Date: January 14, 2020

**ADDENDUM NO. 4** To Project Bidding Documents for:

RFQ CCC-056

A#03-119686 New Student Services Building Compton Community College District

tBP Project. No. 20987.00

tBP/ARCHITECTURE 4611 Teller Avenue Newport Beach, CA 92660 (949) 673-0300

TO: PROSPECTIVE BIDDERS

This Addendum forms a part of the Contract Documents and modifies the original approved Bidding Drawings. Acknowledge receipt of this Addendum in space provided on the Bid Form. Failure to acknowledge may subject Bidder to disqualification.

## CHANGES TO THE SPECIFICATIONS:

- 1. Spec 000110 TABLE OF CONTENTS Remove this section in its entirety and replace by the new section 000110 included in this addendum.
- 2. Spec 080671 DOOR HARDWARE SCHEDULE Revise hardware set door references as follows:
  - a. Set 1.0:
    - Add door 266A.
  - b. Set 2.0:
    - Delete door 012.
    - Add doors 008, 010, 011, 013.
  - c. Set 4.0:
    - Delete door 014.
    - Add door 012.
  - d. Set 5.0:
    - Delete doors 250A & 250B.
    - Add door 180C.
  - e. Set 7.0:
    - Delete door 168.
    - Add doors 266D & 266E.
  - f. Set 9.0:
    - Delete doors 114, 140, 163, 180 & 220.
    - Add doors 100, 140A, 140B, 170, 180A, 220A & 279.
  - g. Set 11.0:
    - Delete door 204.
    - Add door 204B.

- h. Set 13.0:
  - Delete door 281.
  - Add doors 141B & 281B.
- i. Set 14.0:
  - Delete doors 141, 282 & 287A.
  - Add doors 220B, 265, 266B, 266C, 272, 273, 274, 282A & 282B.
- 3. Spec 105129 PHENOLIC LOCKERS Added new section 105129 included in this addendum.
- 4. Spec 261105 PAD MOUNT TRANSFORMERS Added new section 261105 included in this addendum.
- 5. Spec 273000 AREA OF REFUGE 2-WAY COMMUNICATION Added new section 273000 included in this addendum.
- 6. Spec 283100 INTRUSION DETECTION Added new section 283100 included in this addendum.

#### CHANGES TO DRAWINGS

This addendum revisions includes revised full-size sheets unless noted otherwise below.

- 1. Revised SHEET AS-2 PARTIAL SITE PLAN DEMOLITION
  - a. Revised keynotes No. 1.
  - b. Added keynotes No's 2 & 3.
- 2. Revised SHEET A1-1 1<sup>ST</sup> FLOOR PLAN
  - a. Added Asterisk next to interior windows 101 in rooms 150 and 151.
  - b. Added Asterisk next to door 150 in room 150.
- 3. Revised SHEET A1-2 2<sup>ND</sup> FLOOR PLAN
  - a. Added Asterisk next to door 266A in room 266.
- 4. Revised SHEET A3-1 ROOF PLAN
  - a. Added roof tie downs at 3 locations on roof.
- 5. Revised SHEET A7-1 ENLARGED TOILET RM. PLANS & ELEVAS. 1ST FLR.
  - a. Added niche details for Toilet Tissue Dispenser and Paper towel dispenser to clarify condition.
- 6. Revised SHEET A7-2 ENLARGED TOILET RM. PLANS & ELEVAS. 2nd FLR.
  - a. Added niche details for Toilet Tissue Dispenser and Paper towel dispenser to clarify condition.

- 7. Revised SHEET A9-1 INTERIOR ELEVATIONS
  - a. Added Asterisk adjacent to window reference for window ALI/101 on Interior Elevation 100-3.
  - b. Added Asterisk adjacent to door reference for doors 150 and 166 on Interior elevation 100-3.
  - c. Modified door 100 on elevation 100-1 to correspond to the door schedule.
- 8. Revised SHEET A9-2 INTERIOR ELEVATIONS
  - a. Added window/door types to elevations.
- 9. Revised SHEET A9-3 INTERIOR ELEVATIONS
  - a. Added Asterisk adjacent to window reference for windows ALI/101 on Interior Elevation 151-1 and 150-1.
  - b. Added Asterisk adjacent to door reference for doors 150 on Interior Elevation 150-1.
- 10. Revised SHEET A9-4 INTERIOR ELEVATIONS
  - a. Added window/door types to elevations.
- 11. Revised SHEET A9-5 INTERIOR ELEVATIONS
  - a. Added Asterisk adjacent to door reference for door 166A on Interior Elevation 266-1.
- 12. Revised SHEET 3.01 EXTERIOR WALL DETAILS
  - a. Added detail 7.
- 13. Revised SHEET 4.02 METAL STUD PARTITION FIRESTOP DETAILS
  - a. Added detail 14.
- 14. Revised SHEET 8.01 DOOR SCHEDULE
  - a. Revised Door type B.
  - b. Added note 14 to Notes.
  - c. Clarified door type on door 150.
- 15. Revised SHEET 8.51 WINDOW SCHEDULE INTERIOR
  - a. Added Asterisk and note next to window type 101.
  - b. Added note 3 in ALI/101 notes.
- 16. Revised SHEET S0-1.8 TYPICAL DETAILS

- a. Detail 9: Added 9ft. max. angle length.
- 17. Revised SHEET S-2.1 MAT FOUNDATION PLAN
  - a. Reference added on sheet S-2.1A and S-2.1B for additional reinforcement.
  - b. Added reference to soils report for fill compaction requirements.
- 18. Revised SHEET S-2.2 GROUND FLOOR SLAB PLAN
  - a. Added reference to soils report for fill compaction requirements.

#### 19. Revised SHEET S-3.1 SECOND FLOOR FRAMING PLAN

- a. Showing W12x at end of bridge at seismic gap.
- b. Framed out opening for shaft near waiting room 230A.
- c. Added sheet note 14 to clarify bracing at SLRS.
- 20. Revised SHEET S-3.2 ROOF FRAMING PLAN
  - a. Updated select framing members
  - b. Updated HSS trellis support beam
  - c. Updated roof screen support location to match architectural drawings and updated/moved associated framing.
  - d. Added sheet note 15 to clarify angle bracing at SLRS.
- 21. Revised SHEET S4-0.1 FOUNDATION DETAILS
  - a. Detail 7 and 8: Revised 3" clear dimension to point to nut
- 22. Revised SHEET E0-2 SINGLE LINE DIAGRAMS
  - a. Revise UPS and connection requirements.
  - b. Add/change Plan Notes.
  - c. Revise emergency lighting inverter size.
- 23. Revised SHEET E0-6 EQUIPMENT ANCHORAGE SCHEDULE
  - a. Revise detail 1, "Pad-Mount Transformer Anchorage Detail.
- 24. Revised SHEET E0-7 LIGHTING FIXTURE SCHEDULE AND DETAILS
  - a. Revise Detail B title.
  - b. Revise relay schedule for MLCP.H
- 25. Revised SHEET E1-1 1<sup>ST</sup> FLOOR LIGHTING PLAN
  - a. Revise Elevator Machine Room 111 lighting circuit.
- 26. Revised SHEET E2-1 1<sup>ST</sup> FLOOR POWER PLAN
  - a. Revise Power Plan per revised Drawing.

- 27. Revised SHEET E2-2 2<sup>ND</sup> FLOOR POWER PLAN
  - a. Revise Power Plan per revised Drawing.
- 28. Revised SHEET EF-1 FIRE ALARM SCHEDULE NOTES AND DETAILS
  - a. Revised fire alarm sequence of operations.
- 29. Revised SHEET EF-3 FIRE ALARM RISER DIAGRAM
  - a. Revised fire alarm riser diagram.
- 30. Revised SHEET EF-4 ENLARGED SITE FIRE ALARM PLAN
  - a. Revised annunciator location to match Fire Alarm Plan.
- 31. Revised SHEET EF-5 1<sup>ST</sup> FLOOR FIRE ALARM PLAN
  - a. Revised drawing to indicate fire damper alarm relays and elevator curtain.
- 32. Revised SHEET EF-6 2<sup>ND</sup> FLOOR FIRE ALARM PLAN
  - a. Revised drawing to indicate fire damper alarm relays and elevator curtain.
- 33. Revised SHEET ET-1 TELECOM SYMBOL LIST NOTES AND DETAILS
  - a. Revised symbol list.
- 34. Revised SHEET ET-2 ENLARGED TELECOM ROOMS
  - a. Add rack elevations.
- 35. Revised SHEET ET-3 TELECOM SYSTEM RISER DIAGRAMS
  - a. Revised Telecom Conduit Riser Diagram "D".
- 36. Revised SHEET ET-5 1<sup>ST</sup> FLOOR TELECOM PLAN
  - a. Revised Telecommunications Plan.
  - b. Add Plan Notes.
- 37. Revised SHEET ET-6 2<sup>ND</sup> FLOOR TELECOM PLAN
  - a. Revise Telecommunications Plan
  - b. Add Plan Notes.
- 38. Revised SHEET ET-8 AV WIRING DIAGRAMS
  - a. Revise AV Wiring diagrams to include conduit requirements
  - b. Add AV Performance Notes.

NEW STUDENT SERVICES BUILDING COMPTON COMMUNITY COLLEGE DISTRICT

#### 39. Revised SHEET ET-9 AV WIRING DIAGRAMS

- a. Revise AV wiring diagrams to include conduit requirements
- b. Add AV Performance Notes.

---End of Memorandum---

#### ATTACHMENTS

1. Full Size Documents 30" x 42" Drawings: (Total 39)

#### ARCHITECTURAL

- PARTIAL SITE PLAN DEMOLITION AS-2 A1-1 1<sup>ST</sup> FLOOR PLAN 2<sup>ND</sup> FLOOR PLAN A1-2 A3-1 **ROOF PLAN** ENLARGED TOILET RM PLANS & ELEV'S - 1<sup>ST</sup> FLR. A7-1 ENLARGED TOILET RM PLANS & ELEV'S - 2<sup>ND</sup> FLR. A7-2 A9-1 INTERIOR ELEVATION A9-2 INTERIOR ELEVATION A9-3 INTERIOR ELEVATION A9-4 INTERIOR ELEVATION A9-5 INTERIOR ELEVATION EXTERIOR WALL DETAILS 3.01 4.02 METAL STUD PARTITON FIRESTOP DETAILS 8.01 DOOR SCHEDULE 8.51 WINDOW SCHEDULE - INTERIOR **STRUCTURAL**
- S0-1.8 TYPICAL DETAILS
- S-2.1 MAT FOUNDATION PLAN
- S-2.2 GROUND FLOOR SLAB PLAN
- S-3.1 SECOND FLOOR FRAMING PLAN
- S-3.2 ROOF FRAMING PLAN
- S4-0.1 FOUNDATION DETAILS

#### ELECTRICAL

- E0-2 SINGLE LINE DIAGRAMS
- E0-6 EQUIPMENT ANCHORAGE SCHEDULE
- E0-7 LIGHTING FIXTURE SCHEDULE AND DETAILS
- E1-1 1<sup>ST</sup> FLOOR LIGHTING PLAN
- E2-1 1<sup>ST</sup> FLOOR POWER PLAN
- E2-2 2<sup>ND</sup> FLOOR POWER PLAN
- EF-1 FIRE ALARM SCHEDULE, NOTES AND DETAILS
- EF-3 FIRE ALARM RISER DIAGRAM
- EF-4 ENLARGED SITE FIRE ALARM PLAN
- EF-5 1<sup>ST</sup> FLOOR FIRE ALARM PLAN

- EF-6 2<sup>ND</sup> FLOOR FIRE ALARM PLAN
- ET-1 TELECOM SYMBOL LIST NOTES AND DETAILS
- ET-2 ENLARGED TELECTOM ROOMS
- ET-3 TELECOM SYSTEM RISER DIAGRAMS
- ET-5 1<sup>ST</sup> FLOOR TELECOM PLAN
- ET-6 2<sup>ND</sup> FLOOR TELECOM PLAN
- ET-8 AV WIRING DIAGRAMS
- ET-9 AV WIRING DIAGRAMS

## 2. Specifications

- 000110 TABLE OF CONTENTS-
- 105129 LOCKERS
- 261105 PAD MOUNT TRANSFORMER
- 273000 AREA OF REFUGE 2-WAY COMMUNICATION
- 283100 INTRUSION DETECTION

## 3. SPREAD SHEET WITH QUESTIONS AND ANSWERS

RFC questions and answers spreadsheet (8 pages)

## 4. FOR REFERENCE ONLY DRAWINGS

- Library Structural drawings provided in response to RFC #45 (Sheets S1-S10)
- Highlighted drawing sheets A4.1 & A4.2 indicating where window system testing is required in response to RFC #22

Hung Cheng

tBP/Architecture

## **SECTION 00 01 10**

#### TABLE OF CONTENTS

#### VOLUME 1 OF 2

#### PROCUREMENT AND CONTRACTING REQUIREMENTS

#### **DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS**

- 00 01 01 Project Title Page
- 00 01 07 Seals Page
- 00 01 10 Table of Contents
- 00 31 00 Available Project Information

The following Division 00 - Procurement and Contracting Requirements documents and Division 01 - General Requirements sections are provided by the Compton Community College District and are under separate cover. These are not produced by the Architect.

- 00 11 13 Notice Calling for Bids
- 00 21 13 Instructions for Bidders
- 00 41 00 Bid Proposal
- 00 43 24 Pre-Bid Request for information
- 00 43 36 Subcontractors List
- 00 45 10 Verification of Contractor & Subcontractor DIR Registration
- 00 45 13 Statement of Qualifications
- 00 45 19 Non-Collusion Affidavit
- 00 45 26 Certificate of Workers Compensation Insurance
- 00 45 27 Drug-Free Workplace Certification
- 00 52 00 Agreement
- 00 61 00 Bid Bond
- 00 61 13 Performance Bond
- 00 61 14 Labor and Material Payment Bond
- 00 62 90 Verification of Certified Payroll Records Submittal to Labor Commissioner
- 00 65 36 Guarantee
- 00 72 00 General Conditions
- 00 73 00 Special Conditions

#### SPECIFICATIONS

#### **DIVISION 01 -- GENERAL REQUIREMENTS**

- 01 21 00 Allowances
- 01 23 00 Alternates

#### Addendum 4

- 01 25 00 Contract Modification Procedures
- 01 29 00 Payment Procedures
- 01 30 40 Post Bid Interview
- 01 30 50 Construction Procedures Manual
- 01 31 00 Project Coordination
- 01 32 00 Acceleration of Work
- 01 33 00 Submittal Procedures
- 01 35 10 Alteration Project Procedures
- 01 42 00 References
- 01 43 80 Work Plan and Milestone Schedule
- 01 45 00 Quality Control
- 01 50 00 Temporary Facilities and Controls
- 01 62 00 Product Options
- 01 63 00 Product Substitution Procedures
- 01 70 00 Cleaning
- 01 72 20 Field Engineering
- 01 73 20 Cutting and Patching
- 01 74 00 Warranties and Guarantees
- 01 77 00 Closeout Procedures
- 01 78 20 Project Record Documents
- 01 78 50 Operating and Maintenance Data
- 01 81 00 Commissioning

#### **DIVISION 02 -- EXISTING CONDITIONS**

- For Site Preparation and Earthwork, see Division 31
- For Pavements and Site Improvements, see Division 32
- For Site Utilities, see Division 33
- 02 41 00 Demolition
- 02 41 19 Selective Demolition

#### **DIVISION 03 -- CONCRETE**

- 03 10 00 Concrete Forming and Accessories
- 03 20 00 Concrete Reinforcing
- 03 30 00 Cast-in-Place Concrete
- 03 35 11 Concrete Floor Finishes

#### **DIVISION 04 -- MASONRY**

- 04 05 11 Mortar and Masonry Grout
- 04 20 00 Unit Masonry

04 22 00 - Concrete Masonry Units

#### **DIVISION 05 -- METALS**

- 05 05 19 Post-Installed Concrete Anchors
- 05 12 00 Structural Steel Framing
- 05 12 13 Architecturally-Exposed Structural Steel Framing
- 05 31 00 Steel Decking
- 05 40 00 Cold-Formed Metal Framing
- 05 50 00 Metal Fabrications
- 05 51 00 Metal Stairs
- 05 52 13 Pipe and Tube Railings
- 05 70 00 Decorative Metal

#### **DIVISION 06 -- WOOD, PLASTICS, AND COMPOSITES**

- 06 10 00 Rough Carpentry
- 06 20 00 Finish Carpentry
- 06 41 00 Architectural Wood Casework
- 06 64 60 Translucent Resin Panel System
- 06 83 16 Fiberglass Reinforced Paneling

#### **DIVISION 07 -- THERMAL AND MOISTURE PROTECTION**

- 07 05 53 Fire and Smoke Assembly Identification
- 07 21 00 Thermal Insulation
- 07 25 00 Weather Barriers
- 07 26 16 Under-Slab Vapor Retarder
- 07 42 13 Metal Wall Panels
- 07 42 13.23 Metal Composite Material Wall Panels
- 07 54 00 Thermoplastic Membrane Roofing
- 07 62 00 Sheet Metal Flashing and Trim
- 07 62 70 Exterior Penetration Flashing Panels
- 07 72 00 Roof Accessories
- 07 84 00 Firestopping
- 07 92 00 Joint Sealants

#### **DIVISION 08 -- OPENINGS**

- 08 06 71 Door Hardware Schedule
- 08 11 13 Hollow Metal Doors and Frames
- 08 14 16 Flush Wood Doors
- 08 31 00 Access Doors and Panels

Addendum 1

08 33 26\_13 - Folding Security Grilles (New Section)

08 42 29 - Automatic Entrances

08 43 13 - Aluminum-Framed Storefronts

08 44 13 - Glazed Aluminum Curtain Walls

08 62 23 - Tubular Skylights

08 71 00 - Door Hardware

08 80 00 - Glazing

08 87 33 - Architectural Decorative Window Films

08 91 00 - Louvers

#### **DIVISION 09 -- FINISHES**

09 05 61 - Common Work Results for Flooring Preparation

09 21 16 - Gypsum Board Assemblies

09 22 36.23 - Metal Lath

09 24 00 - Cement Plastering

09 30 00 - Tiling

09 51 00 - Suspended Acoustical Ceilings

09 65 00 - Resilient Flooring

09 68 13 - Tile Carpeting

09 84 30 - Sound-Absorbing Wall and Ceiling Units

09 91 13 - Exterior Painting

09 91 23 - Interior Painting

09 94 50 - Architectural Decorative Films

09 96 00 - High-Performance Coatings

#### **DIVISION 10 -- SPECIALTIES**

10 11 00 - Visual Display Units

10 14 00 - Signage

10 14 53 - Traffic and Parking Signage

10 21 13.17 - Phenolic Toilet Compartments

10 22 39 - Folding Panel Partitions

10 28 00 - Toilet Accessories

#### 10 51 29 - Phenolic Lockers (New Section)

10 44 00 - Fire Protection Specialties

10 71 13.43 - Fixed Sun Screens

#### **DIVISION 11 -- EQUIPMENT**

11 52 13 - Projection Screens

11 52 16 - Audio-Video Equipment

Addendum 4

#### Addendum 1

#### **DIVISION 12 -- FURNISHINGS**

12 24 00 - Window Shades

12 36 00 - Countertops

12 48 13 - Entrance Floor Mats and Frames

#### **DIVISION 14 -- CONVEYING EQUIPMENT**

14 24 00 - Hydraulic Elevators

#### VOLUME 2 OF 2

#### **DIVISION 21 -- FIRE SUPPRESSION**

- 21 00 50 Common Work Results for Fire Suppression Systems
- 21 05 17 Sleeves and Sleeve Seals for Fire-Suppression Piping
- 21 05 18 Escutcheons for Fire-Suppression Piping
- 21 05 23 General-Duty Valves for Water-Based Fire Suppression Piping
- 21 05 48 Vibration and Seismic Controls for Fire-Suppression Piping and Equipment
- 21 05 53 Identification for Fire-Suppression Piping and Equipment
- 21 12 00 Fire-Suppression Standpipes
- 21 13 13 Wet-Pipe Sprinkler Systems

#### **DIVISION 22 -- PLUMBING**

- 22 00 50 Common Work Results for Plumbing Systems
- 22 05 13 Common Motor Requirements for Plumbing Equipment
- 22 05 16 Expansion Fittings and Loops for Plumbing Piping
- 22 05 17 Sleeves and Sleeve Seals for Plumbing Piping
- 22 05 18 Escutcheons for Plumbing Piping
- 22 05 19 Meters and Gages for Plumbing Piping
- 22 05 23 General-Duty Valves for Plumbing Piping
- 22 05 29 Hangers and Supports for Plumbing Piping and Equipment
- 22 05 48 Vibration and Seismic Controls for Plumbing Piping and Equipment
- 22 05 53 Identification for Plumbing Piping and Equipment
- 22 07 19 Plumbing Piping Insulation
- 22 11 16 Domestic Water Piping
- 22 11 19 Domestic Water Piping Specialties
- 22 11 23 Domestic Water Pumps
- 22 13 16 Sanitary Waste and Vent Piping
- 22 13 19 Sanitary Waste Piping Specialties
- 22 13 19.13 Sanitary Drains
- 22 14 13 Facility Storm Drainage Piping

22	14	23 -	- Storm	Drainage	Piping	Specialties
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- 22 34 00 Fuel-Fired, Domestic-Water Heaters
- 22 42 13.13 Commercial Water Closets
- 22 42 13.16 Commercial Urinals
- 22 42 16.13 Commercial Lavatories
- 22 42 16.16 Commercial Sinks
- 22 47 16 Pressure Water Coolers

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

- 23 00 50 Common Work Results for HVAC Systems
- 23 05 13 Common Motor Requirements for HVAC Equipment
- 23 05 16 Expansion Fittings and Loops for HVAC Piping
- 23 05 17 Sleeves and Sleeve Seals for HVAC Piping
- 23 05 18 Escutcheons for HVAC Piping
- 23 05 19 Meters and Gages for HVAC Piping
- 23 05 23 General-Duty Valves for HVAC Piping
- 23 05 29 Hangers and Supports for HVAC Piping and Equipment
- 23 05 48 Vibration and Seismic Controls for HVAC
- 23 05 53 Identification for HVAC Piping and Equipment
- 23 05 93 Testing, Adjusting, and Balancing for HVAC
- 23 07 13 Duct Insulation
- 23 07 16 HVAC Equipment Insulation
- 23 07 19 HVAC Piping Insulation
- 23 09 23 Direct-Digital Control System for HVAC
- 23 11 23 Facility Natural-Gas Piping
- 23 21 13 Hydronic Piping
- 23 21 13.13 Underground Hydronic Piping
- 23 21 16 Hydronic Piping Specialties
- 23 21 23 Hydronic Pumps
- 23 23 00 Refrigerant Piping
- 23 29 23 Variable-Frequency Motor Controllers
- 23 31 13 Metal Ducts
- 23 33 00 Air Duct Accessories
- 23 33 46 Flexible Ducts
- 23 34 23 HVAC Power Ventilators
- 23 36 00 Air Terminal Units
- 23 37 13 Diffusers, Registers, and Grilles

Addendum 1

Addendum 1

Addendum 1

23 41 00 - Particulate Air Flitration	23	41 00	) - Pa	rticula	ate Air	Filtration
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- 23 51 23 Gas Vents
- 23 52 16 Fire-Tube Condensing Boilers
- 23 73 13 Custom Air-Handling Units

23 81 26.13 - Variable Refrigerant Flow Split-System Heat Pumps

#### **DIVISION 26 -- ELECTRICAL**

- 26 05 00 Common Work Results for Electrical
- 26 05 01 Basic Electrical Materials and Methods
- 26 05 05 Electrical Demolition
- 26 05 30 Conduit and Wire
- 26 05 43 Underground Ducts and Raceways for Electrical Systems
- 26 05 48 Sound Control
- 26 09 10 Supplemental Metering and Sub-Metering
- 26 09 43 Lighting Control Systems
- 26 10 05 Power Distribution (Over 600 volts)

#### 26 11 05 - Pad Mount Transformer

- 26 24 13 Switchboards
- 26 24 16 Branch Circuit Panelboards and Terminal Cabinets
- 26 24 19 Motor Control Equipment
- 26 33 53 Uninterruptible Power Supply UPS
- 26 50 00 Lighting Fixtures
- 26 52 00 Emergency Lighting Central Battery

#### **DIVISION 27 -- COMMUNICATIONS**

- 27 05 36 Cable Tray for Communications Systems
- 27 08 00 Commissioning of Communications Systems
- 27 11 00 Communications Equipment Rooms
- 27 20 00 Electronic Network Systems Infrastructure

#### 27 30 00 - Area of Refuge Two-Way Communication System Addendum 4

- 27 41 16 Audio-Video Systems and Equipment
- 27 51 26 Assistive Listening System
- 27 53 13 Clock System

#### **DIVISION 28 -- ELECTRONIC SAFETY AND SECURITY**

28 10 00 - Access Control

#### 28 31 00 - Intrusion Detection System

28 46 20 - Fire Alarm

Addendum 4

Addendum 4

#### **DIVISION 31 -- EARTHWORK**

- 31 10 00 Site Clearing
- 31 20 00 Earthwork
- 31 31 32 Import Materials Testing
- 31 71 23 Field Engineering
- 31 74 16 Storm Water Pollution Prevention

#### **DIVISION 32 -- EXTERIOR IMPROVEMENTS**

- 32 01 90 Tree and Shrub Preservation
- 32 01 91 Operation and Maintenance of Planting
- 32 12 16 Asphalt Paving
- 32 12 36 Seal Coat
- 32 13 13 Cement Concrete Paving
- 32 13 16 Decorative Concrete Paving
- 32 15 31 Decomposed Granite
- 32 17 13 Pavement Markings
- 32 32 13 Cast-in-Place Concrete Retaining Walls
- 32 84 00 Planting Irrigation
- 32 90 00 Landscape Planting

#### **DIVISION 33 -- UTILITIES**

- 33 10 00 Site Water Utilities
- 33 30 00 Sanitary Utilities
- 33 40 00 Storm Drainage Utilities

## END OF SECTION

## SECTION 10 51 29 PHENOLIC LOCKERS

#### PART 1 GENERAL

#### **1.01 SECTION INCLUDES**

A. Phenolic lockers.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 03 30 00 Cast-in-Place Concrete: Concrete base construction.
- B. Section 09 21 16 Gypsum Board Assemblies:
  - 1. Backing requirements.

#### **1.03 REFERENCE STANDARDS**

- A. ADA Standards Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- B. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2016.
- C. CBC Chapter 11B

#### 1.04 SUBMITTALS

- A. See Section 01 33 00 Submittal Procedures, for submittal procedures.
- B. Product Data: Manufacturer's published data on locker construction, sizes and accessories.
  - 1. Technical data for materials, fabrication, finishing, fasteners, hardware and installation details.
- C. Shop Drawings: Indicate locker plan layout, numbering plan and combination lock code.
  - 1. Submit with reference to Architect's detail numbers.
  - 2. Indicate lockers in detail, method of installation, fillers, trim, base and accessories, with actual dimensions of lockers for proper layout.
  - 3. Coordinate with available space to install lockers, as per field measurements.
- D. Full Size Sample: One full-size locker of each construction specified for evaluation of construction.
- E. Samples: Submit two samples 3 by 6 inches in size, of each color scheduled.
- F. Manufacturer's Installation Instructions: Indicate component installation assembly.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect locker finish and adjacent surfaces from damage.

#### 1.06 WARRANTY

- A. Warrantee all lockers and associated materials for:
  - 1. Minimum Ten (10) years against delamination, breakage, or corrosion.

- B. Include and cover all defects in materials and workmanship, excluding the finish and vandalism.
- C. Replace all defective parts at no cost to District.

## PART 2 PRODUCTS

#### 2.01 REGULATORY REQUIREMENTS

- A. Provide lockers meeting the requirements for the physically disabled of the California Code of Regulations (CCR), Title 24, Part 2, and ADA Standards, as amended. CBC 11B-225.2.1 and 11B-811.
  - 1. Provide latch and locking hardware that does not require twisting, pinching, or grasping to operate. CBC 11B-309.4.
  - 2. Provide shelf and pole at 48 inches maximum AFF and lower shelf at 15 inches minimum AFF. CBC 11B-308 and 11B-811.3
  - 3. Where lockers are provided, at least 5%, but no fewer than one of each type shal comply with CBC 11B-811.

#### 2.02 MANUFACTURERS

- A. Phenolic Lockers:
  - Alan Lewis Inc.; Titan Solid Phenolic Composite Lockers; www.alanlewisinc.net.
    a. Local Contact: Patrick Comerford 805.402.2167, patrick@sos.to, www.SOS.to.
  - 2. ASI Storage Solutions; Traditional Plus Phenolic Lockers: asistorage.com
  - 3. Columbia Lockers, a division of PSiSC; Phenolic Lockers: www.psisc.com/#sle.
  - 4. Hollman; P6000; www.hollman.com, or approved equal.
  - 5. List Industries, Inc: www.listindustries.com/#sle.
  - 6. Substitutions: See Section 01 63 00 Product Substitution Procedures.

#### 2.03 LOCKER APPLICATIONS

- A. Wardrobe Lockers: Phenolic lockers, wall mounted with matching closed base.
  - 1. Accessibility: Comply with CBC Chapter 11B, ICC A117.1, and ADA Standards.
  - 2. Width: 12 inches.
  - 3. Depth: 18 inches.
  - 4. Height: 72 inches.
  - 5. Locker Configuration: Four tier.
  - 6. Fittings: Size and configuration as indicated on drawings.
  - 7. Ventilation: By open space between the back of the door and locker body.
  - 8. Locking: Built-in combination locks.
    - a. Basis of Design: Keyless 1 locks as manufactured by Keyless, www.keyless.co; or approved equal.
    - b. ADA-Compliant Lockers: Provide 5% with <u>ADA Standards</u> and CBC 11B compliant locks..

9. Provide sloped top.

## 2.04 PHENOLIC LOCKERS

- A. Lockers: Factory assembled, made of phenolic core panels with mortise and tenon joints and stainless steel mechanical joint fasteners; fully finished inside and out; each locker capable of standing alone.
  - 1. Doors: Full overlay, covering full width and height of locker body; radiused corners and polished edges.
  - 2. Panel Core Exposed at Edges: Machine polished, without chips or tool marks; square edge unless otherwise indicated.
  - 3. Where locker ends or sides are exposed, finish the same as fronts or provide extra panels to match fronts.
  - 4. Provide filler strips where indicated, securely attached to lockers.
  - 5. Color: As selected by Architect from the manufacturer's full line
  - 6. Fasteners for Accessories and Locking Mechanisms: Tamperproof type.
- B. Component Thicknesses:
  - 1. Doors: 1/2 inch minimum thickness.
  - 2. Locker Body: One of the following combinations:
    - a. Tops, bottoms, and shelves 1/2 inch; sides 3/8 inch; backs 1/4 inch; minimum.
  - 3. End Panels and Filler Panels: 1/2 inch minimum thickness.
  - 4. Sloped Tops: 1/2 inch minimum thickness.
  - 5. Toe Kick Plates: 1/2 inch minimum thickness.
- C. Phenolic Core Panels: Nonporous phenolic resin and paper core formed under high pressure, with natural colored finished edges, integral melamine surface, matte finish, and uniform surface appearance; glued laminated panels not acceptable.
  - 1. Surface Burning Characteristics: Flame spread index of 75 or less, and smoke developed index of 450 or less; when tested in accordance with ASTM E84.
- D. Hinges: Stainless steel, satin finish; minimum of 180 degree opening; either exposed barrel 5knuckle hinge attached to back of door and inside of body with tamperproof screws, or concealed cabinetwork style hinge attached with tamperproof screws.
- E. Number Plates: Manufacturer's standard, minimum 4-digit, permanently attached with adhesive; may be field installed.
  - 1. Fonts to be a minimum 5/8 inch high up to four alphanumeric characters.
- F. Locks: Locker manufacturer's standard type indicated above.
- G. Lock Strike: Stainless steel, or black high impact ABS plastic strike plate attached to locker body with throughbolts.
- H. Built-In Lock Boxes: Same material as locker, manufacturer's standard size, with padlock hasps, for padlocks provided by Owner.
- I. Base:
  - 1. Locker Legs: Manufacturer's standard adjustable support and leveling leg, minimum 1 inch adjustment; with hardware for attaching toe kick plates.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify that prepared bases are in correct position and configuration.
- B. Verify bases and embedded anchors are properly sized.

#### 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install lockers plumb and square.
- C. Secure lockers with anchor devices to suit substrate materials. Minimum Pullout Force: 100 pounds.
- D. Bolt adjoining locker units together to provide rigid installation.
- E. Install end panels, filler panels, sloped tops, and miscellaneous panels.
- F. Install accessories.
- G. Replace components that do not operate smoothly.

## 3.03 CLEANING

A. Clean locker interiors and exterior surfaces.

## END OF SECTION

# SECTION 26 11 05 PAD MOUNT TRANSFORMER

#### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to the following:
  - 1. Examine all other Specification Sections and Drawings for related work required to be included as work under Division 26.
  - 2. General Provisions and Requirements for electrical work.

## **1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)**

- A. Submit Product Data Sheets for all wire, transformers, device plates, switches, lamps, circuit breakers, relays, cooling equipment, timeswitches, disconnects, fuses and meters.
- B. Provide Nameplate Engraving Schedule.
- C. Submit Detailed Shop Drawings including Dimensioned Plans, Elevations, Details, Interface Details, Schematic Single Line, Point To Point Control Wiring Diagrams and descriptive literature for all component parts. Submit Scaled Plans and Elevation View Drawings.
- D. Submit Full-Scale Time/Current Transparencies on log/log paper for all fuses, circuit breakers, ground fault system devices, and relays. Additionally, provide software to generate time/ current curves of each circuit protection device.
- E. Short Circuit, Coordination and Arc-Flash
  - 1. Perform and submit Engineered Settings for each equipment location, fuse and adjustable circuit breaker device, showing the correct time and current settings to provide the selective coordination within the limits of the specified equipment, per the latest applicable Standards of IEEE and ANSI. Provide electrical system short circuit fault analysis, both 3-phase line-to-line and 1-phase line-to-ground calculations as part of the Coordination Analysis recommendations. Provide Electric Arc-Flash calculations as part of the Coordination Analysis recommendations.
  - 2. The information shall be submitted in both tabular form and on time current log-log graph paper, with an Engineering Narrative. Written narrative describing data, assumptions, analysis of results and prioritized recommendations, six copies.
  - 3. The goal is to minimize an unexpected but necessary electrical system outage and personnel exposure to the smallest extent possible within the fault occurrence location, using the specified Contract Equipment. Shall comply with, but not limited to:
    - a. IEEE-242, Recommended Practices for Protection and Coordination of Industrial and Commercial Distribution.
    - b. IEEE-399, Recommended Practice for Industrial and Commercial Power System Analysis.
    - c. IEEE-1584, Guide to Performing Arc-Flash Hazard Study.

- d. CEC.
- 4. Electrical equipment including switchgear, switchboards, electric panels, unit substations, motor control centers, combination motor starters, transformers, disconnects, etc., shall each be labeled by the Manufacturer with "Electric-Arc-Flash" warning signs. The signs shall explain a hazard to personnel may exist if the equipment is worked on while energized or operated by Personnel while energized. The sign shall instruct Personnel to wear the correct Protective Equipment/clothing (PPE) when working "Live", or operating "Live" electrical equipment and circuits.
- F. Submit Transformer Test Reports.
- G. Factory Tests: Equipment tests ANSI C37.20. Certified copies of Design Tests, Production Tests, and Conformance Tests of the switchgear shall be submitted and review the Project Site. In lieu of the above tests, a report of these tests previously performed on identical units of each rating will be acceptable.

## 1.03 APPLICABLE STANDARDS

- A. The Equipment shall be designed, tested, and assembled in accordance with the latest applicable Standards of CEC, ANSI, IEEE, and NEMA and UL including not limited to the following latest revisions:
  - ANSI C57.12.01, C57.12.50, C57.12.51, C57.12.54, C57.12.56, C57.12.57, C57.12.58, C57.12.90, C57.12.91, C57.12.96 and ST1 NEMA ST20, NEMA TR1-27, and NEMA TRI, NFPA 70:
  - 2. The entire transformer assembly shall be UL listed and labeled.
- B. All Materials selected for the Manufacturer of the transformers shall be the best available for the purpose for which they are used, considering strength, ductility, durability and the best Engineering Practice.
- C. Equipment, Components/Devices, Switchboards, Switchgear and Transformers shall be manufactured by: Eaton; or Square-D; or Siemens.

## PART 2 - PRODUCTS

## 2.01 GENERAL

- A. Integrated and Tested Assembly
  - 1. The Pad Mount Transformer shall be self-contained factory assembled, tested and coordinated unit consisting of incoming line section(s), transformer section, and secondary outgoing section(s), totally metal enclosed, free-standing housings.
  - 2. All sections shall be combined in close coupled steel structure having internal barriers segregating the incoming line, transformer and outgoing sections, into separate compartments.
  - 3. Provisions for jacking, lifting, skidding, and rolling shall be made as an integral part of the equipment design for all sections.
  - 4. Construction shall be left to right or right to left as indicated on the Drawings.

- 5. Individual sections structure and the entire Pad Mount Transformer assembly shall be fabricated to comply with seismic earthquake occurring at the install location, without loss of continuous operation during an earthquake. Provide testing and documentation.
- B. Structure
  - 1. The Pad Mount Transformer shall have structural anchor points permanently attached to the assembly, to provide for bolting the unit sections securely to the floor.
  - 2. Interconnections between the transformers, primary and secondary equipment sections shall be provided by the factory.
  - 3. The unit shall be front accessible for normal maintenance. Rear access of primary incoming cables and secondary outgoing cables shall be provided, top or bottom conduit entrance as indicated on Drawings.
  - 4. Ventilating openings in the enclosure shall be located to insure proper cooling at installed equipment location shown on the Drawings. Provide expanded metal screens on vent openings. Construction shall prevent entry of rodents into the Pad Mount Transformer interior, including rodent screens on bottoms of all equipment sections.
  - 5. External and internal surfaces shall be painted. Clean and prime coat all metal structural surfaces with hot phosphatized rust-inhibitor prime coat prior to application of high quality hard dried acrylic enamel finish. Standard Manufacturers color. All sections shall be the same color.
  - 6. A prominent nameplate bearing equipment ratings, tap-changing information, Manufacturer identification, and reference serial numbers shall be mounted on the front of the unit.
  - 7. Provide a continuous and permanent mimic-bus on the front of each equipment section to graphically show electrical power flow through the equipment.
- C. Special Configurations
  - 1. Special consideration shall be required for installation to fit into limited space to include but not limited to, cutouts or flanged throats to facilitate mating with other primary and secondary switchgear and equipment (and/or coordination to match existing use and other terminations).
- D. Seismic Earthquake and Wind Loading Withstand, Testing and Certification (Additional Requirements)
  - The complete assembly; including attached circuit protection devices, transformer, switchboards/switchgear, housings/enclosures, accessories, supports/anchors etc., shall be designed, manufactured and tested for:
    - a. Wind loading all outdoor equipment locations.
    - b. Earthquake and CBC/IBC withstand all indoor and all outdoor equipment locations.
  - 2. Shall withstand, survive and maintain continuous non-interrupted energized operation (running) during the seismic event occurrences. Continued normal energized operation after the wind event and seismic event occurrences have abated.
  - 3. Shall include demonstrations of successful operation-and-run test after completion of seismic event shake-table simulation.

- 4. Provide three dimensional finite element analysis demonstrating anchorage and operational withstand of wind loading not less than as follows and as required by AHJ:
  - a. 110MPH West Coast States USA and Hawaii, per ASCE/SEI 7-10.
- 5. Acceptance Test Seismic Qualification of proposed Pad Mount Transformer shall employ triple axis shake-table simulation of the Required Response Spectrum (RRS) seismic event motion, certified and approved by the AHJ.
- 6. Seismic test shall be performed by a third party independent Test Laboratory. Wind Analysis and Seismic Testing and Reports shall be certified, signed and "Stamped" by PE Professional Engineer licensed and in good standing in the State, Civil Engineer or Structural Engineer.

#### 2.02 WEATHERPROOF ENCLOSURES

- A. Equipment indicated as Weather Proof (W.P.) or outdoors shall be NEMA 3R, non-walk-in, tamper resistant construction. Provide full height hinged doors with provisions for padlocking the doors in the closed position.
- B. Provide a nominal 300 watt sealed, resistance type, anti-condensation heater in each equipment section. Heaters shall be controlled automatically by Thermostats and humidistats. A circuit breaker shall be provided to supply equipment buss secondary voltage to the heaters, all prewired by the Manufacturer.
- C. Finish shall be electrostatically applied finish paint over iron oxide rust inhibitor primer. Finish color shall be Manufacturers standard color, olive green Munsel #7GY3.29/1.5. The bottom side and bottom 6 inches of the equipment shall be coated with 4 mil minimum thickness rust inhibitor undercoating over finish paint, on all interior surfaces. Finish withstand test without face corrosion or blistering:
  - 1. Salt spray withstand 2000 hours ASTM B117.
  - 2. Humidity withstand 750 hour ASTM D2247.
- D. Exposed Hardware and Hinges shall be Stainless Steel type 302 or 304, tamper resistant.

#### 2.03 BUSSING

- A. Horizontal and Vertical Busses shall be full length. Busses shall have a minimum withstand rating equal to available fault current indicated on Drawings, plus a 25% additional capacity (safety margin). However, in no case shall the bus rating be less than 50,000-amp, RMS symmetrical, secondary side: 50,000-amp, RMS symmetrical primary side, at indicated operating voltages.
- B. Provide interconnected full capacity secondary neutral bus in each section with the same ratings and construction as the phase busses.
- C. Provide Interconnected Ground Bus in each Section.
- D. Provide Space, all hardware and mounting attachments for future devices as indicated on the Drawings.
- E. Main Horizontal Bussing shall be full capacity in all Equipment Sections.
- F. Vertical Riser Buss may be tapered, to not less than one third the ampacity rating of the main horizontal buss; but in no case shall the vertical buss be of less capacity than the sum of the

frame size ampacities of overcurrent devices mounted in the respective sections including any indicated spares and spaces.

- G. The Equipment Bussing shall be of sufficient cross-sectional area to meet UL Standard 891 on temperature rise. Bus shall be copper or extruded aluminum with silver-plated bus joints. The through buss shall have provisions for the addition of future equipment sections. The through bus supports, connections and joints shall be bolted with Grade 5 hex head bolts and Belleville washers to Minimize Maintenance Requirements.
- H. Primary Bussing shall be fully insulated with a factory applied, extruded bus insulating material. All primary bussing shall be supported on porcelain insulators. Primary bussing BIL shall be 95kV for 15kV Class and 60kV for 5kV and 2.5kV class.
- I. The Minimum Bussing Capacity shall be rated for unit full load capacity plus the additional capacity with fan cooling installed, but in no case less then indicated on the Drawings.

## 2.04 INCOMING LINE

- A. The Incoming Line shall be provided with factory filled porcelain "slip-on" type cable terminations for the incoming feeder entering the section as indicated on the Drawings, provide support brackets on equipment frame for cable terminators. Provide 4-bolt spade lug connector, bolt to bus with grade 5 HEX head bolts and Belleville washers.
  - 1. BIL 110 kV
  - 2. Current Rating same as feeder cable
  - 3 1 minute dry AC test 50 kV
  - 4. 6 hour dry, AC test 35 kV
  - 5. 10 second wet, AC test 45 kV
  - 6. 15 minute dry, DC test 75 kV
  - 7. Compatible with cable diameter, quantity and type as shown on Drawings.
  - 8. Provide cross support channels with porcelain cable cradles for incoming feeder conductors.
- B. The Primary Disconnect Switch(es) shall be load interrupting with quick-make, quick-break stored energy manual operating mechanism. Switches shall be 3-pole, two position gang operated with a current rating of 600-amp continuous and full load break. Switches shall be designed to meet NEMA Standards for a Class-A device. Arc interruption shall take place in air, aided by de-ionizing arc chutes operating in conjunction with high speed moving arcing contacts.
- C. A Door Mounted Viewing Window shall provide observation of switch contacts.
- D. The Switch and all Components within the Primary Incoming Section shall have a minimum NEMA Basic Impulse Level (BIL) corresponding to the system voltage class of 60kV BIL (for 2.5kV Class and 5kV Class) 95kV - BIL (for 15kV Class) as indicated on the Drawings. 50,000amp RMS asymmetrical momentary fused withstand rating and 40,000 ampere RMS asymmetrical close and latch.
- E. Means shall be provided to padlock the switch in the open or closed position.
- F. Provide Lightning Surge Arresters Mounted inside the Compartment, one per phase distribution type, connected between the switch and fuses. Surge arrestors shall be non-fragmenting type and comply with ANSI-C62.1.

- G. Non-expulsion current limiting primary fuses with a short circuit interrupting rating of 50,000amp RMS symmetrical shall be supplied fixed mounted on the load side of each switch pole. The fuse continuous current rating shall be in accordance with the Manufacturer's recommendation to adequately protect the transformer from damaging overloads and short circuits. Fuses shall provide a visible "Blown-fuse" indication. Fuses shall be removable from the front without special tools.
- H. Access to Fuses While Energized shall be positively prevented through a mechanical interlock system which keeps the section front door locked closed when the switch is in the closed position. Provide warning-labels if switch/fuse "back-feed" may occur and provide mechanical / electrical interlocks between "main" secondary disconnect and primary switch/fuse to prevent access for the duration of the back feed condition.
- I. Any Internal Parts that Remain Energized with the Switch Open shall be guarded by a fixed internal safety barrier to prevent inadvertent contact by Operating or Maintenance Personnel with the door open. Interphase insulating barriers shall be provided for the system voltage class, to isolate switch and fuse poles from each other and from grounded metal.

## 2.05 TRANSFORMER SECTION (LIQUID FILLED)

- A. General
  - 1. A three phase, 60Hz AC, two winding, liquid filled transformer shall be provided as part of the Pad Mount Transformer assembly. Transformers shall comply with NEMA TR-1 and TP-1 latest revisions.
  - 2. Core and coil shall be immersed in insulating liquid fluid. The transformer self-cooled Outside Air (OA) dual rating shall be 55/65 centigrade rise. The transformer shall be rated for a 12% continuous additional overload capacity at rated voltage without exceeding 65 degree centigrade winding temperature rise. The transformer temperature rise rating shall be in 40 degrees ambient, with an average ambient for any 14-hour period of 30 degrees C.
  - 3. Transformer assembly, transformer core and coil shall be earthquake restrained for the installation location earthquake seismic CBC/IBC rated.
  - 4. Refined Cold Rolled Optimized Grain-Oriented (CRGO) electro-magnetic silicon steel fabricated transformer core (ANSI-M5 or better grade), insulated core laminations and finish to protect against corrosion and improve transformer operational efficiencies.
    - a. Shall reduce the transformer core no load loses to approximately 0.18% or less of the transformer nameplate rating.
- B. Transformer Efficiency shall meet or exceed NEMA-TP1 (latest revision) Requirements, Class-1 efficiency levels and shall be marked as energy efficient for United States Department of Energy DOE/EPA "Energy-Star" Certification.
- C. Less-Flammable Transformer Liquids:
  - NFPA 70, FM P7825/3990 and UL-EOVK/EOUV listed for less-flammable liquids. Fire point not less than 360 degrees centigrade and flash-point not less than 330 degrees centigrade, testing in accordance with ASTM D92. Dielectric strength not less than 33kV tested in accordance with ASTM D877. Shall be fully miscible with mineral based fluids.
  - 2. Transformer liquid fluids shall be biodegradable, non-toxic, non-bio accumulating, nonmutagenic; produce no EPRI (Furhns); produce no formal decides; produce no PCDD

(Dioxins). Renewable resource based transformer insulating fluid. Shall be noncontaminating during electrical load break operations and energizing switching operations, occurring with switching devices and/or fuses immersed inside the transformer fluid.

- 3. Do not provide transformer liquids including mackerel and insulating liquids containing Polychlorinated Biphenyl's (PCB's), tetrachloroethylene (perchloroethylene), chlorine compounds, or halogenated compounds.
- 4. Shall be compatible with transformer insulation, gaskets and seals. Envirotemp-FR3 transformer fluid.
- D. Transformer Impedance shall be NEMA standard but not be less than indicated on the Drawings or exceed the value indicated on the Drawings by more than 15% of the indicated value.
- E. The Transformer Tank shall be completely welded, sealed metal tank construction. Gas space shall be provided in the tank to limit internal pressure due to normal load cycle operation, minimum 7.0 PSI. The transformer tank shall withstand not less than 15PSI positive internal pressure and 5PSI negative internal pressure without leaking or rupture.
- F. Taps (De-Energized Operation):
  - 1. Tap changer external transformer tank operation, manual handle operator.
  - 2. Full kVA capacity external primary manual tap changer shall provide two 2.5% above normal three 2.5% below normal, voltage adjustments. Tap changer handle shall be padlockable.
  - 3. When dual primary voltage windings are specified, both windings shall have taps.
- G. Porcelain Insulated Connector Bushing Connectors shall be provided on the line and load sides (opposite sides) of the transformer tank.
- H. Transformer Throat Flanges to Enclose the Connector Bushings shall be provided on the line and load side of the transformer tank. The flanges shall provide connection to the incoming line and outgoing equipment sections.
- I. The Following Transformer Components shall be provided.
  - 1. Combination drain and sampling valve.
  - 2. 1-inch top filter press connection.
  - 3. Pressure test connection.
  - 4. Dial type transformer winding temperature gauge, with resettable peak indicating pointer, "high-temp" alarm contacts and on-off relay for stop-start cooling fan operation.
  - 5. Liquid level gauge.
  - 6. Lifting jacking, skidding provisions.
  - 7. Ground pad.
  - 8. Handhole on cover, gasketed and bolted connections.
  - 9. Pressure/vacuum gauge.
  - 10. Pressure relief device for positive over pressure and negative under pressure automatic protection.
  - 11. Instruction nameplate.

- 12. Continuous welded tank cover.
- 13. Provisions for forced air fan cooling.
- J. Cooling
  - 1. Transformer cooling fins shall be welded to the transformer tank.
  - 2. Transformer shall be Class OA (Liquid Immersed Outside Air) self-cooling below 300kVA and Class OA/FA (forced air fan) for 300kVA and above.
    - a. The (OA) self-cooling kVA rating, primary and secondary voltage ratings shall be as shown on the Drawings.
    - b. Provide Automatic Forced Air fan cooling (OA/FA) to increase the transformer capacity to not less than 120% of the self-cooling (OA) rating.
    - c. All unit substation sections and bus capacity shall be increased to equal or exceed the forced air fan cooling transformer rating.
- K. Transformer insulation Basic Impulse Level-BIL rating.

<u>Nominal Voltage</u>	Primary- BIL	Secondary- BIL
12kV Class	95kV	30kV
5kV Class	60kV	30kV
2.4kV Class	60kV	30kV

BIL Rating prior to use of surge arrestors.

- L. Transformer Windings and Lead-outs shall be insulated copper or aluminum. Current carrying bolted connections shall incorporate Belleville compression washers.
- M. Electrostatic Shield: Provide full width, copper, and 100% electrostatic shield, between primary and secondary transformer windings, on each transformer phase. Shields shall be low impedance/inductance grounded to the transformer metal frame and shall attenuate common mode and transverse mode electrical noise.
- N. Transformers shall be rated K4, in accordance with IEEE-C57.110.

#### 2.06 MISCELLANEOUS INSTRUMENTS

- A. Instrument and Control Transformers: ANSI C57.13 and NEMA ST20 as applicable. Transformers shall be specifically designed for use on respective protective relay or metering schemes utilized.
- B. Current transformers meter/relay grade shall be multi-ratio tap, tap setting as indicated on Drawings, (minimum of three field adjustable tap settings) with 5-amp secondary, insulation class, 600 volt, 60Hz, single ring type, and shall have an Accuracy Classification of 0.3 with the burden of B.01, B.02 and B.03.
- C. Control and transfer switches shall be of the rotary, oil-tight multi-position, cam-operated, multistage type, with dust cover and silver-to-silver contacts rated 600 volts, 20-amp and adequate for the duty performed in excess of 10-amp. Equip each switch with engraved plastic escutcheon nameplate identifying its function and position.

#### 2.07 CONTROL WIRING

A. Terminal blocks with barriered terminals for each connection shall be provided for all control wiring terminator points. Control wiring shall be run in horizontal and vertical, isolated,

internal metal wire-ways and shall be carried across hinges in laced bundles. Wire terminators shall be crimp-on type spade terminal

- B. Secondary control wiring shall be a minimum of 14 AWG stranded copper type SIS 600-volt insulation.
- C. Control circuits shall have circuit number tags at each termination or break in the wire to match circuit numbers on terminal strips and control wiring diagrams.

## 2.08 MISCELLANEOUS

Provide painted signs on housing doors, minimum 3-inch letters: "WARNING HIGH VOLTAGE AUTHORIZED PERSONNEL ONLY".

## 2.09 FORCED-AIR COOLING EQUIPMENT:

- A. General:
  - 1. Provide transformer forced air, fan cooling for transformers 300kVA and larger. The equipment shall consist of cooling fans, temperature-sensing devices, and controls, complete with housing, mounting devices, and wiring. Operation of the cooling fans shall be automatically controlled by temperature-sensing devices. Connect a manually-operable switch in parallel with the automatic control contacts. Enclose the controls in a cabinet located on the side of the transformer or mount the temperature control module on the front panel of the trans-former enclosure at a height not greater than 60 inches above.
  - 2. Cooling fans shall increase the transformer and outgoing secondary load capacity an additional amount as follows:
    - a. Dry type transformers, 30% increase.
    - b. Cast coil transformers, 15% increase.
    - c. Liquid filled transformers, 15% increase.
- B. Operation
  - 1. Cooling Fans: Motors shall be rated for the same voltage as secondary winding or an auxiliary power transformer shall be furnished. The auxiliary transformer shall be provided with primary and secondary over current protection. The fan motors shall be of totally enclosed fan cooled construction, 1 phase, ball bearing, continuous duty rated with 3-wing blades; direct drive blower wheels will also be accepted.
  - 2. Temperature-Sensing Devices: Thermal sensors shall be embedded in the hot spot area of each secondary coil (a single top fluid sensor for liquid filled transformers) to provide the most precise measurement of heat rise performance.
  - 3. Three-phase electronic temperature monitor unit accepting input from three thermal sensors. The monitor shall track the temperature of the transformer with automatic digital displays and functions controlled by the signal received from the hottest phase. Unit features shall include temperature monitoring of each transformer coil, hottest phase temperature display, temperature display of any phase, two SPST contacts for both local and remote fan control, temperature alarm, and trip functions, manual fan operation, local alarm with local and remote silence feature. Monitor unit shall be suitable for use on 120, 240, 277 volts AC, 60Hz supply power. It shall employ an

automatic fan exerciser, which shall energize fans for approximately 1-minute every 6days.

#### PART 3 - EXECUTION

#### 3.01 GENERAL REQUIREMENTS

- A. Electrical Installation shall conform to ANSI C2, NFPA 70, and to the Requirements specified herein. All equipment and materials shall be new unless indicated or specified otherwise.
- B. Prior to Energizing and Testing, Manufacturer's Field Engineer shall visually inspect and verify devices are operational and bus connects complete.

## 3.02 ANCHORING OF EQUIPMENT

Anchoring of equipment shall be in compliance with the earthquake seismic vertical and lateral acceleration install location and CBC/IBC rated. Submit structural calculations and details.

# 3.03 TORQUE INTERCONNECTING BUSSING BOLTS AND ANCHOR BOLTS PER MANUFACTURER'S DIRECTIONS.

## 3.04 INSTALLATION OF EQUIPMENT AND ASSEMBLIES

Install and connect equipment and switchgear, furnished under this or other Sections as indicated on Project Drawings, the Shop Drawings, and as specified herein.

## 3.05 FIELD TESTS, INSPECTIONS, AND COMMISSIONING (ADDITIONAL REQUIREMENTS)

- A. Test all equipment after the installation has been completed, and the Owner's Representative has been given 10-days' notice of the proposed tests. The Contractor shall provide operating tests demonstrating that all equipment and devices operate in accordance with the Requirements of the Documents.
- B. Adjustable Settings
  - Shall be set and tested after the equipment installation is complete, for proper operation at set points, pickup, and/or drop-out points. Shall be performed by an independent Test Laboratory and Trained Certified Technicians actively engaged in testing and using test instruments designed and manufactured for the purpose.
  - 2. Provide protection device settings and test, to insure operation and coordination as described in the time/current coordination final submittal, and in accordance with the Contract Documents.
  - 3. Calibrate and testing shall comply with the Equipment Manufacturer recommendations.
  - 4. Correct deficiencies, non-compliant equipment and retest to demonstrate compliance.
  - 5. Submit reports to Owner's Representative, six copies.
- C. Acceptance Checks and Tests: Perform in accordance with the Manufacturer's recommendations and NFPA 70B, Appendix I and ANSI C57.94. Perform work in a careful and safe manner so as not to endanger personnel or equipment. Acceptance checks and tests shall include, but not be limited to, the following:
  - 1. Inspect devices, equipment, etc., for damage or maladjustment caused by shipment or installation.

- 2. Remove wedges, ties, and blocks installed by the Manufacturer to prevent damage during shipment.
- 3. Verify ground lugs and grounding connections.
- 4. Verify that the proper phase sequence in maintained.

## 3.06 MISCELLANEOUS

A. Provide painted signs on equipment housing doors, minimum 3-inch letters "DANGER HIGH VOLTAGE, KEEP OUT, AUTHORIZED PERSONNEL ONLY".

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## SECTION 27 30 00

### AREA OF REFUGE - TWO-WAY COMMUNICATION SYSTEM

## IP COMMAND CENTER (BASE STATION AND DISTRIBUTION MODULE) CALL BOXES AND SIGNAGE

#### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. The IP Command Center is to be located at a central control point on the first floor or as determined by local Authority Having Jurisdiction. RATH<sup>®</sup> Command Center IP Call Boxes are to be located on all floors above and below the first floor, ideally next to a stairwell emergency exit or elevator landing on each floor.
- B. The IP Command Center must be capable of connecting to an existing Network and providing inputs for the IP Call Boxes. Visual indicators on the IP Command Center allow rescue personnel to know which IP Call Box needs assistance. The IP Command Center must allow rescue Personnel to speak to each IP Call Box individually. The IP Command Center must include both a handset and speakerphone to communicate back to the IP Call Boxes.
- C. The Emergency Communication Hardware shall comply with the Americans with Disabilities Act (ADA). The IP Call Box shall have the ability to be programmed with up to two emergency phone numbers (either both off-site or Base Station and off-site). Upon activation of the emergency push button, a call will be automatically placed to the IP Command Center. If no one answers at the IP Command Center, the IP Call Box must dial a secondary location outside the building to activate two way off-site person to person voice communications.

#### 1.02 SUBMITTALS

- A. Submit Product Data Sheets. Include operation manuals.
- B. Wiring or shop diagrams detailing wiring schematics, cabling.

#### **1.03 CONSTRUCTION**

- A. The IP Command Center (2500 Series) shall include both the Base Station and Distribution Module. The Base Station must have a powder coated steel housing (surface or flush mount) or be desk mounted, include a black handset with coil cord and be powered from the Distribution Module.
- B. Distribution Module must be a surface mount enclosure, include connections for the IP Call Boxes and power the Base Station. The Distribution Module shall be powered from 120vac power with a battery backup that provides power for a minimum of 4 hours (RATH<sup>®</sup> part # RP7700104).
- C. The IP Call Boxes (2100 Series) must be in full compliance with the ADA. IP Call Boxes require a hands-free speakerphone with an LED to indicate status of call.
- D. The IP Call Boxes must allow the programming in of a specific location message of the unit. This allows rescue Personnel to know the location of the activated IP Call Box.
- E. The IP Call Boxes are to be located no higher than 48-inches reach to the center of the push button above ground level to ensure conformance with the ADA Requirements.

- F. The IP Call Boxes must have a Braille face plate to ensure conformance with the ADA Requirements.
- G. The IP Command Center must provide an audible and visual indicator that an IP Call Box has been activated.
- H. The 120vac Power Supply RATH<sup>®</sup> part # RP7700104 must be capable of supplying power to a minimum of one Base Station and one Distribution Module.

## 1.04 MOUNTING

- A. The IP Command Center is to be mounted on a flat wall surface or a desk top.
- B. The IP Call Boxes are to be wall surface or flush mounted.

## 1.05 ELECTRICAL

- A. The IP Command Center is to be powered by the Distribution Module. The IP Call Boxes are to be powered by PoE at 802.3af or a separate battery backed up 12-volt source.
- B. Distribution Module shall be powered by the RATH<sup>®</sup> part # RP7700104 Power Supply. It shall require 120vac power and provide battery backup capable of providing a minimum of 4-hours of electrical backup in case of building power failure.
- C. The Base Station shall connect to the Distribution Module with a single wire pair (10 zone) 2wire pairs (16-64 zone) or 3-wire pairs (80-up).
- D. Each IP Call Box shall connect to a local Network Switch directed to the Command Center Distribution Module. Wiring from the IP Call Box to the Network Switch shall be a minimum of CAT 5e or 6. If CI cable is required, utilize RATH<sup>®</sup> cable part # RP6600300M4.
- E. System shall be in compliance with all State and Local Electrical Codes.
- F. If protective covers are required on the Call Boxes per Local Municipal Codes, use RATH<sup>®</sup> part # 2100-XXXIPC2.
- G. If the monitoring of system integrity is required per NFPA 72, use RATH<sup>®</sup> Supervisor part # 2500-VOIPM.

## 1.06 COMMUNICATIONS

- A. The IP Call Boxes shall be an ADA compliant and vandal resistant speakerphone.
- B. The IP Call Boxes shall be hands-free and be a push-button-once to talk system. Once the button has been pushed, the IP Call Box will call the Base Station. If no answer at the Base Station, it will automatically call a preprogrammed emergency number. The IP Call Box must be capable of being programmed with up to two emergency phone numbers (either both off-site or Base Station and off-site).
- C. The IP Call Box shall have location message capability. The IP Call Box must have a minimum 18-second recordable message capability, programmable to play one or two times. IP Call Box shall notify called party of the location of the call upon being received at the emergency dispatch center.
- D. The IP Call Box shall be capable of allowing the called party to replay the location message if necessary to ensure an understanding of the caller location.
- E. If system is not attended to 24 hours a day, the IP Call Box must dial a secondary location outside the building to activate two-way off-site person to person voice communications.

- F. Once call has been made (button pushed), the call can only be terminated by the called party.
- G. The IP Call Box must have a red LED that will light up upon push of the button. The light shall be a solid color when the IP Call Box is activated, and will flash when call has been answered.
- H. The IP Call Box must be capable of being programmed and reprogrammed on-site.
- I. Standard IP Call Box features:
  - 1. Two number programming (either both off-site or Base Station and off-site).
  - 2. Operating temperature of between  $-40^{\circ}$ F to  $+150^{\circ}$ F ( $-40^{\circ}$  to  $+65^{\circ}$ C).
  - 3. On-site programmable.
  - 4. Powered from PoE at 802.3af or separate battery backed up 12-volt source.
  - 5. EEPROM memory to protect programming.

## PART 2 - PRODUCTS

## 2.01 SIGNAGE

System shall consist of a minimum of one 120/277vac edge light sign (part # 7050 or 7050E), and a "location" and "instruction" sign (part # 7049) to clearly indicate location of designated area. A tactile sign (part # 7043/7044 or 7087) with raised letter and Braille shall be located at entrance to area.

## 2.02 GRAPHICS

- A. IP Command Center must include wording identifying the location of each IP Call Box and light an LED when a particular IP Call Box has been activated.
- B. The IP Call Box wording must include "Emergency Phone", International Phone symbol and raised Braille lettering.
- C. Cabling
  - 1. Cabling for two-way communication system shall meet the Applicable Requirements for pathway survivability. Cabling installation shall consist of the following:
    - a. Two hour fire-rated circuit integrity (CI) cable RATH® part # RP6600300M4
    - b. Two hour fire-rated cable system
    - c. Two hour fire-rated enclosure or protected area

## 2.03 WARRANTY

The IP Command Center and IP Call Boxes shall be warranted for a period of 3-years.

## 2.04 MANUFACTURER

A. The Manufacturer shall be:

RATH<sup>®</sup> Area of Refuge N56 W24720 North Corporate Circle Sussex, WI 53089 800-451-1460 Website: www.Area-of-Refuge.com

#### END OF SECTION 27 30 00 122719/212220

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# SECTION 28 31 00 INTRUSION DETECTION SYSTEM

#### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Work Included: All labor, materials, appliances, tools, equipment necessary for and incidental to performing all operations in connection with furnishing, delivery and installation of the work of this Section, complete, as shown on the Drawings and/or specified herein. Work includes, but is not necessarily limited to the following:
  - 1. Examine all other Specifications Sections and Drawings for related work required to be included as work under Division 26, 27, and 28.
  - 2. General Provisions and Requirements for electrical work.

#### 1.02 SUBMITTALS

- A. Submit Product data sheets, including operation manuals.
- B. Submit Shop Drawings showing all device locations, battery calculations, wiring, schematics, cabling, etc.

#### PART 2 - PRODUCTS

#### 2.01 SYSTEM FUNCTIONS

- A. Provide a complete supervised Intrusion Detection System as shown on the Plans including but not limited to master control panel, key pad stations, motion detectors, connections to door switches, a State Fire Marshal listed digital communicator and an automatic dialer, panic buttons, conduit, cabling, etc.
- B. Upon detection of an intruder by initiation of any device in the system, the system shall cause the annunciator LED to light and sound an alarm signal on the Campus' telecommunication system. Alarm information shall be sent by digital dialer through the campus optic distribution to Central Station Alarm Monitoring Agency.
- C. Systems shall detect the motion of a body taking not more than four steps in an area secured with motion detection equipment where entry doors or windows are possible access.
- D. Each building area shall be on a separate zone with each zone controlled separately so that any building area may be secured while others remain unsecured.
- E. The System shall be capable of off-site computerized access for remote access, programming and control.

#### 2.02 CONTROL PANEL

A. Control/Communicator Panel shall be a DMP #XR-550 control panel with an integral digital communicator and shall be Underwriters Laboratories listed. All external circuit connections shall be UL listed as power limited in accordance with the provisions of Article 760 of the California Electrical Code (CEC).
- 1. Provide Point of Protection (POPEX) modules at the control panel for Popit module supervision.
- 2. Provide Point of Protection Identification Transponders (Popit) modules at building terminal cabinets to individually identify each detector in the system.
- B. The Control/Communicator shall be IP based.
- C. System shall include the following features:
  - 1. Real time clock and test timer.
  - 2. Battery charging circuit.
  - 3. Battery voltage supervision.
  - 4. Supervised automatic reset circuit breakers.
  - 5. Onboard warning buzzer and diagnostic LEDs.
  - 6. Automatic answer modem.
  - 7. Lightning and RFI protection.
  - 8. Central Station reporting format.
  - 9. Printer/CRT interface module for on-site serial data printer recording or CRT display of events.
  - 10. Quad serial output module for enhanced serial data interface capability for specific accessory modules and devices.
  - 11. Individual zone responses.
  - 12. Custom annunciator text.
  - 13. Audible alarm output, steady or pulsed.
  - 14. Automatic silencing.
  - 15. Attack-Resistant enclosure and lock meeting Underwriters Laboratory Local Burglary requirements.
  - 16. A minimum of eight auxiliary form "C" dry contacts for a variety of programmable responses to alarm and trouble conditions.
  - 17. Transformer enclosure for internal mounting of Class 2 transformer.
  - 18. Two telephone numbers with selective signaling options.
  - 19. Individual zone responses.
  - 20. Automatic test reports.

### 2.03 BAR-CODE

Bar-code Programmer for diagnostics and programming capability.

### 2.04 RECEIVER

- A. Receiver shall be Bosch Security System #D6600 Series or equal, UL listed for fire and intrusion detection.
- B. Provide a 50VA Class 2 plug in transformer for power input.

- C. System shall contain 48 hours of standby power utilizing rechargeable sealed lead acid batteries and a battery charger.
- D. System shall be FCC approved for telephone connections.
- E. An alphanumeric LCD Display shall indicate account number, area number, time, date, event, zone or point number, line or group number, status and external devices.
- F. Twenty-four hour Clock and 128 year calendar.
- G. Forty Character Line internal printer and interface capability with an external serial printer.
- H. Transmission Verification appropriate with the format utilized.
- I. Storage of 249 separate events.
- J. Transmission Format shall support the control panel.
- K. Turn the Receiver over to the College for Central Station or Campus Monitoring.

## 2.05 REMOTE ACCOUNT MANAGER

- A. System shall be Bosch Security Systems #D5300 Series or equal with all equipment necessary for computerized access, programming, diagnostics, and remote control of the system. It shall be possible to remotely change passcodes, locate faults, shunt problem zones, arm and disarm the system, silence alarms, and control the auxiliary output contacts in the control panel.
- B. System shall permit remote diagnostics including utility and battery power conditions, phone line condition, event memory by zone, and current clock and calendar settings.
- C. System shall be 100% compatible for use with personal computers.
- D. System shall include a plug-in modem and software necessary for a complete and operable installation. Furnish the College with a Software License Agreement for updated software enhancements as they develop.

## 2.06 KEYPADS

- A. Master Keypad shall be DMP 7800 Series graphic touchscreen or equal capable of displaying system status and controlling the alarm system. Unit shall receive its operating power from the main control panel. Keypad shall be flush-mounted on a wall near the entry doors of each building. Faceplate shall be brass or stainless steel as selected by the Architect.
- B. Sub-Zone Keypads shall be DMP or equal to allow individual zones to be bypassed. Keypad shall be flush wall where shown on Plans Faceplate shall be brass or stainless steel as selected by the Architect.

## 2.07 MOTION SENSORS

Motion sensors shall be Honeywell DT-7450 with Bosch B328 mounting bracket. Sensors shall be dual performance, dual event devices to minimize false alarms or equal passive infrared devices detecting thermal motion signals. Sensor coverage patterns shall be as required for optimum coverage at each individual location. Sensor shall be adjustable Gimbal mounted with plate and outlet box.

## 2.08 MAGNETIC SWITCH

Magnetic switch shall be fully concealed in the door frame, Admeco, Sentrol or equal.

### 2.09 INTRUSION DETECTION SYSTEM

Each Intrusion Detection System terminal cabinet shall contain a power supply for motion sensors and/or POPIT/POPEX (Zonex) modules.

### 2.10 CABLING

Cabling shall be as required for system operation. All cabling shall be shielded. All cabling shall be in conduit, ¾-inch minimum.

### 2.11 SIREN

Siren shall be ATW (Mascon) PR-D550PW or equal.

### 2.12 PANIC BUTTONS

Panic buttons shall be DMP HUB-M or equal. Panic buttons shall concealed within the furniture systems/casework but readily available for silent alarm access by the room occupant. Coordination installation location with furniture systems installer.

### PART 3 - EXECUTION

### 3.01 MOTION SENSORS

Locate Motion Sensors to provide optimum coverage of the space and to avoid conflicts with the architectural aesthetics of the building. Submittal Drawings shall show the exact locations of all system sensors and keypads for approval by the Architect, Engineer and College.

### 3.02 CONCEALED DOOR SWITCH

Coordinate Concealed Door Switch Installations with Finish Hardware Manufacturer.

END OF SECTION 28 31 00 123019/212220



## **GENERAL NOTES**

- 1. VERIFY ALL EXISTING & FINISH GRADES, DIMENSIONS & SITE CONDITIONS BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
- 2. ALL GRADING WORK SHALL CONFORM TO APPLICABLE PROVISIONS OF THE 2016 CALIFORNIA BUILDING CODE, TITLE 24, AND LOCAL CODES OR ORDINANCES. IN THE EVENT OF CONFLICTING PROVISIONS, ALWAYS CONFORM TO THE STRICTER REQUIREMENTS.
- 3. DETERMINE NECESSARY SUBGRADE ELEVATIONS AND CONSTRUCT SMOOTH TRANSITIONS BETWEEN FINISHED GRADES. FINISHED GRADE ELEVATIONS ADJACENT TO BUILDING PERIMETERS TO BE 6" BELOW FINISHED FLOOR ELEVATIONS, U.N.O.
- 4. ALL CONCRETE PAVING TO BE MEDIUM BROOM FINISH UNLESS NOTED OTHERWISE. 5. CONTRACTOR TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC 11B-206.
- 6. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF
- UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
- 7. COMPLY WITH CALIFORNIA FIRE CODE CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION. 8. CONTRACTOR OPERATIONS SHALL NOT BLOCK, HINDER, IMPEDE OR OTHERWISE INHIBIT THE USE OF REQUIRED EXITS AT ANY TIME. CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS TO FIRE EXTINGUISHERS, FIRE HYDRANTS, TEMPORARY FIRE PROTECTION FACILITIES, STAIRWAYS AND OTHER ACCESS ROUTES FOR FIRE FIGHTING EQUIPMENT AND/OR PERSONNEL.

- FOR ADDITIONAL SITE SCOPE OF WORK REFER TO

   A) GEOTECHNICAL REPORT
   B) PROJECT MANUAL
   C) CIVIL DRAWINGS C1.1 SITE DEMOLITION, C1.2 GRADING, & C1.5 UTILITIES
   D) LANDSCAPE DRAWINGS L1.11 LANDSCAPE CONSTRUCTION PLAN, L2.11 IRRIGATION PLAN, AND L3.11 LANDSCAPE PLANTING PLAN
   E) STRUCTURAL OVEREXCAVATION DETAIL ON S0-0.1, AND FOUNDATION PLANS S-2.1 AND S-2.2
   F) PLUMBING SITE PLAN P0-3
   G) FIRE SPRINKLER SITE PLAN FS0-3
   H) MECHANICAL SITE PLAN M0-3
   I) ELECTRICAL SITE DRAWINGS ES-0, ES-1, ES-2, ES-3, EF-4, AND ET-4
- 10. CONTRACTOR TO CONFIRM INVERT ELEVATIONS FOR ALL UTILITY CROSSINGS AT OVEREXCAVATION LIMIT OF WORK TO CONFIRM NO CONFLICTS. CONTRACTOR TO REWORK EXISTING UTILITIES DUE TO OVEREXCAVATION AND / OR MAT FOUNDATION CONFLICTS AS REQUIRED.
- 11. CONTRACTOR TO REMOVE (E) BUILDING B UNDERGROUND UTILITIES WITHIN AREA OF NEW BUILDING MAT FOUNDATION.

## **KEYNOTES**

- DEMOLISH AND REMOVE (E) PILES UP TO THE LIMITS OF BOTTOM OF OVEREXCAVATION. REFER 1. TO GEOTECHNICAL SUPPLEMENTAL RECOMMENDATIONS DATED APRIL 22, 2019 FOR ADDITION, INFORMATION ( REFER ALSO TO THE STRUCTURAL AS-BUILT DRAWINGS FOR REFERENCE ONLY FOR PILE LOCATIONS AND SIZES.
- DEMOLISH (E) RELOCATABLE(S), RAMP(S), AND ADJACENT HARDSCAPE AFTER THE NEW STUDENT SERVICES BUILDING IS COMPLETED.
- DEMOLISH (E) COVERED WALK (INCLUDING, CANOPY, CONCRETE PAVING AND ANY ASSOCIATE FOOTINGS OR FOUNDATIONS.

## SITE PLAN LEGEND - DEMOLITION



DEMO (E) BUILDING STRUCTURE FOR NEW CONSTRUCTION

DEMOLISH (E) COVERED WALK

2

LIMITS OF WORK

 $\bigcirc$ 

EXISTING (E) FIRE HYDRANT

(E) FRICTION PILES & PILE CAPS TO BE DEMOLISHED





GENERAL NOTES	LEGEND		
1. PAINT ALL EXPOSED STEEL COLUMNS, BEAMS AND BRACES - REFER TO COLOR SCHEDULE, SHEET 9.02	NOTE: REFER TO SHEET T-2 FOR ADDITIONAL SYMBOLS	HB	WALL-MOUNT HOSE BIBB, SEE PLUMBING DWGS.
	Room name 101 RM. NO. ROOM SYMBOL	FEC	SEMI-RECESSED FIRE EXTINGUISHER CABINET 12 4.02
	Room name	P.H.	PANIC HARDWARE, SEE SHEET 8.01 DOOR SCHEDULE
	1     RM. NO.     ROOM SYMBOL WITH INTERIOR ELEVATION DESIGNATIOND       4     101     2     ELEVATION NO.       A10-X     ELEVATION     SHEET NO.		1 HR RATED WALL, SEE SHEET 9/4.01
			1 HR SHAFT WALL, SEE SHEET 8/4.01
	A-4 WALL TYPE, SEE SHEET 4.01		CEMENT PLASTER WALL SYSTEM
	IDI     SEE SHEETS 8.52 AND 8.53 FOR EXTERIOR	<u></u>	METAL PANEL WALL SYSTEM
	DOOR TYPE, SEE SHEET 8.01 DOOR SCHEDULE		BRICK VENEER WALL SYSTEM





GE	ENERAL NOTES	LEGEN
1.	PAINT ALL EXPOSED STEEL COLUMNS, BEAMS AND BRACES - REFER TO COLOR SCHEDULE, SHEET 9.02	NOTE: REFER TO SHEET
		<u>Room</u> <u>name</u> _101 <del>_</del>
		Room name 1 4 101 4 101 2 4 5 5 5 5 5 5 5 5 5 5 5 5 5
		A-4
		$\left< \frac{\text{AL}}{101} \right>$
		000

T T-2 FOR ADDITIC	DNAL SYMBOLS	HB	WALL-MOUNT HOSE BIBB, SEE PLUMBING DWGS.
RM. NO.	ROOM SYMBOL	FEC	SEMI-RECESSED FIRE EXTINGUISHER CABINET 12 4.02
		P.H.	PANIC HARDWARE, SEE SHEET 8.01 DOOR SCHEDULE
RM. NO. ELEVATION NO. ELEVATION SHEET NO.	ROOM SYMBOL WITH INTERIOR ELEVATION DESIGNATIOND		1 HR RATED WALL, SEE SHEET 9/4.01
			1 HR SHAFT WALL, SEE SHEET 8/4.01
	WALL TYPE, SEE SHEET 4.01 WINDOW TYPE, SEE SHEET 8.51 FOR INTERIOR,		CEMENT PLASTER WALL SYSTEM
	SEE SHEETS 8.52 AND 8.53 FOR EXTERIOR DOOR TYPE, SEE SHEET 8.01 DOOR SCHEDULE		METAL PANEL WALL SYSTEM 1 3.02
		- <del>/////.</del>	BRICK VENEER WALL SYSTEM





















![](_page_48_Figure_0.jpeg)

![](_page_48_Picture_2.jpeg)

![](_page_49_Figure_0.jpeg)

![](_page_49_Figure_1.jpeg)

![](_page_50_Figure_0.jpeg)

![](_page_51_Figure_0.jpeg)

DOOR N	O. WIDTH	HEIGHT	TYPE MATERIAL FINIS	H COLOR	FRAME MATERIAL F	INISH	HEAD	DE	ETAILS JAMB	TRESHOLD	ASSEMBLY FIRE RATING	REMARKS	SIGNAGE	DETAIL
Exterior														
001	8' - 0" 3' - 0"	7' - 6" 7' - 0"	ALUM/GL F D HM PSG		ALUM/GL F	SG	3/8.10		8/8.10	19/8.10		CARD READER, EMERGENCY BREAKOUT DOOR AND SIDELIGHT	TRIO / EXIT	9 & 11/11.01
003	3' - 0" 3' - 0"	7' - 0"	D HM PSG		HM PS	SG SG	3/8.10 3/8.10		8/8.10 8/8.10	19/8.10		CARD READER, PANIC HARDWARE	WELCOME CENTER, EXIT	9 & 11/11.01
006 007	8' - 0" 3' - 0"	7' - 8" 7' - 0"	ALUM/GL     FSG       D     HM     PSG		ALUM/GL F	G	3/8.10		8/8.10	19/8.10		CARD READER, EMERGENCY BREAKOUT DOOR AND SIDELIGHT CARD READER, PANIC HARDWARE	BURSAR / EXIT	9 & 11/11.01
008 009	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D HM PSG D HM PSG		HM PS	SG SG	3/8.10 3/8.10		8/8.10 8/8.10	19/8.10 19/8.10		CARD READER, PANIC HARDWARE CARD READER, PANIC HARDWARE	FINANCIAL AID, EXIT MDF ROOM	9 & 11/11.01 11/11.01
010 011	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D HM PSG D HM PSG		HM PS HM PS	SG SG	3/8.10 3/8.10		8/8.10 8/8.10	19/8.10 19/8.10		CARD READER CARD READER	ELECTRICAL ROOM RESTROOMS / EXIT	11/11.01 9 & 11/11.01
012 2 013	3' - 0" 3' - 0"	7' - 0" 	D HM PSG			3G 3G~^	3/8.10 3/8.10		8/8.10 8/8.10	19/8.10 19/8/10		CARD READER CARD READER, PANIC HARDWARE	FIRE RISER	11/11.01 9 & 11/11.01
		7' 0"					4/8 10	1/9.10						 
102	3' - 0" 3' - 0"	7' - 0"	D SCN F	WD-1 WD-1	HM P:	SG SG	10/8.10 10/8.10	1/0.10	10/8.10	18/8 10			JANITOR MEN'S RESTROOM	0/11.01 11/11.01 2 & 4/11.01
104 105	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS	SG SG	10/8.10 10/8.10		9/8.10 9/8.10	18/8.10 18/8.10			WOMEN'S RESTROOM GENDER NEUTRAL RESTROOM	1 & 3/11.01 6 & 7/11.01
109 110	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		9/8.10 9/8.10	18/8.10 18/8.10		CARD READER CARD READER	WOMEN'S RESTROOM MEN'S RESTROOM	1 & 3/11.01 2 & 4/11.01
111 113	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 4/8.10	1/8.10	10/8.10 10/8.10			CARD READER	ELEVATOR MACHINE ROOM CONFERENCE / EXIT ROUTE	11/11.01 8 & 11/11.01
116 122	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10			CARD READER CARD READER CARD READER	TESTING CENTER / EXIT ROUTE	8 & 11/11.01 8 & 11/11.01
130 131 132	3' - 0"	7' - 0"	C SCN F C SCN F	WD-1	HM PS	SG SG	4/8.10 4/8.10 4/8.10	1/8.10 1/8.10	10/8.10				STUDY / EXIT ROUTE	8 & 11/11.01 8 & 11/11.01
132 133 134	3' - 0" 3' - 0"	7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10 1/8.10	10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
135 136	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		10/8.10 10/8.10				STORAGE STORAGE	11/11.01 11/11.01
140A 140B	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10			CARD READER CARD READER	WELCOME CENTER / EXIT ROUTE WELCOME CENTER / EXIT ROUTE	8 & 11/11.01 8 & 11/11.01
141A 141B	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		10/8.10 10/8.10			CARD READER	STORAGE STORAGE	11/11.01 11/11.01
144 145	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
146 150 151	3' - 0" 8' - 1" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C     SCN     F       B     ALUM/GL     F       C     SCN     F	WD-1	ALUM/GL F	5G SC	4/8.10 4/8.10	1/8.10	10/8.10			EMERGENCY BREAKOUT DOOR AND SIDELIGHT		10/11.01
151 152 153	3' - 0" 3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C 2 SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	10/8.10	170.TU	10/8.10 10/8.10				STORAGE STORAGE	11/11.01 11/11 01
154 155	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
156 157	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
158 159	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 10/8.10	1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER STORAGE	10/11.01 11/11.01
160 161	3' - 0"	7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10			CARD READER	TESTING / EXIT BURSAR / EXIT ROUTE	9 & 11/11.01 8 & 11/11.01
162 170 171	3' - 0"	7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10			CARD READER CARD READER		11/11.01 8 & 11/11.01
172	3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 10/8.10 10/8.10	1/0.10	10/8.10				FILE / SCAN	11/11.01 11/11 01
174 175	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
176 177	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
180A 180B	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10			CARD READER	ADMISSIONS / EXIT ROUTE ADMISSIONS / FINANCIAL AID	8 & 11/11.01 11/11.01
180C 181	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				ADMISSIONS / FINANCIAL AID VERIFY W/ OWNER	11/11.01 10/11.01
182 183 184	3' - 0" 3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG SG	10/8.10 10/8.10 4/8.10	1/8 10	10/8.10 10/8.10					11/11.01 11/11.01 10/11.01
185 186	3' - 0" 3' - 0"	7' - 0"	C SCN F C SCN F	WD-1	HM PS	SG SG	4/8.10 4/8.10 10/8.10	1/8.10	10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER STORAGE	10/11.01
202 203	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		9/8.10 9/8.10	18/8.10 18/8.10			WOMEN'S RESTROOM MEN'S RESTROOM	1 & 3/11.01 2 & 4/11.01
204A 204B	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS	SG SG	10/8.10 10/8.10		10/8.10 10/8.10				LACTATION LACTATION	11/11.01 11/11.01
205 206	3' - 0" 3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		10/8.10 10/8.10				ELECTRICAL ROOM IDF ROOM	11/11.01 11/11.01
207 208	3' - 0"	7' - 0" 7' - 0"	D SCN F D SCN F	WD-1 WD-1	HM PS HM PS	SG SG	10/8.10 10/8.10		9/8.10 9/8.10	18/8.10 18/8.10		CARD READER CARD READER	WOMEN'S RESTROOM MEN'S RESTROOM	1 & 3/11.01 2 & 4/11.01
209 211 212	3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10	10/8.10			CARD READER	CONFERENCE / EXIT	9 & 11/11.01
220A 220B	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10			CARD READER	VRC LOUNGE / EXIT ROUTE STUDENT EQUITY / EXIT ROUTE	8 & 11/11.01 8 & 11/11.01
221 230	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10			CARD READER	VERIFY W/ OWNER STUDENT EQUITY / EXIT ROUTE	10/11.01 8 & 11/11.01
231 232	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
233 234	3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
240 241	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F	WD-1	HM P	G G	4/8.10 10/8.10	1/0.10	10/8.10				ROUTE STORAGE	o & 11/11.01 11/11.01
242 251	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
252 253	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
254 255	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	10/8.10 4/8.10	1/8.10	10/8.10 10/8.10				STORAGE VERIFY W/ OWNER	11/11.01 10/11.01
256 257	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
258 259 260	3' - 0" 3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C SCN F C SCN F	עעט-1 WD-1	HM PS	3G 3G 3C	4/8.10 4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10					10/11.01 10/11.01 10/11.01
261 262	3' - 0" 3' - 0"	7' - 0" 7' - 0"	CSCNFCSCNF	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
263 264	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C         SCN         F           C         SCN         F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
265 266A	3' - 0" 7' - 10"	7' - 0" 7' - 0"	C SCN F B ALUM/GL F	WD-1	HM PS ALUM/GL F	SG	4/8.10	1/8.10	10/8.10				COMPUTER ROOM	11/11.01
266B 266C	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				COUNSELING / EXIT ROUTE COUNSELING / VP OF STUDENT	8 & 11/11.01 11/11.01
266D 266⊑	3' - 0"	3' - 6"	D SCN F D SCN F	WD-1	HM PS	G G			10/8.10				COUNSELING COUNSELING	11/11.01
270 271	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C     SCN     F       C     SCN     F       C     SCN     F	WD-1 WD-1	HM PS	SG SG	4/8.10 10/8.10	1/8.10	10/8.10 10/8.10			CARD READER	CAL WORKS / EXIT ROUTE STORAGE	8 & 11/11.01 11/11.01
272 273	3' - 0" <u>3' -</u> 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
274 279	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS HM PS	SG SG	4/8.10 10/8.10	1/8.10	10/8.10 10/8.10			CARD READER	VERIFY W/ OWNER COMPUTER / PRINT	10/11.01 11/11.01
280A 280B	3' - 0" 3' - 0"	3' - 6" 3' - 6"	D SCN F D SCN F	WD-1 WD-1	HM PS	G G	40/0.15		10/8.10 10/8.10				EOPS EOPS	11/11.01 11/11.01
281A 281B	3' - 0" 3' - 0"	/' - 0" 7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	10/8.10 10/8.10	1/8 10	10/8.10 10/8.10					11/11.01 11/11.01 10/11.01
282B 283	3 - 0" 3' - 0" 3' - 0"	7' - 0" 7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	3G 3G 3G	4/8.10 4/8 10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
284 285	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C     SCN     F       C     SCN     F       C     SCN     F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER	10/11.01 10/11.01
286 287	3' - 0" 3' - 0"	7' - 0" 7' - 0"	CSCNFCSCNF	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
288 289	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F C SCN F	WD-1 WD-1	HM PS	SG SG	4/8.10 4/8.10	1/8.10 1/8.10	10/8.10 10/8.10				VERIFY W/ OWNER VERIFY W/ OWNER	10/11.01 10/11.01
290	3' - 0"	7' - 0"	C SCN F	WD-1		SG	4/8.10	1/8.10	10/8.10				FOSTER & KINSHIP CARE / EXIT ROUTE	8 & 11/11.01
291 292	3' - 0" 3' - 0"	7' - 0" 7' - 0"	C SCN F	WD-1 WD-1	HM PS	SG SC	4/8.10 4/8.10	1/8.10	10/8.10 10/8.10					10/11.01 10/11.01
293	10 - 0	ı - U		V V U- I	P	.0	ч, J. IV	1/0.10	10/0.10			1		10/11.01

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![](_page_52_Figure_6.jpeg)

![](_page_52_Figure_7.jpeg)

![](_page_53_Figure_0.jpeg)

GN: ARCADIA 1 3/4"x4" A400 SERIES CENTER-GLAZED.	
AL INFO, REFER TO INTERIOR STOREFRONT SHOP	
$\backslash$	

![](_page_53_Picture_5.jpeg)

![](_page_54_Figure_0.jpeg)

![](_page_54_Figure_1.jpeg)

- 1. ALL WELDED STUDS SHALL BE 3/4"Ø x AS REQUIRED
- SPACE STUDS EVENLY ALONG LENGTH OF SPAN @ 12" (MAX) CENTERS.
- DISTRIBUTE REMAINDER OF STUDS SYMMETRICAL FROM EACH END WITH ONE STUD EACH FLUTE, OR AT 6" O.C.
- WHERE DECKING IS PARALLEL TO BEAM, DISTRIBUTE STUDS SYMMETRICALLY IN SIMILAR MANNER TO THAT SHOWN AND NOTED IN DETAIL ABOVE.
- CUT DECKING AND PROVIDE GAP AS REQUIRED TO MAINTAIN STUD CENTERING. (ADD 16 GA. (MIN) CLOSURES AS REQUIRED).

## VELDED STUDS 8 1" = 1'-0"

![](_page_54_Figure_8.jpeg)

![](_page_54_Figure_9.jpeg)

![](_page_54_Figure_10.jpeg)

![](_page_54_Figure_11.jpeg)

## TYPICAL DECK SUPPORT AT COLUMN

![](_page_54_Figure_14.jpeg)

![](_page_55_Figure_0.jpeg)

NORTH

DRAWING DATUM = 0'-0": REF. ELEV. +/61.30' @ GROUND FLOOR FINISH FLOOR (SEE CIVIL & ARCH FOR ACTUAL ELEVATION).

		TOP DAILS		MIN	
TIES	ADDT'L REBAR HERE OCCURS)	(SEE ELEV. FOR AT 2ND LAYER W	(MIN)	WIDTH	MARK
4 @ 10"O/C	(3) #10	(3) #10	53"	24"	GB-1
4 @ 6"O/C	(3) #10	(3) #10	53"	24"	GB-1.1
4 @ 10"O/C	(6) #10	(3) #10	53"	24"	GB-2
4 4 1	(3) #10 (3) #10 (6) #10	(3) #10 (3) #10 (3) #10	53" 53" 53"	24" 24" 24"	GB-1 GB-1.1 GB-2

![](_page_55_Picture_11.jpeg)

![](_page_56_Figure_0.jpeg)

![](_page_56_Picture_17.jpeg)

![](_page_57_Figure_0.jpeg)

- 16. SECONDARY BEAMS SHALL BE SPACED EQUALLY UNLESS NOTED OTHERWISE.

NORTH

## DENOTES OCBF BRACE ABOVE (DASHED DENOTES BELOW ) SEE FRAME ELEVATIONS ON S-6.1 FOR ADDITIONAL INFO.

<u>DECK</u> MARK	<u>TYPE</u>	<u>GAGE</u>	<u> </u> (IN4/FT)	<u>S (TOP +)</u> (IN3/FT)	<u>S (BOT -)</u> (IN3/FT)	<u>TOTAL</u> <u>DEPTH(IN)</u>	<u>CONC FILL</u> <u>TYPE</u>	<u>REINF.</u>	<u>WELDED</u> <u>STUDS</u>
D1	VERCO W3 IAPMO 0212	18	1.213	0.752	0.768	5 1/2"	LWC	#3@12"O/C E.W.	3/4 DIAM. X 5" LONG @12"O/C
D2	VERCO W2 IAPMO 0212	18	1.213	0.752	0.768	4 1/2"	LWC	#3@12"O/C E.W.	3/4 DIAM. X 4" LONG @12"O/C

![](_page_57_Picture_31.jpeg)

![](_page_58_Figure_0.jpeg)

	$\mathbf{C}$	<b>C.6</b>	<b>C.7</b>			<b>D.2</b>			E	.7	F (	G		(G.8)	F	H) (H	I.1)	
															(7 (S0-1	.7	/	
	W24X84		W	24X84	— † 			W18X46		55-0.1	W	24X84		W24X84		/16X31		
-● }		1 W12X19		V12X40		₩12X19	}3					W12X19	<u>w12X19</u> 4' - 6"	W12X19	+	V12X19	SLRS	SLRS •
	N			( ¢	W12X40	W12X19	W12X19	W12X19	W12X19	    	12X19 W12	0 100X20	W12X1	9    W1	¢ 2X19 0	w12X19	W12X19	<b>₹</b>    \
W12X26	W12X26		W12X19	√1 <del>2X40</del> √12X40 √12X40		W12X4	W12X4		W12X19	W12X4	12X19	W12X19	W12X1	w12X4	W12X4		W24X84 OCRF	
		W16Y21	<u> </u>	/12X40 	/					28'-4			W12X19		ГLINE Т	1	2X19	
(				12X40		W 10X31	~ W12X19	I 2000 12X19	W10X37		W12X19	W 18X30	6 X19 X19	w12X19	1		W24X84	
W12X19	W12X19		W12X19 I €	12X40 d	2X19		W12X19	W12X19		W12X19	PT = AHU 0,700# 1	V18X35 SLRS	W12X19	W12X19	W12X19			SLRS H4
	W24X62 SLRS			12X40 07X21/	¥			W24X62 SLRS		U.	TYP 7 N.O. <u>S0-1.7</u>		_		/18X60 SLRS		×16X26	
				12X4021		, EQ	EQ	<b>,</b>		FF	AME OUT - SKYLIGHT OPN'G						V18X60 SLRS	
W12X19	W12X19	_	W12X40		M12	W12X40		CHP W12X19 W12X19 W12X19		W12X19	TYP S0-1.5	W21X50 SLRS DN	W12X19		$\overline{\otimes}$	W12X19	$\bigotimes$	
	W24X84 	W16X45		W24X84	W12X19	W24X84	16,500#	2	S0- W18 =SL	1.10 3X35 RS				3 W18 SEF	( (40) (85	کہر ا	1	
6	W12X19	W12X19	W12X19/		23'- 4"	W12X19		<u></u> <u>W12X1</u> 9		EQ	EQ 6	X84				3	3	
W12X1	w12X4	W12X19			M12X26		24×26	W12X26	— — — — — — — — — — — — — — — — — — —		×12	W24	ыс W12X19			W12X19		
	W18X35	W12X19	12X40	W12X1	, , , , , ,	W12X19 /18X35	W12X19	W12X19							== = ₹ V24X55		 W24X84	OCBF
	α 	(19W12X19	□ 12X40				X26	W12X26	= <b>X</b>    	W24X7	M24X84	0CBF		15 S5-0.1		y le	%16X26	
<u>X19</u>		W12X4	40	- W12X2		W12X26		v12X26	W12X26	W12X2	6 W12X26	₩ <sup>7</sup>	12X26	W12X	 26	W1:	2X26	
W16X26	W16X26		W16X26		W16X26		W16X26	W16X26			W16X266X26	Ω Ω	W16X4		W16X2		W24>	
_	   									— — EQ		₩ ₩ ₩						X55
		ـــــــــــــــــــــــــــــــــــــ	12X19		<u>)</u>	W24X84 OCBF	_	W24X84 OCBF				W16X	W24X62 2		 N16X45 SLRS	V4)6X26	<u> </u>	$\left  \frac{1}{W24} \right $
<u>-</u> }-				<u> </u>								W16X26 SLRS	<b>W16X45</b>					
	<u>\$5-0.1</u> <u>\$5-0.1</u>										S5-0.1		<u>/3\</u> 2 01	<b>55-0.1</b>				

ROOF FRAMING NOTES: FOR GENERAL NOTES, SEE S0-0.0 SERIES 2. FOR TYPICAL DETAILS, SEE S0-1.0SERIES. NOT USED METAL DECK. SEE S0-1.5 FOR ADDITIONAL INFORMATION. TOS = VARIES. SEE PLAN & VERIFY WITH ARCHT'L DRAWINGS REFER TO ARCHT'L FOR ROOF SLOPES FOR TYPICAL BEAM TO BEAM CONNECTIONS, SEE DETAIL / 13 ∖S0-1.7∕ CANTILEVER BEAM MOMENT  $\rightarrow$ \S0-1.8 8. HSS COLUMNS: SEE S-2.2 FOR SIZES. 6 9. \_\_\_\_\_ BEAM SPLICE. SEE DETAIL S0-1.8 ໌ 12 ີ INDICATES BOLT CONNECTION AT SLRS SEE DETAIL ●●● INDICATES (3) ROWS OF A490SC, \S0-1.7 / INDICATES (2) ROWS OF A490SC, NDICATES (1) ROW OF A490SC, • 9 \ / 10 11. INDICATES APPROXIMATE LOCATION OF MECH UNIT CONC PAD. SEE DET. \S0-1.6/\S0-1.6/ 12. RAME OPENING IN ROOF FOR SKYLIGHTS, SOLAR TUBES & ROOF DRAINS, ETC PER DETAIL 9 U.N.O. SEE ARCHT'L/MEP DRAWINGS FOR ACTUAL LOCATIONS AND SIZE OF OPENINGS. \S0-1.5/  $\searrow$ INDICATES PIPE @ MECH SCREEN SEE DETAIL 13. S5-0.2 14. ALL STEEL BEAMS SHALL HAVE WELDED STUDS, SEE DETAIL ∖ S0-1.8 ∕ 15. AT ALL SLRS BEAMS (DRAG BEAMS, SMRF BEAMS, OCBF BEAMS) PROVIDE BRACING PER 3 @ 8'-0" O/C MAX, WHERE BEAM SPACING EXCEEDS 8'-0" PROVIDE ANGLE @8FT O/C MAX PER 9 S0-1.8 

![](_page_58_Figure_3.jpeg)

# NORTH

## METAL DECK SCHEDULE

<u>DECK</u> MARK	<u>TYPE</u>	GAGE	<u> </u> (IN4/FT)	<u>S (TOP +)</u> (IN3/FT)	<u>S (BOT -)</u> (IN3/FT)	<u>TOTAL</u> DEPTH(IN)	CONC FILL	<u>REINF.</u>	<u>WELDED</u> <u>STUDS</u>
D1	VERCO W3 IAPMO 0212	18	1.213	0.752	0.768	5 1/2"	LWC	#3@12"O/C E.W.	3/4 DIAM. X 5" LONG @12"O/C
D2	VERCO W2 IAPMO 0212	18	1.213	0.752	0.768	4 1/2"	LWC	#3@12"O/C E.W.	3/4 DIAM. X 4" LONG @12"O/C

16. SECONDARY BEAMS SHALL BE SPACED EQUALLY UNLESS NOTED OTHERWISE.

![](_page_58_Picture_8.jpeg)

 $\langle \# \rangle$ 

18.

DENOTES MECH'L UNTIL WITH MAX WEIGHT. SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION (UNITS THAT WEIGHT LESS THAN 200 LBS SEE MECH'L DRAWINGS )

![](_page_58_Picture_10.jpeg)

![](_page_59_Figure_0.jpeg)

![](_page_59_Figure_1.jpeg)

![](_page_60_Figure_0.jpeg)

## PLAN NOTES:

- ELEVATOR. THE HEAT DETECTORS IN THE ELEVATOR MACHINE ROOM AND

LEVEL 01

![](_page_60_Figure_24.jpeg)

![](_page_61_Picture_0.jpeg)

			ELECTR	RICAL EQU	IPME	NT SCI	HEDUL	E	
Panel			EQUIPMENT/SYSTEM	MAX WEIGHT	HEIGHT	LENGTH	WIDTH		
Name	Location	SHEET NUMBER	DESCRIPTION	(LBS.)	(IN.)	(IN.)	(IN.)	MOUNTING TYPE	ANCHOR DETAIL
	FLEC 107	F0-3		200	48	20	6	WALL	3/F0-4
PP1B		E0-3		200	48	20	6	WALL	3/E0-4
		E0-3		400	40	20	24		3/E0-5
		E0-3		620	40	<u> </u>	24	FLOOR	2/E0.5
		E0-3		1200	49	41	32	FLOOR	2/E0-5
	ELEC. 107	E0-3		1200	90	45	50		2/E0.4
	ELEC. 107	E0-3		200	40	20	6		3/E0-4
	ELEG. 107	E0-3		200	48	20	6		3/E0-4
	ELEC. 107	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
PPID	ELEC. 107	E0-3	PANELBOARD	200	48	20	6	VVALL	3/E0-4
PP1E	ELEC. 107	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
LEVEL 2	1		1						
PP2D	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
PP2C	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
PP2B	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
PP2A	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
DPP2	ELEC 205	E0-3	DISTRIBUTION BOARD	400	90	36	24	FLOOR	3/E0-5
HL2	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
TP2	ELEC 205	E0-3	TRANSFORMER	620	49	41	32	FLOOR	2/E0-5
PPME	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
DHM	ELEC 205	E0-3	PANELBOARD	200	48	20	6	WALL	3/E0-4
EMH	ELEC 205	E0-3	INVERTER	605	76	25	48	FLOOR	4/E0-4

![](_page_61_Figure_2.jpeg)

![](_page_61_Figure_5.jpeg)

				LIGHTING FIXTU	RE SCHED	ULE						
FIXTURE TYPE	Count	Image LIGHT FIXTURE DESCRIPTION	FIXTURE MAXIMUM TOTAL INPUT WATTS	FIXTURE MOUNTING	LAMP TYPE	LAMP COLOR TEMPERA TURE K	LAMP CRI, NOT LESS THAN	TOTAL ALL LAMPS INITIAL MINIMUM LUMEN OUTPUT	LAMP QUANTITY	WEIGHT	MOUNTIN G DETAIL	CATALOG NUMBER
A1	306	LED 2X4 LUMINAIRE WITH STEEL HOUSING AND DIE FORMED WHITE PAINTED REFLECTOR; SINGLE PIECE DIFFUSED LENS WITH CONVEX WINGS; LUMINOUS CENTER SPLINE WITH WHITE TRIM. INTEGRAL 0-10V. DIMMABLE DRIVER(S).	53	RECESSED	LED	4000	80	5500		27.3 LBS	B/E0-7	FOCAL POINT "EQUATION 2" SERIES #FEQ2-24-MG-5500LH-40K-1C-UNV-LH1-G-WI FINELITE, NC. HPR-A-2X4-SCO-H-LED1(LUTRON)-VOLT-SC-
B1	87	LED DOWNLIGHT; 6" APERTURE.	29	RECESSED/CEILING	LED	4000	80	2500		5 LBS		FOCAL POINT "ID +6" SERIES #FLC6D-RO-2500L-277-LH1-T-BH-LC6-RD-40k V2 LIGHTING C3CP-N-Z(LED1 LUTRON)-30-83-40-40-S-XX-XX-WH OR EQUA
C1	13	LED STRIP LIGHT, LENSED, 4 FOOT LENGTH; INTEGRAL 0-10V. DIMMING BALLAST.	25	SURFACE	LED	4000	80	3186		8.2 LBS		METALUX "SNLED" SERIES #4SNLED-LD5-LN-UNV-L840-CD-1-AYC HE WILLIAMS, INC. 75R-4-L30/840-(2)VBY-3/P OR EQUAL.
D1	18	LED 1X4 LUMINAIRE WITH STEEL HOUSING AND DIE FORMED WHITE PAINTED REFLECTOR; SINGLE PIECE DIFFUSED LENS WITH CONVEX WINGS; LUMINOUS CENTER SPLINE WITH WHITE TRIM. INTEGRAL 0-10V. DIMMABLE DRIVER(S).	26	RECESSED	LED	4000	80	2500		19.4 LBS		FOCAL POINT "EQUATION 2" SERIES #FEQ2-14-AC-2500L-40K-1C-UNV-LH1-F-WH FINELITE, INC. HPR-A-1X4-DCO-S-LED1(LUTRON)-VOLT-SC- EQUAL.
SL1	23	LED DOWNLIGHT; 6" APERTURE.	29	RECESSED/CEILING	LED	4000	80	2500		5 LBS		FOCAL POINT "ID +6" SERIES #FLC6D-RO-2500L-277-LH1-T-BH-LC6-RD-40M HE WILLIAMS, INC. 6DR-TL-L30/840-ELDO ECO1-UNV-OW-OF-SG-N-F1 OR EQUAL.
SL2	7	LED SHARP CUT OFF WALL LIGHT; TRAPEZOIDAL SHAPE; INTEGRAL DRIVER; WET LOCATION.	27	WALL	LED	4000	80	2420		25.10 LBS	C/E0-7	WE-FE LIGHTING "OLV344 LED" SERIES #622-7721-40K-80-2420LM HE WILLIAMS, INC. VWPV-L30/740-T3-DBZ-C0 OR EQUAL
SL3	13	LED DECORATIVE WALKWAY LIGHT; TYPE IV DISTRIBUTION; ON 12'-0", 4" DIAMETER, 7 GUAGE STEEL POLE; 120 LUXEON LED EMITTERS; ADVANCE DRIVER; INTERNAL WIRELESS LED CONTROLLER; OCCUPANCY SENSOR; FIXTURE AND POLE FINISH AS SELECTED BY ARCHITECTS; PROVIDE COMPLETE WITH ANCHOR BOLTS AND BOLT COVER.	140	POLE	LED	4000	82	5816		20 LBS	A/E0-7	FORMULA TECHNOLOGIES #SBMTL-2626-IV-120LED-208V-350MA 12'(4" F GUAGE STRAIGHT STEEL POLE. FINISH AS S ARCHITECT.
SL4	6	LED DOWNLIGHT; 6" APERTURE. INTEGRAL DIMMING DRIVER. WET LOCATION LISTED.	44.1	WALL	LED	4000	80	3977.5				LITHONIA LIGHTING "LDN6CYL" SERIES #LDN6CYL-40K-40L-L06-AR-LSS-MVOLT-GZ10 V2 LIGHTING C4SS-D-V-W-40-83-40-51-XX OF
X1	22	LED EXIT SIGN, EDGE LIT, GREEN LETTERS, MIRRORED BACKING, WALL MOUNT.	3	CEILING	LED							ISOLITE "ELT-FT" SERIES #ELT-AC-G-1M-2M- EMERGI-LITE WLX-42/43N-G-M-UA-2CKT OR
Grand total:	495											

PERFORMANCE NOTES:

ON LIGHTING PLANS.

1. ALL LED DRIVERS SHALL BE DIMMABLE AND COMPATIBLE WITH THE SPECIFIED LIGHTING CONTROL SYSTEM.

2. LIGHT FIXTURE COUNTS ON LIGHTING FIXTURE SCHEDULE FOR CALCULATIONS ONLY. CONTRACTOR SHALL VERIFY FIXTURE COUNTS AND PROVIDE QUANTITIES AS INDICATED

LIGH	TING C	ONTRO	L RELAY SO	CHEDULE "MLCP"
RELAY	CKT. NO.	SWITCH	MASTER SWITCH	AREA CONTROLLED
1	HL1-12	P/P	-	WALKWAY LIGHTS
2	HL1-14	P/T	-	WALKWAY LIGHTS
3	EMH-1	P/P	-	BUILDING LIGHTING
4	EMH-2	P/P	-	BUILDING LIGHTING
5	-	-	-	SPARE
6	-	-	-	SPARE
7	-	-	-	SPARE
8	-	-	-	SPARE
9	-	-	-	SPARE
10	-	-	-	SPARE
11	-	-	-	SPARE
12	-	-	-	SPARE

P/P = PHOTOCELL ON / PHOTOCELL OFF P/T = PHOTOCELL ON / TIMECLOCK OFF

T/T = TIMECLOCK ON / TIMECLOCK OFF

![](_page_62_Figure_8.jpeg)

PENDANT MOUNTED LIGHT FIXTURE DETAIL D

![](_page_62_Figure_12.jpeg)

![](_page_63_Figure_0.jpeg)

LIGHTING CONTROL SYMBOLS	GENERAL NOTE	LIGHTING CONTROL PERFORMANCE NOTES
<ul> <li>LIGHTING OCCUPANCY SENSOR ON FLUSH CEILING MOUNTED OUTLET BOX.</li> <li>LIGHT LEVEL PHOTOCELL CONTROLLER ON FLUSH CEILING MOUNTED OUTLET BOX.</li> <li>LIGHTING ON/OFF CONTROLLER ON FLUSH IN WALL OUTLET BOX, +45".</li> <li>LIGHTING DIMMING CONTROLLER ON FLUSH IN WALL OUTLET BOX, +45".</li> <li>LIGHTING ENTRANCE CONTROLLER ON FLUSH IN WALL OUTLET BOX, +45".</li> <li>INSTRUCTOR LIGHTING CONTROLLER ON FLUSH IN WALL OUTLET BOX, +45".</li> </ul>	ALL BUILDING MOUNTED OUTDOOR LIGHTING INDICATED ON EMERGENCY, IS CONNECTED TO EMERGENCY LIGHTING BATTERY INVERTER TO PROVIDE 90 MINUTES OF EMERGENCY ILLUMINATION.	<ol> <li>LIGHTING CONTROL WIRING NOT SHOWN ON LIGHTING PLANS FOR CLARITY. REFER TO LIGHTING CONTROL DIAGRAMS AND SPECIFICATIONS FOR LIGHTING CONTROL SYSTEM DEVICE AND WIRING REQUIREMENTS. CONTRACTOR SHALL INCLUDE ALL COSTS IN BID FOR A COMPLETE AND OPER-ABLE SYSTEM.</li> <li>THE ABOVE CEILING SPACE IS AN OPEN-AIR PLENUM. CONTRACTOR SHALL PROVIDE ALL LIGHTING CONTROL WIRING IN MINIMUM 3/4 IN. CONDUIT. INCLUDE ALL COSTS IN BID TO COMPLY WITH THIS PROVISION.</li> <li>PLACEMENT OF LIGHTING OCCUPANCY SENSORS AND LIGHT LEVEL CONTROL SENSORS ARE DIAGRAMMATIC. ALL SENSORS SHALL BE MOUNTED CENTERED IN THE CEILING TILES.</li> <li>LIGHTING OCCUPANCY SENSORS SHALL BE PLACED 4 FEET FROM ANY HVAC REGISTERS WHEREVER POSSIBLE TO AVOID AIR FLOW.</li> <li>CONTRACTOR SHALL INCLUDE ALL PROGRAMMING AND START UP IN BID. ALL LIGHTING CONTROLS SHALL BE SET TO THE COLLEGE'S SATISFACTION.</li> <li>PROVIDE LIGHTING CONTROL SYSTEM CONTROLLED RECEPTACLES IN ACCORDANCE WITH CEC TITLE-24 REQUIREMENTS. REFER TO POWER PLANS FOR CONTROLLED RECEPTACLE LOCATIONS.</li> </ol>

![](_page_63_Figure_2.jpeg)

![](_page_64_Figure_0.jpeg)

- INSTALL IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S REQUIREMENTS.

![](_page_64_Figure_31.jpeg)

![](_page_65_Figure_0.jpeg)

![](_page_65_Figure_30.jpeg)

		FIRE A		I EQUIPMEI	NT SCHEDI	JLE	I	FIRE ALARM GENERAL NOTES
								<ol> <li>THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE.</li> <li>UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESCENCE OF THE AUTHORITY HAVING JURISDICTION (FIRE MARSHAL). THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST EQUIPMENT (e.g. DIGITAL AMMETER, DECIBEL METER) AND VERIFY THAT THE GROUND FAULT DETECTION FOR THE FIRE ALARM SYSTEM IS OPERATIONAL DURING TESTING AND REMAINS SO ONCE THE SYSTEM IS APPROVED. UPON APPROVAL OF THE FIRE ALARM SYSTEM, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH COMPLETE SET OF OPERATING INSTRUCTIONS FOR THE SYSTEM.</li> <li>A MINIMUM OF 48 HOURS NOTICE SHALL BE DECUMPED PRIOR TO ANY INSPECTION AND/OR TEST.</li> </ol>
	F	IRE ALARM S	SYSTEM	I EQUIPMENT	SCHEDULE			4. AN APPROVED, STAMPED SET OF THE FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. ANY DEVIATIONS FROM THE APPROVED PLANS, INCLUDING SUBSTITUTION OF DEVICES, SHALL BE APPROVED BY THE INSPECTOR OF RECORD.
QTY	ITEM DESC	CRIPTION	SYMBOL	MOUNTING	CATALOG NUMBER	CSFM LISTING NUMBER		5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF RECORD.
1	FIRE ALARM CONTROL	PANEL WITH ACP"		+72" AFF TO TOP OF CABINET	SIMPLEX 4100ES	7165-0026-0369		6. ALL DEVICES OF THE FIRE ALARM SYSTEM SHALL BE APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL. 7. A "RECORD OF COMPLETION" SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE FIRE MARSHAL
2	FIRE ALARM 70.7V REM FLEX 50, 50WATT AMPL	OTE AMPLIFIER IFIER "FAMP_"		+60" AFF TO TOP OF CABINET	SIMPLEX 4100-1313	7165-0026-0369		UPON COMPLETION OF THE INSTALLATION. 8. ALL TERMINAL CABINETS AND JUNCTION BOXES SHALL BE CLEARLY MARKED THAT THE ENCLOSURE IS PART OF THE FIRE ALARM SYSTEM. 9. THE CONTRACTOR SHALL LOCATE ALL SMOKE DETECTION DEVICES A MINIMUM OF 36" FROM ANY
1	FIRE ALARM LCD REMO "FANN"	TE ANNUNCIATOR		+66" AFF TO TOP OF CABINET	SIMPLEX 4603-9101	7120-0026-0225		MECHANICAL REGISTERS. 10. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE. WIRE LENGTHS USED TO CALCULATE VOLTAGE DROPS REPRESENT ESTIMATES BASED ON MEASUREMENTS OF SCALED FLOOR PLAN DRAWINGS. CONTRACTOR TO ROUTE CONDUIT AS FIELD CONDITIONS REQUIRE. CONTRACTOR TO INSTALL ALL DEVICES ACCORDING TO
2	FIRE ALARM REMOTE P	OWER SUPPLY		+60" AFF TO TOP OF CABINET	SIMPLEX EPS	7300-0026-0214		MANUFACTURERS INSTRUCTIONS AND IN COMPLIANCE WITH ALL APPLICABLE CODES. 11. CONTRACTOR SHALL VERIFY LOCATION OF POST INDICATOR VALVES (PIV'S) AND/OR OUTSIDE STEM & YOKE (OS&Y) VALVES INSTALLED ON FIRE SPRINKLER SERVICE. CONTRACTOR SHALL PROVIDE AND INSTALL TAMPER SWITCH(ES) AT EACH OF THESE VALVES AND INTERCONNECT TAMPER SWITCH(ES) TO THE FIRE ALARM
1	ADDRESSABLE MANUAI ON FLUSH WALL MOUN	L PULL STATION ITED OUTLET BOX	F	+48" AFF TO CENTER	SIMPLEX 4099-9006	7150-0026:0224		CONTROL PANEL (FACP). 12. ALL WIRING TO BE IN CONDUIT. ALL CONDUIT IS TO BE A 3/4" MINIMUM. IF FLEX CONDUIT IS USED TO TRANSITION DOWN TO CEILING DEVICE THE FLEX CAN BE NO LONGER THAN 5 FEET.
176	ADDRESSABLE PHOTO ON FLUSH CEILING MOL	SMOKE DETECTOR JNTED OUTLET BOX	(1)	CEILING	SIMPLEX 4098-9714	7272-0026:0218		13. CONTRACTOR SHALL EXTEND AND MAKE ALL FINAL CONNECTIONS TO EXISTING FIRE ALARM AND CENTRAL MONITORING FOR A COMPLETE AND FULLY CAMPUS WIDE FIRE ALARM NETWORK SYSTEM. 14. VISIT THE SITE PRIOR TO BID AND INVESTIGATE THE EXISTING FIRE ALARM SYSTEM EQUIPMENT.
1	ADDRESSABLE HEAT DI FLUSH CEILING MOUNT	ETECTOR ON ED OUTLET BOX	۵c	CEILING	SIMPLEX 4098-9733	7270-0026:0216		COORDINATE WITH THE EXISTING SYSTEMS MANUFACTURERS FOR ALL REQUIRED EQUIPMENT MODIFICATIONS, CONDUITS, WIRING AND UPGRADING REQUIRED TO EXTEND/NETWORK THE EXISTING SYSTEM TO THE NEW BUILDINGS. INCLUDE ALL COSTS IN BID. ALL NEW COMPONENTS SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM. 15. FIRE ALARM SYSTEM SPLICES ARE NOT PERMITTED IN UNDERGROUND PULLBOXES.
5	ADDRESSABLE MONITO MOUNTS TO 4S DEEP BO	OR MODULE OX W/4S EXT	MM	FIELD VERIFY	SIMPLEX 4090-9001	7300-0026:0223		
2	ADDRESSABLE CONTRO MOUNTS TO 4S DEEP BO	OL MODULE OX W/4S EXT	СМ	FIELD VERIFY	SIMPLEX 4090-9002	7300-0026:0223		
8	ADDRESSABLESINGLE I MODULE MOUNTS TO 45 W/4S EXT	INPUT RELAY S DEEP BOX	CR	FIELD VERIFY	SIMPLEX 4090-9007	7300-0026:0223		<u>TYPICAL TYPICAL TYPICAL TYPICAL MANUAL SMOKE HEAT VIA MONTOR FIRE SUBMIKER BELL</u>
12	WEATHERPROOF SPEAN WALL MOUNTED IN WEA BACKBOX	KER ON FLUSH ATHERPROOF	S WP 1W	+90" AFF TO TOP	COOPER/WHEELOCK ET1010-R	7320-0785:0105		VILLAN     DETECTOR     DETECTOR     MODULE       STATION     BETECTOR     MODULE       TO     Y       INTIATING     Y       WODULE     Y       MODULE     Y       MODULE     MODULE
38	FIRE ALARM SPEAKER/S MOUNTED IN A 4S DEEF (#CD DENOTES CANDEL	STROBE CEILING PBOX W/4S EXT LA)	⊠⊲ #CD	CEILING	COOPER/WHEELOCK E90-24MCC-FW	7125-0785:0152		Combination Smoke fire DAMPER (120VAC MOTOR OR 24VDC MOTOR WITH
25	FIRE ALARM CEILING MO ON 4S DEEP BOX (#CD I	OUNTED STROBE DENOTES CANDELA)	#CD	CEILING	COOPER/WHEELOCK LSTC3	7125-0785:0169		
2	FIRE ALARM WALL MOU 4S DEEP BOX (#CD DEN	JNTED STROBE ON NOTES CANDELA)	-☆ #CD	+80" - 96" AFF TO BOTTOM OF LENS	COOPER/WHEELOCK LST	7125-0785:0169		
1	FIRE ALARM SPRINKLE	R SYSTEM	►	FIELD VERIFY	SYSTEM SENSOR WFD SERIES	7770-1653:0145		TO POWER MODULE VISUAL DEVICE (TYP.) EOL TO AMPLIFIER TO AMPLIFIER TO AMPLIFIER SPEAKER DEVICE (TYP.)
2	FIRE ALARM SPRINKLE	R SYSTEM	M	FIELD VERIFY	SYSTEM SENSOR PIBV2	7270-1653:0118		
1	120VAC FIRE ALARM SF	PRINKLER BELL		90" A.F.F SURFACE MOUNT WP BOX	POTTER ELECTRIC PBA12010	7135-0328:0119		
		EA AREA SPRIN	IKLER SPRINKLE	R SPRINKLER DOUBLE	ELEVATOR	ELEVATOR ELEVATOR GROUND	SHORT LOW FACP NOTE:	
	T PULL SMC DET	OKE HEAT DETECTOR WATE	CH TAMPER SWITCH	POST INDICATOR VALVE (PIV) DETECTOR CHECK VALVE (DDCV)		LOBBY MACHINE FAULT SMOKE ROOM DETECTOR HEAT DETECTOR	CIRCUIT BATTERY 120VAC POWER FAILURE	
ARM SIGNAL A JNCIATOR JPERVISORY SIG REMOTE ANNU	GNAL UNCIATOR	X X X	x X	X X (	<b>X</b>	X X X	XX	
ROUBLE SIGNAL TOR /ISUAL SIGNALS	LAT FACP X	X X X	X X	XX	X	X X X x v	X X X [1]	HEAT DETECTOR —
LITY ON GENER BLE OR SUPER IONITORING ST NG EQUIPMENT	RAL ALARM A RVISORY TO UL TATION X	A     A       X     X       X     X	× X	X X		^^XXXX	X X X [2]	ACCESSIBLE CEILING SPACE CEILING MOUNTED STROBE, SPEAKER STROBE 30'-0" A.F.F. MAX. CEILING MOUNTED STROBE, SPEAKER STROBE 30'-0" A.F.F. MAX. CEILING SPACE (COVERED BY FIRE SPRINKLERS, REFER TO FS DRAWINGS) ACCESSIBLE CEILING SPACE (COVERED BY FIRE SPRINKLERS, REFER TO FS DRAWINGS) ACCESSIBLE CEILING SPACE (COVERED BY FIRE SPRINKLERS, REFER TO FS DRAWINGS) ACCEPTABLE HERE
JKE FIRE DAMF	PERS	X			<b>X</b>	X X X		SMOKE DETECTOR — SUSPENDED OR GYP. NEVER HERE — NEVER HERE
OR RECALL					X	X	[4]	FIRE SPRINKLER SPEAKER/STROBE TOP OF DETECTOR ACCEPTABLE HERE
ON WIRING F	FAULT OR DEVICE AS REQUIRED	D. DR AREA WHERE ALARM CO		1 PRE-RECORDED	FIRE ALARM VOICE EVACUATION	SIGNAL SHALL BE A FEMALE VOICE, ANI	D SOUND OFF: S BEEN REPORTED IN THE BUILDING.	SPEAKER (OUTDOOR)
E AND FIRE D ELEVATORS II	DAMPERS IN THE BUILDING OR A IN THE BUILDING WHERE THE AL	AREA HERE ALARM CONDITION HAS OCCU	DN OCCURS.	PLEASE PROCEED MESSAGE SHALL **FIRE ALARM S TELEPHONE LIN	D TO THE NEAREST EXIT AND EXI REPEAT UNTIL MANUALLY DISAB YSTEM SHALL TRANSMIT THE NES TO AN APPROVED MONITO	T THE BUILDING". ED/SILENCED AT MAIN FIRE CONTROL ALARM, SUPERVISORY AND TROUB OR COMPANY IN ACCORDANCE WITH	PANEL OR ANNUNCIATOR PANEL. LE SIGNALS THROUGH THE I NFPA 72. THE MONITOR COMPANY	C.L. C.L. C.L. NOTE: MEASUREMENT SHOWN ARE TO THE CLOSEST EDGE OF THE DETECTOR

ACTION ANNUNCIATE / SOUND AL FACP AND REMOTE ANNU ANNUNCIATE / SOUND SU CONDITION AT FACP AND ANNUNCIATE / SOUND TR AND REMOTE ANNUNCIAT ACTIVATE ALL AUDIBLE/VI THROUGHOUT THE FACIL TRANSMIT ALARM, TROUB LISTED 24HR CENTRAL M SHUTDOWN AIR HANDLIN CLOSE RESPECTIVE SMO ELEVATOR POWER SHUN PRIMARY / ALT. ELEVATOR SOUND SPRINKLER BELL

NOTES: [1] INDICATE TROUBLE [2] SHUTDOWN ONLY A [3] CLOSE ONLY SMOKE [4] RECALL ONLY THE E

VII.

SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC.

A.F.F.

AUDIO/VISUAL DEVICES

## RAL NOTES

### THE CALIFORNIA ELECTRICAL CODE. SYSTEM, A SATISFACTORY TEST OF THE HORITY HAVING JURISDICTION (FIRE EST EQUIPMENT (e.g. DIGITAL AMMETER, ON FOR THE FIRE ALARM SYSTEM IS STEM IS APPROVED. UPON APPROVAL OF THE

![](_page_66_Figure_25.jpeg)

## RCUIT

![](_page_66_Figure_27.jpeg)

## DIAGRAM

![](_page_66_Figure_33.jpeg)

## FIRE ALARM SYSTEM NOTES

## FIRE ALARM COMPLETE PLAN SUBMITTAL 1.0 PROJECT INFORMATION

A. OCCUPANCY GROUP

FIRE ALARM NOTE: FIRE ALARM SUBMITTAL IS A COMPLETE PLAN SUBMITTAL IN ACCORDANCE WITH CFC-901.1 AND 907.1.1.

- REFER TO ARCHITECTURAL DRAWINGS. **B. CONSTRUCTION TYPE**
- REFER TO ARCHITECTURAL DRAWINGS. C. PENETRATIONS OF FIRE RATED WALLS SHALL BE PROTECTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, PART 2, CHAPTER 7, TITLE 24. REFER TO THE ARCHITECTURAL PLANS FOR FIRE-RATE CORRIDOR(S), OCCUPANCY SEPARATION(S) AND AREA SEPARATION WALL(S).
- D. UPON COMPLETION OF SYSTEM INSTALLATION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND IN A MANNER ACCEPTABLE TO THE ENFORCING AGENCY.
- E. PROVIDE A STATEMENT OF COMPLIANCE WHEN REQUESTING INSPECTION CFC 901.2.1
- F. THE FIRE ALARM SYSTEM DESIGN FOR THIS PROJECT IS ADDRESSABLE AND FULLY AUTOMATIC.
- 2.0 APPLICABLE CODES AND STANDARDS
- A. PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2017\*
- 2016 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.\*
- 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2015 INTERNATIONAL BUILDING CODE VOL. 1-2 AND 2016 CALIFORNIA **ÀMENDMENTS**) 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
- (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
- (2015 IAPMO UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2015 IAPMO UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE (CEC), PART6, TITLE 24 C.C.R. 2016 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R.
- (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR (2015 INTERNATIONAL EXISTING BUILDING CODE AND 2016 CALIFORNIA AMENDMENTS) 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen), PART 11, TITLE 24 CCR
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS. 2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS.
- B. PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	STANDARD FOR INSTALL OF SPRINKLER SYSTEMS (CA AMENDED)	2016 EDITION
NFPA 14	STANDARD FOR INSTALL OF STANDPIPE & HOSE SYSTEMS	2013 EDITION
NFPA 17	STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17	A STANDARD FOR WET CHEMICAL SYSTEMS	2013 EDITION
NFPA 20	INSTALL OF STATIONARY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	STANDARD FORWATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	STANDARD FOR THE INSTALL OF PRIVATE FIRE MAINS	
	AND THEIR APPURTENANCES	2016 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)	2016 EDITION
NFPA 80	STANDARD FOR FIRE DOORS & OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 20	01 STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
UL 300	STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS	
	FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT	2005 (R2010)
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING	
	SYSTEMS, INCLUDING ACCESSORIES	2003 EDITION
UL 521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE	
	SIGNALING SYSTEMS	1999 EDITION
UL 1971	STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPARED	2002 EDITION
ICC 300	STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING	
	AND GRANDSTANDS	2012 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2016 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80. SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS

TO THE NFPA STANDARDS. \*ALL PARTS OF THE 2016 CALIFORNIA BUILDING CODE BECOME EFFECTIVE JANUARY 1, 2017 EXCEPT THE EFFECTIVE DATE FOR THE USE OF THE 2016 BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 1 CHPATER 10) IS FEBRUARY 25, 2016 AND THE EFFECTIVE DATE FOR THE USE OF THE CALIFORNIA ADMINISTRATIVE CODE ((TITLE 24, PART 1, CHAPTER 4) IS JANUARY 20, 2016.

- 3.0 UPON RECEIPT OF THE CERTIFICATE OF COMPLIANCE, THE INSTALLER SHALL SUPPLY THE OWNER WITH A WRITTEN OPERATING, TESTING AND MAINTENANCE INSTRUCTIONS, POINT-TO-POINT AS BUILD DRAWINGS AND EQUIPMENT SPECIFICATIONS.
- 4.0 NFPA 72 CHAPTER 10,14 INSPECTION TESTING AND MAINTENANCE COMPLETE THE INSPECTION AND TESTING FORM IN ITS ENTIRETY SUBMIT A COPY TO THE DISTRICT, ARCHITECT AND DSA DIVISION OF FIRE AND LIFE SAFETY.
- 5.0 OCCUPANCY PROHIBITED TO ANY PORTION OF BUILDING UNTIL FIRE ALARM SYSTEM HAS BEEN TESTED AND APPROVED. CBC 901.5; CFC 901.5.1 RECORD DRAWINGS OF ALL INSPECTION, TEST SHALL BE MAINTAINED ON PREMISES MINIMUM THREE YEARS. CFC 901.6.2 (5 YEARS PER TITLE 14) SMOKE DETECTORS TO UTILIZE CALIBRATED MANUFACTURE SENSITIVITY TEST INSTRUMENT. CFC 907.9.4
- 6.0 CONTRACTOR TO FIELD VERIFY AND PROVIDE DECIBEL METER FOR TESTING OF AMBIENT NOISE LEVELS (MINIMUM 15db ABOVE AMBIENT NOISE LEVELS REQUIRED - SEE NPFA 72 TABLE 14.4.3.2). INSTALL ADDITIONAL AUDIBLE DEVICE AS NEEDED TO ATTAIN REQUIRED NOISE LEVELS AND INTELLIGIBILITY IN ALL REQUIRED AREAS. PROVIDE UPDATED PLANS AND CALCULATIONS THROUGH THE "CHANGE ORDER" PROCESS WHEN INSTALLING ADDITIONAL DEVICES AND OR EQUIPMENT. INSPECTOR OF RECORD (IOR) TO WITNESS FINAL TEST OF THE SYSTEM. CONTRACTOR(S) TO PROVIDE FINAL TEST RESULTS AND PROVIDE THE "RECORD OF COMPLETION FORM" TO THE ARCHITECT OF RECORD, OWNER, DIVISION OF THE STATE ARCHITECT, INSPECTOR OF RECORD (IOR)AND LOCAL FIRE AUTHORITY (AHJ).
- 6.1 FIRE ALARM NOTIFICATION DEVICES WITHIN THE NOTIFICATION ZONE WILL BE SYNCHRONIZED IN ACCORDANCE WITH NFPA 72 18.5.5.7
- 6.2 CONTRACTOR SHALL PROVIDE 24 HOUR FIRE WATCH IN CASE EXISTING CAMPUS FIRE ALARM SYSTEM IS SHUTDOWN OR DURING THE DURATION OF THE CONSTRUCTION PHASE. (IF APPLICABLE TO THE PROJECT).
- 6.3 EXISTING FIRE ALARM SYSTEM SHALL REMAIN OPERATIONAL DURING THE BUILDING MODERNIZATION CONSTRUCTION UNTIL THE NEW FIRE ALARM SYSTEM IS INSTALLED AND FULLY OPERABLE. UPON COMPLETE FINAL TEST AND APPROVAL OF THE NEW SYSTEM, EXISTING SYSTEM AND ITS DEVCES SHALL BE DISCONNECTED AND REMOVED AS REQUIRED. (IF APPLICABLE TO THE PROJECT).

![](_page_66_Figure_65.jpeg)

	ROOF LEVEL	
	2ND FLOOR	
		FIRE
		ANN
_	1ST FLOOR	

![](_page_67_Figure_1.jpeg)

## PLAN NOTES:

1 120V DEDICATED CIRCUIT WITH "LOCK-ON" DEVICE.

(2) INTERFACE CABLING PER MANUFACTURER'S REQUIREMENTS.

(3) FIBER OPTIC NETWORK CABLING PER MANUFACTURER'S REQUIREMENTS.

![](_page_67_Figure_6.jpeg)

![](_page_68_Figure_0.jpeg)

![](_page_68_Figure_1.jpeg)

![](_page_69_Figure_0.jpeg)

KEY NOTES

![](_page_69_Figure_9.jpeg)

![](_page_70_Figure_0.jpeg)

KEY NOTES
1 PROVIDE FIRE ALARM ADDRESSABLE RELAY MODULE FOR CONNI- ELEVATOR FIRE CURTAIN.     2 PROVIDE FIRE ALARM ADDRESSABLE RELAY FOR CONNECTION T- UNITS AT ROOFTOP FOR UNIT SHUTDOWN.     3 PROVIDE FIRE ALARM ADDRESSABLE RELAY MODULE FOR CONNI- FIRE/SMOKE DAMPER CIRCUIT.

![](_page_70_Figure_2.jpeg)

![](_page_71_Figure_0.jpeg)

MAX. 4" —					
			TELEVISION/COAX SYSTEM - 1"C. WITH COAX CABLES AS SPECIFIED	WPDT	
		—— M1 ——	MICROPHONE SYSTEM - 3/4"C. WITH CABLING AS SPECIFIED.		HORN SPEAKER, WALL MOUNTED.
l l			M2 - 1"C. WITH CABLING AS SPECIFIED. M3 - 1 1/4"C. WITH CABLING AS SPECIFIED. M4 - (2) 1"C. WITH CABLING AS SPECIFIED.	AV—	AV CONNECTOR PLATE ON FLUSH IN WALL OUTLET BOX, +90 IN. AFF UNO. INSTALL IN FLUSH IN WALL BOX, SIZE PER MANUFACTUBERS BEQUIREMENTS, AT LCD DISPLAY LOCATION
		—— ID ——	INTRUSION DETECTION SYSTEM - 3/4"C., WITH INTRUSION		PROVIDE 1.25 IN. CONDUIT TO ABOVE THE ACCESSIBLE CEILING. PROVIDE AV CABLING AS SPECIFIED.
		1V	TELEPHONE/VOICE SYSTEM - 3/4"C. WITH ONE (1) TELEPHONE	AV— P	AV IN CEILING AMPLIFIER NEAR PROJECTOR LOCATION AS SPECIFIED FOR TERMINATION/CONNECTION OF AV AND
			SYSTEM CABLE AS SPECIFIED. 2V - 1"C. WITH TWO (2) TELEPHONE SYSTEM CABLES AS	·	PROJECTION SYSTEM. PROVIDE AND INSTALL COMPLETE AS SPECIFIED AND IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURERS REQUIREMENTS.
			3V - 1 1/4"C. WITH THREE (3) TELEPHONE SYSTEM CABLES AS SPECIFIED.	FO	AUDIO/VIDEO CONTROL PANEL, ON FLUSH IN WALL MOUNTED
MAX. DISTANCE			4V - 1 1/4"C. WITH FOUR (4) TELEPHONE SYSTEM CABLES AS SPECIFIED.		OUTLET BOX, +45"A.F.F. LOCATED AT INSTRUCTOR'S DESK. PROVIDE CONTROL PANEL, OUTLET BOX AND 1" CONDUIT
6'-0"		—— P ——	PUBLIC ADDRESS SYSTEM - 3/4"C., WITH PA SYSTEM CABLING AS SPECIFIED.		PROVIDE AV CABLING BETWEEN AV CONTROL PANEL AND AV CONNECTOR PLATE IN ACCORDANCE WITH THE AV SYSTEM
		—— AV ——	A/V SYSTEM - PROVIDE 1-1/2"C FROM AV CONTROLLER TO SWITCH AT PROJECTOR	TV-	REQUIREMENTS. TELEVISION/COAX OUTLET ON FLUSH IN WALL OUTLET, +60"U.O.N.
			ON DISPLAY. COMPUTER/DATA PROCESSING SYSTEM - 1"C., WITH ONE (1) DATA	G	GLASS BREAK DETECTOR.
		10		K –	INTRUSION DETECTION KEY PAD, ON FLUSH WALL MOUNTED OUTLET BOX. +45".
			2D - 1°C. WITH TWO (2) DATA NETWORK CABLES AS SPECIFIED. 3D - 1°C. WITH THREE (3) DATA NETWORK CABLES AS SPECIFIED.	С	INTRUSION DETECTION SYSTEM DOOR CONTACT SWITCH. INSTALL
			4D - 1 1/4"C. WITH FOUR (4) DATA NETWORK CABLES AS SPECIFIED.		IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
			5D - 1 1/4"C. WITH FOUR (5) DATA NETWORK CABLES AS SPECIFIED. 6D - 1 1/4"C. WITH FOUR (6) DATA NETWORK CABLES AS	D	INTRUSION DETECTION OCCUPANCY MOTION SENSOR, ON FLUSH
		~			
		1D	AFF., UNO. PROVIDE AND INSTALL ONE (1) DATA NETWORK OUTLET CONNECTOR, COVERPLATE, OUTLET BOX AND MINIMUM 1 IN.		INTRUSION PANIC BUTTON IN FLUSH IN WALL OUTLET BOX, +45".
			CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE CEILING SPACE. PROVIDE AND INSTALL INSULATED THROAT		18".
			AS SPECIFIED FROM OUTLET, THROUGH CONDUIT TO ABOVE THE CEILING AND ON TO THE RESPECTIVE BDF/IDF.		HANDS EREE ID CALL POY ELLISH MALL MOUNT . 45"
JT P1000		$\rightarrow$	COMPUTER/DATA OUTLET ON FLUSH IN WALL OUTLET BOX, +18 IN.		HANDS-FREE IF GALL BOX, FLOSH WALL MOUNT, 443.
		2D 🔨	CONNECTORS, COVERPLATE, OUTLET BOX AND MINIMUM 1 IN. CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE	s <sub>1D</sub>	INDOOR PUBLIC ADDRESS SPEAKER. PROVIDE AND INSTALL ON FLUSH IN CEILING BACKBOX. PROVIDE AND INSTALL ONE (1) DATA
			CEILING SPACE. PROVIDE AND INSTALL INSULATED THROAT BUSHINGS. PROVIDE AND INSTALL TWO (2) DATA NETWORK		THE RESPECTIVE BDF/IDF. PROVIDE INDOOR CEILING MOUNTED PAGING SPEAKERS POE+, IP BASED, AtlasIED #IHVP+ COMPLETE
			ABOVE THE CEILING AND ON TO THE RESPECTIVE BDF/IDF.		WITH FLUSH MOUNT ENCLOSURE SPEAKERS, BACKBOX AND VANDAL RESISTANT GRILLE. INSTALL IN CEILING SYSTEMS PER
		₃D↔	COMPUTER/DATA OUTLET ON FLUSH IN WALL OUTLET BOX, +18 IN. AFF. UNO. PROVIDE AND INSTALL THREE (3) DATA NETWORK	CR-	MANUFACTURERS REQUIREMENTS. ACCESS CONTROL CARD READER. PROVIDE AND INSTALL IN
			OUTLET CONNECTORS, COVERPLATE, OUTLET BOX AND MINIMUM 1.25 IN. CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE		FLUSH IN WALL OUTLET BOX, +45 IN. AFF. PROVIDE AND INSTALL A .75 IN. CONDUIT CONCEALED IN WALL TO THE CONTROL LER/ROWER SUBPLY ABOVE THE ACCESSIBLE CEILING
			BUSHINGS. PROVIDE AND INSTALL INSOLATED THROAT CABLES AS SPECIFIED FROM OUTLET, THROUGH CONDUIT TO	$\bigcirc$	SEE SPECIFICATIONS.
			ABOVE THE CEILING AND ON TO THE RESPECTIVE BDF/IDF.	(J) F	JUNCTION BOX, +18 IN. AFF UNO. PROVIDE AND INSTALL JUNCTION BOX, SEAL TITE FLEX CONDUIT, 1.25 IN. MINIMUM AND
L 1.6		₄D	AFF. UNO. PROVIDE AND INSTALL (4) DATA NETWORK OUTLET CONNECTORS, COVERPLATE, OUTLET BOX AND MINIMUM 1.25 IN.		CONNECTION TO THE FURNITURE SYSTEM. PROVIDE AND INSTALL OUTLET BOX(ES) SIZED TO ACCOMMODATE THE QUANTITY OF
			CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE CEILING SPACE. PROVIDE AND INSTALL INSULATED THROAT BUSHINGS, PROVIDE AND INSTALL FOUR (4) DATA NETWORK		CABLES INDICATED. PROVIDE QUANTITY OF 1.25 IN. CONDUITS FROM JUNCTION BOX, CONCEALED IN WALL TO ABOVE THE ACCESSIBLE CEILING. PROVIDE AND INSTALL ONE (1) 1.25 IN.
SCALE	3		CABLES AS SPECIFIED FROM OUTLET, THROUGH CONDUIT TO ABOVE THE CEILING AND ON TO THE RESPECTIVE BDF/IDF.		CONDUIT FOR EVERY SIX (6) DATA NETWORK CABLES REQUIRED. TERMINATE CABLES AT THE RESPECTIVE BDF/IDF.
N.1.5.		₀D	COMPUTER/DATA OUTLET ON FLUSH IN WALL OUTLET BOX, +18 IN. AFF. UNO. PROVIDE AND INSTALL SIX (6) DATA NETWORK OUTLET	C	INDOOR CLOSED-CIRCUIT TELEVISION CAMERA, CEILING MOUNTED. PROVIDE AND INSTALL CCTV CAMERA AS SPECIFIED,
			CONNECTORS, COVERPLATE, OUTLET BOX AND MINIMUM 1.25 IN. CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE CEILING SPACE, PROVIDE AND INSTALL INSULATED THROAT		CEILING OUTLET BOX AND ONE (1) DATA NETWORK CABLE FROM CAMERA TO THE RESPECTIVE BDF/IDF. PROVIDE 20 FOOT CABLE SERVICE LOOP AT CAMERA LOCATION
			BUSHINGS. PROVIDE AND INSTALL SIX (6) DATA NETWORK CABLES AS SPECIFIED FROM OUTLET, THROUGH CONDUIT TO ABOVE THE	(0)-	OUTDOOR CLOSED-CIRCUIT TELEVISION CAMERA, WALL MOUNT
		_ )>	CEILING AND ON TO THE RESPECTIVE BDF/IDF. TELEPHONE OUTLET IN FLUSH IN WALL OUTLET BOX, +45 IN. AFF	Ŭ	AT +108 IN. A.F.G. PROVIDE AND INSTALL CCTV CAMERA AS SPECIFIED, WEATHERPROOF WALL MOUNTED OUTLET BOX AND
		1T <sup>v</sup>	UNO. PROVIDE AND INSTALL HANDSET, VOICE OUTLET CONNECTOR, OUTLET BOX AND 1 IN. CONDUIT CONCEALED IN WALL TO ABOVE THE ACCESSIBLE CEILING, PROVIDE AND INSTALL		RESPECTIVE BDF/IDF. PROVIDE 20 FOOT CABLE SERVICE LOOP AT CAMERA LOCATION.
			ONE (1) DATA NETWORK CABLE AS SPECIFIED FROM THE OUTLET, IN CONDUIT AND TERMINATE AT THE RESPECTIVE BDF/IDF.		MULTI-SERVICE POWER/DATA FLUSH IN FLOOR BOX COMPLETE
			WIRELESS ACCESS POINT AT CEILING. PROVIDE AND INSTALL ACCESS POINT, ONE (1) DATA NETWORK CABLE WITH 15 FOOT		FLOOR BOX WITH QUANTITY OF DUPLEX POWER OUTLETS (SEE POWER PLANS) AND COMPUTER/DATA OUTLET CONNECTORS
			SERVICE LOOPS, BACK TO THE RESPECTIVE BDF/IDF. INSTALL ACCESS POINT IN ACCORDANCE WITH THE EQUIPMENT		INDICATED. PROVIDE ONE (1) 1.25 IN. BELOW GRADE CONDUIT FOR EVERY FOUR (4) DATA OUTLET CONNECTORS AND CABLES
		1D	WIRELESS ACCESS POINT, WALL MOUNTED AT +90 IN. UNO.		INDICATED AND TERMINATE AT THE RESPECTIVE BDF/IDF. PROVIDE ONE (1) DATA NETWORK TERMINATION DEVICE IN THE
		AP	PROVIDE AND INSTALL ACCESS POINT, ONE (1) DATA NETWORK CABLE WITH 20 FOOT SERVICE LOOP, BACK TO THE RESPECTIVE BDE/IDE_INSTALL ACCESS POINT IN ACCORDANCE WITH THE		FURNITURE SYSTEM FOR EACH WORK STATION INDICATED AND CONNECT IN ACCORDANCE WITH THE FURNITURE SYSTEMS
			EQUIPMENT MANUFACTURERS INSTALLATION REQUIREMENTS. OUTDOOR LOCATIONS SHALL BE WEATHERPROOF.	^	MANUFACTURERS REQUIREMENTS. "FF" INDICATES PROVIDE WITH FURNITURE COVER.
		1D	COMPUTER/DATA OUTLET CONNECTOR AT CEILING AND		COMPLETE WITH FLUSH COVER. PROVIDE AND INSTALL MULTI SERVICE FLOOR BOX WITH QUANTITY OF DUPLEX POWER
		P	CONNECTION TO IN CEILING AV AMPLIFIER AND PROJECTION SYSTEM. INSTALL IN ACCORDANCE WITH THE AV SYSTEM		OUTLETS (SEE POWER PLANS), COMPUTER/DATA OUTLET CONNECTORS AND AUDIO VIDEO CONNECTOR PLATES AS
		"E"	DESIGNATION INDICATES DEDICATED TELEPHONE LINES FOR		INDICATED. PROVIDE ONE (1) 1.25 IN. BELOW GRADE CONDULT FOR EVERY FOUR (4) DATA OUTLET CONNECTORS AND CABLES INDICATED. PROVIDE AND INSTALL QUANTITY OF CABLES
		Μ	ELEVATOR. INTERCOM MICROPHONE ON FLUSH CEILING MOUNTED OUTLET		INDICATED AND TERMINATE AT THE RESPECTIVE BDF/IDF. FOR AV, PROVIDE AND INSTALL INSTRUCTOR'S AV CONNECTOR PLATE,
		S	BOX. AUDIO ENHANCEMENT SPEAKER IN FLUSH CEILING MOUNTED		ONE (1) 1.5 IN. CONDUIT FROM THE FLOOR BOX, TO THE WALL AND TO ABOVE THE ACCESSIBLE CEILING. PROVIDE HDMI/VGA CABLING, ETC. AS SPECIFIED. "FF" INDICATES PROVIDE WITH FURNITURE
		φ-	12.5" DIA. ANALOG SELF CORRECTING 120V. OPERATED CLOCK, +	A PT	
		,	EXACT LOCATIONS AND MOUNTING HEIGHTS.		BUT POKE THROUGH DEVICE AT UPPER FLOORS. "PT" DESIGNATION INDICATES PROVIDE AND INSTALL POKE THROUGH
		+45"	MOUNTING HEIGHT TO CENTER LINE OF DEVICE FROM FINISH FLOOR OR EXTERIOR GRADE		DEVICE AS SPECIFIED. "FF" INDICATES PROVIDE WITH FURNITURE FEED COVER.
		1	<ul> <li>PLAN NOTE CALLOUT. REFER TO CORRESPONDING NOTE ON DRAWING WHERE CALLOUT OCCURS.</li> </ul>	AV)	SIMILAR TO MULTI-SERVICE POWER/DATA/AV FLUSH IN FLOOR BOX BUT POKE THROUGH DEVICE AT UPPER FLOORS. "PT"
					DESIGNATION INDICATES PROVIDE AND INSTALL POKE THROUGH DEVICE AS SPECIFIED. "FF" INDICATES PROVIDE WITH FURNITURE FEED COVER
SCALE			<u>/3</u>		
N.T.S.	2				TELECOM SYMBOL LIST
KEI					
*					
4"					
*					
			CASEWORK LOCATIONS AND HEIGHTS AND LOCATIONS AS	INSTALL ALL OU DIRECTED BY TH	ITLETS IN MOUNTING HE ARCHITECT. VERIFY
			ALL MOUNTING HEIGHTS AND CONTRACTOR SHALL INCLUD	LOCATIONS PRI E ALL COSTS IN	OR TO ROUGH-IN. BID TO COMPLY WITH
			THIS PROVISION.		
}					
	-				
N 272000 IENTS					
	L				
	_				
JUALE	1				PERFORMANCE NOTES

![](_page_71_Figure_2.jpeg)
LOW VOLTAGE TASK RESPONSIBILITY MATRIX					
ITEM	GC	EC	CC	AVC	Γ
EQUIPMENT					
AV EQUIPMENT - AV SPEAKER SYSTEMS	Y			Z	Γ
AV EQUIPMENT - ALL OTHER AV EQUIPMENT				X	Γ
SECURITY EQUIPMENT AND CONFIGURATIONS					F
INFRASTRUCTURE / COMMISSIONING					$\vdash$
INTRA-BUILDING LOW VOLTAGE CONTINUOUS CONDUITS		X			Γ
INTRA-BUILDING LOW VOLTAGE CONDUIT ID LABELING & PULL STRINGS		X			Γ
BUILDING INTERIOR LOW VOLTAGE BACK BOXES / CONDUIT		х			Γ
TELECOM & AV FLOOR BOXES & POKE THRUS		X			Г
BDF/IDF ROOM CABLE TERMINATION HARDWARE			X		Γ
BDF/IDF ROOM CABLE MANAGEMENT HARDWARE	-		Х		F
HORIZONTAL STATION CABLE			X		
BDF/IDF ROOM CABLE RUNWAY			X		F
BDF/IDF ROOM & AV ROOM POWER		X			F
INTRA-BUIDLING GROUND SYSTEM TO TELECOM AND AV ROOMS		X			-
TELECOM BOOM FOUIPMENT GROUNDING			x		F
AV CABLING AND TERMINATION				X	
AV SYSTEM TEST, COMMISSIONING AND TRAINING	-			X	
SECURITY CONDUIT ID LABELING PULL STRINGS		x			
SECURITY ROOM ACCESS POWER		X			
SECURITY SYSTEM CONDUIT AND PULLBOXES		X			
SECURTY CAMERA CABLING	-		x		-
					$\vdash$
SECURITY SYSTEM TEST, COMMISSIONING AND TRAINING					
SECORITY SYSTEM TEST, COMMISSIONING AND TRAINING					F
STRUCTURAL / SUPPORTS					
BDF/IDF ROOM BACKBOARDS	X				
LOW VOLTAGE/SECURITY ROOM BACKBOARDS	X				
BDF/IDF ROOM EQUIPMENT RACKS LADDER RACKS & BRACKETS			X		
SECURITY RACKS & BRACKETS					
BACKING, BLOCKING & OTHER STRUCTURAL SUPPORTS FOR LOW VOLTAGE, AV, SECURITY EQUIPMENT	X				
DOOR LOCKING HARDWARE AND INSTALLATION	X				
MATRIX NOTES:	-	-			_
Y DROVIDED AND EULLY INSTALLED/TEST BY TRADE ENTITY					-
					-
7 - PROVIDED AND PARTIALLY INSTALLED BY TRADE ENTITY PER SPECIFICATION SECTION					-
Z - FINAL ASSEMBLY, CABLE TERMINATION AND TESTING BY TRADE ENTITY PER SPECIFICATION SECTION		-			-
GENERAL NOTES:					
1. GC = GENERAL CONTRACTOR					
2. SC = SECURITY CONTRACTOR					
3. EC = ELECTRICAL CONTRACTOR					
4. CC = CABLE CONTRACTOR					
5. AVC = AUDIO VISUAL CONTRACTOR					

PCM3, Inc.

Low Voltage Task Responsibility Matrix 180828.xlsx



# 2ND FLOOR ENLARGED IDF-SS ROOM SCALE 1/4" = 1'-0" 2



8.xlsx





ENLARGED KEY NOTES:

- 1 PROVIDE 8'-0" X 3/4" THICK FIRE TREATED PLYWOOD BACKBOARD, PAINT OFF WHITE PER DISTRICTS IT STANDARDS.
- 2 PROVIDE 18" WIDE X 4" DEEP LADDER RACK CABLE TRAY SYSTEM. SEISMIC BRACE ALL CABLE RACEWAYS AND RACKS USING 1/2" ALL THREAD TO CEILING STRUCTURE PER MANUFACTURER'S INSTRUCTION AND CODE
- PROVIDE MAIN TECHNICAL GROUND BUS PER DETAIL 1/ET-1. BOND ALL
   METAL COMPONENTS TO THE TECHNICAL GROUND BUS. ALL RACKS TO BOND INDIVIDUALLY MINIMUM #6 AWG CONDUCTOR. WALL MOUNT GROUND
- BUS ON WALL AT +7'-0".
- 6 24"W X 36"H X 6"D, SURFACE MOUNT.









KEY NOTES         Image: Construct of the second s	
<ul> <li>(1) PROVIDE THREE (3) TC. SLEEVES THROUGH WALL ABOVE CELL COMPUTER/DATA/VOICEFA SYSTEMS CABLING. PROVIDE INJUL</li> <li>(2) PROVIDE VOICE AND DATA CABLE FURNITURE FREED CONNECTIC FURNITURE SYSTEMS IN ACCORDANCE WITH THE FURNITURE FURNITURE SYSTEMS IN ACCORDANCE WITH THE FURNITURE ADMINISTIC STREED AND DATA CABLE FURNITURE FREED CONNECTIC FURNITURE SYSTEMS IN ACCORDANCE WITH THE FURNITURE RACEWAYS. PROVIDE VOICE/DATA FORMULTING FOR ADMINISTIC STREED FOR THE STREED AND DATA CABLE FURNITURE RACEWAYS. PROVIDE VOICE/DATA FRANKING PROVIDE AUTTINGE WORKSTATION (TYPICAL 2DIV EACH WORKSTATION AND 1D AT PRINTER LOCATION) AS SPECIFICATIONS. AND IN ACCOMPLICATES, CABLIE HARNESS, ETC. FOR INSTALLATION.</li> <li>(3) PROVIDE BATTERY OPERATED, GPS TYPE CLOCKS, +90° AT LOC SHOWN ON DRAWINGS. SEE SPECIFICATIONS.</li> <li>(4) PROVIDE BLENT PANIC PUSH BUTTON DEVICE MAT LOC SHOWN ON DRAWINGS. SEE SPECIFICATIONS.</li> <li>(4) PROVIDE BLENT PANIC PUSH BUTTON DEVICE MAILER. ROUTE SHOWN ON DRAWINGS. SEE SPECIFICATIONS.</li> <li>(4) PROVIDE SILENT PANIC PUSH BUTTON DEVICE MAILER. ROUTE SHOWN ON DRAWINGS. STEMES INSTALLER. ROUTE SHOWN ON DRAWING AND ON THE RESPECIFICATIONS SYSTEM IN ACCORDANCE WITH THE MANUFACTURE PANIC. SHOWN AND ADDRAWING AND ON THE RESPECIFIC INTERNES SYSTEM IN ACCORDANCE WITH THE MANUFACTURE RESULT. SHOWN AND ADDRAWING AND ON THE RESPECIFIC INTERNES SYSTEM IN ACCORDANCE WITH THE MANUFACTURE RESOLUTION. SYSTEM IN ACCORDANCE WITH THE RANUFLER REGULAR AND DATA CONNECTION SECTION SCORD FURCHMENTS. SHOULD AND ACCOMPLETE INSTALLATION. RESPECIFICATION SECTION SECTIO</li></ul>	KEY NOTES
	<ul> <li>1 PROVIDE THREE (3) 3"C. SLEEVES THROUGH WALL ABOVE CEILI COMPUTER/DATA/VOICE/PA SYSTEMS CABLING. PROVIDE INSUL THROAT BUSHINGS ON CONDUIT ENDS. FIRESTOP ALL THROUG CONDUIT PENETRATIONS. TYPICAL.</li> <li>2 PROVIDE VOICE AND DATA CABLE FURNITURE FEED CONNECTIN FURNITURE SYSTEMS IN ACCORDANCE WITH THE FURNITURE S MANUFACTURERS REQUIREMENTS. PROVIDE QUANTITY OF VOI CABLES AS INDICATED. ROUTE CABLING THROUGH FURNITURE RACEWAYS. PROVIDE VOICE/DATA TERMINATION DEVICES AT E WORKSTATION (TYPICAL 2D/1V EACH WORKSTATION AND 1D AT PRINTER LOCATION) AS SPECIFIED AND IN ACCORDANCE WITH FURNITURE SYSTEMS SHOP DRAWINGS. PROVIDE ALL TERMINA DEVICES, CABLING, COVERPLATES, CABLE HARNESS, ETC. FOR INSTALLATION.</li> <li>3 PROVIDE BATTERY OPERATED, GPS TYPE CLOCKS, +90" AT LOC SHOWN ON DRAWINGS. SEE SPECIFICATIONS.</li> <li>4 PROVIDE SILENT PANIC PUSH BUTTON DEVICE MOUNTED TO WI FURNITURE SYSTEMS, TYPICAL FOR ALL WORKSTATIONS. COOF INSTALLATION WITH FURNITURE SYSTEMS INSTALLER. ROUTE A CONCEALED IN FURNITURE SYSTEMS RACEWAY AND IN CONDU TO ABOVE THE CEILING AND ON TO THE RESPECIFIED INTRUSION SYSTEM IN ACCORDANCE WITH THE MANUFACTURERS REQUIR</li> <li>5 PROVIDE AREA OF REFUGE TWO-WAY COMMUNICATION COMM. RATH 2500 SERIES OR EQUIVALENT. PROVIDE ALL CONDUIT, WI AND DATA CONNECTIONS FOR A COMPLETE INSTALLATION. REF SPECIFICATION SECTION 273000 FOR REQUIREMENTS.</li> </ul>













## AV PERFORMANCE NOTES: 1. AV CONTRACTOR SHALL COORDINATE DIVISION OF WORK WITH THE GENERAL CONTRACTOR AND INCLUDE ALL COSTS IN BID. LECTERN CARTS, BLU-RAY PLAYERS, DOCUMENT CAMERAS, LCD 2. DISPLAYS AND DESKTOP PC'S ARE PROVIDED BY OTHERS. COORDINATE INSTALLATION WITH PROVIDER. PROVIDE COMPLETE AV AND ASSISTIVE LISTENING SYSTEMS IN ALL CLASSROOMS, HUDDLE SPACES, DIGITAL SIGNAGE, CONFERENCE ROOMS, ETC., NO EXCEPTIONS. 4. PROVIDE INPUT IN AV EQUIPMENT FOR CONNECTION TO ALS.



RFC	Question	Reference Document	Answer
1	Demolition of pylons / friction pilings and caps Sect. 01 10 00-1.2.C.3&D.2 indicate scope to remove pylons. AS- 2 has a note to refer to Supplemental Geotechnical Recommendations, and also has a symbol for (E) Friction piles and caps to be demolished. No symbols for the (E) Friction Piles are present on plan sheet AS-2 within or around the existing building. There are no details relating to the pylons / friction piles or their removal. Supplemental Geotechnical Recommendation do not provide quantity, size, depth, etc. Or any other information to quantify the pilings. Please provide this information and provide as-built plans showing locations, quantity, depth.	Section 01 10 00-1.2.C.3&D.2	See Drawing Sheet AS-2 and Original Building Structural As-Built sheets S-1 through S-10 issued with this Addendum #4.
2	Campus soils stockpile. Sect. 01 01-1.2.D.3 mentions a temporary soils stockpile on campus. Does this mean there is a location on campus that may be used a borrow site, and does it mean that excess soils, if generated by this project, may be placed at the stockpile?	Section 01 01-1.2.D.3	There is a location on the campus near the stadium where excess soils can be temporarily stored. This contractor should not count on that location for borrowing soil. Any additional soil needed for the project will need to be properly certified and provided by the contractor.
3	Section 01 01 00-1.2.4 Temporary facilities - Is Contractor responsible for dewatering if created by a source that is not in the control of the Contractor, such as failure of a District-owned water service that is apart from the construction site, and not caused by construction operations?	Section 01 01 00-1.2.4 Temporary Facilities	Yes this Contractor is responsible for dewatering of the site.
4	Section 01 01 00-1.2.5.m - Please identify any work by the District planned for the project for which Contractor would have to plan on coordinating with.	Section 01 01 00-1.2.5.m	There are other contracts currently underway for the Instructional Building 1, Instructional Building 2, Cafeteria and Music Building HVAC and Campus wide Roofing repair projects. Coordination will also be required with District Furniture and Equipment vendors for the project.
5	Section 01 01 00-1.2.5.r - Please specify the staffing Contractor will be required to provide for the project, such as Project Manager, Superintendent, administrative or accounting, Project Engineer, etc.	Section 01 01 00-1.2.5.r	At a minimum the contractor would need to provide a Site Superintendent, Project Administrator/Engineer, Project Manager and any site labor necessary to keep the project running on schedule.
6	Section 01 01 00 - Scope of Work Logistics Plan - The outline of the Student Services Building Construction Site depicted on the Logistics plan differs from the Limits of Work line on the civil drawings. Please confirm the construction fence boundary.	Section 01 01 00 - Scope of Work Logistics Plan	The logistics plan is a general indication of the areas on campus that are available to the contractor for their use. The civil plan shows the limit of work associated with this project. The exact location of the construction fence boundary is to be determined after meeting with the contractor awarded the contract.

RFC	Question	Reference Document	Answer
7	Section 01 21 00-1.4.4 Indicates the Contractor Base Bid to include cost of all coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect projects costs associated with performing the work of each Allowance. Also refer to 01 30 50, CHANGES AND EXTRA FORM, page2, the paragraph labeled "FOR ALLOWANCE USAGE REQUEST" Refers to General Conditions sections 00 73 00 paragraph H. Section 00 73 00 is Special Conditions. General Conditions is section 00 72 00. Both 00 72 00 and 00 73 00 are arranged numeric designations, and "H" was not found in either section. Please confirm correct reference. Please confirm intent and that Allowance Usages will have GC mark up's and specify the percentage(s).	Section 01 21 00-1.4.4	Please correct the reference to General Conditions sections 00 73 00 paragraph H to Special Conditions 00 73 00 paragraph 14.4. "Contractor shall include in the base bid contract amount all cost of coordination, supervision, bond costs, overhead and profit, supervision, installation and all indirect project costs associated with performing the work of each Allowance" Allowance usage will not have additional General Contractor markup included. All markup for the full amount of the Allowance is to be included in the base bid per the Contract Documents.
8	Section 01 30 50-II.D.1.a - Please confirm if District will require Contractor to have Prolog software and utilize it for submittals.	Section 01 30 50-II.D.1.a	No. The Construction Manager will utilize Prolog software for managing submittals. The Contractor is to use the Submittal Transmittal form provided in section 01 30 50.
9	Section 01 50 002.8 Temporary Utility Services. Compare with 00 73 00 Special Conditions, item 12 for District-Provided Temporary Utilities. Please clarify that District will pay for consumption of power and water.	Section 01 50 002.8 Temporary Utility Services	The District will provide a location/source for power and water, but the Contractor will be required to provide a meter for both and costs for power and water reimbursed to the District by the Contractor at the District's cost. Final location for both to be determined once the contract is awarded.
10	Details on AS-3 not found on 2.01: 6, 7, 8, 11, 12, 16. Please advise.	Details on AS-3	1. Replace references as follows: change 6/2.01 to BB/C1.3, change 7/2.01 to CC/C1.3 & AA/C1.3, change 8/2.01 to FF/C1.3 (doweled Joint (d.j.) change 11/2.01 to EE/C1.3 change 12/2.01 to 2A/C1.3 Disregard reference to 16/2.01

RFC	Question	Reference Document	Answer
11	Refer to Pt. 4 of Bid Documents, Geotech report, pages 110 -112. On pg. 110, last paragraph through end of first paragraph on 111, it is stated "subgrade soils at the removal bottoms should be moisture-conditioned as needed and recompacted to a minimum 90 percent relative compaction cannot be achievedit may be necessary to utilize a cement-modified soil (CMS)" and then the paragraph concludes with "Specialty contractor should review the field conditions to determine the appropriate cement content and depth of cement modified soil." The wording "It may be necessary" leaves it up to assumptions as to what conditions may be. It is impossible to know at time of bid and prior to excavation what condition will be encountered and if the CMS will be required. Bid documents should either require inclusion of CMS, or not. Please provide specific instructions to bidders whether or not the District desires the CMS to included in the bid. Ref. C	Pt. 4 of Bid Documents, Geotech report, pages 110 -112	The District does want the CMS included in the bid.
12	Refer to Site Electrical Demolition Plan ES-0. Per Note #3, existing underground conduit and wiring is to be removed in its entirety. Confirm if this (1) includes the portions outside of the heavy dashed line, which assumed to be a "Limits of Work" line matching AS-2 & AS-3, and (2) demolition is to include and duct bank encasing any existing conduits plus backfilling and compaction of void from removal, and (3) confirm extent is all the way back to the face of the administration building to the south, and not inside the building, and all the way back to the existing electrical equipt To the west.	Site Electrical Demolition Plan ES-0.	Elect. Response:(1) Yes, include portions outside the limit line as symbollically indicated as a line with "X" through it. See legend on ES-0. (2) Yes, demolition shall include removal of conduits, cabling and encasement. Provide backfill and compaction. (3) Extent is all the way into Administration building to the south and all the way back to the electrical equipment to the West.
13	Refer to ES-2, Confirm (E) PMS-F2 and feed to T-SS.	ES-2	See Addendum 2 for MV feed requirements
14	Spec (section 01 01 00 1.2.C.3) is calling to remove underground concrete pylons. Please advise if there is any as built drawings for existing library building. If not please provide direction on how to provide allowance for this scope	Spec (section 01 01 00 1.2.C.3)	See Drawing Sheet AS-2 and Original Building Structural As-Built sheets S-1 through S-10 issued with this Addendum #4.
15	Drawing A0-2 calls for "Seismic Gap" at bridge connections on second floor. Please provide details for this.	Drawing A0-2	Refer to Addendum # 2.

## COMPTON COMMUNITY COLLEGE DISTRICT

#### RFQ CCC-056 Student Services Building

**RFC** Questions Answers

#### Addendum #4

RFC	Question	Reference Document	Answer
16	Sheet S-3.1 refers to detail 10/S5-0.3 at seismic gap locations. Detail 10/S5-0.3 indicates two beams at both sides of the gap, sheet S-3.1 Framing plan shows one beam only. Please advise	Sheet S-3.1	Structural Response: Beam is now shown on the framing plan.
17	4. Sheet 4.03 details 11, 16 and 17 show different column situations with or without fireproofing. Please advise which one applies to this project. Sheet Al-1 does not call for these details	Sheet 4.03 details 11, 16 and 17	No Spray applied fire proofing required. Disregard details 11, 16 & 17 on sheet 4.03.
18	Sheet A9-1 and 6.01 shows District supplied flat screen panel and wall mounting bracket, but who will install of these items. Please advise.	sheet A9-1 and 6.01	Flat screen panel and wall bracket are OFOI. All other work related to this work is CFCI including but not limited to backing, electrical and low voltage.
19	Sheet 9-2 room #150 shows locker. Please provide spec section.	Sheet 9-2 room #150	Refer to the added specification in Addendum #4.
20	Please provide locations on where section 08 87 33 Architectural Decorative Window Films are required.	Section 08 87 33	Specification 08 97 33 applies to interior translucent glazing. See Addendum #4 plans for further clarification.
21	Per spec section 08 44 13 - 3.04.A - As informed by glazing subcontractors, the specified manufacturer do not provide this service. Please advise.	Spec Section 08 44 13 - 3.04.A	1. Should the manufacturer not be able or willing to provide the service identified in section 08 44 13 Part 3.04A, then the contractor shall contract with a representative inspector. Contact Dave Volkingburg with DVV & Associates (805) 778-0802 or (310) 344-4721 3902 W. Cresthaven Dr., Westlake Village, CA 91362 to provide same service identified for the manufacturer in 08 44 13 Part 3.04A.
22	Per spec section 08 44 13 - 3.04.C.1 - Please provided locations of designated area to be tested (none shown on the drawings)	Spec Section 08 44 13 - 3.04.C.1	Please see exterior elevation sheets A4.1 and A4.2 attached to this Addendum #4. The highlighted windows are to be tested.
23	Per spec section 08 44 13 - 3.04.C.3 - Please clarify if this is for the testing of all storefront and glazing on the project	Spec Section 08 44 13 - 3.04.C.3	3.This test applies to all glazed aluminum curtain wall systems. Refer to section 08 43 13 Part 3.04 for water testing of Aluminum framed storefronts.
24	Is there a construction schedule you can provide for this project?		Reference Specification Section 01 43 80 provided in the "RFQ CCC-056 Student Services Contract Documents" posted on the District's bid website.
25	Sheet 114/A9-1 is showing projection screens and flat panel displays with a note of "FFE by District." Can you clarify what FFE means and that the district will be providing these? If the district is providing these screens & displays will the AV contractor be responsible for installing?	Sheet 114/A9-1	The FF&E on this project will be provided and installed by District Vendors. The contractor is not responsible to install the items, just provide the infrastructure and in some cases final connections to the FF&E items such as electrical connections to furniture.
26	Sheet 114/A9-1 is showing wall hung projectors and screens however sheet ET-5 references 1/ET-8 for this room. 1/ET-8 is showing a flat panel display and not a projector. Please clarify if this room should get projectors and screens OR LCD flat panel display?	Sheet 114/A9-1	Provide projectors and projection screens as illustrated on the architectural drawings. Provide a complete Clasroom AV system complete with conduit, cabling, devices, equipment, etc. for a complete projection system. RR/FBA 12/27/19.
27	Sheet ET-5 is showing two AV devices in the middle of "CORR. 100" but it is not clear what these devices are. Please clarify.	Sheet ET-5	Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9, both locations in corridor.

#### COMPTON COMMUNITY COLLEGE DISTRICT RFQ CCC-056 Student Services Building

**RFC** Questions Answers

#### Addendum #4

RFC	Question	Reference Document	Answer
28	Sheet ET-5 is showing one AV device in the "ALT MEDIA 150B" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9.
29	Sheet ET-5 is showing two AV devices in "TESTING CENTER 122" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Provide Conference Room AV system complete with conduit, cabling, devices, equipment, etc. per 2/ET-8.
30	Sheet ET-5 is showing three AV devices in "CALWORKS 270" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 270 is on Drawing ET-6, not ET-5. Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9.
31	Sheet ET-5 is showing one AV devices in "EOPS & CARE 280" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 280 is on Drawing ET-6, not ET-5. Provide Digital Signage AV system complete with conduit, cabling , devices, equipment etc. per 4/ET-9 Media Room BDF.
32	Sheet ET-5 is showing one AV devices in "COUNS./CAR. & TRNSF/FYE 266" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 266 is on Drawing ET-6, not ET-5. Provide Digital signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9. Media Room is BDF.
33	Sheet ET-5 is showing one AV devices in "VP STU. SERVICES 242" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 242 is on ET-6, not ET-5. Provide Huddle Room AV system complete with conduit, cabling, devices and equipment, etc. per 3/ET-9.
34	Sheet ET-5 is showing one AV devices in "VRC LOUNGE" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	"VRC LOUNGE" is on Drawing ET-6, not ET-5. Provide Digital Signage AV System complete with conduit, cabling, devices and equipment per 4/ET-9. Media Room is BDF.
35	4/ET-9 is showing an AV line drawing for Digital Signage but we cannot find the digital signage locations on the floor plans. Please clarify where these locations are.	4/ET-9	See Addendum #4 drawings clarifying digital signage locations.
36	The plans and specs do not seem to match up in multiple places. Can you confirm which document takes precedence?		Neither the plans or the specifications shall have precedence. The contractor shall bid the more costly item. Please bring specific items of conflict/descrepancies to the Architect's attention ASAP but prior to begining work.
37	(Ref. ET-3 A-D) & (Ref. ET-4) Back Bone Cable pull for Fiber, RG-11 & 100 Pair OSP. Please clarify end point for cable termination. From Building A-3B BDF-SS to MH splice?	(Ref. ET-3 A-D) & (Ref. ET-4)	Backbone cable shall be 6 strand SM fiber optic cable per College Request. Delete requirement for RG-11 and 100 pair OSP per issued addenda.

RFC	Question	Reference Document	Answer
38	(Ref. ET-4) Please clarify Back Bone cable type requirements and termination points.	(Ref. ET-4)	Provide 6 strand SM fiber optic cable the entire length as shown on ET-4 and addenda, per the College request.
39	(Ref. ET-4) Plans show pathway from new BDF-SS all the way to (E) Communications Head End Equipment Location Approx. 1,200' end to end with multiple Man Holes. Is LV contractor responsible for pulling new cable for entire pathway or splicing into local man hole?	(Ref. ET-4)	Provide new fiber optic cable continuous from head end to BDF- SS via new and existing Fiber conduit system shown on ET-4. See drawings and addenda.
40	(Ref. ET-1 6) has Detail for 4 post rack & (Spec. 27 11 00-2.01 A) calls out Two-post racks (Spec. 27 11 00-2.01 D) Calls out four posts. Please clarify rack needs.	(Ref. ET-1 6)	Provide 2-post racks per 2.01D to match 2-post racks specified in IB#1 project.
41	(Spec. 27 00 00) Calls out for Horizontal Copper cabling to be Cat6A (Ref. ET-1 Telecom Symbol list) states Cat6E. Please specify Category cable type needed.	(Spec. 27 00 00)	Horizontal cabling should be Cat 6E.
42	(Spec. 27 53 13) Detail describes Clock system. However, cannot find any reference for qty: and locations for clock system on the drawings	(Spec. 27 53 13)	See Addendum #4 drawings for clock locations.
43	Please specify if UPS E0-2 Uninterruptable Power Supply Unit in BDF will be EC provided and installed or LVC Provided and installed.		UPS shall be EC Provided and Installed.
44	Please confirm Fiber requirements – 12SM & 24MM		The Fiber Optic backbone shall be 6 strand SM fiber.
45	The Summary of Work states the contractor is to remove pylons to a minimum of 2 feet below the bottom of the over-excavation area of the new building. The plans do not show where these pylons are or any dimensions. There is nothing in the geo- technical report. How are we to quantify/estimate the pylon removal in our bid? What are the pylon dimensions? Are there as-builts?	The Summary of Work	See Drawing Sheet AS-2 and Original Building Structural As-Built sheets S-1 through S-10 issued with this Addendum #4.
46	Per 01500 2.2, contractor is to provide separate telephone and fax lines as well as high speed internet. Will the contractor be allowed to access the College's data and telephone network for their POC? If not, please advise where these potential POCs are located	01500 2.2	Yes, the District will allow the Contractor to connect to the District data/internet through a location near the existing Administration Building. Exact location for connection to be determined after the bid is awarded.
47	Sheet ET-4 shows pathway from new BDF-SS all the way to (E) Communications Head End Equipment Location approximately 1,200' end to end with multiple man holes. Will it be possible for contractor to splice into local man hole, or will contractor be required to pull new cable for entire pathway?	Sheet ET-4	Provide new fiber optic cable continuous from head end to BDF- SS via new and existing Fiber conduit system shown on ET-4. See drawings and addenda. RF/FBA 12/27/19
48	Regarding ET-4, please identify back bone cable type requirements and termination points.	ET-4	Provide 6 strand SM fiber optic cable the entire length as shown on ET-4 and addenda.

#### Addendum #4

RFC	Question	Reference Document	Answer
49	Regarding ET-3 A-D and ET-4, Back Bone Cable pull for fiber, RG-11 and 100 pair OSP, please identify end point for cable termination from Building A-3B BDF-SS to MH splice.	ET-3 A-D and ET-4	Backbone cable shall be 6 strand SM fiber optic cable. Delete requirement for RG-11 and 100 pair OSP per issued addenda.
50	Detail 4/ET-9 is showing an AV line drawing for Digital Signage but digital signage locations cannot be found on the floor plans. Please provide these locations.	4/ET-9	See Addendum #4 drawings clarifying digital signage locations.
51	Sheet ET-5 is showing one AV device in the "VRC LOUNGE" but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	"VRC LOUNGE" is on Drawing ET-6, not ET-5. Provide Digital Signage AV System complete with conduit, cabling, devices and equipment per 4/ET-9. Media Room is BDF.
52	Sheet ET-5 is showing one AV device in the "VP STU SERVICES 242" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 242 is on ET-6, not ET-5. Provide Huddle Room AV system complete with conduit, cabling, devices and equipment, etc. per 3/ET-9.
53	Sheet ET-5 is showing one AV device in the "COUNS/CAR &TRNSF/FYE 266" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 266 is on Drawing ET-6, not ET-5. Provide Digital signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9. Media Room is BDF.
54	Sheet ET-5 is showing one AV device in the "EOPS & CRAE 280" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 280 is on Drawing ET-6, not ET-5. Provide Digital Signage AV system complete with conduit, cabling , devices, equipment etc. per 4/ET-9 Media Room BDF.
55	We have sent multiple RFIs regarding the discrepancies between the plans and specs for the low voltage scope. For questions we may find after the RFI deadline, please identify whether plans or specs take precedence for this project		Neither the plans or the specifications shall have precedence. The contractor shall bid the more costly item. Please bring specific items of conflict/descrepancies to the Architect's attention ASAP but prior to begining work.
56	Sheet ET-5 is showing two AV devices in the "TESTING CENTER 122" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Provide Conference Room AV system complete with conduit, cabling, devices, equipment, etc. per 2/ET-8.
57	Sheet ET-5 is showing one AV device in the "ALT MEDIA 150B" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9.
58	Sheet ET-5 is showing two AV devices in the middle of "CORR. 100" but it is not clear what these devices are. Please clarify.	Sheet ET-5	Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9, both locations in corridor.
59	Detail 114/A9-1 is showing wall hung projectors and screens. Sheet ET-5 references 1/ET-8 for this room. 1/ET-8 is showing a flat panel display and not a projector. Please clarify if this room should get projectors and screens or LCD flat panel displays.	Detail 114/A9-1	Provide projectors and projection screens as illustrated on the architectural drawings. Provide a complete Clasroom AV system complete with conduit, cabling, devices, equipment, etc. for a complete projection system.
60	Per detail 7/6.01 and similar for FFE District supplied flat screen TVs, please confirm these are Owner Furnished, Owner Installed and Contractor is only to supply and install backing.	Detail 7/6.01	Flat screen panel and wall bracket are OFOI. All other work related to this work is CFCI including but not limited to backing, electrical and low voltage.
61	Regarding details like 114/A9-1 and similar, what is meant by FFE?	Details like 114/A9-1	The FF&E on this project will be provided and installed by District Vendors. The contractor is not responsible to install the items, just provide the infrastructure and in some cases final connections to the FF&E items such as electrical connections to furniture.

RFC	Question	Reference Document	Answer
62	Please confirm fiber requirements 12SM & 24SM are both needed for backbone cable.		The Fiber Optic backbone shall be 6 strand SM fiber.
63	Please confirm listing of low bidder's subcontractors will either be read or be available for viewing at time of bid opening. If not, please advise when bidders can expect to receive low bidders listing of designated subcontractors		After bids are opened and read to the public, any requests for bid documents should be emailed to Carol Kober at ckober@pcm3.com. Those requests will be forwarded to the District and they will provide the documents requested.
64	Please specify if the UPS EO-2 uninterruptable power supply unit in BDF will be EC provided and installed or LVC provided and installed.		UPS shall be EC Provided and Installed.
65	Sheet ET-5 is showing three AV devices in the "CALWORKS 270" room but it is not clear what AV system type should be provided for this room. Please clarify.	Sheet ET-5	Room 270 is on Drawing ET-6, not ET-5. Provide Digital Signage AV system complete with conduit, cabling, devices, equipment, etc. per 4/ET-9.
66	Spec 27 53 13 describes clock system. Please provide locations and quantities for clock system as it is not shown on drawings.	Spec 27 53 13	See Addendum #4 drawings for clock locations.
67	It is not realistic to assume all shop drawings can be procured within 45 days from NTP per 013040. Please advise if this can be changed to 70 days from NTP.	NTP per 013040	Shop drawings will be required within 45 days from NTP per the contract document requirements.
68	6/ET-1 details a 4 post rack. Spec. 27 11 00-2.01A calls out 2 post racks. Spec. 27 11 00-2.01D calls out 4 post racks. Please clarify rack needs.	6/ET-1	Provide 2-post racks per 2.01D.
69	Please advise if schedule of submittals is acceptable 25 days from NTP per 013040 as it is not likely all contracts will be procured and submittals will be sent within that time.	NTP per 013040	Submittals are required within 25 days from NTP per the contract document requirements.
70	Is it acceptable for the schedule required 15 days after NTP per 013040 to be a preliminary schedule?	NTP per 013040	Yes, It is acceptable to provide a preliminary schedule 15 days after NTP with baseline schedule to follow at 30 days after NTP.
71	Does the owner have a potential temp electrical POC in mind for the project?		Electrical POC to be determined after award of bid.
72	Please confirm that concrete liquid densifier/hardener referenced in section 033511 2.02.B is only to be applied to areas indicated as "C-1" on Sheet 9.01.	Section 033511 2.02.B	The densifier/Hardner referenced in section 03 35 11 Part 2.02B applies to C-1 and C-2 on the finish schedule.
73	Please identify if "C-1" on Sheet 9.01 is indication to apply "CF-1" high gloss clear sealer per 033511. Please also confirm CF-2 referenced in 033511 2.02.C. does not apply to this project.	C-1 on Sheet 9.01	As indicated in specification 03 3511 part 2.02A, "Unless otherwise indicated, all concrete floors are to be finished using high gloss sealer. CF-1 in the specification is equivalent to C-1 on the drawings.
74	Spec. 27 00 00 calls out for horizontal copper cabling to be Cat6A. ET-1 telecom symbol list states Cat6E. Please specify category cable type needed.	Spec. 27 00 00	To maintain consistency with other projects, change horizontal cable to CAT 6E.
75	The bid deadline is currently January 9th at 2pm, with the upcoming holidays it will be difficult to develop a competitive bid in less than 3 weeks (with holidays). Will the District consider postponing the bid deadline by one week to ensure the Owner received the most competitive bid possible?		The bid date is postponed to January 23, 2020 at 2PM per Addendum #3.













GENERAL NOTES APPLYING TO ALL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED BUILDING DESIGNED TO COMPLY WITH UNIFORM BUILDING CODE DATED 1949 CALIFORNIA LOWINISTRATING COOS. DEAD LOAD PLUS THE FOLLOWING LIVE LOADS: DESIGNED LOADING 200F ---- 20 P.S.F. Soismic = .1 (D.L. + .66.6.) WIND . 15 % ... FLOOR \_\_ \_ So STA125 \_\_\_ 100 \* FOUNDATION Soil TYRE SEE FOUNDATION INVESTIGATION PREPARED BY F. J. CONVERSE DATED JULIE 28, 1951 Soil PRESSURE S

CONCRETE SHALL DEVELOP & MINIMUM COMPRESSIVE STRENGTH AT 24 DAYS AS FOLLOWS: 2000 P.S. I. \_\_\_\_ GRADE BEAMS, SLAB ON GROUND & CURES. 3000 P.S.I. \_\_\_\_ FRICTION PILES, ALL WALLS, COLS AND SUPPORTED SLARS ABOVE BROWND FLOOR ALL EXPOSED EDGES TO HAVE \$4" CHAMPER. REINFORCING BARS TO BE (A.S.T.M. 305) DEFORMED BARS. WALL STEEL SHALL LAP 40 DIAMETERS AT SPLICES - STAGGER HORIZONTALLY. COLUMN STEEL SHALL LAP BO DIAMETERS AT SPLICES. REINFORCING STEEL, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE POSITIVELY SECURED IN PLACE BEFORE CONCRETE IS POURED. REINFORCING STEEL SHALL HAVE FOLLOWING MINIMUM COVERAGE: 3"\_\_\_POURED AGAINST EARTH 2" \_\_\_\_GXTERIOR FACE OF WALLS EARTH CONTACT FORMS USED 2"\_\_\_\_ COLUMANS 1 ---- JOISTS 14" BEAMS AND INTERIOR FACE OF WALLS 1 \_\_\_\_\_VAULTS

# QUETURAL STEEL

<u>W000</u>

BOLTS MAY BE SUBSTITUTED FOR RIVETS. BOLTS AND RIVETS RIVETS AND BOLTS HOLES NOT MARKED SHALL BE 34" BOLTS CONNECTING COLUMNI BASES SHALL HAVE UNTHREADED SHANKS EXTENDING COMPLETELY THEOUGH THE LOINTED PARTS. DARDELET OR RIBBED BOLTS SHALL BE DRIVEN IN HOLES WITH DIAMETER " LARGER THAN NOMINAL BOLT DIALAGTER. RIBBED SHANK MUST EXTEND FULL THICKNESS OF CONNECTING PLATES AND/OR MEMBERS. WASHERS MAY OR MAY NOT BE USED. NUTS MUST BE THOROUGHLY TIGHTENED AND BE PROVIDED WITH AN APPROVED MECHANICAL DEVICE THAT PREVENT BACK SLIPPACE.

HOLES RIVET AND BOLT HOLES SHALL HAVE "" CLEARANCE. UNPAIR HOLES SHALL NOT BE ENLARGED BY DRIPTING. PIN HOLES FOR BRACING SHALL BE SUB-PUNCHED AND REALED TO PIN SIZE PLUS 150 MAXIMUM. ERECTION THE STEEL FABRICATOR SHALL FURNISH ALL TEMPORARY GUYS AND BRACING REQUIRED TO HOLD THE STEEL FRAME PLUME UNTIL PERMANENT BRACING IS IN PLACE. BRACING ROOS SHALL BE

COMPRESSIVE MEMBERS PIRE COLUMN ENDS SHALL BE SAW CUT OR MILLED. NO COMPRESSION MOULER SHALL VARY FROM ITS INTENDED LINE BY AN AMOUNT GREATER THAN ITS LENGTH. PLATES BASE PLATES AND HEAD PLATES SHALL BE ATTACHED TO COLUMN SO THAT THE REOUTRED

ALIGNMENT IS MAINTAINED FOR COMPRESSION MEMBERS.

ALL JOISTS, RAFTERS, BEAMS & MULLIONS 35%" NET WIDE OR MORE SHALL BE 1900%. GRADING ALL OTHER JOISTS AND RAFTERS SHALL BE 14507. ALL POSTS AND COMPRESSION MEMBERS SHALL BE 1200C ALL STAUCTURAL PLYWOOD SHALL BE EXTERIOR GRADE. SILLS SILLS ON CONCRETE SHALL BE TREATED DOUGLAS FIR ANCHORED WITH 5/ BOLTS & 46 0.C. AND 9" FROM GNOS OF EACH PIECE OF SILL. SILL SHALL BE BEDDED ON 3/4" DAY PACK. BLOCKING AND BRIDGING PROVIDE AS FOLLOWS:

2" SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORTS. 2×3 CROSS BRIDGING BETWEEN JOISTS AND RAFTERS & OR OVER IN DEPTH, NOT OVER B'-O" ON CENTERS NOR MORE THAN B'-O" FROM SUPPORT. CONTINUOUS R" HERRINGBONG BRIDGING (SLOPE 3 IN 12) AT MICHEIGHT OF STUDS OR SO SPACED THAT THE UNBRACED LENGTH OF STUDS SHALL NOT EXCEED 7-0. BOLTS BOLT HOLES IN WOOD SHALL BE SAME NOMINAL DIAMETERS AS THE BOLTS. PROVIDE SQUARE PLATE WASHERS UNDER HEADS AND NUTS WHERE BEARING IS AGAINST WOOD; CUT WASHERS WHERE BEARING IS AGAINST STEEL. LENGTH OF THREAD SHALL BE SUCH THAT THREADS DO LOT BEAR AGAINST WOOD OR STEEL ( PROVIDE WASHERS AS NECESSARY TO INSURE THIS CONDITION). ALL NUTS SHALL BE TIGHTENED WHEN PLACED AND RE-TIGHTENED AT COMPLETION OF THE JOB OR IMMEDIATELY BEFORE CLOSING WITH FINISH CONSTRUCTION. SEE SCHEDULE FOR WASHER SIZES.

HAILING SEE HAILING SCHEDULE NAILING NOT NOTED IN SCHEDULE OR ON DETAILS SHALL BE AT LEAST TWO HAILS AT ALL CONTACT POINTS, USING BE THRU IN MATERIAL AND IS THRU 2" MATERIAL. ALL WINDOW AND DOOR FRAMES SHALL BE SECURELY ANCHORED IN PLACE. BLOCK OUT SOLIDLY BETWEEN JAMES AND CRIPPLES OR MULLIONS - ONE NEAR TOP AND BOTTOM AND AND NOT OVER 24" O.C. BETWEEN. NAIL TO GACH BLOCK WITH 2-IG FINISH NAILS SET 12 LAG SCREWS SHALL BE SCREWED (NOT DRIVEN) INTO PLACE. DRILL HOLES SAME DIAMETER AND DEPTH AS SHANK, THEN DRILL HOLE " LESS THAN DIAMETER AT BASE OF THREAD FOR THE THREADED DORTION. DIAGONAL SHEATHING

ROOFS, EXTERIOR WALLS, SUB-FLOOR, AND INTERIOR PARTITIONS WHERE NOTED D.S. SHALL BE SHEATHED WITH BOARDS LAID AT 45 DEGREES. THERE SHALL BE AT LEAST ONE BEARING (2 SPACES) BETWEEN JOINTS IN ADJOINING BOARDS. FOR WALL SNEATHING THERE SHALL BE AT LEAST TWO BOARDS BETWEEN JOINTS ON THE SAME BEARING. FOR ROOF AND FLOOR SHEATHING THERE SHALL BE AT LEAST ONE BOARD BETWEEN JOINTS ON THE SAME BEARING. RUNS OF 10-0" OR LESS SHALL BE IN ONE LENGTH. JOINTS SHALL BE GUT TO CENTER ON AND PARALLEL TO BEARING ALL DIAGONAL SHEATHING USED STRUCTURALLY SHALL EXTEND CONTINUOUSLY BEHIND ALL CHALK. TACK BOARDS AND OTHER FINISH. WHEN IT IS TO BE PLASTERED, IT SHALL BE PROTECTED BY AN UNBROILEN LAYER OF MOISTURE - TIGHT PAPER UNDER LATHING.

BRICK- MASONRY BRICK SHALL BE M.W. GRADE CONFORMING TO AST.M. SPECIFICATION C 62-417. CONSTRUCTION SHALL BE REINFORCED GROUTED MASONRY. ALL BRICK IN THE OUTER TIERS SHALL BE LAID WITH FULL SHOVED HEAD & BED JOINTS OF MORTAR AND ALL INTERIOR JOINTS SHALL BE FILLED WITH GROUT. BRICK IN THE INTERIOR TIERS SHALL BE PLACED OR FLOATED IN GROUT POURED BETWEEN THE TWO OUTER TIERS. ONE OF THE OUTER TIERS MAY BE CARRIED UP NOT MORE THAN 5 COURSES BEFORE GROUTING, BUT THE OTHER SHALL BE CARRIED UP NOT MORE THAN ONE COURSE ABOVE THE GROUT. CLEARANCE BETWEEN REINFORCEMENT AND BRICK FACE SHALL BE NOT LESS THAN 1/2". IF THE WORK IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT 15 BELOW THE TOP OF THE OUTER TIERS. BAR LAR AT SPLICES SHALL BE 50 DIAMETERS. 5/1" MORTAR BED SNALL BE USED. BOLTS IN BRICK MASONRY SHALL BE SET IN 3" & BORED HOLES AND DRY PACKED FIRMLY. SYMBOLS

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.TYPICAL DETAILS . COMPTON JUNIOR ARTESIA STREET AND SANTA FE AVENUE .

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----- 2-2×6PL PS 2×3 X-BEIDGING ~@*8'-0*" TO TR. RAFTERS C NO. END, SEE SEC. -2×6'@16 -DS -3-16 d/BLK. -2"BLKG  $-\mathcal{H}$ NO SPLICES BETWEEN POSTS STRIPPING -2×4 CJE 16 ---- EXA HAILER - 6×8 2× 3 HANGER 2.16d TO 6x8 2-160 TO 2×4 2×4 61 6 24 -2×6 @16 SECTION 1/2"=1-0" 2×4 CONT 200 @ 12" (SUB-BORE, 2-2×8 PL - 2×4 STRIPPINIC VERT AT EA. STUD 20 d @ 12" (SUB-BORE --- 2×8 @ 16 -2X & CONT MAILOR - 2X8 BLKG -8×10 -1" ST. SHTG. - Z×4 CONIT. - CUT FROM CX8 CIG (SEE ARCH) FOR BALANCE OF SEC. SEE SEC. SEE Ε **A-1** BUILDING DATE 3-25-52 COMM. 1091 SHEET NUMBER OR COLLEGE SANTA FE AVENUE. CALIFORNIA. S-5









