order) and FCA (seller's dock) with no mark-up, which Contractor shall itemize and invoice separately.

11.12. **Delivery Time.** Unless stated otherwise in the Purchase Order, Contractor shall make delivery within 2 (two) business days after receiving each Order.

11.13. **Delivery Locations.** Contractor shall offer deliveries to every location served under the scope of the Contract, specifically

11.13.1. if the Contract is for a single State agency in a single area, then Contractor shall deliver to any agency location in that area;

11.13.2. if the Contract is for a single State agency in all its locations, then Contractor shall deliver to any of that agency's location in Arizona;

11.13.3. if the Contract is for statewide use but excludes certain areas, then Contractor shall deliver to any Eligible Agency or Co-Op Buyer location that is not in the excluded areas; and

11.13.4. if the Contract is for unrestricted statewide use, then:

11.13.4.1. Contractor shall deliver to any Eligible Agency or Co-Op Buyer anywhere in Arizona;

11.13.4.2. if a prospective Co-Op Buyer outside Arizona wishes to order against the Contract, Contractor agrees to negotiate in good faith any fair and reasonable price or lead time adjustments necessary to serve that location if practicable to do so within the scope of its normal business; and,

11.13.4.3. if the Purchase Order indicates defined delivery areas and prices, those always apply unless the Order expressly states otherwise and Contractor accepts it.

11.14. **Conditions at Delivery Location.** Contractor shall verify receiving hours and conditions (i.e. height/weight restrictions, access control, etc.) with the relevant purchaser for the receiving site before scheduling or making a delivery. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late delivery if Contractor has failed to make the verification or comply with the applicable conditions. Contractor shall make each delivery to the specific location indicated in the Order, which Contractor acknowledges might be inside an industrial building, institutional building, low-rise office building, or high-rise office building instead of a normal receiving dock. Contractor might be required to make deliveries to locations inside a secured perimeter at certain institutional facilities such as prisons where prior clearances are required for each delivery and driver individually. Contractor shall contact each such facility directly to confirm its most-current security clearance procedures, allowable hours for deliveries, visitor dress code, and other applicable rules. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late delivery if Contractor has failed to make the confirmation or comply with the applicable conditions.

11.15. **Materials Acceptance.** State has the right to make acceptance of Materials subject to a complete inspection on delivery and installation, if installation is Contractor's responsibility. State may apply as acceptance criteria conformity to the Contract, workmanship and quality, correctness of constituent materials, and any other matter for which the Contract or applicable laws state a requirement, whether stated directly or by reference to another document, standard, reference specification, etc. Contractor shall remove any rejected Materials from the delivery location, or from any immediate environs to which it might have been reasonably necessary to move it, carry it off the delivery premises, and subsequently deliver an equal number or quantity of conforming items. State will not owe Contractor any payment for rejected Materials, and State may, at its discretion, withhold or make partial

payment for any rejected Materials that have been returned to Contractor in those instances where State has agreed to permit repair instead of demanding replacement.

11.16. **Correcting Defects.** Contractor shall, at no additional cost and without entitlement to extension of any delivery deadline or specified time for performance, remove or exchange and replace any defective or non-conforming delivered or installed Materials

11.16.1. Contractor shall be solely responsible for the cost of any associated cutting and patching, temporary protection measures, packing and crating, hoisting and loading, transportation, unpacking, inspection, repacking, reshipping, and reinstallation if installation is within the scope of the Contract.

11.16.2. If Contractor fails to do so in a timely manner, State will be entitled to exercise its remedies under paragraph 8.5 [*Right of Offset*] of the Uniform Terms and Conditions.

11.16.3. Whether State will permit Contractor to repair in place or demands that Contractor remove and replace is at State's discretion in each instance, provided that, State shall not apply that discretion punitively if repair in place is practicable and doing so would not create safety hazards, put property at risk, unreasonably interfere with operations, create public nuisance, or give rise to any other reasonable concern on State's part.

11.17. **Returns.** State may, at its discretion, return for full credit and with no restocking charges any delivered. Materials unused in the original packaging, including any instruction manuals or other incidental item that accompanied the original shipment, within thirty (30) days after receipt. If State elects to return delivered Materials, then State shall pay all freight, delivery, and transit insurance costs to return the products to the place from which Contractor shipped them, provided that, if State returns delivered Materials because they are defective or non-conforming or for any other reason having to do with Contractor fault or error, then State will not be responsible for paying freight, delivery, or transit insurance costs to return the products and may, at its discretion, either have those billed directly to Contractor or offset them under paragraph 8.5 [*Right of Offset*] of the Uniform Terms and Conditions.

11.18. **Order Cancellations.** State may cancel Orders within a reasonable period after issuance and at its discretion. The same method as that used for ordering will be used for cancellation. If State cancels an Order, then State shall:

11.18.1. pay Contractor for any portion of the Materials and Services from that Order that have been properly delivered or performed as of the cancellation effective date plus one (1) additional business day.

11.18.2. reimburse Contractor for:

11.18.2.1. its actual, documented costs incurred in fulfilling the Order up to the cancellation effective date plus one (1) additional business day;

11.18.2.2. the cost of any obligations it incurred in fulfilling the Order up to the cancellation effective date plus one (1) additional business day that demonstrably cannot be canceled, or that have pre-established cancelation penalties specified in the relevant Subcontracts, to the extent the penalties are reasonable and customary for the work in question; and,

11.18.2.3. Contractor shall not charge or be entitled to charge State for any new costs it incurs after receiving the cancellation notice. By way of reminder, State is not liable for any products that were produced, shipped, or delivered or any services that were performed before Contractor had acknowledged the corresponding Order

11.19. **Product Safety.** Materials as-shipped must comply with applicable safety regulations and standards. Unless expressly stated otherwise in the Scope of Work, State is not responsible for making any Materials safe or compliant following acceptance and is relying exclusively on Contractor to deliver only products that are already safe and compliant.

11.20. **Hazardous Materials.** Contractor shall timely provide State with any "Safety Data Sheets" (SDS) and any other hazard communication documentation required under the US Department of Labor's Occupational Safety and Health Administration (OSHA) "Hazard Communication Standard" (often referred to as the "HazCom 2012 Final Rule") that is reasonably necessary for State to comply with regulations when it or its other contractors install, handle, operate, repair, maintain or remove any Materials. Note that, in the past, those documents might have been referred to as "Material Safety Data Sheets" or "Product Safety Data Sheets", but State (and this Contract) use only the more up-to-date "SDS" reference. Contractor shall ensure that all its relevant personnel understand the nature of and hazards associated with, to the extent it they are Contractor's responsibility under the Contract, the design, shipping, handling, delivery, installation, repair and maintenance of any portion of the Work that is, contains or will become upon use a hazardous material, with "hazardous material" being any material or substance that is: (1) identified now or in the future as being hazardous, toxic or dangerous under applicable laws; or (2) subject to statutory or regulatory requirement governing special handling, disposal or cleanup.

12. General Provisions for Services

12.1. **Applicability.** Article 12 applies to the extent the Work is or includes Services.

12.2. **Comprehensive Services.** Contractor shall provide the comprehensive range of services for which a price is established Offering in the Pricing Document for ordering by Eligible Agencies and Co-Op Buyers, if co-op buying applies.

12.3. **Additional Services.** State at its discretion may modify the scope of the Contract by Contract Amendment to include additional services or service categories that are within the general scope of the ones originally covered by the Contract if it determines that doing so is in its best interest. Once the Contract Amendment is fully executed, Contractor shall then update all applicable price lists and make them available to all affected entities at no additional cost. Either party may make the request to add services to the Contract; regardless of who makes the request, the parties shall negotiate in good faith a fair price for any additional services, but State may elect not to add some or all of the services in question if no agreement is reached on pricing in a timely manner. Contractor's request or proposal in response to State's request must include documentation demonstrating that the proposed price for the additional services is both fair and reasonable and comparable to the original ones.

12.4. **Off-Contract Services.** Contractor shall ensure that the design and/or procedures for the Services ordering method prevents Orders for off-contract or excluded services. Notwithstanding that State might have its own internal administrative rules regarding off-contract or excluded service ordering, and endeavors to prevent such orders from occurring, Contractor is responsible for not accepting any such Orders. State may, at its discretion, cancel any such Order without obligation. As used above, "off-contract service" refers to any service not included in the scope of the Contract and for which no price or compensation has been established contractually, and "excluded service" refers to any service expressly excluded from the scope of the Contract.

12.5. **Removal of Personnel.** Notwithstanding that Contractor is in every circumstance responsible for hiring, assigning, directing, managing, training, disciplining, and rewarding its personnel, State may at its discretion and without the obligation to demonstrate cause instruct Contractor to remove any of its personnel from State's facilities or from further assignment under the Contract. In such cases, Contractor shall promptly replace them with other personnel having equivalent qualifications, experience, and capabilities.

12.6. **Transitions.** During commencement, Contractor shall attend transition meetings with any outgoing vendors to coordinate and ease the transition so that the effect on State's operations is kept to a minimum. State may elect to have outgoing vendors complete some or all of their work or orders in progress to ease the transition as is safest and most efficient in each instance, even if that scope is covered under the Contract. Conversely, State anticipates having a continued need for the same materials and services upon expiration or earlier termination of the Contract. Accordingly, Contractor shall work closely with any new (incoming) vendor and State to ensure as smooth and complete a transfer as is practicable. State's representative shall coordinate all transition activities and facilitate joint development of a comprehensive transition plan by both Contractor and the incoming vendor. As with the incoming transition, State may permit Contractor (outgoing) to complete work or orders in progress to ease the transition as is safest and most efficient in each instance.

12.7. **Accuracy of Work.** Contractor is responsible for the accuracy of the Services, and shall promptly make all necessary revisions or corrections resulting from errors and omissions on its part without additional compensation. Acceptance by State will not relieve Contractor of responsibility for correction of any errors discovered subsequently or necessary clarification of any ambiguities.

12.8. **Requirements at Services.** Contractor personnel shall perform their assigned portions of the Services at the specific location indicated in the Order (if applicable). Contractor acknowledges that the location might be inside an industrial building, institutional building, or one of various office types and classes. Additionally, if performing the Services requires Contractor personnel to work inside a secured perimeter at certain institutional facilities such as prisons where prior clearances are required, Contractor shall contact the facility directly to confirm its most-current security clearance procedures, allowable hours for work, visitor dress code, and other applicable rules. State will neither allow extra charges for wait time, comebacks, or the like nor excuse late performance if Contractor has failed to make the confirmation or comply with the applicable conditions.

12.9. **Services Acceptance.** State has the right to make acceptance of Services subject to acceptance criteria. State may apply acceptance criteria conformity to the Contract, accuracy, completeness, or other indicators of quality or other matter for which the Contract or law states a requirement, whether stated directly or by reference to another document, standard, reference specification, etc. State will not owe Contractor any payment for unaccepted Services; and State may, at its discretion, withhold or make partial payment for any rejected Services if Contractor is still in the process of re-performing or otherwise curing the grounds for State's rejection.

12.10. **Corrective Action Required.** Notwithstanding any other guarantees, general warranties, or particular warranties Contractor has given under the Contract, if Contractor fails to perform any material portion of the Services, including failing to complete any contractual deliverable, or if its performance fails to meet agreed-upon service levels or service standards set out in or referred to in the Contract, then Contractor shall perform a root-cause analysis to identify the source of the failure and use all commercially reasonable efforts to correct the failure and meet the Contract requirements as promptly as is practicable.

12.10.1. Contractor shall provide to State a report detailing the identified cause and setting out its detailed corrective action plan promptly after the date the failure occurred (or the date when the failure first became apparent, if it was not apparent immediately after occurrence).

12.10.2. State may demand to review and approve Contractor's analysis and plans, and Contractor shall make any corrections State instructs and adopt State's recommendations so far as is commercially practicable, provided that State may insist on any measures it determines within reason to be necessary for safety or protecting property and the environment.

12.10.3. Contractor shall take the necessary action(s) to avoid any like failure in the future if doing so is appropriate and practicable under the circumstances

13. **Data and Information Handling**

13.1. **Applicability.** Article 13 applies to the extent the Work includes handling of any (1) State's proprietary and sensitive data or (2) confidential or access-restricted information obtained from State or from others at State's behest.

13.2. **Data Protection and Confidentiality of Information.** Contractor warrants that it will establish and maintain procedures and controls acceptable to State for ensuring that State's proprietary and sensitive data is protected from unauthorized access and information obtained from State or others in performance of its contractual duties is not mishandled, misused, or inappropriately released or disclosed. For purposes of this paragraph, all data created by Contractor in any way related to the Contract, provided to Contractor by State, or prepared by others for State are proprietary to State, and all information by those same avenues is State's confidential information. To comply with the foregoing warrant:

13.2.1. Contractor shall: (a) notify State immediately of any unauthorized access or inappropriate disclosures, whether stemming from an external security breach, internal breach, system failure, or procedural lapse; (b) cooperate with State to identify the source or cause and respond to each unauthorized access or inappropriate disclosure; and (c) notify State promptly of any security threat that could result in unauthorized access or inappropriate disclosures; and

13.2.2. Contractor shall not: (a) release any such data or allow it to be released or divulge any such information to anyone other than its employees or officers as needed for each person's individual performance of his or her duties under the Contract, unless State has agreed otherwise in advance and in writing; or (b) respond to any requests it receives from a third party for such data or information, and instead route all such requests to State's designated representative.

13.3. **Personally Identifiable Information** Without limiting the generality of paragraph 13.2, Contractor warrants that it will protect any personally identifiable information ("PII") belonging to State's employees or other contractors or members of the general public that it receives from State or otherwise acquires in its performance under the Contract. For purposes of this paragraph:

13.3.1. PII has the meaning given in the [federal] Office of Management and Budget (OMB) *Memorandum M-17-12 Preparing for and Responding to a Breach of Personally Identifiable Information, January 3, 2017*; and

13.3.2. "protect" means taking measures to safeguard personally identifiable information and prevent its breach that are functionally equivalent to those called for in that OMB memorandum and elaborated on in the [federal] General Services Administration (GSA) *Directive CIO P* 2180*.1 GSA Rules of Behavior for Handling Personally Identifiable Information*.

NOTE (1): For convenience of reference only, the OMB memorandum is available at:

https://dpcld.defense.gov/Privacy/Authorities-and-Guidance/

NOTE (2): For convenience of reference only, the GSA directive is available at:

https://www.gsa.gov/directive/gsa-rules-of-behavior-for-handling-personally-identifiable-information-(pii)-

13.4. **Protected Health Information** Contractor warrants that, to the extent performance under Contract involves individually identifiable health information (referred to hereinafter as protected health information ("PHI") and electronic PHI ("ePHI") as defined in the Privacy Rule referred to below), it:

13.4.1. is familiar with and will comply with the applicable aspects of the following collective regulatory requirements regarding patient information privacy protection: (a) the "Privacy Rule" in CFR 45 Part 160 and Part 164 pursuant to the Health Insurance Portability and Accountability Act ("HIPAA") of 1996; (b) Arizona laws, rules, and regulations applicable to PHI/ePHI that are not preempted by CFR45-160(B) or the Employee Retirement Income Security Act of 1974 ("ERISA") as amended; and (c) State's current and published PHI/ePHI privacy and security policies and procedures;

13.4.2. will cooperate with State in the course of performing under the Contract so that both State and Contractor stay in compliance with the requirements in *(1)* above; and

13.4.3. will sign any documents that are reasonably necessary to keep both State and Contractor in compliance with the requirements in *(1)* above, in particular "Business Associate Agreements" in accordance with the Privacy Rule.

NOTE: For convenience of reference only, the Privacy Rule is available at:

http://www.hhs.gov/hipaa/for-professionals/privacy/index.html

14. Information Technology Work

14.1. **Applicability** Article 14 applies to any Invitation for Bids, Request for Proposals, or Request for Quotations for "Information Technology," as defined In A.R.S. §18-101 -6 "…all computerized and auxiliary automated information processing, telecommunications and related technology, including hardware, software, vendor support and related services, equipment and projects," if and to the extent that the Work is or includes Information Technology.

14.2. **Background Checks** Each Contractor's personnel who is an applicant for an information technology position must undergo the security clearance and background check procedure, which includes fingerprinting, as required by A.R.S. §41-710. Contractor shall obtain and

pay for the security clearance and background check. Contractor personnel who will have administrator privileges on a State network must additionally provide identity and address verification and undergo State-specified training for unescorted access, confidentiality, privacy, and data security

14.3. **Information Access**

14.3.1. SYSTEM MEASURES. Contractor shall employ appropriate system management and maintenance, fraud prevention and detection, and encryption application and tools to any systems or networks containing or transmitting State's proprietary data or confidential information.

14.3.2. INDIVIDUAL MEASURES. Contractor personnel shall comply with applicable State policies and procedures regarding data access, privacy, and security, including prohibitions on remote access and obtaining and maintaining access identifications (IDs) and passwords. Contractor is responsible to State for ensuring that any State access IDs and passwords are used only by the person to whom they were issued. Contractor shall ensure that personnel are only provided the minimum only such level of access necessary to perform his or duties. Contractor shall on request, provide a current register of the access IDs and passwords and corresponding access levels currently assigned to its personnel.

14.3.3. ACCESS CONTROL. Contractor is responsible to State for ensuring that hardware, software, data, information, and that has been provided by State or belongs to or is in the custody of State and is accessed or accessible by Contractor personnel is only used in connection with carrying out the Work and is never commercially exploited in any manner whatsoever not expressly permitted under the Contract. State may restrict access of Contractor personnel, or instruct Contractor to restrict their access, if in its determination the requirements of this subparagraph are not being met.

14.4. **Pass-Through Indemnity**

14.4.1. INDEMNITY FROM THIRD PARTY. For computer hardware or software included in the Work as discrete units that were manufactured or developed solely by a third party, Contractor may satisfy its indemnification obligations under the Contract by, to the extent permissible by law, passing through to State such indemnity as it receives from the third-party source (each a "Pass-Through Indemnity") and cooperating with State in enforcing that indemnity. If the third party fails to honor its Pass-Through Indemnity, or if a Pass-Through Indemnity is insufficient to indemnify State Indemnitees to the extent and degree, Contractor is required to do by the Uniform Terms and Conditions, then

Contractor shall indemnify, defend and hold harmless State Indemnitees to the extent the Pass-Through Indemnity does not.

14.4.2. NOTIFY OF CLAIMS. State shall notify Contractor promptly of any claim to which a Pass-Through Indemnity might apply. Contractor, with reasonable consultation from State, shall control of the defense of any action on any claim to which a Pass-Through Indemnity applies, including negotiations for settlement or compromise, provided that:

14.4.2.1. State reserves the right to elect to participate in the action at its own expense;

14.4.2.2. State reserves the right to approve or reject any settlement or compromise on reasonable grounds and if done so timely; and

14.4.2.3. State shall in any case cooperate in the defense and any related settlement negotiations.

14.5. **Systems and Controls** In consideration for State having agreed to permit Pass-Through Indemnities in lieu of direct indemnity, Contractor agrees to establish and keep in place systems and controls appropriate to ensure that State funds under this Contract are not knowingly used for the acquisition, operation, or maintenance of Materials or Services in violation of intellectual property laws or a third party's intellectual property rights.

14.6. **Redress of Infringement**

14.6.1. REPLACE, LICENSE, OR MODIFY. If Contractor becomes aware that any Materials or Services infringe, or are likely to be infringing, on any third party's intellectual property rights, then Contractor shall, at its sole cost and expense and in consultation with State, either:

14.6.1.1. replace any infringing items with non-infringing ones;

14.6.1.2. obtain for State the right to continue using the infringing items; or

14.6.1.3. modify the infringing items so that they become non-infringing, so long as they continue to function as specified following the modification.

14.6.2. CANCELLATION OPTION. In every case under 14.6.1, if none of those options can reasonably be accomplished, or if the continued use of the infringing items is impracticable, State may cancel the relevant Order or terminate the Contract, and Contractor shall take back the infringing items. If State does cancel the Order or terminate the Contract, Contractor shall refund to State:

14.6.2.1. for any software created for State under the Contract, the amount State paid to Contactor for creating it;

14.6.2.2. for all other Materials, the net book value of the product provided according to generally accepted accounting principles; and

14.6.2.3. for Services, the amount paid by State or an amount equal to 12 (twelve) months of charges, whichever is less.

14.6.3. EXCEPTIONS. Contractor will not be liable for any claim of infringement based solely on any of the following by a State Indemnitee:

14.6.3.1. modification or use of Materials other than as contemplated by the Contract or expressly authorized or proposed by a Contractor Indemnitor;

14.6.3.2. operation of Materials with any operating software other than that supplied by Contractor or authorized or proposed by a Contractor Indemnitor; or

14.6.3.3. combination or use with other products in a manner not contemplated by the Contract or expressly authorized or proposed by a Contractor Indemnitor.

14.7. **First Party Liability Limitation**

14.7.1. LIMIT. Subject to the provisos that follow below and unless stated otherwise in the Special Terms and Conditions, State's and Contractor's respective first party liability arising from or related to the Contract is limited to the greater of $1,000,000 (one million dollars) or 3 (three) times the purchase price of the specific Materials or Services giving rise to the claim.

14.7.2. PROVISOS. This paragraph limits liability for first party direct, indirect, incidental, special, punitive, and consequential damages relating to the Work regardless of the legal theory under which the liability is asserted. This paragraph does not limit liability arising from any:

14.7.2.1. Indemnified Claim against which Contractor has indemnified State Indemnitees under paragraph 6.3;

14.7.2.2. claim against which Contractor has indemnified State Indemnitees under paragraph 6.4; or

14.7.2.3. provision of the Contract calling for liquidated damages or specifying amounts or percentages as being at-risk or subject to deduction for performance deficiencies.

14.7.3. PURCHASE PRICE DETERMINATION. If the Contract is for a single-agency and a single Order (or if no Order applies), then "purchase price" in Subparagraph 14.7.1 above means the aggregate Contract price current at the time of Contract expiration or earlier termination, including all Contract Amendments having an effect on the aggregate price through that date. In all

other cases, “purchase price” above means the total price of the Order for the specific equipment, software, or services giving rise to the claim, and therefore a separate limit will apply to each Order.

14.7.4. NO EFFECT ON INSURANCE. This paragraph does not modify the required coverage limits, terms, and conditions of, or any insured’s ability to claim against any insurance that Contractor is required by the Contract to provide, and Contractor shall obtain express endorsements that it does not.

14.8. **Information Technology Warranty**

14.8.1. SPECIFIED DESIGN. Where the Scope of Work for information technology, Work provides a detailed design specification or sets out specific performance requirements, Contractor warrants that the Work will provide all functionality material to the intended use stated in the Contract, provided that, the foregoing warranty does not extend to any portions of the Materials that are:

14.8.1.1. modified or altered by anyone not authorized by Contractor to do so;

14.8.1.2. maintained in a way inconsistent to any applicable manufacturer recommendations; or

14.8.1.3. operated in a manner not within its intended use or environment.

14.8.2. COTS SOFTWARE. With respect to Materials provided under the Contract that are commercial-off-the-shelf (COTS) software, Contractor warrants that:

14.8.2.1. to the extent possible, it will test the software before delivery using commercially available virus detection software conforming to current industry standards;

14.8.2.2. the COTS software will, to the best of its knowledge, at the time of delivery be free of viruses, backdoors, worms, spyware, malware, and other malicious code that could hamper performance, collect unlawfully any personally identifiable information, or prevent products from performing as required by the Contract; and

14.8.2.3. it will provide a new or clean install of any COTS software that State has reason to believe contains harmful code.

14.8.3. PAYMENT HAS NO EFFECT. The warranties in this paragraph are not affected by State’s inspection, testing, or payment.

14.9. **Specific Remedies.** Unless expressly stated otherwise elsewhere in the Contract, State’s remedy for breach of warranty under paragraph 14.8 includes, at State’s discretion, re-performance, repair, replacement, or refund of any amounts paid by State for the nonconforming Work, plus (in every case) Contractor’s payment of State’s additional, documented, and reasonable costs to procure materials or services equivalent in function,

capability, and performance that was first called for. For clarification of intent, the foregoing obligations are limited by the limitation of liability in paragraph 14.7. If none of the forgoing options can reasonably be effected, or if the use of the materials by State is made impractical by the nonconformance, then State may seek any remedy available to it under law.

14.10. **Section 508 Compliance.** Unless specifically authorized in the Contract, any electronic or information technology offered to the State of Arizona under this Contract shall comply with A.R.S. §18-131 and §18-132 and Section 508 of the Rehabilitation Act of 1973, which requires that employees and members of the public shall have access to and use of information technology that is comparable to the access and use by employees and members of the public who are not individuals with disabilities.

1. Definition of Terms: As used in this Solicitation and any resulting Contract, the terms listed below are defined as follows:

   1.1. "Attachment" means any item the Solicitation requires the Offeror to submit as part of the Offer.

   1.2. "Contract" means the combination of the Solicitation, including the Uniform and Special Instructions to Offerors, the Uniform and Special Terms and Conditions, and the Specifications and Statement or Scope of Work; the Offer and any Best and Final Offers; and any Solicitation Amendments or Contract Amendments.

   1.3. "Contract Amendment" means a written document signed by the Procurement Officer that is issued for the purpose of making changes in the Contract.

   1.4. "Contractor" means any person who has a Contract with the State.

   1.5. "Days" means calendar days unless otherwise specified.

   1.6. "Exhibit" means any item labeled as an Exhibit in the Solicitation or placed in the Exhibits section of the Solicitation.

   1.7. "Gratuity" means a payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is received.

   1.8. "Materials" means all property, including equipment, supplies, printing, insurance and leases of property but does not include land, a permanent interest in land or real property or leasing space.

   1.9. "Procurement Officer" means the person, or his or her designee, duly authorized by the State to enter into and administer Contracts and make written determinations with respect to the Contract.

   1.10. "Services" means the furnishing of labor, time or effort by a contractor or subcontractor which does not involve the delivery of a specific end product other than required reports and performance, but does not include employment agreements or collective bargaining agreements.

   1.11. "Subcontract" means any Contract, express or implied, between the Contractor and another party or between a subcontractor and another party delegating or assigning, in whole or in part, the making or furnishing of any material or any service required for the performance of the Contract.

   1.12. "State" means the State of Arizona and Department or Agency of the State that executes the Contract.

   1.13. "State Fiscal Year" means the period beginning with July 1 and ending June 30.

2. Contract Interpretation

2.1. Arizona Law. The Arizona law applies to this Contract including, where applicable, the Uniform Commercial Code as adopted by the State of Arizona and the Arizona Procurement Code, Arizona Revised Statutes (A.R.S.) Title 41, Chapter 23, and its implementing rules, Arizona Administrative Code (A.A.C.) Title 2, Chapter 7.

2.2. Implied Contract Terms. Each provision of law and any terms required by law to be in this Contract are a part of this Contract as if fully stated in it.

2.3. Contract Order of Precedence. In the event of a conflict in the provisions of the Contract, as accepted by the State and as they may be amended, the following shall prevail in the order set forth below:

2.3.1. Special Terms and Conditions;

2.3.2. Uniform Terms and Conditions;

2.3.3. Statement or Scope of Work;

2.3.4. Specifications;

2.3.5. Attachments;

2.3.6. Exhibits;

2.3.7. Documents referenced or included in the Solicitation.

2.4. Relationship of Parties. The Contractor under this Contract is an independent Contractor. Neither party to this Contract shall be deemed to be the employee or agent of the other party to the Contract.

2.5. Severability. The provisions of this Contract are severable. Any term or condition deemed illegal or invalid shall not affect any other term or condition of the Contract.

2.6. No Parole Evidence. This Contract is intended by the parties as a final and complete expression of their agreement. No course of prior dealings between the parties and no usage of the trade shall supplement or explain any terms used in this document and no other understanding either oral or in writing shall be binding.

2.7. No Waiver. Either party's failure to insist on strict performance of any term or condition of the Contract shall not be deemed a waiver of that term or condition even if the party accepting or acquiescing in the nonconforming performance knows of the nature of the performance and fails to object to it.

3. Contract Administration and Operation

3.1. Records. Under A.R.S. § 35-214 and § 35-215, the Contractor shall retain and shall contractually require each subcontractor to retain all data and other "records" relating to the acquisition and performance of the Contract for a period of five years after the completion of the Contract. All records shall be subject to inspection and audit by the State at reasonable times. Upon request, the Contractor shall produce a legible copy of any or all such records.

3.2. Non-Discrimination. The Contractor shall comply with State Executive Order No. 2009-09 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act.

3.3. Audit. Pursuant to ARS § 35-214, at any time during the term of this Contract and five (5) years thereafter, the Contractor's or any subcontractor's books and records shall be subject to audit by the State and, where applicable, the Federal Government, to the extent that the books and records relate to the performance of the Contract or Subcontract.

3.4. Facilities Inspection and Materials Testing. The Contractor agrees to permit access to its facilities, subcontractor facilities and the Contractor's processes or services, at reasonable times for inspection of the facilities or materials covered under this Contract. The State shall also have the right to test, at its own cost, the materials to be supplied under this Contract. Neither inspection of the Contractor's facilities nor materials testing shall constitute final acceptance of the materials or services. If the State determines non-compliance of the materials, the Contractor shall be responsible for the payment of all costs incurred by the State for testing and inspection.

3.5. Notices. Notices to the Contractor required by this Contract shall be made by the State to the person indicated on the Offer and Acceptance form submitted by the Contractor unless otherwise stated in the Contract. Notices to the State required by the Contract shall be made by the Contractor to the Solicitation Contact Person indicated on the Solicitation cover sheet, unless otherwise stated in the Contract. An authorized Procurement Officer and an authorized Contractor representative may change their respective person to whom notice shall be given by written notice to the other and an amendment to the Contract shall not be necessary.

3.6. Advertising, Publishing and Promotion of Contract. The Contractor shall not use, advertise or promote information for commercial benefit concerning this Contract without the prior written approval of the Procurement Officer.

3.7. Property of the State. Any materials, including reports, computer programs and other deliverables, created under this Contract are the sole property of the State. The Contractor is not entitled to a patent or copyright on those materials and may not transfer the patent or copyright to anyone else. The Contractor shall not use or release these materials without the prior written consent of the State.

3.8. Ownership of Intellectual Property. Any and all intellectual property, including but not limited to copyright, invention, trademark, trade name, service mark, and/or trade secrets created or conceived pursuant to or as a result of this contract and any related subcontract ("Intellectual Property"), shall be work made for hire and the State shall be considered the creator of such Intellectual Property. The agency, department, division, board or commission of the State of Arizona requesting the issuance of this contract shall own (for and on behalf of the State) the entire right, title and interest to the Intellectual Property throughout the world. Contractor shall notify the State, within thirty (30) days, of the creation of any Intellectual Property by it or its subcontractor(s). Contractor, on behalf of itself and any subcontractor(s), agrees to execute any and all document(s) necessary to assure ownership of the Intellectual Property vests in the State and shall take no affirmative actions that might have the effect of vesting all or part of the Intellectual Property in any entity other than the State. The Intellectual Property shall not be disclosed by contractor or its subcontractor(s) to any entity not the State without the

express written authorization of the agency, department, division, board or commission of the State of Arizona requesting the issuance of this contract.

3.9. Federal Immigration and Nationality Act. The contractor shall comply with all federal, state and local immigration laws and regulations relating to the immigration status of their employees during the term of the contract. Further, the contractor shall flow down this requirement to all subcontractors utilized during the term of the contract. The State shall retain the right to perform random audits of contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance. Should the State determine that the contractor and/or any subcontractors be found noncompliant, the State may pursue all remedies allowed by law, including, but not limited to; suspension of work, termination of the contract for default and suspension and/or debarment of the contractor.

3.10. E-Verify Requirements. In accordance with A.R.S. § 41-4401, Contractor warrants compliance with all Federal immigration laws and regulations relating to employees and warrants its compliance with Section A.R.S. § 23- 214, Subsection A.

3.11. Offshore Performance of Work Prohibited. Any services that are described in the specifications or scope of work that directly serve the State of Arizona or its clients and involve access to secure or sensitive data or personal client data shall be performed within the defined territories of the United States. Unless specifically stated otherwise in the specifications, this paragraph does not apply to indirect or 'overhead' services, redundant back-up services or services that are incidental to the performance of the contract. This provision applies to work performed by subcontractors at all tiers.

4. Costs and Payments

4.1. Payments. Payments shall comply with the requirements of A.R.S. Titles 35 and 41, Net 30 days. Upon receipt and acceptance of goods or services, the Contractor shall submit a complete and accurate invoice for payment from the State within thirty (30) days.

4.2. Delivery. Unless stated otherwise in the Contract, all prices shall be F.O.B. Destination and shall include all freight delivery and unloading at the destination.

4.3. Applicable Taxes

4.3.1. Payment of Taxes. The Contractor shall be responsible for paying all applicable taxes.

4.3.2. State and Local Transaction Privilege Taxes. The State of Arizona is subject to all applicable state and local transaction privilege taxes. Transaction privilege taxes apply to the sale and are the responsibility of the seller to remit. Failure to collect such taxes from the buyer does not relieve the seller from its obligation to remit taxes.

4.3.3. Tax Indemnification. Contractor and all subcontractors shall pay all Federal, state and local taxes applicable to its operation and any persons employed by the Contractor. Contractor shall, and require all subcontractors to hold the State harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under Federal, and/or state and local laws and regulations

and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation.

4.3.4. IRS W9 Form. In order to receive payment the Contractor shall have a current I.R.S. W9 Form on file with the State of Arizona, unless not required by law.

4.4. Availability of Funds for the Next State fiscal year. Funds may not presently be available for performance under this Contract beyond the current state fiscal year. No legal liability on the part of the State for any payment may arise under this Contract beyond the current state fiscal year until funds are made available for performance of this Contract,

4.5. Availability of Funds for the current State fiscal year. Should the State Legislature enter back into session and reduce the appropriations or for any reason and these goods or services are not funded, the State may take any of the following actions:

4.5.1. Accept a decrease in price offered by the contractor;

4.5.2. Cancel the Contract; or

4.5.3. Cancel the contract and re-solicit the requirements.

5. Contract Changes

5.1. Amendments. This Contract is issued under the authority of the Procurement Officer who signed this Contract. The Contract may be modified only through a Contract Amendment within the scope of the Contract. Changes to the Contract, including the addition of work or materials, the revision of payment terms, or the substitution of work or materials, directed by a person who is not specifically authorized by the procurement officer in writing or made unilaterally by the Contractor are violations of the Contract and of applicable law. Such changes, including unauthorized written Contract Amendments shall be void and without effect, and the Contractor shall not be entitled to any claim under this Contract based on those changes.

5.2. Subcontracts. The Contractor shall not enter into any Subcontract under this Contract for the performance of this contract without the advance written approval of the Procurement Officer. The Contractor shall clearly list any proposed subcontractors and the subcontractor's proposed responsibilities. The Subcontract shall incorporate by reference the terms and conditions of this Contract.

5.3. Assignment and Delegation. The Contractor shall not assign any right nor delegate any duty under this Contract without the prior written approval of the Procurement Officer. The State shall not unreasonably withhold approval.

6. Risk and Liability

6.1. Risk of Loss: The Contractor shall bear all loss of conforming material covered under this Contract until received by authorized personnel at the location designated in the purchase order or Contract. Mere receipt does not constitute final acceptance. The risk of loss for nonconforming materials shall remain with the Contractor regardless of receipt.

6.2. Indemnification

6.2.1. Contractor/Vendor Indemnification (Not Public Agency). The parties to this contract agree that the State of Arizona, its departments, agencies, boards and commissions shall be indemnified and held harmless by the contractor for the vicarious liability of the State as a result of entering into this contract. However, the parties further agree that the State of Arizona, its departments, agencies, boards and commissions shall be responsible for its own negligence. Each party to this contract is responsible for its own negligence.

6.2.2. Public Agency Language Only Each party (as 'indemnitor') agrees to indemnify, defend, and hold harmless the other party (as 'indemnitee') from and against any and all claims, losses, liability, costs, or expenses (including reasonable attorney's fees) (hereinafter collectively referred to as 'claims') arising out of bodily injury of any person (including death) or property damage but only to the extent that such claims which result in vicarious/derivative liability to the indemnitee, are caused by the act, omission, negligence, misconduct, or other fault of the indemnitor, its officers, officials, agents, employees, or volunteers."

6.3. Indemnification - Patent and Copyright. The Contractor shall indemnify and hold harmless the State against any liability, including costs and expenses, for infringement of any patent, trademark or copyright arising out of Contract performance or use by the State of materials furnished or work performed under this Contract. The State shall reasonably notify the Contractor of any claim for which it may be liable under this paragraph. If the contractor is insured pursuant to A.R.S. § 41-621 and § 35-154, this section shall not apply.

6.4. Force Majeure.

6.4.1. Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this Contract if and to the extent that such party’s performance of this Contract is prevented by reason of force majeure. The term “force majeure” means an occurrence that is beyond the control of the party affected and occurs without its fault or negligence. Without limiting the foregoing, force majeure includes acts of God; acts of the public enemy; war; riots; strikes; mobilization; labor disputes; civil disorders; fire; flood; lockouts; injunctions-intervention-acts; or failures or refusals to act by government authority; and other similar occurrences beyond the control of the party declaring force majeure which such party is unable to prevent by exercising reasonable diligence.

6.4.2. Force Majeure shall not include the following occurrences:

6.4.2.1. Late delivery of equipment or materials caused by congestion at a manufacturer’s plant or elsewhere, or an oversold condition of the market;

6.4.2.2. Late performance by a subcontractor unless the delay arises out of a force majeure occurrence in accordance with this force majeure term and condition; or

6.4.2.3. Inability of either the Contractor or any subcontractor to acquire or maintain any required insurance, bonds, licenses or permits.

6.4.3. If either party is delayed at any time in the progress of the work by force majeure, the delayed party shall notify the other party in writing of such delay, as soon as is practicable and no later than the following working day, of the commencement thereof and shall specify the causes of such delay in such notice. Such notice shall be delivered or mailed certified-return receipt and shall make a specific reference to this article, thereby invoking its provisions. The delayed party shall cause such delay to cease as soon as practicable and shall notify the other party in writing when it has done so. The time of completion shall be extended by Contract Amendment for a period of time equal to the time that results or effects of such delay prevent the delayed party from performing in accordance with this Contract.

6.4.4. Any delay or failure in performance by either party hereto shall not constitute default hereunder or give rise to any claim for damages or loss of anticipated profits if, and to the extent that such delay or failure is caused by force majeure.

6.5. Third Party Antitrust Violations. The Contractor assigns to the State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Contractor, toward fulfillment of this Contract.

7. Warranties

7.1. Liens. The Contractor warrants that the materials supplied under this Contract are free of liens and shall remain free of liens.

7.2. Quality. Unless otherwise modified elsewhere in these terms and conditions, the Contractor warrants that, for one year after acceptance by the State of the materials, they shall be:

7.2.1. Of a quality to pass without objection in the trade under the Contract description;

7.2.2. Fit for the intended purposes for which the materials are used;

7.2.3. Within the variations permitted by the Contract and are of even kind, quantity, and quality within each unit and among all units;

7.2.4. Adequately contained, packaged and marked as the Contract may require; and

7.2.5. Conform to the written promises or affirmations of fact made by the Contractor.

7.3. Fitness. The Contractor warrants that any material supplied to the State shall fully conform to all requirements of the Contract and all representations of the Contractor, and shall be fit for all purposes and uses required by the Contract.

7.4. Inspection/Testing. The warranties set forth in subparagraphs 7.1 through 7.3 of this paragraph are not affected by inspection or testing of or payment for the materials by the State.

7.5. Compliance With Applicable Laws. The materials and services supplied under this Contract shall comply with all applicable Federal, state and local laws, and the Contractor shall maintain all applicable license and permit requirements.

7.6. Survival of Rights and Obligations after Contract Expiration or Termination.

7.6.1. Contractor's Representations and Warranties. All representations and warranties made by the Contractor under this Contract shall survive the expiration or termination hereof. In addition, the parties hereto acknowledge that pursuant to A.R.S. § 12-510, except as provided in A.R.S. § 12- 529, the State is not subject to or barred by any limitations of actions prescribed in A.R.S., Title 12, Chapter 5.

7.6.2. Purchase Orders. The Contractor shall, in accordance with all terms and conditions of the Contract, fully perform and shall be obligated to comply with all purchase orders received by the Contractor prior to the expiration or termination hereof, unless otherwise directed in writing by the Procurement Officer, including, without limitation, all purchase orders received prior to but not fully performed and satisfied at the expiration or termination of this Contract.

8. State's Contractual Remedies

8.1. Right to Assurance. If the State in good faith has reason to believe that the Contractor does not intend to, or is unable to perform or continue performing under this Contract, the Procurement Officer may demand in writing that the Contractor give a written assurance of intent to perform. Failure by the Contractor to provide written assurance within the number of Days specified in the demand may, at the State's option, be the basis for terminating the Contract under the Uniform Terms and Conditions or other rights and remedies available by law or provided by the contract.

8.2. Stop Work Order.

8.2.1. The State may, at any time, by written order to the Contractor, require the Contractor to stop all or any part of the work called for by this Contract for period(s) of days indicated by the State after the order is delivered to the Contractor. The order shall be specifically identified as a stop work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage.

8.2.2. If a stop work order issued under this clause is canceled or the period of the order or any extension expires, the Contractor shall resume work. The Procurement Officer shall make an equitable adjustment in the delivery schedule or Contract price, or both, and the Contract shall be amended in writing accordingly.

8.2.3. Non-exclusive Remedies. The rights and the remedies of the State under this Contract are not exclusive.

8.3. Nonconforming Tender. Materials or services supplied under this Contract shall fully comply with the Contract. The delivery of materials or services or a portion of the materials or

services that do not fully comply constitutes a breach of contract. On delivery of nonconforming materials or services, the State may terminate the Contract for default under applicable termination clauses in the Contract, exercise any of its rights and remedies under the Uniform Commercial Code, or pursue any other right or remedy available to it.

8.4. Right of Offset. The State shall be entitled to offset against any sums due the Contractor, any expenses or costs incurred by the State, or damages assessed by the State concerning the Contractor's non-conforming performance or failure to perform the Contract, including expenses, costs and damages described in the Uniform Terms and Conditions.

9. Contract Termination

9.1. Cancellation for Conflict of Interest. Pursuant to A.R.S. § 38-511, the State may cancel this Contract within three (3) years after Contract execution without penalty or further obligation if any person significantly involved in initiating, negotiating, securing, drafting or creating the Contract on behalf of the State is or becomes at any time while the Contract or an extension of the Contract is in effect an employee of or a consultant to any other party to this Contract with respect to the subject matter of the Contract. The cancellation shall be effective when the Contractor receives written notice of the cancellation unless the notice specifies a later time. If the Contractor is a political subdivision of the State, it may also cancel this Contract as provided in A.R.S. § 38- 511.

9.2. Gratuities. The State may, by written notice, terminate this Contract, in whole or in part, if the State determines that employment or a Gratuity was offered or made by the Contractor or a representative of the Contractor to any officer or employee of the State for the purpose of influencing the outcome of the procurement or securing the Contract, an amendment to the Contract, or favorable treatment concerning the Contract, including the making of any determination or decision about contract performance. The State, in addition to any other rights or remedies, shall be entitled to recover exemplary damages in the amount of three times the value of the Gratuity offered by the Contractor.

9.3. Suspension or Debarment. The State may, by written notice to the Contractor, immediately terminate this Contract if the State determines that the Contractor has been debarred, suspended or otherwise lawfully prohibited from participating in any public procurement activity, including but not limited to, being disapproved as a subcontractor of any public procurement unit or other governmental body. Submittal of an offer or execution of a contract shall attest that the contractor is not currently suspended or debarred. If the contractor becomes suspended or debarred, the contractor shall immediately notify the State.

9.4. Termination for Convenience. The State reserves the right to terminate the Contract, in whole or in part at any time when in the best interest of the State, without penalty or recourse. Upon receipt of the written notice, the Contractor shall stop all work, as directed in the notice, notify all subcontractors of the effective date of the termination and minimize all further costs to the State. In the event of termination under this paragraph, all documents, data and reports

prepared by the Contractor under the Contract shall become the property of and be delivered to the State upon demand. The Contractor shall be entitled to receive just and equitable compensation for work in progress, work completed and materials accepted before the effective date of the termination. The cost principles and procedures provided in A.A.C. R2-7-701 shall apply.

9.5. Termination for Default.

9.5.1. In addition to the rights reserved in the contract, the State may terminate the Contract in whole or in part due to the failure of the Contractor to comply with any term or condition of the Contract, to acquire and maintain all required insurance policies, bonds, licenses and permits, or to make satisfactory progress in performing the Contract. The Procurement Officer shall provide written notice of the termination and the reasons for it to the Contractor.

9.5.2. Upon termination under this paragraph, all goods, materials, documents, data and reports prepared by the Contractor under the Contract shall become the property of and be delivered to the State on demand.

9.5.3. The State may, upon termination of this Contract, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under this Contract. The Contractor shall be liable to the State for any excess costs incurred by the State in procuring materials or services in substitution for those due from the Contractor.

9.6. Continuation of Performance Through Termination. The Contractor shall continue to perform, in accordance with the requirements of the Contract, up to the date of termination, as directed in the termination notice.

10. Contract Claims

All contract claims or controversies under this Contract shall be resolved according to A.R.S. Title 41, Chapter 23, Article 9, and rules adopted thereunder.

11. Arbitration

The parties to this Contract agree to resolve all disputes arising out of or relating to this contract through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. § 12-1518, except as may be required by other applicable statutes (Title 41).

12. Comments Welcome

The State Procurement Office periodically reviews the Uniform Terms and Conditions and welcomes any comments you may have. Please submit your comments to: State Procurement Administrator, State Procurement Office, 100 North 15th Avenue, Phoenix, Arizona, 85007.

	Exhibit 1 of Pricing Document: Pricing Sheet **Request for Proposal** **Solicitation No. BPM004541** **Communications Cabling Systems**	Arizona Department of Administration State Procurement Office 100 N 15th Avenue Phoenix, AZ 85007

Please utilize ***BPM004541 Solicitation Attachment 12 - Pricing Document*** to submit Pricing