REQUEST FOR PROPOSALS

STRUCTURED CABLING SYSTEMS INSTALLATION SERVICES

CIRM RFP # 2725

AMENDMENT 1 TO RFP AS OF September 17, 2015

RFP 2725 is amended by the following-

1. Page 3, section 3: Addition to Scope of Services

The Cabling vendor will be responsible for furnishing and installing ladder rack and cable tray and shall be responsible for all grounding connections of rack and equipment.

2. Page 6, section12: Additional exhibits attached
    1. Electrical drawings
    2. Audiovisual component drawings

Updated Exhibit B with a revised Construction Schedule from General Contractor.

All other components of the RFP remain the same.

If you have questions about the process for submitting a proposal, contact:

Cynthia Schaffer
Contracts Administrator
(415) 396-9241
cschaffer@cirm.ca.gov

If you have questions the scope services to be addressed in a proposal, contact:

Manda Mora Simpson
Senior Executive Assistant
Office of the President and Chief Executive Officer
Office: 415 396 9105
mmora@cirm.ca.gov

Deadline for Response – still September 24, 2015

LIGHTING CONTROL SYSTEM

ALL LIGHTING SHALL BE CONTROLLED VIA NEW LIGHTING CONTROL SYSTEM:

A. PROVIDE NEW WALL MOUNTED LIGHTING CONTROL PANEL WITH RELAYS AND INTEGRAL ASTRONOMICAL TIMECLOCK IN THE ELECTRICAL ROOM TO CONTROL LIGHTING.

B. PROVIDE 0-10V DIMMING SPACE CONTROLLER WITH RELAYS AS REQUIRED FOR ALL AREAS.

C. PROVIDE CEILING MOUNTED OCCUPANCY SENSORS FOR CODE REQUIRED AUTOMATIC SHUT-OFF OF ALL LIGHTING.

D. PROVIDE WALL DIMMERS FOR CONTROL OF ALL LIGHTS IN ALL ENCLOSED SPACES. PROVIDE COMPATIBLE DIMMABLE BALLASTS/DRIVERS FOR ALL FIXTURES AS REQUIRED.

E. FOR PERIMETER AREAS ADJACENT TO WINDOWS PROVIDE CEILING MOUNTED DAYLIGHT SENSOR AND CONNECT TO AREA CONTROLLER FOR AUTOMATIC DAYLIGHT DIMMING OF PRIMARY DAYLIGHT ZONE FIXTURES AS REQUIRED BY CODE. PROVIDE WALL DIMMER FOR MANUAL CONTROL OF DAYLIGHT ZONE FIXTURES.

F. FOR EVERY ROOM CONTROLLER, PROVIDE ONE NETWORK BRIDGE AND ALL ASSOCIATED INTERCONNECTION WIRING. PROVIDE ONE SEGMENT MANAGER AND CONNECT TO NETWORK BRIDGES FOR LOAD SHEDDING CAPABILITY FROM OUTSIDE SIGNAL (BUILDING MANAGEMENT SYSTEM).

G. PROVIDE ALL LOW VOLTAGE CAT5E AND SEGMENT NETWORK INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, SENSORS, WALL SWITCHES, NETWORK BRIDGES, AND SEGMENT MANAGER FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS.

H. INTERCONNECT ALL ROOM CONTROLLER NETWORK BRIDGES TO SEGMENT MANAGER. CONNECT SEGMENT MANAGER TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' CAPABILITY. WALL MOUNT SEGMENT MANAGER IN TELECOM OR ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION WITH ALL OTHER EQUIPMENT PRIOR TO ROUGH-IN. PROVIDE DEDICATED 20A/120V CIRCUIT RECEPTACLE POWER FOR EQUIPMENT.

ELECTRICAL LIGHTING KEY NOTES

(A) INSTALL WATTSTOPPER SEGMENT MANAGER IN ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION. PROVIDE CONNECTION TO TENANT'S TELEDATA NETWORK, AND PROVIDE ANY REQUIRED BACNET INTERFACE OF WATTSTOPPER SYSTEM TO INTEGRATE INTO BUILDING MANAGEMENT SYSTEM. COORDINATE WITH CHIEF BUILDING ENGINEER AS REQUIRED.

(B) PROVIDE 0-10V DIMMABLE DRIVER FOR ALL LED FIXTURE. PROVIDE 0-10V DIMMING BALLAST FOR ALL FLUORESCENT AND COMPACT FLUORESCENT FIXTURE. PROVIDE DIMMABLE DRIVER OR DIMMING BALLAST EVEN IF LIGHTING FIXTURE SCHEDULE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT.

(C) INTERCONNECT ALL WATTSTOPPER ROOM CONTROLLER NETWORK BRIDGES TO WATTSTOPPER SEGMENT MANAGER. WATTSTOPPER SEGMENT MANAGER SHALL CONNECT TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' AND "ON/OFF" CAPABILITY VIA THE "BMS". PROVIDE DEDICATED 20A/120V CIRCUIT POWER FOR EQUIPMENT. PROVIDE ALL ACCESSORIES, DEVICES, ETC. NEEDED FOR "BMS" INTERFACE. COORDINATE WITH "BMS" PROVIDER AND THE CHIEF BUILDING ENGINEER.

(D) PROVIDE A NETWORK BRIDGE FOR EACH ENCLOSED SPACE. (NETWORK BRIDGES NOT SHOWN ON PLAN) INTERCONNECT NETWORK BRIDGES AND TERMINATE IN SEGMENT MANAGER FOR DEMAND RESPONSE CAPABILITY.

ELECTRICAL SHEET NOTES

⟨1⟩ CONNECT TO EXISTING EMERGENCY CIRCUIT. PROVIDE EXTRA DRIVER OR BALLAST FOR EMERGENCY SECTION. PROVIDE #10 CONDUCTOR FOR ALL EMERGENCY FIXTURES.

ELECTRICAL LIGHTING GENERAL NOTES

1. PROVIDE DIMMABLE BALLAST/DRIVER FOR ALL FIXTURES SHOWN ON THE PLAN CONTROLLED BY DIMMER SWITCH(S) WHETHER THE FIXTURE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT. DIMMING BALLAST/DRIVER SHALL BE COMPATIBLE WITH LIGHTING CONTROL SYSTEM.
2. PROVIDE AUTOMATIC DAYLIGHT ZONE FIXTURE DIMMING FOR ALL PERIMETER LIGHTING ADJACENT TO WINDOWS WITHIN ONE WINDOW HEAD HEIGHT OF GLAZING (PRIMARY ZONE).,WHEN SHOWN ON PLAN.
3. PROVIDE ONE WATTSTOPPER ROOM CONTROLLER PER SPACE. PROVIDE ALL REQUIRED INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, PLUG LOAD SWITCHPACKS, SENSORS, AND WALL SWITCHES/DIMMERS FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. REFER TO EQUIPMENT INSTALLATION MANUALS FOR DETAILED INFORMATION.
4. INSTALL ALL 'ROOM CONTROLLERS' ABOVE CEILING. WHEN POSSIBLE FIELD COORDINATE EXACT LOCATIONS. PROVIDE WORKING CLEARANCES FROM OTHER SYSTEMS AS REQUIRED.
5. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED PER ARCHITECTURAL DRAWINGS.
6. WHERE SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THEY SHALL BE GANGED TOGETHER AND COVERED BY A COMMON COVER PLATE.
7. PROVIDE SEISMIC BRACING FOR ALL LIGHT FIXTURES AS REQUIRED.
8. OCCUPANCY SENSOR LOCATED NO CLOSER THAN FOUR (4) FEET FROM A HVAC DIFFUSER, PER TITLE 24 CODE NA7.6.2.
9. PROVIDE ALL REQUIRED COMPATIBLE DIMMABLE BALLASTS, WALL DIMMERS, CEILING OCCUPANCY SENSORS, DAYLIGHT SENSORS, CONTROL AND SENSOR MODULES, WATTSTOPPER NETWORK BRIDGES, AND SEGMENT MANAGER AND LOW VOLTAGE INTERCONNECTIONS, FOR COMPLETE WORKING DEMAND-RESPONSE CAPABLE SYSTEM. PROVIDE NECESSARY TELEDATA CONNECTION FROM TENANT/BUILDING NETWORK TO SEGMENT MANAGER FOR REMOTE ACCESS AND INTERFACE. PROVIDE DEDICATED 20A/120V CONTROL POWER TO SEGMENT MANAGER.
10. INSTALL ALL ROOM CONTROLLERS AND EMERGENCY RELAYS ABOVE ACCESSIBLE CEILING.
11. ARCHITECT SHALL APPROVE ALL CEILING ACCESS PANELS PRIOR TO INSTALLATION.
12. LIGHT FIXTURE SCHEDULE AND INDICATED LAMPING IS LISTED FOR SIZING/ASSIGNING CIRCUITS, AND ENERGY COMPLIANCE CALCULATIONS. DO NOT USE THIS SCHEDULE TO ORDER FIXTURES. USE LIGHT FIXTURE SCHEDULE SHOWN ON ARCHITECTURAL DRAWINGS/SPECIFICATIONS FOR PRICING, BIDDING AND SUBMITTALS. PROVIDE ELECTRONIC BALLASTS AND DRIVERS FOR ALL FIXTURES AS APPLICABLE.
13. THE CONTRACTOR SHALL VERIFY ALL CEILING TYPES BEFORE ORDERING OF FIXTURES. ALSO VERIFY THAT ALL FEATURES CALLED FOR IN FIXTURE DESCRIPTIONS ON ARCHITECTURAL FIXTURE SCHEDULE IS INCLUDED WITH CATALOG NUMBERS LISTED ON THE LIGHTING SUBMITTALS FOR THIS PROJECT.
14. SUBMIT CUTSHEETS TO ARCHITECT FOR REVIEW. LIGHT FIXTURES ARE SPECIFIED BY ARCHITECT. ALL FIXTURE COLORS AND FINISHES BY ARCHITECT. COORDINATE WITH ARCHITECT FOR UPDATED FIXTURE SCHEDULE AND FIXTURE CUT SHEETS.
15. CEILING-MOUNTED DEVICES LOCATED IN ACOUSTICAL TILE CEILINGS (OR OTHER PANELIZED CONSTRUCTION) ARE TO BE LOCATED IN THE CENTER OF THE TILE OR PANEL (UNLESS OTHERWISE NOTED).
16. CONTRACTOR SHALL ORDER FIXTURES WITH ALL REQUIRED POWER SUPPIES, DRIVERS AND POWER FEEDS FOR THE INSTALLATION OF A COMPLETE WORKING SYSTEM.
17. INSTALL ANY REMOTE POWER SUPPLIES IN ACCESSIBLE, WELL VENTILATED, CONCEALED LOCATION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL REVIEW REMOTE POWER SUPPLY LOCATIONS WITH ARCHITECT AND OBTAIN ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.
18. CONTRACTOR SHALL VERIFY ALL FIXTURE VOLTAGES PRIOR TO ORDER AND INSTALLATION.
19. PROVIDE PROJECT SPECIFIC SHOP DRAWINGS FOR COMPLETE LIGHTING & PLUG LOAD CONTROL SYSTEM TO ENGINEER FOR REVIEW PRIOR TO PLACING ORDER.

COMMISSIONING & TESTING

A. ELECTRICAL

I. CALIFORNIA ENERGY CODE TITLE-24 COMPLIANCE AND ACCEPTANCE TESTS

ELECTRICAL CONTRACTOR SHALL PERFORM ALL REQUIRED FUNCTIONAL TESTING OF LIGHTING CONTROLS AS REQUIRED ON T24 DOCUMENTATION FORMS, AND PROVIDE ALL REQUIRED SIGNATURES ON INSTALLATION AND ACCEPTANCE FORMS. ALSO, COMPLETE ALL ACCEPTANCE FORMS.

II. FUNCTIONAL TESTING COMMISSIONING & TRAINING

THE ENTIRE LIGHTING CONTROL/PLUG LOAD CONTROL SYSTEM (INCLUDING ALL DAYLIGHT SENSORS, CONTROLLERS, SWITCHES, RELAYS, CONTROLLED OUTLETS, OCCUPANCY SENSORS, ETC.) SHALL BE FUNCTIONALLY TESTED AND COMMISSIONED TO THE SATISFACTION OF THE CHIEF BUILDING ENGINEER, BY ELECTRICAL CONTRACTOR/CONTRACTOR'S AGENT, INCLUDING ALL RELEVANT DEVICE CALIBRATION AND CONFIGURATION AS REQUIRED. FOLLOW MANUFACTURER'S GUIDELINES AND PROVIDE ADDITIONAL DEVICES, SENSORS, ETC. AS REQUIRED.

CONTRACTOR/CONTRACTOR'S AGENT SHALL PROVIDE ADEQUATE TRAINING TO THE BUILDING'S ENGINEERING STAFF. FACTORY AUTHORIZED TECHNICIAN AND THE CONTRACTOR SHALL INCLUDE A MINIMUM OF 8 HOURS OF THOROUGH AND DETAILED TRAINING. THIS TIME IS IN ADDITION TO THE STARTUP AND FUNCTIONALITY COMMISSIONING.

B. MECHANICAL

I. COMPLETE ALL TITLE 24 REQUIRED COMMISSIONING SERVICES (VIA 3RD PARTY). PROVIDE ADDITIONAL LABOR/MATERIAL AS REQUIRED.

II. CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL REQUIRED TO COMPLETE AND PERFORM ALL ACCEPTANCE TESTS AS REQUIRED BY 2013 TITLE 24. THE PROJECT-SPECIFIC ACCEPTANCE TESTS FORMS SHALL BE INCLUDED IN THE TITLE 24 DOCUMENTS THAT ARE SUBMITTED TO THE CITY FOR PERMITTING. REVIEW ALL FORMS AND PROVIDE COST FOR ALL ACCEPTANCE TESTS IN THE BASE BID.

GENERAL NOTES

1. ALL FIXTURES ARE DIM. PROVIDE DIMMABLE LAMP, DIMMER AND DIMMING BALLAST, DIMMING DRIVER. PROVIDE DAY LIGHTING SENSOR IN ALL DAY LIGHT AREAS.
2. PROVIDE EXTRA BALLAST OR LED DRIVER FOR EMERGENCY SECTION.
3. PROVIDE EXTRA BALLAST OR LED DRIVER FOR DUAL SWITCHING AND DAY LIGHTING SECTION.

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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

In my professional judgement, tenant work shown hereon does not infringe upon nor adversely affect the existing bulding fire/life safety and smoke control system. Any needed modifications will be subject to the requirements of the San Francisco Administrative Bulletin AB-047.

Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23JUL15	PERMIT & BID SET

Approval Signature:

Co/ Title: Date:

Lighting Plan

15th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

15E.2

POWER CONTROLS

POWER CONTROLS:

A. PER CALIFORNIA ENERGY CODE TITLE-24 2013, IN PRIVATE AND OPEN OFFICES, RECEPTION, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS, PROVIDE AT LEAST ONE RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6 FEET OF UNCONTROLLED RECEPTACLES, EXCEPT FOR COPIER, PRINTER, OTHER IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY EQUIPMENT. CONNECT 'CONTROLLED' RECEPTACLE TO PLUG LOAD CONTROLLER AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.

B. PROVIDE "SPILTWIRED" DUPLEX OR QUADRAPLEX RECEPTACLES. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF.

C. FOR ALL WALL MOUNTED OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE.

D. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6 FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(D). TO SATISFY THESE REQUIREMENTS, FURNITURE VENDOR SHALL PROVIDE ONE 'CONTROLLED CIRCUIT RECEPTACLE' PER WORKSTATION. IN A 4-CIRCUIT SYSTEM, ONE CIRCUIT SHALL BE CONTROLLED. CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLET FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- COMBINATION FLOOR-MOUNTED TELEPHONE/DATA/ DUPLEX POWER OUTLET
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- (X) EQUIPMENT TYPE IDENTIFIER

ELECTRICAL POWER KEY NOTES

(A) PROVIDE "SPLITWIRED" QUADRAPLEX RECEPTACLES AS SHOWN ON PLAN. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF LMPL201 PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF. REFER TO WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

(B) INDICATES CONTROLLED POWER LEG OF PLUG LOAD ROOM CONTROLLER. OCCUPANCY SENSOR IN THE SPACE SHALL TURN OFF CONTROLLED RECEPTACLES.

(C) FOR ALL OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. NO HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE. SEE DETAIL.

(D) "PL" PLUG LOAD CONTROLLER MODULE SHALL BE LOCATED DIRECTLY ABOVE (IN THE CEILING PLENUM) THE ROOM DIMMER/SWITCH. COORDINATE IN FIELD WITH THE CHIEF BUILDING ENGINEER.

ELECTRICAL POWER & SIGNAL GENERAL NOTES

1. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED BY ARCHITECTURAL DRAWINGS.
2. ALL DEMOLISHED, UNUSED AND ABANDONED CIRCUITS SHALL BE MADE AVAILABLE FOR NEW WORK. CONTRACTOR SHALL TRACE ALL UNUSED CIRCUITS ALL THE WAY BACK TO THE UPSTREAM PANELBOARD SOURCE. REMOVE WIRING AND LABEL ASSOCIATED CONDUIT AND CIRCUIT BREAKER AS SPARE FOR ALL ABANDONED CIRCUITS NOT UTILIZED FOR NEW WORK
3. ALL DEVICES AND EQUIPMENT SHOWN WITHIN SCOPE OF WORK IS NEW, UNLESS OTHERWISE NOTED.
4. COORDINATE EXACT LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. FURNITURE LOCATIONS SHOWN ARE FOR REFERENCE ONLY. EXACT FURNITURE FEEDS/WHIPS/CORES/OUTLETS LOCATIONS SHALL BE COORDINATED WITH FURNITURE LAYOUT PRIOR TO ROUGH IN.
6. ALL ELECTRICAL OUTLETS & WHIP LOCATIONS TO BE VERIFIED WITH FURNITURE LAYOUT PRIOR TO INSTALLATION.
7. WHERE OUTLETS ARE SHOWN BACK-TO-BACK. INSTALL THE OUTLETS WITH A STUD IN BETWEEN THE OUTLET.
8. COORDINATE WITH SECURITY AND TELEDATA/AV VENDOR DRAWINGS FOR ADDITIONAL POWER REQUIREMENTS.
9. IN BREAK ROOMS AND KITCHEN, PROVIDE STAINLESS STEEL FACEPLATES FOR ALL DEVICES/OUTLETS ABOVE COUNTER.
10. ALL COMMUNICATION CABLING / LOW VOLTAGE POWER CABLING TO BE PLENUM-RATED.
11. ALL COMMUNICATION CABLING SHALL BE IN EMT CONDUIT IN WALLS AND STUBBED ABOVE CEILING. PROVIDE JUNCTION BOXES AND CONDUITS IN CONFERENCE ROOM AS REQUIRED BY A/V DRAWING. SEE A/V DRAWING PRIOR TO INSTALLATION. AV JUNCTION BOXES AND CONDUITS SYSTEM ARE NOT SHOWN ON ELECTRICAL DRAWINGS. VERIFY WITH A/V DRAWINGS PRIOR TO INSTALLATION.
12. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL LOCATION OF CORE DRILLS BEFORE COMMENCEMENT OF WORK.
13. IN FURNITURE SYSTEM, PROVIDE BLACK OUTLET FOR OCCUPANCY SENSOR SHUT-OFF OUTLETS. PROVIDE GREY OUTLET FOR UNCONTROLLED OUTLETS.
14. PER CALIFORNIA ENERGY CODE TITLE-24 2013, ALL NEW ELECTRICAL RECEPTACLES IN PRIVATE AND OPEN OFFICES, RECEPTION AREAS, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS SHALL HAVE AT LEAST ONE CONTROLLED RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6FT OF UNCONTROLLED RECEPTACLES. COPIERS, PRINTERS, DEDICATED IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY DEVICES ARE EXEMPT. CONNECT TO CONTROLLED RECEPTACLE TO PLUG LOAD CONTROLLER/RELAY MODULE AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.
15. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT SUCH THAT THERE IS AT LEAST ONE CONTROLLED RECEPTACLE WITHIN 6FT OF EACH UNCONTROLLED RECEPTACLE. COORDINATE WITH FURNITURE VENDOR AS REQUIRED.
16. ALL ELECTRICAL DEVICES AND EQUIPMENT ABOVE HARD LID CEILINGS MUST BE ACCESSIBLE FOR MAINTENANCE AND AS REQUIRED BY CODE.
17. PROVIDE WHITE FINISH FOR ALL TENANT SECURITY DEVICES LOCATED IN COMMON CORRIDOR.
18. CONTRACTOR SHALL PROVIDE CLOSE OUT PACKAGE TO LANDLORD WITHIN 30 DAYS OF PROJECT COMPLETION AS DETAILED IN T.I. MANUAL.
19. ELECTRIFIED FURNITURE SYSTEM:
FOR 2-CIRCUIT HOMERUN, PROVIDE 2#12 HOT, 1#10 NEUTRAL AND 1#12 GROUND IN 1"C;
FOR 3-CIRCUIT HOMERUN, PROVIDE 3#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C;
FOR 4-CIRCUIT HOMERUN, PROVIDE 4#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C, IS ASSUMED (4-CIRCUIT 8-WIRE, 3+1 CONFIGURATION).
CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6-FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(d). ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLETS FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

ELECTRICAL SHEET NOTES

(1) PROVIDE GFI RECEPTACLE FOR ALL RECEPTACLES MOUNTED ABOVE COUNTER.

(2) FOR COUNTERTOP 'SHUTOFF' RECEPTACLES SHOWN ON PLAN, PROVIDE QUADRAPLEX DEVICE; WITH DUPLEX GFCI DEVICE, AND ADJACENT STANDARD DUPLEX DEVICE FED FROM LOAD SIDE OF GFCI OUTLET VIA PLUG-LOAD CONTROLLER.

(3) PROVIDE 30A/1P CIRCUIT BREAKER.

(4) PROVIDE 6" STUD FOR FLUSH PANEL.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- BF — ELECTRIFIED FURNITURE BASE FEED, WALL MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION
- BF — ELECTRIFIED FURNITURE BASE FEED, FLOOR MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION.
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- CR — CARD READER (N.I.C.) COORDINATE REQUIREMENTS WITH TENANTS' SECURITY VENDOR

SHEET NOTES

1. REFER TO GENERAL NOTES SHEET A0.6 FOR ADDITIONAL POWER & SIGNAL PLAN NOTES; ALL NOTES APPLY AS IF PRINTED IN FULL HERE.
2. THIS DRAWING IS PROVIDED FOR PLACEMENT OF ELECTRICAL ONLY. FOR POWER REQUIREMENT AND CIRCUITING, SEE ELECTRICAL DRAWINGS.
3. COORDINATE ELECTRICAL SUCH THAT CIRCUITS ARE NOT SHARED OVER DEMISING OR CORRIDOR PARTITIONS.
4. U.O.N. PROVIDE AND INSTALL NEW WHITE BUILDING STANDARD COVER PLATE AT ALL NEW AND EXISTING OUTLETS.

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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

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1	31613.00 23JUL15	PERMIT & BID SET

Approval Signature:

Co/ Title: Date:

Power and Signal Plan

15th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

15E.3

LIGHTING CONTROL SYSTEM

ALL LIGHTING SHALL BE CONTROLLED VIA NEW LIGHTING CONTROL SYSTEM:

A. PROVIDE NEW WALL MOUNTED LIGHTING CONTROL PANEL WITH RELAYS AND INTEGRAL ASTRONOMICAL TIMECLOCK IN THE ELECTRICAL ROOM TO CONTROL LIGHTING.

B. PROVIDE 0-10V DIMMING SPACE CONTROLLER WITH RELAYS AS REQUIRED FOR ALL AREAS.

C. PROVIDE CEILING MOUNTED OCCUPANCY SENSORS FOR CODE REQUIRED AUTOMATIC SHUT-OFF OF ALL LIGHTING.

D. PROVIDE WALL DIMMERS FOR CONTROL OF ALL LIGHTS IN ALL ENCLOSED SPACES. PROVIDE COMPATIBLE DIMMABLE BALLASTS/DRIVERS FOR ALL FIXTURES AS REQUIRED.

E. FOR PERIMETER AREAS ADJACENT TO WINDOWS PROVIDE CEILING MOUNTED DAYLIGHT SENSOR AND CONNECT TO AREA CONTROLLER FOR AUTOMATIC DAYLIGHT DIMMING OF PRIMARY DAYLIGHT ZONE FIXTURES AS REQUIRED BY CODE. PROVIDE WALL DIMMER FOR MANUAL CONTROL OF DAYLIGHT ZONE FIXTURES.

F. FOR EVERY ROOM CONTROLLER, PROVIDE ONE NETWORK BRIDGE AND ALL ASSOCIATED INTERCONNECTION WIRING. PROVIDE ONE SEGMENT MANAGER AND CONNECT TO NETWORK BRIDGES FOR LOAD SHEDDING CAPABILITY FROM OUTSIDE SIGNAL (BUILDING MANAGEMENT SYSTEM).

G. PROVIDE ALL LOW VOLTAGE CAT5E AND SEGMENT NETWORK INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, SENSORS, WALL SWITCHES, NETWORK BRIDGES, AND SEGMENT MANAGER FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS.

H. INTERCONNECT ALL ROOM CONTROLLER NETWORK BRIDGES TO SEGMENT MANAGER. CONNECT SEGMENT MANAGER TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' CAPABILITY. WALL MOUNT SEGMENT MANAGER IN TELECOM OR ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION WITH ALL OTHER EQUIPMENT PRIOR TO ROUGH-IN. PROVIDE DEDICATED 20A/120V CIRCUIT RECEPTACLE POWER FOR EQUIPMENT.

COMMISSIONING & TESTING

A. ELECTRICAL

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ELECTRICAL CONTRACTOR SHALL PERFORM ALL REQUIRED FUNCTIONAL TESTING OF LIGHTING CONTROLS AS REQUIRED ON T24 DOCUMENTATION FORMS, AND PROVIDE ALL REQUIRED SIGNATURES ON INSTALLATION AND ACCEPTANCE FORMS. ALSO, COMPLETE ALL ACCEPTANCE FORMS.

II. FUNCTIONAL TESTING COMMISSIONING & TRAINING

THE ENTIRE LIGHTING CONTROL/PLUG LOAD CONTROL SYSTEM (INCLUDING ALL DAYLIGHT SENSORS, CONTROLLERS, SWITCHES, RELAYS, CONTROLLED OUTLETS, OCCUPANCY SENSORS, ETC.) SHALL BE FUNCTIONALLY TESTED AND COMMISSIONED TO THE SATISFACTION OF THE CHIEF BUILDING ENGINEER, BY ELECTRICAL CONTRACTOR/CONTRACTOR'S AGENT, INCLUDING ALL RELEVANT DEVICE CALIBRATION AND CONFIGURATION AS REQUIRED. FOLLOW MANUFACTURER'S GUIDELINES AND PROVIDE ADDITIONAL DEVICES, SENSORS, ETC. AS REQUIRED.

CONTRACTOR/CONTRACTOR'S AGENT SHALL PROVIDE ADEQUATE TRAINING TO THE BUILDING'S ENGINEERING STAFF. FACTORY AUTHORIZED TECHNICIAN AND THE CONTRACTOR SHALL INCLUDE A MINIMUM OF 8 HOURS OF THOROUGH AND DETAILED TRAINING. THIS TIME IS IN ADDITION TO THE STARTUP AND FUNCTIONALITY COMMISSIONING.

B. MECHANICAL

I. COMPLETE ALL TITLE 24 REQUIRED COMMISSIONING SERVICES (VIA 3RD PARTY). PROVIDE ADDITIONAL LABOR/MATERIAL AS REQUIRED.

II. CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL REQUIRED TO COMPLETE AND PERFORM ALL ACCEPTANCE TESTS AS REQUIRED BY 2013 TITLE 24. THE PROJECT-SPECIFIC ACCEPTANCE TESTS FORMS SHALL BE INCLUDED IN THE TITLE 24 DOCUMENTS THAT ARE SUBMITTED TO THE CITY FOR PERMITTING. REVIEW ALL FORMS AND PROVIDE COST FOR ALL ACCEPTANCE TESTS IN THE BASE BID.

ELECTRICAL LIGHTING KEY NOTES

(A) INSTALL WATTSTOPPER SEGMENT MANAGER IN ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION. PROVIDE CONNECTION TO TENANT'S TELEDATA NETWORK, AND PROVIDE ANY REQUIRED BACNET INTERFACE OF WATTSTOPPER SYSTEM TO INTEGRATE INTO BUILDING MANAGEMENT SYSTEM. COORDINATE WITH CHIEF BUILDING ENGINEER AS REQUIRED.

(B) PROVIDE 0-10V DIMMABLE DRIVER FOR ALL LED FIXTURE. PROVIDE 0-10V DIMMING BALLAST FOR ALL FLUORESCENT AND COMPACT FLUORESCENT FIXTURE. PROVIDE DIMMABLE DRIVER OR DIMMING BALLAST EVEN IF LIGHTING FIXTURE SCHEDULE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT.

(C) INTERCONNECT ALL WATTSTOPPER ROOM CONTROLLER NETWORK BRIDGES TO WATTSTOPPER SEGMENT MANAGER. WATTSTOPPER SEGMENT MANAGER SHALL CONNECT TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' AND "ON/OFF" CAPABILITY VIA THE "BMS". PROVIDE DEDICATED 20A/120V CIRCUIT POWER FOR EQUIPMENT. PROVIDE ALL ACCESSORIES, DEVICES, ETC. NEEDED FOR "BMS" INTERFACE. COORDINATE WITH "BMS" PROVIDER AND THE CHIEF BUILDING ENGINEER.

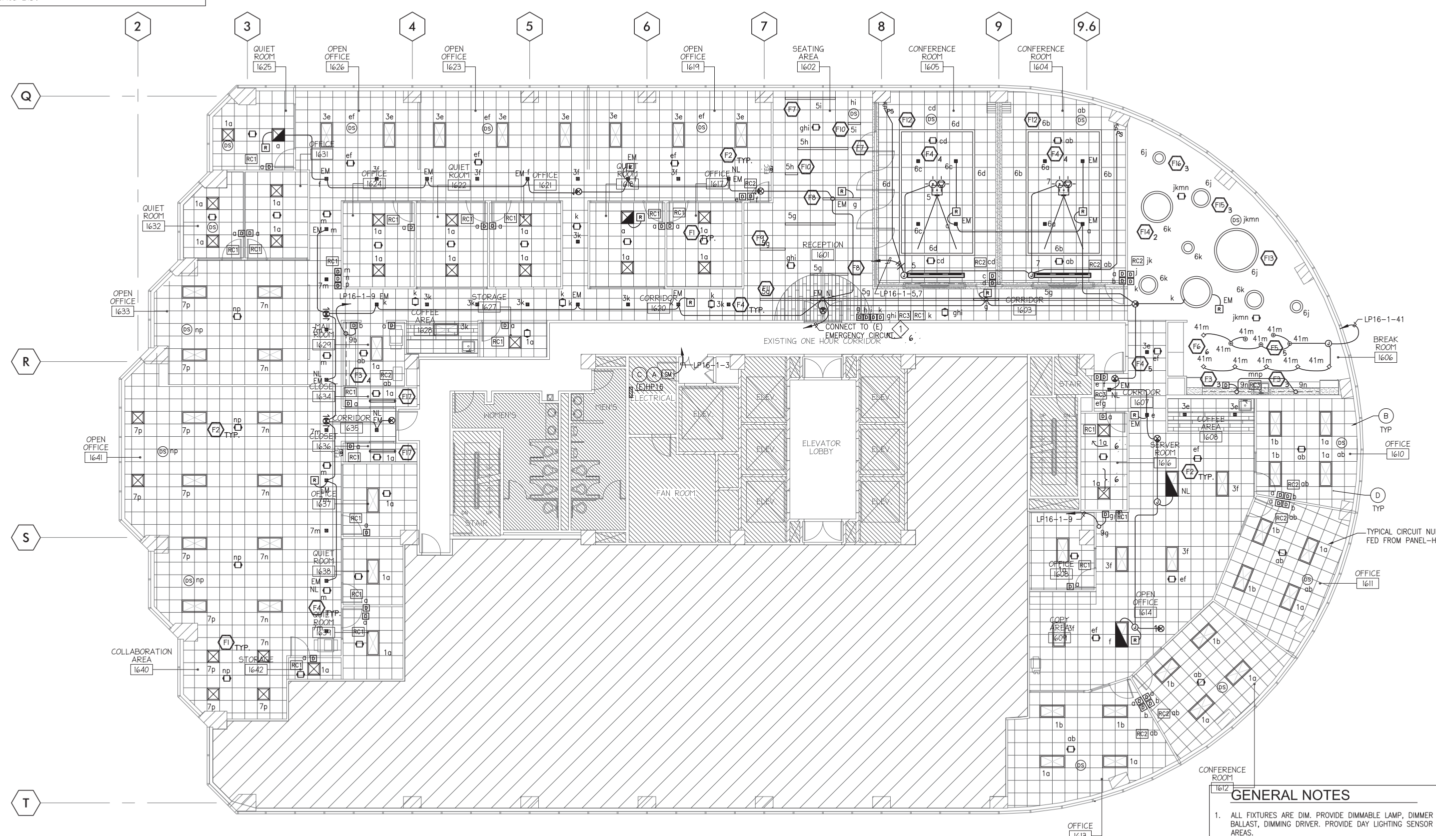
(D) PROVIDE A NETWORK BRIDGE FOR EACH ENCLOSED SPACE. (NETWORK BRIDGES NOT SHOWN ON PLAN) INTERCONNECT NETWORK BRIDGES AND TERMINATE IN SEGMENT MANAGER FOR DEMAND RESPONSE CAPABILITY.

ELECTRICAL SHEET NOTES

1. CONNECT TO EXISTING EMERGENCY CIRCUIT. PROVIDE EXTRA DRIVER OR BALLAST FOR EMERGENCY SECTION. PROVIDE #10 CONDUCTOR FOR ALL EMERGENCY FIXTURES.

ELECTRICAL LIGHTING GENERAL NOTES

1. PROVIDE DIMMABLE BALLAST/DRIVER FOR ALL FIXTURES SHOWN ON THE PLAN CONTROLLED BY DIMMER SWITCH(S) WHETHER THE FIXTURE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT. DIMMING BALLAST/DRIVER SHALL BE COMPATIBLE WITH LIGHTING CONTROL SYSTEM.
2. PROVIDE AUTOMATIC DAYLIGHT ZONE FIXTURE DIMMING FOR ALL PERIMETER LIGHTING ADJACENT TO WINDOWS WITHIN ONE WINDOW HEAD HEIGHT OF GLAZING (PRIMARY ZONE).,WHEN SHOWN ON PLAN.
3. PROVIDE ONE WATTSTOPPER ROOM CONTROLLER PER SPACE. PROVIDE ALL REQUIRED INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, PLUG LOAD SWITCHPACKS, SENSORS, AND WALL SWITCHES/DIMMERS FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. REFER TO EQUIPMENT INSTALLATION MANUALS FOR DETAILED INFORMATION.
4. INSTALL ALL 'ROOM CONTROLLERS' ABOVE CEILING. WHEN POSSIBLE FIELD COORDINATE EXACT LOCATIONS. PROVIDE WORKING CLEARANCES FROM OTHER SYSTEMS AS REQUIRED.
5. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED PER ARCHITECTURAL DRAWINGS.
6. WHERE SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THEY SHALL BE GANGED TOGETHER AND COVERED BY A COMMON COVER PLATE.
7. PROVIDE SEISMIC BRACING FOR ALL LIGHT FIXTURES AS REQUIRED.
8. OCCUPANCY SENSOR LOCATED NO CLOSER THAN FOUR (4) FEET FROM A HVAC DIFFUSER, PER TITLE 24 CODE NA7.6.2.
9. PROVIDE ALL REQUIRED COMPATIBLE DIMMABLE BALLASTS, WALL DIMMERS, CEILING OCCUPANCY SENSORS, DAYLIGHT SENSORS, CONTROL AND SENSOR MODULES, WATTSTOPPER NETWORK BRIDGES, AND SEGMENT MANAGER AND LOW VOLTAGE INTERCONNECTIONS, FOR COMPLETE WORKING DEMAND-RESPONSE CAPABLE SYSTEM. PROVIDE NECESSARY TELEDATA CONNECTION FROM TENANT/BUILDING NETWORK TO SEGMENT MANAGER FOR REMOTE ACCESS AND INTERFACE. PROVIDE DEDICATED 20A/120V CONTROL POWER TO SEGMENT MANAGER.
10. INSTALL ALL ROOM CONTROLLERS AND EMERGENCY RELAYS ABOVE ACCESSIBLE CEILING.
11. ARCHITECT SHALL APPROVE ALL CEILING ACCESS PANELS PRIOR TO INSTALLATION.
12. LIGHT FIXTURE SCHEDULE AND INDICATED LAMPING IS LISTED FOR SIZING/ASSIGNING CIRCUITS, AND ENERGY COMPLIANCE CALCULATIONS. DO NOT USE THIS SCHEDULE TO ORDER FIXTURES. USE LIGHT FIXTURE SCHEDULE SHOWN ON ARCHITECTURAL DRAWINGS/SPECIFICATIONS FOR PRICING, BIDDING AND SUBMITTALS. PROVIDE ELECTRONIC BALLASTS AND DRIVERS FOR ALL FIXTURES AS APPLICABLE.
13. THE CONTRACTOR SHALL VERIFY ALL CEILING TYPES BEFORE ORDERING OF FIXTURES. ALSO VERIFY THAT ALL FEATURES CALLED FOR IN FIXTURE DESCRIPTIONS ON ARCHITECTURAL FIXTURE SCHEDULE IS INCLUDED WITH CATALOG NUMBERS LISTED ON THE LIGHTING SUBMITTALS FOR THIS PROJECT.
14. SUBMIT CUTSHEETS TO ARCHITECT FOR REVIEW. LIGHT FIXTURES ARE SPECIFIED BY ARCHITECT. ALL FIXTURE COLORS AND FINISHES BY ARCHITECT. COORDINATE WITH ARCHITECT FOR UPDATED FIXTURE SCHEDULE AND FIXTURE CUT SHEETS.
15. CEILING-MOUNTED DEVICES LOCATED IN ACOUSTICAL TILE CEILINGS (OR OTHER PANELIZED CONSTRUCTION) ARE TO BE LOCATED IN THE CENTER OF THE TILE OR PANEL (UNLESS OTHERWISE NOTED).
16. CONTRACTOR SHALL ORDER FIXTURES WITH ALL REQUIRED POWER SUPPIES, DRIVERS AND POWER FEEDS FOR THE INSTALLATION OF A COMPLETE WORKING SYSTEM.
17. INSTALL ANY REMOTE POWER SUPPLIES IN ACCESSIBLE, WELL VENTILATED, CONCEALED LOCATION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL REVIEW REMOTE POWER SUPPLY LOCATIONS WITH ARCHITECT AND OBTAIN ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.
18. CONTRACTOR SHALL VERIFY ALL FIXTURE VOLTAGES PRIOR TO ORDER AND INSTALLATION.
19. PROVIDE PROJECT SPECIFIC SHOP DRAWINGS FOR COMPLETE LIGHTING & PLUG LOAD CONTROL SYSTEM TO ENGINEER FOR REVIEW PRIOR TO PLACING ORDER.



GENERAL NOTES

1. ALL FIXTURES ARE DIM. PROVIDE DIMMABLE LAMP, DIMMER AND DIMMING BALLAST, DIMMING DRIVER. PROVIDE DAY LIGHTING SENSOR IN ALL DAY LIGHT AREAS.
2. PROVIDE EXTRA BALLAST OR LED DRIVER FOR EMERGENCY SECTION.
3. PROVIDE EXTRA BALLAST OR LED DRIVER FOR DUAL SWITCHING AND DAY LIGHTING SECTION.

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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

In my professional judgement, tenant work shown hereon does not infringe upon nor adversely affect the existing building fire/life safety and smoke control system. Any needed modifications will be subject to the requirements of the San Francisco Administrative Bulletin AB-047.

Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23JUL15	PERMIT & BID SET

Approval Signature:

Co/ Title: Date:

Lighting Plan

16th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

16E.2

POWER CONTROLS

POWER CONTROLS:

A. PER CALIFORNIA ENERGY CODE TITLE-24 2013, IN PRIVATE AND OPEN OFFICES, RECEPTION, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS, PROVIDE AT LEAST ONE RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6 FEET OF UNCONTROLLED RECEPTACLES, EXCEPT FOR COPIER, PRINTER, OTHER IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY EQUIPMENT. CONNECT 'CONTROLLED' RECEPTACLE TO PLUG LOAD CONTROLLER AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.

B. PROVIDE "SPILTWIRED" DUPLEX OR QUADRAPLEX RECEPTACLES. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF.

C. FOR ALL WALL MOUNTED OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE.

D. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6 FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(D). TO SATISFY THESE REQUIREMENTS, FURNITURE VENDOR SHALL PROVIDE ONE 'CONTROLLED CIRCUIT RECEPTACLE' PER WORKSTATION. IN A 4-CIRCUIT SYSTEM, ONE CIRCUIT SHALL BE CONTROLLED. CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLET FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- COMBINATION FLOOR-MOUNTED TELEPHONE/DATA/ DUPLEX POWER OUTLET
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- (X) EQUIPMENT TYPE IDENTIFIER

ELECTRICAL POWER KEY NOTES

(A) PROVIDE "SPLITWIRED" QUADRAPLEX RECEPTACLES AS SHOWN ON PLAN. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF LMPL201 PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF. REFER TO WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

(B) INDICATES CONTROLLED POWER LEG OF PLUG LOAD ROOM CONTROLLER. OCCUPANCY SENSOR IN THE SPACE SHALL TURN OFF CONTROLLED RECEPTACLES.

(C) FOR ALL OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. NO HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE. SEE DETAIL.

(D) "PL" PLUG LOAD CONTROLLER MODULE SHALL BE LOCATED DIRECTLY ABOVE (IN THE CEILING PLENUM) THE ROOM DIMMER/SWITCH. COORDINATE IN FIELD WITH THE CHIEF BUILDING ENGINEER.

ELECTRICAL POWER & SIGNAL GENERAL NOTES

1. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED BY ARCHITECTURAL DRAWINGS.
2. ALL DEMOLISHED, UNUSED AND ABANDONED CIRCUITS SHALL BE MADE AVAILABLE FOR NEW WORK. CONTRACTOR SHALL TRACE ALL UNUSED CIRCUITS ALL THE WAY BACK TO THE UPSTREAM PANELBOARD SOURCE. REMOVE WIRING AND LABEL ASSOCIATED CONDUIT AND CIRCUIT BREAKER AS SPARE FOR ALL ABANDONED CIRCUITS NOT UTILIZED FOR NEW WORK
3. ALL DEVICES AND EQUIPMENT SHOWN WITHIN SCOPE OF WORK IS NEW, UNLESS OTHERWISE NOTED.
4. COORDINATE EXACT LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. FURNITURE LOCATIONS SHOWN ARE FOR REFERENCE ONLY. EXACT FURNITURE FEEDS/WHIPS/CORES/OUTLETS LOCATIONS SHALL BE COORDINATED WITH FURNITURE LAYOUT PRIOR TO ROUGH IN.
6. ALL ELECTRICAL OUTLETS & WHIP LOCATIONS TO BE VERIFIED WITH FURNITURE LAYOUT PRIOR TO INSTALLATION.
7. PROVIDE E-MON D-MON METERS OR BUILDING STANDARD METERING FOR ENERGY METERING FOR HEAT PUMP HP16-1, HP16-2, HP16-3 AND CWP16-1. LOCATE METER IN ELECTRICAL ROOM. ALSO, COORDINATE WITH CHIEF BUILDING ENGINEER. SEPARATE ELECTRIC SUBMETERS ARE PROVIDED, SUBMETER CURRENT SENSORS AND CONDUCTORS SHALL BE LOCATED IN SEPARATE AUXILLARY GUTTER OR ENCLOSURE, INTERFACE WITH BUILDING'S EMON/DMON NETWORK.
8. WHERE OUTLETS ARE SHOWN BACK-TO-BACK. INSTALL THE OUTLETS WITH A STUD IN BETWEEN THE OUTLET.
9. COORDINATE WITH SECURITY AND TELEDATA/AV VENDOR DRAWINGS FOR ADDITIONAL POWER REQUIREMENTS.
10. IN BREAK ROOMS AND KITCHEN, PROVIDE STAINLESS STEEL FACEPLATES FOR ALL DEVICES/OUTLETS ABOVE COUNTER.
11. ALL COMMUNICATION CABLING / LOW VOLTAGE POWER CABLING TO BE PLENUM-RATED.
12. ALL COMMUNICATION CABLING SHALL BE IN EMT CONDUIT IN WALLS AND STUBBED ABOVE CEILING. PROVIDE JUNCTION BOXES AND CONDUITS IN CONFERENCE ROOM AS REQUIRED BY A/V DRAWING. SEE A/V DRAWING PRIOR TO INSTALLATION. AV JUNCTION BOXES AND CONDUITS SYSTEM ARE NOT SHOWN ON ELECTRICAL DRAWINGS. VERIFY WITH A/V DRAWINGS PRIOR TO INSTALLATION.
13. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL LOCATION OF CORE DRILLS BEFORE COMMENCEMENT OF WORK.
14. IN FURNITURE SYSTEM, PROVIDE BLACK OUTLET FOR OCCUPANCY SENSOR SHUT-OFF OUTLETS. PROVIDE GREY OUTLET FOR UNCONTROLLED OUTLETS.
15. PER CALIFORNIA ENERGY CODE TITLE-24 2013, ALL NEW ELECTRICAL RECEPTACLES IN PRIVATE AND OPEN OFFICES, RECEPTION AREAS, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS SHALL HAVE AT LEAST ONE CONTROLLED RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6FT OF UNCONTROLLED RECEPTACLES. COPIERS, PRINTERS, DEDICATED IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY DEVICES ARE EXEMPT. CONNECT TO CONTROLLED RECEPTACLE TO PLUG LOAD CONTROLLER/RELAY MODULE AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.
16. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT SUCH THAT THERE IS AT LEAST ONE CONTROLLED RECEPTACLE WITHIN 6FT OF EACH UNCONTROLLED RECEPTACLE. COORDINATE WITH FURNITURE VENDOR AS REQUIRED.
17. ALL ELECTRICAL DEVICES AND EQUIPMENT ABOVE HARD LID CEILINGS MUST BE ACCESSIBLE FOR MAINTENANCE AND AS REQUIRED BY CODE.
18. PROVIDE WHITE FINISH FOR ALL TENANT SECURITY DEVICES LOCATED IN COMMON CORRIDOR.
19. CONTRACTOR SHALL PROVIDE CLOSE OUT PACKAGE TO LANDLORD WITHIN 30 DAYS OF PROJECT COMPLETION AS DETAILED IN T.I. MANUAL.
20. ELECTRIFIED FURNITURE SYSTEM:
    FOR 2-CIRCUIT HOMERUN, PROVIDE 2#12 HOT, 1#10 NEUTRAL AND 1#12 GROUND IN 1"C;
    FOR 3-CIRCUIT HOMERUN, PROVIDE 3#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C;
    FOR 4-CIRCUIT HOMERUN, PROVIDE 4#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C, IS ASSUMED (4-CIRCUIT 8-WIRE, 3+1 CONFIGURATION).
    CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6-FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(d). ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLETS FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

ELECTRICAL SHEET NOTES

(1) PROVIDE GFI RECEPTACLE FOR ALL RECEPTACLES MOUNTED ABOVE COUNTER.

(2) FOR COUNTERTOP 'SHUTOFF' RECEPTACLES SHOWN ON PLAN, PROVIDE QUADRAPLEX DEVICE; WITH DUPLEX GFCI DEVICE, AND ADJACENT STANDARD DUPLEX DEVICE FED FROM LOAD SIDE OF GFCI OUTLET VIA PLUG-LOAD CONTROLLER.

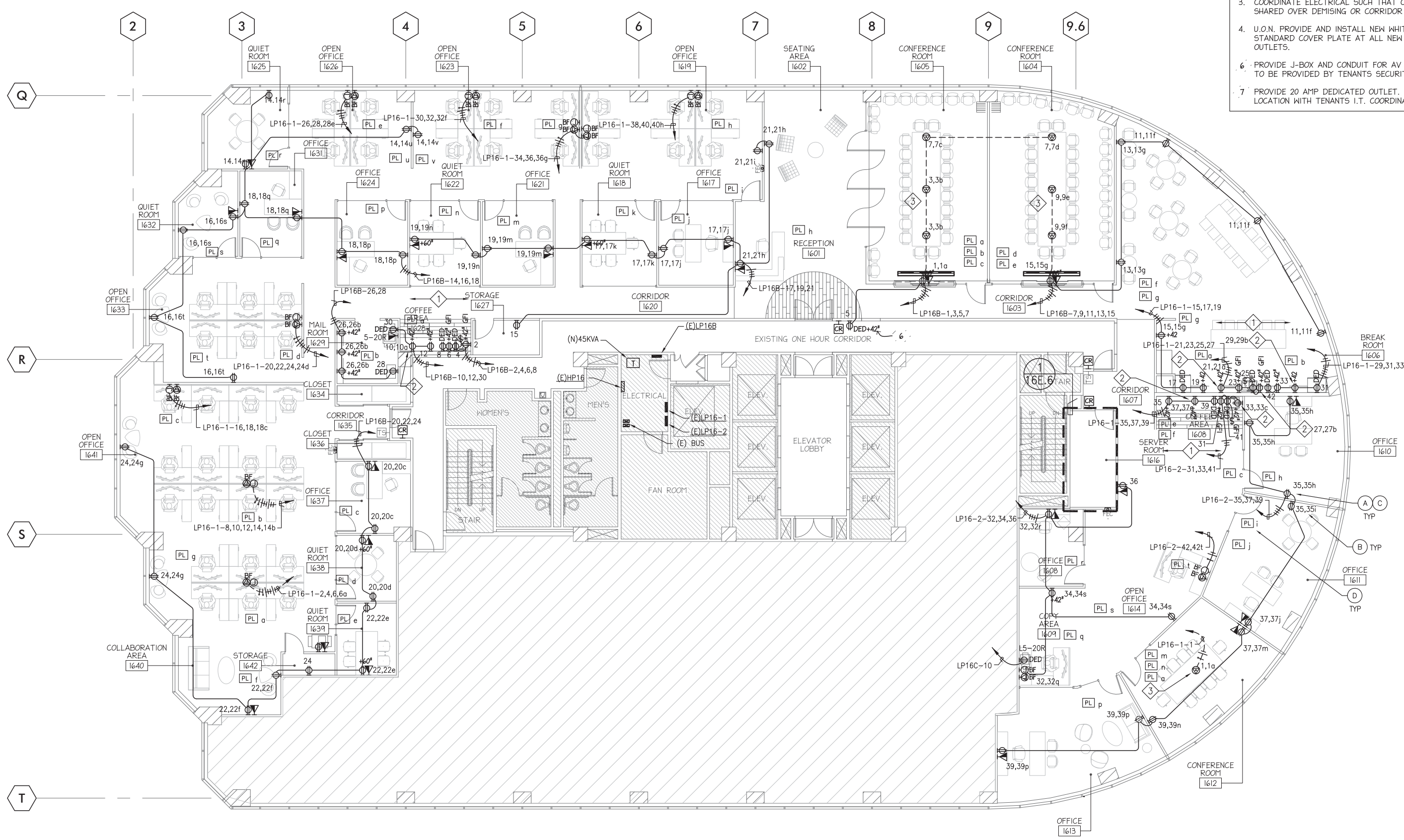
(3) SEE AV DRAWINGS FOR CONDUIT REQUIREMENTS, HOWEVER, IN THE BASE BID AT MINIMUM, PROVIDE 1 1/2"C FROM CENTER OF THE TABLE TO THE WALL MONITOR VIA THE FLOOR BELOW AND UP THE WALL. PROVIDE J-BOXES.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- BF — ELECTRIFIED FURNITURE BASE FEED, WALL MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION
- BF — ELECTRIFIED FURNITURE BASE FEED, FLOOR MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION.
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- CR — CARD READER (N.I.C.) COORDINATE REQUIREMENTS WITH TENANTS' SECURITY VENDOR

SHEET NOTES

1. REFER TO GENERAL NOTES SHEET A0.6 FOR ADDITIONAL POWER & SIGNAL PLAN NOTES; ALL NOTES APPLY AS IF PRINTED IN FULL HERE.
2. THIS DRAWING IS PROVIDED FOR PLACEMENT OF ELECTRICAL ONLY. FOR POWER REQUIREMENT AND CIRCUITING, SEE ELECTRICAL DRAWINGS.
3. COORDINATE ELECTRICAL SUCH THAT CIRCUITS ARE NOT SHARED OVER DEMISING OR CORRIDOR PARTITIONS.
4. U.O.N. PROVIDE AND INSTALL NEW WHITE BUILDING STANDARD COVER PLATE AT ALL NEW AND EXISTING OUTLETS.
6. PROVIDE J-BOX AND CONDUIT FOR AV SECURITY SYSTEM TO BE PROVIDED BY TENANTS SECURITY VENDOR.
7. PROVIDE 20 AMP DEDICATED OUTLET. COORDINATE LOCATION WITH TENANTS I.T. COORDINATOR.



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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

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Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23JUL15	PERMIT & BID SET

Approval Signature:

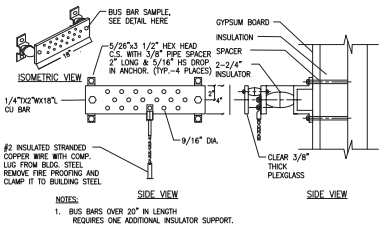
Co/ Title: Date:

Power and Signal Plan

16th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

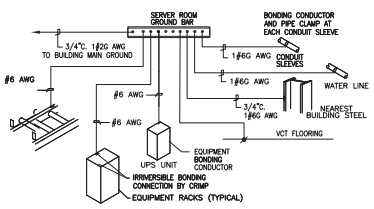
16E.3



NOTES:

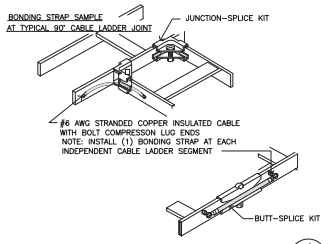
1. BUS BARS OVER 20" IN LENGTH REQUIRES ONE ADDITIONAL INSULATOR SUPPORT.

GROUND BAR DETAIL — NOT TO SCALE — 2 -E.6

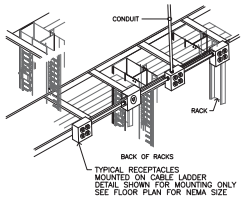


NOTE: CRIMPING SHALL BE PROPER, RIGID AND SECURED.

GROUNDING DIAGRAM — NOT TO SCALE — 3 -E.6



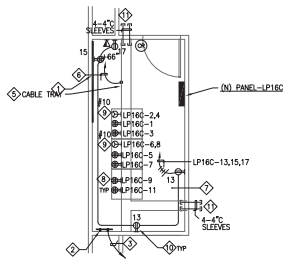
CABLE LADDER BONDING — NOT TO SCALE — 4 -E.6



TYP. RECEPTACLE MOUNTED ON CABLE LADDER — NOT TO SCALE — 5 -E.6

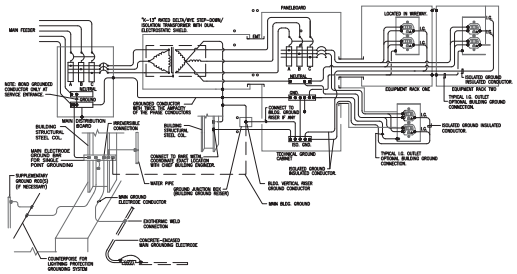
ELECTRICAL SHEET NOTES

1. COVER WALLS WITH 3/4"TX4'WX8'H FIRE RATED PLYWOOD. PAINTED WHITE.
2. GROUND BUS. PROVIDE AND INSTALL 1/4"TX2"WX18"L. PRE TAPPED COPPER BUS BAR, +60" AFF WITH 1" INSULATING STANDOFFS.
3. 3/4"C-1#4 TO BUILDING GROUNDING SYSTEM/BUILDING STEEL.
4. LABEL ALL RECEPTACLES WITH PANEL NAME AND CIRCUIT NUMBER AS REQUIRED. ROOM LAYOUT SHOWS THE NUMBER OF CIRCUITS REQUIRED. COORDINATE EXACT LOCATION AND TYPE OF ALL OUTLETS, DEVICES, ETC. WITH IT DEPARTMENT PRIOR TO INSTALLATION. EXACT LOCATION OF RACKS, EQUIPMENT, UPS, ETC. SHALL BE FIELD COORDINATED WITH IT DEPARTMENT. PROVIDE RED OUTLET FOR UPS POWER. ALL CONDUIT ROUTING IN THIS ROOM SHALL BE RUN OCERHEAD.
5. PROVIDE BONDING AND GROUNDING FOR CABLE TRAY PER CODE.
6. 1#6 BARE COPPER WIRE AND CONNECT TO GROUND BAR.
7. GROUND ANTI-STATIC VCT FLOORING.
8. RECEPTACLE NEMA 5-20R MOUNTED AT THE BASE OF EACH RACK. PROVIDE ISOLATED GROUND RECEPTACLE. PROVIDE DEDICATED NEUTRAL, ISOLATED GROUND AND EQUIPMENT GROUND.
9. RECEPTACLE NEMA L6-30R MOUNTED AT THE BASE OF EACH RACK. PROVIDE ISOLATED GROUND RECEPTACLE. PROVIDE #10 WIRES. ISOLATED GROUND AND EQUIPMENT GROUND.
10. CONVENIENCE RECEPTACLE 5-15R.
11. FOR NUMBER OF CONDUITS/SLEEVES, COORDINATE WITH CIRM IT DEPARTMENT.



SERVER ROOM 4 — 1/4"=1'-0" — 1 -E.6

RECEPTACLES ARE SHOWN FOR REFERENCE ONLY.
FOR EXACT QUANTITY, LOCATION AND TYPE OF OUTLETS COORDINATE WITH OWNER'S IT DEPARTMENT.



ISOLATED GROUND SYSTEM WIRING — NOT TO SCALE — 6 -E.6

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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRINGEMENT STATEMENT

Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23.JUL.15	PERMIT & BID SET

Approval Signature:

Col./Title: Date:

SERVER ROOM PLAN

16th Floor

Scale: AS SHOWN Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: of:

16E.6

POWER CONTROLS

POWER CONTROLS:

A. PER CALIFORNIA ENERGY CODE TITLE-24 2013, IN PRIVATE AND OPEN OFFICES, RECEPTION, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS, PROVIDE AT LEAST ONE RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6 FEET OF UNCONTROLLED RECEPTACLES, EXCEPT FOR COPIER, PRINTER, OTHER IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY EQUIPMENT. CONNECT 'CONTROLLED' RECEPTACLE TO PLUG LOAD CONTROLLER AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.

B. PROVIDE "SPLITWIRED" DUPLEX OR QUADRAPLEX RECEPTACLES. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF.

C. FOR ALL WALL MOUNTED OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE.

D. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6 FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(D). TO SATISFY THESE REQUIREMENTS, FURNITURE VENDOR SHALL PROVIDE ONE 'CONTROLLED CIRCUIT RECEPTACLE' PER WORKSTATION. IN A 4-CIRCUIT SYSTEM, ONE CIRCUIT SHALL BE CONTROLLED. CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLET FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- COMBINATION FLOOR-MOUNTED TELEPHONE/DATA/ DUPLEX POWER OUTLET
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- (X) — EQUIPMENT TYPE IDENTIFIER

ELECTRICAL POWER KEY NOTES

(A) PROVIDE "SPLITWIRED" QUADRAPLEX RECEPTACLES AS SHOWN ON PLAN. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF LMPL201 PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF. REFER TO WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

(B) INDICATES CONTROLLED POWER LEG OF PLUG LOAD ROOM CONTROLLER. OCCUPANCY SENSOR IN THE SPACE SHALL TURN OFF CONTROLLED RECEPTACLES.

(C) FOR ALL OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. NO HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE. SEE DETAIL.

(D) "PL" PLUG LOAD CONTROLLER MODULE SHALL BE LOCATED DIRECTLY ABOVE (IN THE CEILING PLENUM) THE ROOM DIMMER/SWITCH. COORDINATE IN FIELD WITH THE CHIEF BUILDING ENGINEER.

ELECTRICAL POWER & SIGNAL GENERAL NOTES

1. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED BY ARCHITECTURAL DRAWINGS.
2. ALL DEMOLISHED, UNUSED AND ABANDONED CIRCUITS SHALL BE MADE AVAILABLE FOR NEW WORK. CONTRACTOR SHALL TRACE ALL UNUSED CIRCUITS ALL THE WAY BACK TO THE UPSTREAM PANELBOARD SOURCE. REMOVE WIRING AND LABEL ASSOCIATED CONDUIT AND CIRCUIT BREAKER AS SPARE FOR ALL ABANDONED CIRCUITS NOT UTILIZED FOR NEW WORK
3. ALL DEVICES AND EQUIPMENT SHOWN WITHIN SCOPE OF WORK IS NEW, UNLESS OTHERWISE NOTED.
4. COORDINATE EXACT LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. FURNITURE LOCATIONS SHOWN ARE FOR REFERENCE ONLY. EXACT FURNITURE FEEDS/WHIPS/CORES/OUTLETS LOCATIONS SHALL BE COORDINATED WITH FURNITURE LAYOUT PRIOR TO ROUGH IN.
6. ALL ELECTRICAL OUTLETS & WHIP LOCATIONS TO BE VERIFIED WITH FURNITURE LAYOUT PRIOR TO INSTALLATION.
7. WHERE OUTLETS ARE SHOWN BACK-TO-BACK. INSTALL THE OUTLETS WITH A STUD IN BETWEEN THE OUTLET.
8. COORDINATE WITH SECURITY AND TELEDATA/AV VENDOR DRAWINGS FOR ADDITIONAL POWER REQUIREMENTS.
9. IN BREAK ROOMS AND KITCHEN, PROVIDE STAINLESS STEEL FACEPLATES FOR ALL DEVICES/OUTLETS ABOVE COUNTER.
10. ALL COMMUNICATION CABLING / LOW VOLTAGE POWER CABLING TO BE PLENUM-RATED.
11. ALL COMMUNICATION CABLING SHALL BE IN EMT CONDUIT IN WALLS AND STUBBED ABOVE CEILING. PROVIDE JUNCTION BOXES AND CONDUITS IN CONFERENCE ROOM AS REQUIRED BY A/V DRAWING. SEE A/V DRAWING PRIOR TO INSTALLATION. AV JUNCTION BOXES AND CONDUITS SYSTEM ARE NOT SHOWN ON ELECTRICAL DRAWINGS. VERIFY WITH A/V DRAWINGS PRIOR TO INSTALLATION.
12. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL LOCATION OF CORE DRILLS BEFORE COMMENCEMENT OF WORK.
13. IN FURNITURE SYSTEM, PROVIDE BLACK OUTLET FOR OCCUPANCY SENSOR SHUT-OFF OUTLETS. PROVIDE GREY OUTLET FOR UNCONTROLLED OUTLETS.
14. PER CALIFORNIA ENERGY CODE TITLE-24 2013, ALL NEW ELECTRICAL RECEPTACLES IN PRIVATE AND OPEN OFFICES, RECEPTION AREAS, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS SHALL HAVE AT LEAST ONE CONTROLLED RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6FT OF UNCONTROLLED RECEPTACLES. COPIERS, PRINTERS, DEDICATED IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY DEVICES ARE EXEMPT. CONNECT TO CONTROLLED RECEPTACLE TO PLUG LOAD CONTROLLER/RELAY MODULE AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.
15. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT SUCH THAT THERE IS AT LEAST ONE CONTROLLED RECEPTACLE WITHIN 6FT OF EACH UNCONTROLLED RECEPTACLE. COORDINATE WITH FURNITURE VENDOR AS REQUIRED.
16. ALL ELECTRICAL DEVICES AND EQUIPMENT ABOVE HARD LID CEILINGS MUST BE ACCESSIBLE FOR MAINTENANCE AND AS REQUIRED BY CODE.
17. PROVIDE WHITE FINISH FOR ALL TENANT SECURITY DEVICES LOCATED IN COMMON CORRIDOR.
18. CONTRACTOR SHALL PROVIDE CLOSE OUT PACKAGE TO LANDLORD WITHIN 30 DAYS OF PROJECT COMPLETION AS DETAILED IN T.I. MANUAL.
19. ELECTRIFIED FURNITURE SYSTEM:
    FOR 2-CIRCUIT HOMERUN, PROVIDE 2#12 HOT, 1#10 NEUTRAL AND 1#12 GROUND IN 1"C;
    FOR 3-CIRCUIT HOMERUN, PROVIDE 3#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C;
    FOR 4-CIRCUIT HOMERUN, PROVIDE 4#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C, IS ASSUMED (4-CIRCUIT 8-WIRE, 3+1 CONFIGURATION).
    CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6-FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(d). ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLETS FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

ELECTRICAL SHEET NOTES

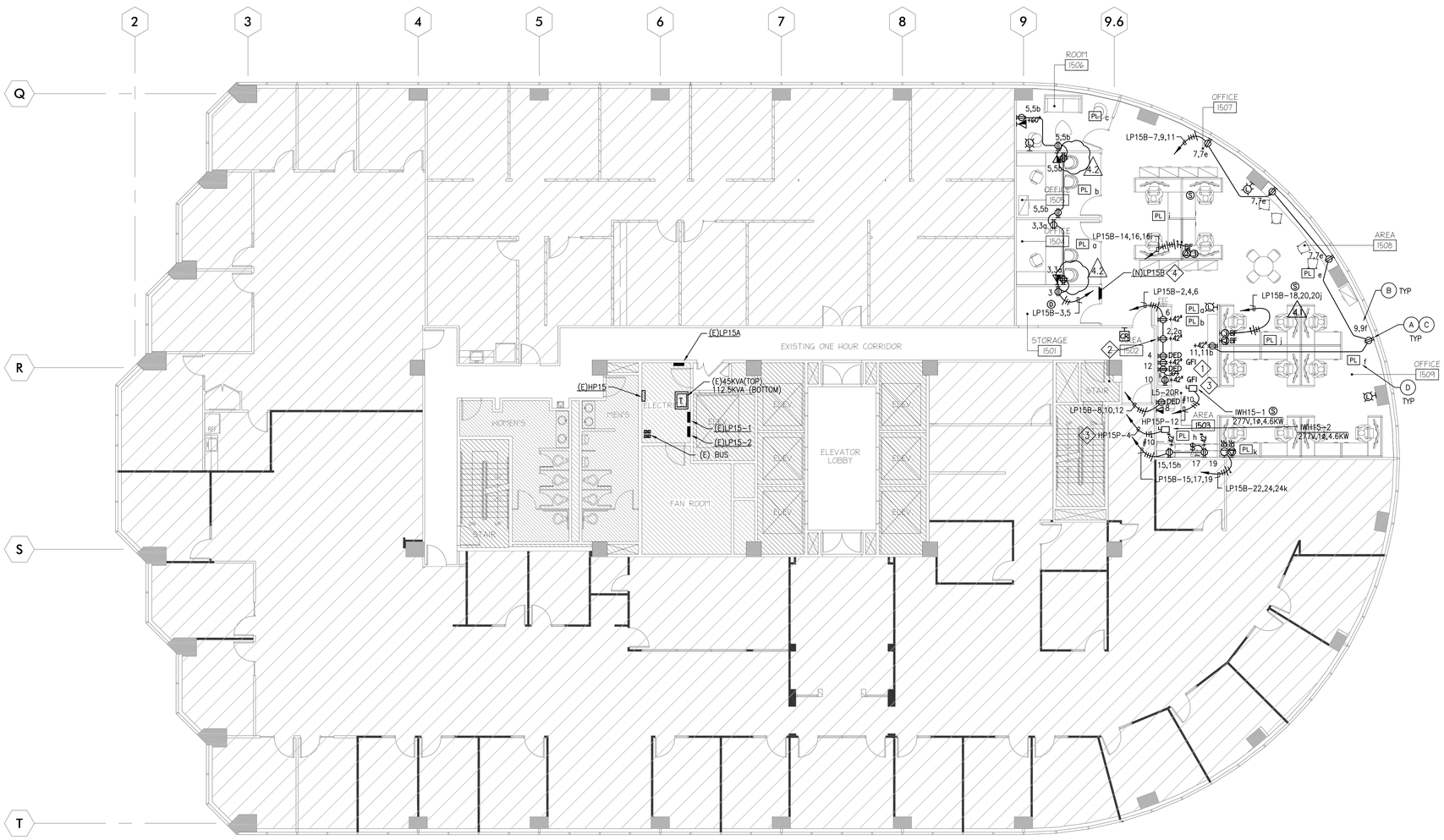
1. PROVIDE GFI RECEPTACLE FOR ALL RECEPTACLES MOUNTED ABOVE COUNTER.
2. FOR COUNTERTOP 'SHUTOFF' RECEPTACLES SHOWN ON PLAN, PROVIDE QUADRAPLEX DEVICE; WITH DUPLEX GFCI DEVICE, AND ADJACENT STANDARD DUPLEX DEVICE FED FROM LOAD SIDE OF GFCI OUTLET VIA PLUG-LOAD CONTROLLER.
3. PROVIDE 30A/1P CIRCUIT BREAKER.
4. PROVIDE 6" STUD FOR FLUSH PANEL.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- DBF — ELECTRIFIED FURNITURE BASE FEED, WALL MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION
- DBF — ELECTRIFIED FURNITURE BASE FEED, FLOOR MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION.
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- HCR — CARD READER (N.I.C.) COORDINATE REQUIREMENTS WITH TENANTS' SECURITY VENDOR

SHEET NOTES

1. REFER TO GENERAL NOTES SHEET A0.6 FOR ADDITIONAL POWER & SIGNAL PLAN NOTES; ALL NOTES APPLY AS IF PRINTED IN FULL HERE.
2. THIS DRAWING IS PROVIDED FOR PLACEMENT OF ELECTRICAL ONLY. FOR POWER REQUIREMENT AND CIRCUITING, SEE ELECTRICAL DRAWINGS.
3. COORDINATE ELECTRICAL SUCH THAT CIRCUITS ARE NOT SHARED OVER DEMISING OR CORRIDOR PARTITIONS.
4. U.O.N. PROVIDE AND INSTALL NEW WHITE BUILDING STANDARD COVER PLATE AT ALL NEW AND EXISTING OUTLETS.



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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

In my professional judgement, tenant work shown hereon does not infringe upon nor adversely affect the existing building fire/life safety and smoke control system.

Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23JUL15	PERMIT & BID SET
1.1	31613.00 10AUG15	ADDENDUM 1
4.1	31613.00 01SEP15	ISSUE FOR CONSTRUCTION BULLETIN #1
4.2	31613.00 03SEP15	BULLETIN #2

Approval Signature:

Co/ Title: Date:

Power and Signal Plan

15th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

15E.3

LIGHTING CONTROL SYSTEM

ALL LIGHTING SHALL BE CONTROLLED VIA NEW LIGHTING CONTROL SYSTEM:

A. PROVIDE NEW WALL MOUNTED LIGHTING CONTROL PANEL WITH RELAYS AND INTEGRAL ASTRONOMICAL TIMECLOCK IN THE ELECTRICAL ROOM TO CONTROL LIGHTING.

B. PROVIDE 0-10V DIMMING SPACE CONTROLLER WITH RELAYS AS REQUIRED FOR ALL AREAS.

C. PROVIDE CEILING MOUNTED OCCUPANCY SENSORS FOR CODE REQUIRED AUTOMATIC SHUT-OFF OF ALL LIGHTING.

D. PROVIDE WALL DIMMERS FOR CONTROL OF ALL LIGHTS IN ALL ENCLOSED SPACES. PROVIDE COMPATIBLE DIMMABLE BALLASTS/DRIVERS FOR ALL FIXTURES AS REQUIRED.

E. FOR PERIMETER AREAS ADJACENT TO WINDOWS PROVIDE CEILING MOUNTED DAYLIGHT SENSOR AND CONNECT TO AREA CONTROLLER FOR AUTOMATIC DAYLIGHT DIMMING OF PRIMARY DAYLIGHT ZONE FIXTURES AS REQUIRED BY CODE. PROVIDE WALL DIMMER FOR MANUAL CONTROL OF DAYLIGHT ZONE FIXTURES.

F. FOR EVERY ROOM CONTROLLER, PROVIDE ONE NETWORK BRIDGE AND ALL ASSOCIATED INTERCONNECTION WIRING. PROVIDE ONE SEGMENT MANAGER AND CONNECT TO NETWORK BRIDGES FOR LOAD SHEDDING CAPABILITY FROM OUTSIDE SIGNAL (BUILDING MANAGEMENT SYSTEM).

G. PROVIDE ALL LOW VOLTAGE CAT5E AND SEGMENT NETWORK INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, SENSORS, WALL SWITCHES, NETWORK BRIDGES, AND SEGMENT MANAGER FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS.

H. INTERCONNECT ALL ROOM CONTROLLER NETWORK BRIDGES TO SEGMENT MANAGER. CONNECT SEGMENT MANAGER TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' CAPABILITY. WALL MOUNT SEGMENT MANAGER IN TELECOM OR ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION WITH ALL OTHER EQUIPMENT PRIOR TO ROUGH-IN. PROVIDE DEDICATED 20A/120V CIRCUIT RECEPTACLE POWER FOR EQUIPMENT.

ELECTRICAL LIGHTING KEY NOTES

(A) INSTALL WATTSTOPPER SEGMENT MANAGER IN ELECTRICAL ROOM. FIELD COORDINATE EXACT LOCATION. PROVIDE CONNECTION TO TENANT'S TELEDATA NETWORK, AND PROVIDE ANY REQUIRED BACNET INTERFACE OF WATTSTOPPER SYSTEM TO INTEGRATE INTO BUILDING MANAGEMENT SYSTEM. COORDINATE WITH CHIEF BUILDING ENGINEER AS REQUIRED.

(B) PROVIDE 0-10V DIMMABLE DRIVER FOR ALL LED FIXTURE. PROVIDE 0-10V DIMMING BALLAST FOR ALL FLUORESCENT AND COMPACT FLUORESCENT FIXTURE. PROVIDE DIMMABLE DRIVER OR DIMMING BALLAST EVEN IF LIGHTING FIXTURE SCHEDULE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT.

(C) INTERCONNECT ALL WATTSTOPPER ROOM CONTROLLER NETWORK BRIDGES TO WATTSTOPPER SEGMENT MANAGER. WATTSTOPPER SEGMENT MANAGER SHALL CONNECT TO BUILDING NETWORK/BMS FOR 'LOAD SHEDDING' AND "ON/OFF" CAPABILITY VIA THE "BMS". PROVIDE DEDICATED 20A/120V CIRCUIT POWER FOR EQUIPMENT. PROVIDE ALL ACCESSORIES, DEVICES, ETC. NEEDED FOR "BMS" INTERFACE. COORDINATE WITH "BMS" PROVIDER AND THE CHIEF BUILDING ENGINEER.

(D) PROVIDE A NETWORK BRIDGE FOR EACH ENCLOSED SPACE. (NETWORK BRIDGES NOT SHOWN ON PLAN) INTERCONNECT NETWORK BRIDGES AND TERMINATE IN SEGMENT MANAGER FOR DEMAND RESPONSE CAPABILITY.

ELECTRICAL SHEET NOTES

(1) CONNECT TO EXISTING EMERGENCY CIRCUIT. PROVIDE EXTRA DRIVER OR BALLAST FOR EMERGENCY SECTION. PROVIDE #10 CONDUCTOR FOR ALL EMERGENCY FIXTURES.

ELECTRICAL LIGHTING GENERAL NOTES

1. PROVIDE DIMMABLE BALLAST/DRIVER FOR ALL FIXTURES SHOWN ON THE PLAN CONTROLLED BY DIMMER SWITCH(S) WHETHER THE FIXTURE SPECIFICATION NUMBER INCLUDES DIMMING PROVISION OR NOT. DIMMING BALLAST/DRIVER SHALL BE COMPATIBLE WITH LIGHTING CONTROL SYSTEM.
2. PROVIDE AUTOMATIC DAYLIGHT ZONE FIXTURE DIMMING FOR ALL PERIMETER LIGHTING ADJACENT TO WINDOWS WITHIN ONE WINDOW HEAD HEIGHT OF GLAZING (PRIMARY ZONE)..WHEN SHOWN ON PLAN.
3. PROVIDE ONE WATTSTOPPER ROOM CONTROLLER PER SPACE. PROVIDE ALL REQUIRED INTERCONNECTION WIRING BETWEEN ALL CONTROLLERS, PLUG LOAD SWITCHPACKS, SENSORS, AND WALL SWITCHES/DIMMERS FOR COMPLETE WORKING SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. REFER TO EQUIPMENT INSTALLATION MANUALS FOR DETAILED INFORMATION.
4. INSTALL ALL 'ROOM CONTROLLERS' ABOVE CEILING. WHEN POSSIBLE FIELD COORDINATE EXACT LOCATIONS. PROVIDE WORKING CLEARANCES FROM OTHER SYSTEMS AS REQUIRED.
5. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED PER ARCHITECTURAL DRAWINGS.
6. WHERE SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THEY SHALL BE GANGED TOGETHER AND COVERED BY A COMMON COVER PLATE.
7. PROVIDE SEISMIC BRACING FOR ALL LIGHT FIXTURES AS REQUIRED.
8. OCCUPANCY SENSOR LOCATED NO CLOSER THAN FOUR (4) FEET FROM A HVAC DIFFUSER, PER TITLE 24 CODE NA7.6.2.
9. PROVIDE ALL REQUIRED COMPATIBLE DIMMABLE BALLASTS, WALL DIMMERS, CEILING OCCUPANCY SENSORS, DAYLIGHT SENSORS, CONTROL AND SENSOR MODULES, WATTSTOPPER NETWORK BRIDGES, AND SEGMENT MANAGER AND LOW VOLTAGE INTERCONNECTIONS, FOR COMPLETE WORKING DEMAND-RESPONSE CAPABLE SYSTEM. PROVIDE NECESSARY TELEDATA CONNECTION FROM TENANT/BUILDING NETWORK TO SEGMENT MANAGER FOR REMOTE ACCESS AND INTERFACE. PROVIDE DEDICATED 20A/120V CONTROL POWER TO SEGMENT MANAGER.
10. INSTALL ALL ROOM CONTROLLERS AND EMERGENCY RELAYS ABOVE ACCESSIBLE CEILING.
11. ARCHITECT SHALL APPROVE ALL CEILING ACCESS PANELS PRIOR TO INSTALLATION.
12. LIGHT FIXTURE SCHEDULE AND INDICATED LAMPING IS LISTED FOR SIZING/ASSIGNING CIRCUITS, AND ENERGY COMPLIANCE CALCULATIONS. DO NOT USE THIS SCHEDULE TO ORDER FIXTURES. USE LIGHT FIXTURE SCHEDULE SHOWN ON ARCHITECTURAL DRAWINGS/SPECIFICATIONS FOR PRICING, BIDDING AND SUBMITTALS. PROVIDE ELECTRONIC BALLASTS AND DRIVERS FOR ALL FIXTURES AS APPLICABLE.
13. THE CONTRACTOR SHALL VERIFY ALL CEILING TYPES BEFORE ORDERING OF FIXTURES. ALSO VERIFY THAT ALL FEATURES CALLED FOR IN FIXTURE DESCRIPTIONS ON ARCHITECTURAL FIXTURE SCHEDULE IS INCLUDED WITH CATALOG NUMBERS LISTED ON THE LIGHTING SUBMITTALS FOR THIS PROJECT.
14. SUBMIT CUTSHEETS TO ARCHITECT FOR REVIEW. LIGHT FIXTURES ARE SPECIFIED BY ARCHITECT. ALL FIXTURE COLORS AND FINISHES BY ARCHITECT. COORDINATE WITH ARCHITECT FOR UPDATED FIXTURE SCHEDULE AND FIXTURE CUT SHEETS.
15. CEILING-MOUNTED DEVICES LOCATED IN ACOUSTICAL TILE CEILINGS (OR OTHER PANELIZED CONSTRUCTION) ARE TO BE LOCATED IN THE CENTER OF THE TILE OR PANEL (UNLESS OTHERWISE NOTED).
16. CONTRACTOR SHALL ORDER FIXTURES WITH ALL REQUIRED POWER SUPPIES, DRIVERS AND POWER FEEDS FOR THE INSTALLATION OF A COMPLETE WORKING SYSTEM.
17. INSTALL ANY REMOTE POWER SUPPLIES IN ACCESSIBLE, WELL VENTILATED, CONCEALED LOCATION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL REVIEW REMOTE POWER SUPPLY LOCATIONS WITH ARCHITECT AND OBTAIN ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.
18. CONTRACTOR SHALL VERIFY ALL FIXTURE VOLTAGES PRIOR TO ORDER AND INSTALLATION.
19. PROVIDE PROJECT SPECIFIC SHOP DRAWINGS FOR COMPLETE LIGHTING & PLUG LOAD CONTROL SYSTEM TO ENGINEER FOR REVIEW PRIOR TO PLACING ORDER.

COMMISSIONING & TESTING

A. ELECTRICAL

I. CALIFORNIA ENERGY CODE TITLE-24 COMPLIANCE AND ACCEPTANCE TESTS

ELECTRICAL CONTRACTOR SHALL PERFORM ALL REQUIRED FUNCTIONAL TESTING OF LIGHTING CONTROLS AS REQUIRED ON T24 DOCUMENTATION FORMS, AND PROVIDE ALL REQUIRED SIGNATURES ON INSTALLATION AND ACCEPTANCE FORMS. ALSO, COMPLETE ALL ACCEPTANCE FORMS.

II. FUNCTIONAL TESTING COMMISSIONING & TRAINING

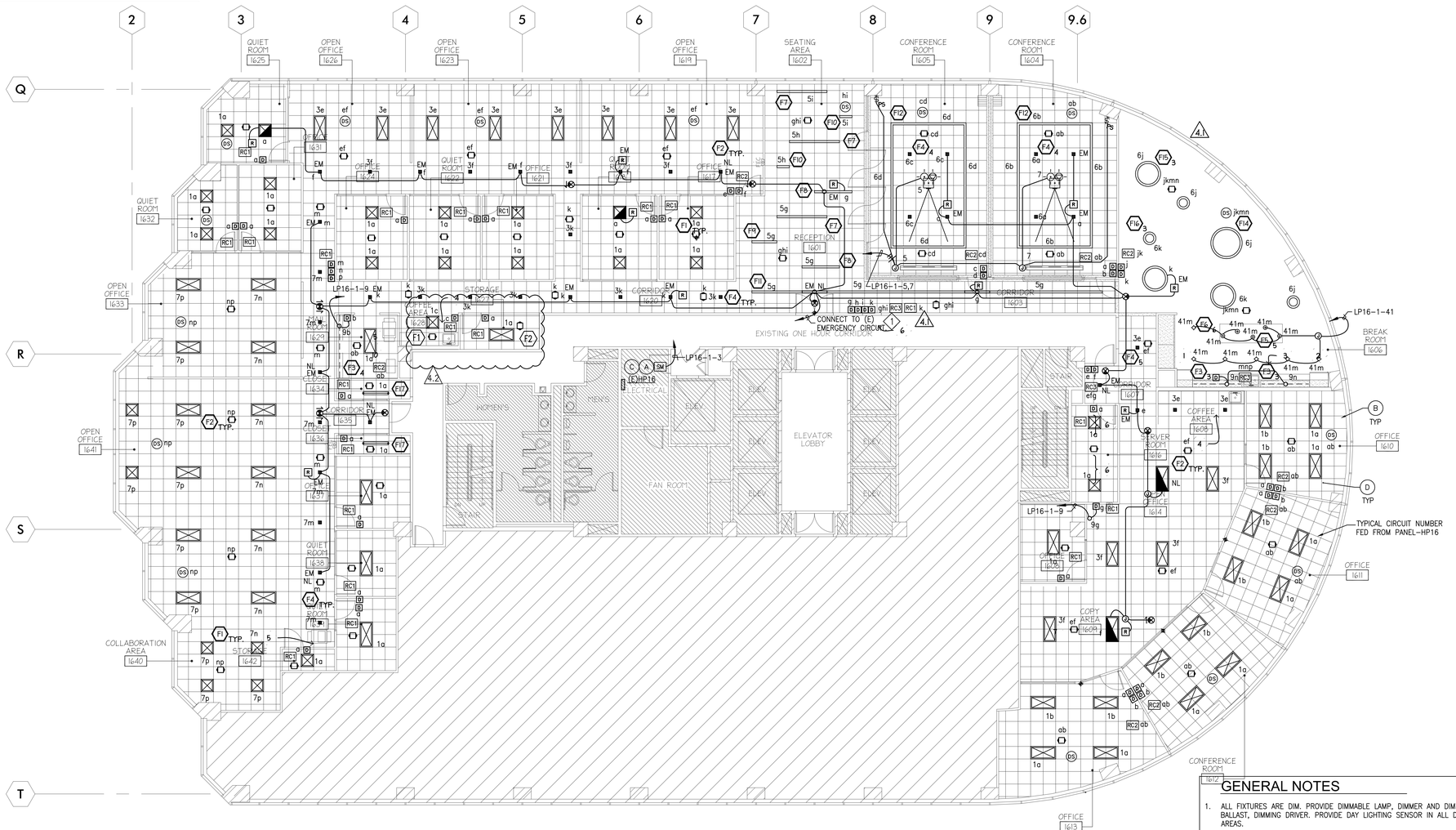
THE ENTIRE LIGHTING CONTROL/PLUG LOAD CONTROL SYSTEM (INCLUDING ALL DAYLIGHT SENSORS, CONTROLLERS, SWITCHES, RELAYS, CONTROLLED OUTLETS, OCCUPANCY SENSORS, ETC.) SHALL BE FUNCTIONALLY TESTED AND COMMISSIONED TO THE SATISFACTION OF THE CHIEF BUILDING ENGINEER, BY ELECTRICAL CONTRACTOR/CONTRACTOR'S AGENT, INCLUDING ALL RELEVANT DEVICE CALIBRATION AND CONFIGURATION AS REQUIRED. FOLLOW MANUFACTURER'S GUIDELINES AND PROVIDE ADDITIONAL DEVICES, SENSORS, ETC. AS REQUIRED.

CONTRACTOR/CONTRACTOR'S AGENT SHALL PROVIDE ADEQUATE TRAINING TO THE BUILDING'S ENGINEERING STAFF. FACTORY AUTHORIZED TECHNICIAN AND THE CONTRACTOR SHALL INCLUDE A MINIMUM OF 8 HOURS OF THOROUGH AND DETAILED TRAINING. THIS TIME IS IN ADDITION TO THE STARTUP AND FUNCTIONALITY COMMISSIONING.

B. MECHANICAL

I. COMPLETE ALL TITLE 24 REQUIRED COMMISSIONING SERVICES (VIA 3RD PARTY). PROVIDE ADDITIONAL LABOR/MATERIAL AS REQUIRED.

II. CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL REQUIRED TO COMPLETE AND PERFORM ALL ACCEPTANCE TESTS AS REQUIRED BY 2013 TITLE 24. THE PROJECT-SPECIFIC ACCEPTANCE TESTS FORMS SHALL BE INCLUDED IN THE TITLE 24 DOCUMENTS THAT ARE SUBMITTED TO THE CITY FOR PERMITTING. REVIEW ALL FORMS AND PROVIDE COST FOR ALL ACCEPTANCE TESTS IN THE BASE BID.



GENERAL NOTES

1. ALL FIXTURES ARE DIM. PROVIDE DIMMABLE LAMP, DIMMER AND DIMMING BALLAST, DIMMING DRIVER. PROVIDE DAY LIGHTING SENSOR IN ALL DAY LIGHT AREAS.
2. PROVIDE EXTRA BALLAST OR LED DRIVER FOR EMERGENCY SECTION.
3. PROVIDE EXTRA BALLAST OR LED DRIVER FOR DUAL SWITCHING AND DAY LIGHTING SECTION.

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REGISTERED PROFESSIONAL ENGINEER ALEXANDER JOSEPH PEDRICO E19378 Exp. 12-31-2016 ELECTRICAL STATE OF CALIFORNIA

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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

In my professional judgement, tenant work shown hereon does not infringe upon nor adversely affect the existing building fire/life safety and smoke control system.

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4.1	31613.00 01SEP15	ISSUE FOR CONSTRUCTION BULLETIN #1
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Approval Signature:

Co/ Title: Date:

Lighting Plan

16th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: OF

16E.2

POWER CONTROLS

POWER CONTROLS:

A. PER CALIFORNIA ENERGY CODE TITLE-24 2013, IN PRIVATE AND OPEN OFFICES, RECEPTION, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS, PROVIDE AT LEAST ONE RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6 FEET OF UNCONTROLLED RECEPTACLES, EXCEPT FOR COPIER, PRINTER, OTHER IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY EQUIPMENT. CONNECT 'CONTROLLED' RECEPTACLE TO PLUG LOAD CONTROLLER AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.

B. PROVIDE "SPILTWIRED" DUPLEX OR QUADRAPLEX RECEPTACLES. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF.

C. FOR ALL WALL MOUNTED OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE.

D. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6 FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(D). TO SATISFY THESE REQUIREMENTS, FURNITURE VENDOR SHALL PROVIDE ONE 'CONTROLLED CIRCUIT RECEPTACLE' PER WORKSTATION. IN A 4-CIRCUIT SYSTEM, ONE CIRCUIT SHALL BE CONTROLLED. CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLET FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- COMBINATION FLOOR-MOUNTED TELEPHONE/DATA/ DUPLEX POWER OUTLET
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- X — EQUIPMENT TYPE IDENTIFIER

ELECTRICAL POWER KEY NOTES

(A) PROVIDE "SPLITWIRED" QUADRAPLEX RECEPTACLES AS SHOWN ON PLAN. HALF OF DEVICE SHALL BE CONTROLLED VIA OUTPUT OF LMPL201 PLUG LOAD ROOM CONTROLLER. PLUG CONTROLLER SHALL BE CONNECTED TO OCCUPANCY SENSOR IN THE SPACE FOR AUTOMATIC SHUT-OFF. REFER TO WIRING DIAGRAMS FOR ADDITIONAL INFORMATION.

(B) INDICATES CONTROLLED POWER LEG OF PLUG LOAD ROOM CONTROLLER. OCCUPANCY SENSOR IN THE SPACE SHALL TURN OFF CONTROLLED RECEPTACLES.

(C) FOR ALL OCCUPANCY SENSOR SHUT-OFF CONTROLLED RECEPTACLES, PROVIDE PLUGLOAD CONTROLLABLE DECORATOR RECEPTACLE WITH MANUFACTURED MARKING PRINTED ON THE FACE OF RECEPTACLE. NO HAND MARKING TAG ON THE FACE OF RECEPTACLE IS ACCEPTABLE. SEE DETAIL.

(D) "PL" PLUG LOAD CONTROLLER MODULE SHALL BE LOCATED DIRECTLY ABOVE (IN THE CEILING PLENUM) THE ROOM DIMMER/SWITCH. COORDINATE IN FIELD WITH THE CHIEF BUILDING ENGINEER.

ELECTRICAL POWER & SIGNAL GENERAL NOTES

1. PROVIDE DEMOLITION OF ELECTRICAL AS REQUIRED BY ARCHITECTURAL DRAWINGS.
2. ALL DEMOLISHED, UNUSED AND ABANDONED CIRCUITS SHALL BE MADE AVAILABLE FOR NEW WORK. CONTRACTOR SHALL TRACE ALL UNUSED CIRCUITS ALL THE WAY BACK TO THE UPSTREAM PANELBOARD SOURCE. REMOVE WIRING AND LABEL ASSOCIATED CONDUIT AND CIRCUIT BREAKER AS SPARE FOR ALL ABANDONED CIRCUITS NOT UTILIZED FOR NEW WORK
3. ALL DEVICES AND EQUIPMENT SHOWN WITHIN SCOPE OF WORK IS NEW, UNLESS OTHERWISE NOTED.
4. COORDINATE EXACT LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.
5. FURNITURE LOCATIONS SHOWN ARE FOR REFERENCE ONLY. EXACT FURNITURE FEEDS/WHIPS/CORES/OUTLETS LOCATIONS SHALL BE COORDINATED WITH FURNITURE LAYOUT PRIOR TO ROUGH IN.
6. ALL ELECTRICAL OUTLETS & WHIP LOCATIONS TO BE VERIFIED WITH FURNITURE LAYOUT PRIOR TO INSTALLATION.
7. PROVIDE E-MON D-MON METERS OR BUILDING STANDARD METERING FOR ENERGY METERING FOR HEAT PUMP HP16-1, HP16-2, HP16-3 AND CWP16-1. LOCATE METER IN ELECTRICAL ROOM. ALSO, COORDINATE WITH CHIEF BUILDING ENGINEER. SEPARATE ELECTRIC SUBMETERS ARE PROVIDED, SUBMETER CURRENT SENSORS AND CONDUCTORS SHALL BE LOCATED IN SEPARATE AUXILLARY GUTTER OR ENCLOSURE, INTERFACE WITH BUILDING'S EMON/DMON NETWORK.
8. WHERE OUTLETS ARE SHOWN BACK-TO-BACK. INSTALL THE OUTLETS WITH A STUD IN BETWEEN THE OUTLET.
9. COORDINATE WITH SECURITY AND TELEDATA/AV VENDOR DRAWINGS FOR ADDITIONAL POWER REQUIREMENTS.
10. IN BREAK ROOMS AND KITCHEN, PROVIDE STAINLESS STEEL FACEPLATES FOR ALL DEVICES/OUTLETS ABOVE COUNTER.
11. ALL COMMUNICATION CABLING / LOW VOLTAGE POWER CABLING TO BE PLENUM-RATED.
12. ALL COMMUNICATION CABLING SHALL BE IN EMT CONDUIT IN WALLS AND STUBBED ABOVE CEILING. PROVIDE JUNCTION BOXES AND CONDUITS IN CONFERENCE ROOM AS REQUIRED BY A/V DRAWING. SEE A/V DRAWING PRIOR TO INSTALLATION. AV JUNCTION BOXES AND CONDUITS SYSTEM ARE NOT SHOWN ON ELECTRICAL DRAWINGS. VERIFY WITH A/V DRAWINGS PRIOR TO INSTALLATION.
13. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL LOCATION OF CORE DRILLS BEFORE COMMENCEMENT OF WORK.
14. IN FURNITURE SYSTEM, PROVIDE BLACK OUTLET FOR OCCUPANCY SENSOR SHUT-OFF OUTLETS. PROVIDE GREY OUTLET FOR UNCONTROLLED OUTLETS.
15. PER CALIFORNIA ENERGY CODE TITLE-24 2013, ALL NEW ELECTRICAL RECEPTACLES IN PRIVATE AND OPEN OFFICES, RECEPTION AREAS, CONFERENCE ROOMS, KITCHENETTES, AND COPY ROOMS SHALL HAVE AT LEAST ONE CONTROLLED RECEPTACLE WITH OCCUPANCY SENSOR SHUTOFF WITHIN 6FT OF UNCONTROLLED RECEPTACLES. COPIERS, PRINTERS, DEDICATED IT EQUIPMENT, REFRIGERATORS, AND WATER DISPENSARY DEVICES ARE EXEMPT. CONNECT TO CONTROLLED RECEPTACLE TO PLUG LOAD CONTROLLER/RELAY MODULE AND CEILING OCCUPANCY SENSORS. CONTROLLED AND UNCONTROLLED OUTLETS SHALL BE VISUALLY DIFFERENTIATED FROM ONE ANOTHER.
16. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT SUCH THAT THERE IS AT LEAST ONE CONTROLLED RECEPTACLE WITHIN 6FT OF EACH UNCONTROLLED RECEPTACLE. COORDINATE WITH FURNITURE VENDOR AS REQUIRED.
17. ALL ELECTRICAL DEVICES AND EQUIPMENT ABOVE HARD LID CEILINGS MUST BE ACCESSIBLE FOR MAINTENANCE AND AS REQUIRED BY CODE.
18. PROVIDE WHITE FINISH FOR ALL TENANT SECURITY DEVICES LOCATED IN COMMON CORRIDOR.
19. CONTRACTOR SHALL PROVIDE CLOSE OUT PACKAGE TO LANDLORD WITHIN 30 DAYS OF PROJECT COMPLETION AS DETAILED IN T.I. MANUAL.
20. ELECTRIFIED FURNITURE SYSTEM:
    FOR 2-CIRCUIT HOMERUN, PROVIDE 2#12 HOT, 1#10 NEUTRAL AND 1#12 GROUND IN 1"C;
    FOR 3-CIRCUIT HOMERUN, PROVIDE 3#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C;
    FOR 4-CIRCUIT HOMERUN, PROVIDE 4#12 HOT, 2#10 NEUTRAL AND 2#12 GROUND IN 1"C, IS ASSUMED (4-CIRCUIT 8-WIRE, 3+1 CONFIGURATION).
    CONTRACTOR SHALL COORDINATE EXACT WIRING REQUIREMENTS WITH FURNITURE VENDOR, AND PROVIDE WIRING AS REQUIRED. COORDINATE EXACT WIRING SYSTEM (INTERNAL TELEDATA AND POWER DISTRIBUTION) WITH THE FURNITURE VENDOR. FURNITURE VENDOR SHALL PROVIDE RECEPTACLE LAYOUT IN ELECTRIFIED FURNITURE PARTITIONS SUCH THAT EITHER A) THERE IS A CONTROLLED RECEPTACLE WITHIN 6-FEET OF EVERY NON-CONTROLLED RECEPTACLE; OR B) SPLIT WIRED DUPLEX RECEPTACLES ARE PROVIDED, WITH ONE CONTROLLED OUTLET AND ONE UNCONTROLLED OUTLET, AS REQUIRED BY CALIFORNIA T24 2013 130.5(d). ELECTRIFIED FURNITURE SYSTEM POWER WHIP CONNECTION LOCATIONS SHALL BE COORDINATED BASED UPON ACTUAL FIELD LOCATIONS OF THE MAIN FEEDS. FURNITURE SHALL BE EQUIPPED WITH CODE APPROVED INTERNAL RACEWAYS, WIRING AND OUTLETS FOR PROPER AND EVEN DISTRIBUTION OF POWER/CIRCUIT.

ELECTRICAL SHEET NOTES

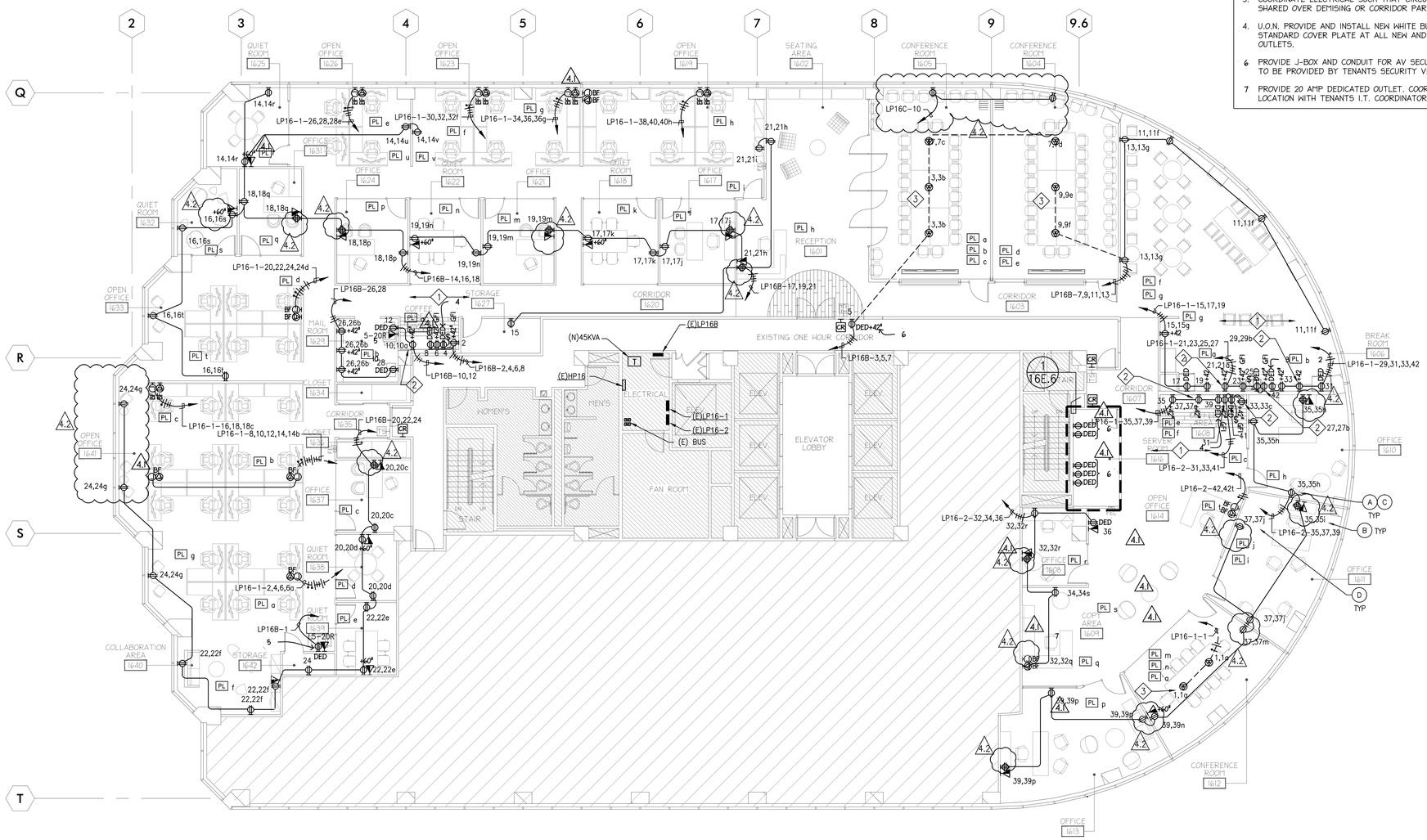
1. PROVIDE GFI RECEPTACLE FOR ALL RECEPTACLES MOUNTED ABOVE COUNTER.
2. FOR COUNTERTOP "SHUTOFF" RECEPTACLES SHOWN ON PLAN, PROVIDE QUADRAPLEX DEVICE; WITH DUPLEX GFCI DEVICE, AND ADJACENT STANDARD DUPLEX DEVICE FED FROM LOAD SIDE OF GFCI OUTLET VIA PLUG-LOAD CONTROLLER.
3. SEE AV DRAWINGS FOR CONDUIT REQUIREMENTS, HOWEVER, IN THE BASE BID AT MINIMUM, PROVIDE 1 1/2"C FROM CENTER OF THE TABLE TO THE WALL MONITOR VIA THE FLOOR BELOW AND UP THE WALL. PROVIDE J-BOXES.

SYMBOL LEGEND

- DUPLEX POWER OUTLET
- FOURPLEX POWER OUTLET
- DED — DEDICATED DUPLEX POWER OUTLET
- GFI — GROUND FAULT INTERCEPTOR DUPLEX POWER OUTLET PROTECTION
- BF — ELECTRIFIED FURNITURE BASE FEED, WALL MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION
- BF — ELECTRIFIED FURNITURE BASE FEED, FLOOR MOUNTED. BASE FEED IS TO SUPPORT OUTLETS AS SHOWN ON PLAN IN BRACKET TO EACH STATION.
- WALL MOUNTED COMBINATION TELEPHONE/DATA OUTLET
- CR — CARD READER (N.I.C.) COORDINATE REQUIREMENTS WITH TENANTS' SECURITY VENDOR

SHEET NOTES

1. REFER TO GENERAL NOTES SHEET A0.6 FOR ADDITIONAL POWER & SIGNAL PLAN NOTES; ALL NOTES APPLY AS IF PRINTED IN FULL HERE.
2. THIS DRAWING IS PROVIDED FOR PLACEMENT OF ELECTRICAL ONLY. FOR POWER REQUIREMENT AND CIRCUITING, SEE ELECTRICAL DRAWINGS.
3. COORDINATE ELECTRICAL SUCH THAT CIRCUITS ARE NOT SHARED OVER DEMISING OR CORRIDOR PARTITIONS.
4. U.O.N. PROVIDE AND INSTALL NEW WHITE BUILDING STANDARD COVER PLATE AT ALL NEW AND EXISTING OUTLETS.
6. PROVIDE J-BOX AND CONDUIT FOR AV SECURITY SYSTEM TO BE PROVIDED BY TENANTS SECURITY VENDOR.
7. PROVIDE 20 AMP DEDICATED OUTLET. COORDINATE LOCATION WITH TENANTS I.T. COORDINATOR.



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LIFE SAFETY, SMOKE CONTROL AND GENERATOR SYSTEM NON-INFRIGEMENT STATEMENT

In my professional judgement, tenant work shown hereon does not infringe upon nor adversely affect the existing building fire/life safety and smoke control system.

Issue/Revision:

No.	Proj. No. Date:	Description
1	31613.00 23JUL15	PERMIT & BID SET
1	31613.00 10AUG15	ADDENDUM 1
4.1	31613.00 015EP15	ISSUE FOR CONSTRUCTION BULLETIN #1
4.2	31613.00 035EP15	BULLETIN #2

Approval Signature:

Co/ Title: Date:

Power and Signal Plan

16th Floor

Scale: 1/8"=1'-0" Issue Date:
Drawn By: LA Reviewed By: PL
Sheet: DF

16E.3

AV ELECTRICAL NOTES (TYPICAL)

1. ALL ELECTRICAL WORK SHOWN ON THE AUDIOVISUAL SYSTEM DRAWINGS SHALL BE BE FOR REFERENCE ONLY. REFER TO THE ELECTRICAL ENGINEERING DRAWINGS FOR EXACT LOCATIONS, CIRCUITING, AND ACTUAL ROUTING OF CONDUIT AND ELECTRICAL POWER.
2. VERIFY SIZES, DIMENSIONS, AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES OCCUR, THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL, LOCAL, AND OTHER APPLICABLE CODES.
4. AUDIOVISUAL EQUIPMENT SHALL BE INSTALLED BY THE A.V.C., AND NOT THE GENERAL CONTRACTOR, EXCEPT WHERE NOTED OTHERWISE. ALL CONSTRUCTION WORK SHALL BE BY THE G.C., EXCEPT WHERE NOTED OTHERWISE.
5. WHERE EXACT DIMENSIONS ARE NOT INDICATED, THE DRAWING MAY BE SCALED TO DETERMINE LOCATIONS OF EQUIPMENT, JUNCTION BOXES, ETC. WHERE EXACT DIMENSIONS ARE NEEDED, THE REFERENCE SURFACE SHALL BE THE FINAL FINISHED SURFACE, INCLUDING ANY ACOUSTICAL TREATMENT.
6. WHERE AC POWER OR AUDIOVISUAL JUNCTION BOXES ARE TO BE PLACED ADJACENTLY, INSTALL BACKBOXES WITH SUFFICIENT SEPARATION FOR COVER PLATES.
7. ALL AUDIOVISUAL SYSTEM AC POWER SHALL BE ON DEDICATED 'AUDIOVISUAL POWER' CIRCUITS PROTECTED BY 20 AMPERE BREAKERS, U.O.N.
8. ALL AUDIOVISUAL SYSTEM AC POWER CIRCUITS SHALL BE KEPT ISOLATED FROM LIGHTING DIMMERS, LARGE MOTORIZED EQUIPMENT [FANS, REFRIGERATORS, etc.] AND OTHER INDUCTIVE ("NOISY") ELECTRICAL LOADS.
9. AUDIOVISUAL SYSTEM WIRING SHALL BE PLENUM-RATED CABLE IN ALL AREAS WITH ACCESSIBLE CEILING AND FLOOR PLENUMS, U.O.N.
10. CONDUIT RUNS SHOWN ON THESE DRAWINGS SHOW ONLY INTERCONNECTION BETWEEN POINTS. THE EXACT PATH OF ALL CONDUIT RUNS SHALL BE COORDINATED IN THE FIELD.
11. THERE SHALL BE A MINIMUM OF ONE (1) PULL BOX FOR EVERY 100 FEET [30.5m] OF RUN, WITH AN EXTRA PULL BOX FOR EVERY 90 DEGREE BEND IN CONDUIT RUN. PULL BOXES WILL NOT BE LOCATED ABOVE GYP. BOARD [INACCESSIBLE] CEILINGS.
12. "BUILDING STANDARD ELECTRICAL SWITCH HEIGHT" SHALL BE DETERMINED BY THE ARCHITECTURAL DRAWINGS.
13. "BUILDING STANDARD BASE ELECTRICAL HEIGHT" SHALL BE DETERMINED BY THE ARCHITECTURAL DRAWINGS.
14. ALL EMPTY CONDUIT SHOWN ON THESE DRAWINGS SHALL BE DEBURRED, CLEANED, CAPPED, TAGGED, AND FURNISHED WITH PULLSTRINGS.
15. ALL AUDIOVISUAL JUNCTION BOXES, AC POWER RECEPTACLES, AND CONDUITS SHALL BE MARKED "FOR AV USE ONLY".
16. AC POWER RECEPTACLES SHOWN ON THESE DRAWINGS ARE DEDICATED FOR USE WITH SPECIFIC AUDIOVISUAL, DATA, AND COMMUNICATIONS EQUIPMENT. ADDITIONAL UTILITY ("CONVENIENCE") AC POWER RECEPTACLES SHALL BE PROVIDED AS INDICATED ON THE ARCHITECTURAL DRAWINGS, OR AS REQUIRED BY CODE.
17. WHERE POSSIBLE, EMPTY CONDUIT RUNS FOR AUDIOVISUAL SYSTEM WIRING SHALL BE KEPT FOUR (4) FEET [1220mm] FROM PARALLEL AC POWER CIRCUITS, AND TWO (2) FEET [610mm] FROM PERPENDICULAR AC POWER CIRCUIT CROSSINGS. EMPTY CONDUITS FOR AUDIOVISUAL SYSTEM WIRING SHALL NOT RUN PARALLEL TO AC POWER CIRCUITS CLOSER THAN FOUR (4) FEET [1220mm] FOR DISTANCES EXCEEDING TWENTY (20) FEET [6.1m].
18. WHERE POSSIBLE, CABLE TRAYS FOR AUDIOVISUAL SYSTEM WIRING SHALL BE KEPT SIX (6) FEET [1830mm] FROM PARALLEL AC POWER CIRCUITS, AND THREE (3) FEET [900mm] FROM PERPENDICULAR AC POWER CIRCUIT CROSSINGS. CABLE TRAYS FOR AUDIOVISUAL SYSTEM WIRING SHALL NOT RUN PARALLEL TO AC POWER CIRCUITS CLOSER THAN FOUR (6) FEET [1830mm] FOR DISTANCES EXCEEDING TWELVE (12) FEET [3.6m].
19. ALL NON-ACCESSIBLE CEILING PLENUM AREAS SHALL HAVE CONTINUOUS CONDUIT.

CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

1999 Harrison St., 16th Floor
San Francisco, CA

AUDIOVISUAL FACILITIES & ELECTRICAL DRAWINGS

AV ELECTRICAL SYMBOLS LEGEND [TYP.]

THE FOLLOWING SPECIAL ELECTRICAL BOXES/DEVICES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE:

#J — MULTI-GANG JUNCTION BOX, 2-1/2" [65mm] DEEP, WITH MULTI-GANG PLASTER RING AND COVER PLATE (FOR AUDIOVISUAL SIGNAL AND CONTROL CIRCUIT WIRING). MOUNT FLUSH w/ FINISHED WALL TREATMENT AT BUILDING STANDARD BASE ELECTRICAL BOX HEIGHT, UNLESS NOTED OTHERWISE. PROVIDE PULLSTRING(S) IN CONDUIT. SUBSCRIPT [#] NEXT TO JUNCTION BOX SYMBOL INDICATES BOX SIZE WIDTH [1=1-GANG, 2=2-GANG, ETC.]. IF ACOUSTICAL CONCERNS ARE NEGLIGIBLE, [ARCHITECT and OWNER SHALL VERIFY] ALL J-BOXES AND ASSOCIATED CONDUIT STUB-UPS SHOWN FROM THESE J-BOXES MAY BE REPLACED WITH "RING-&-STRING" INFRASTRUCTURE – EXCEPT WHERE CONDUITS ARE HOME-RUNNING TO A SPECIFIC J-BOX or DEVICE AT ANOTHER LOCATION ON THE DRAWING.

R/S # J — SINGLE or MULTI-GANG "MUDRING" ["RING-&-STRING" ONLY], SINGLE or MULTI-GANG PLASTER RING AND COVER PLATE (FOR AUDIOVISUAL SIGNAL AND CONTROL CIRCUIT WIRING). MOUNT FLUSH w/ FINISHED WALL TREATMENT AT BUILDING STANDARD BASE ELECTRICAL BOX HEIGHT, UNLESS NOTED OTHERWISE. PROVIDE PULLSTRING(S) UP TO A POINT AT LEAST 6" ABOVE THE FINISHED ACCESSIBLE CEILING, DIRECTLY ABOVE. SUBSCRIPT [#] NEXT TO MUDRING SYMBOL INDICATES GANG SIZE WIDTH [1=1-GANG, 2=2-GANG, ETC.].

CP J — SINGLE-GANG J-BOX, w/ SINGLE-GANG PLASTER RING AND COVER PLATE (FOR AUDIOVISUAL SIGNAL AND CONTROL CIRCUIT WIRING / PUSHBUTTON CONTROL PANEL). MOUNT FLUSH w/ FINISHED WALL TREATMENT AT BUILDING STANDARD ELECTRICAL 'SWITCH' HEIGHT, UNLESS NOTED OTHERWISE. PROVIDE PULLSTRING(S) INSIDE CONDUIT.

FB — LARGE-CAPACITY FLUSH FLOOR FIXTURE, MULTI-SERVICE [MUST INCLUDE AV, VOICE/DATA, and AC POWER]. ARCHITECT SHALL SPECIFY MAKE/MODEL & COLOR/FINISH OF COVER/LID. ALL FLOOR BOX PARTS and FITTINGS – INCLUDING TRIM RINGS, JUNCTION BOXES, CONDUIT NIPPLES and/or TRANSITIONS, and AC POWER RECEPTACLES – SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

CREST # AV — PROPRIETARY IN-WALL MUDRING FOR CRESTRON WALL-MOUNTED iPAD DOCKING STATION. DIMENSIONS: 10.5"H. x 13.6"W. (x .125" DEEP); CUTOUT/OPENING SIZE (FOR DOCKING STATION HARDWARE): [APPROX.] 8.6"H. x 10.5"W. MOUNT AT HEIGHT INDICATED ON 'AV ELECTRICAL PLAN' DRAWING. BACKBOX SHALL BE FURNISHED BY THE AV CONTRACTOR, YET INSTALLED BY THE ELECTRICAL CONTRACTOR. MFR/MODEL: CRESTRON Inc. 'PMK-IDOC-PAD-DSW' [MUDRING].

— AC POWER RECEPTACLE, WALL-MOUNTED, 120 VOLT, QUAD 4-PLEX, MINIMUM AMP RATING AS INDICATED BY SUBSCRIPT [NEXT TO THE DRAWING SYMBOL]. IF POSSIBLE, RECEPTACLE SHALL BE ON A DEDICATED/"CLEAN" 'AUDIOVISUAL POWER' CIRCUIT [SEE 'AV ELECTRICAL NOTE[s]' 7 & 8 / THIS DWG]. MOUNT FLUSH WITH FINISHED WALL TREATMENT AT BUILDING STANDARD BASE ELECTRICAL BOX HEIGHT, UNLESS NOTED OTHERWISE.

— AC POWER RECEPTACLE, WALL-MOUNTED, 120 VOLT, DUPLEX, MINIMUM AMP RATING AS INDICATED BY SUBSCRIPT [NEXT TO THE DRAWING SYMBOL]. RECEPTACLE SHALL BE ON A DEDICATED/"CLEAN" 'AUDIOVISUAL POWER' CIRCUIT [SEE 'AV ELECTRICAL NOTE[s]' 7 & 8 / THIS DWG]. MOUNT FLUSH WITH FINISHED WALL TREATMENT AT BUILDING STANDARD BASE ELECTRICAL BOX HEIGHT, UNLESS NOTED OTHERWISE.

— AC POWER RECEPTACLE, CEILING-MOUNTED, 120V, MINIMUM AMP RATING AS INDICATED BY SUBSCRIPT [NEXT TO THE DRAWING SYMBOL]. IF POSSIBLE, RECEPTACLE SHALL BE ON A DEDICATED/"CLEAN" 'AUDIOVISUAL POWER' CIRCUIT [SEE 'AV ELECTRICAL NOTE[s]' 7 & 8 / THIS DWG]. WHERE ALLOWABLE BY CODE, MOUNT RECEPTACLE ABOVE FINISHED ACCESSIBLE CEILING; WHERE DISALLOWABLE, MOUNT FLUSH WITH FINISHED CEILING AT LOCATION COORDINATED W/ A.V.C.

LVC PS# — PROJECTION SCREEN LOW VOLTAGE CONTROL INTERFACE, BUILT INTO CEILING-RECESSED PROJECTION SCREEN's METAL ENCLOSURE (AT LEFT END OF CASE), WIRED TO THE SCREEN'S MOTOR. ELECTRICAL CONTRACTOR SHALL TERMINATE ALL HIGH-VOLTAGE WIRING TO THIS L.V. INTERFACE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. (ALL LOW VOLTAGE WIRING TO SCREEN AND SCREEN WALL SWITCH SHALL BE BY THE A.V.C.). LVC INTERFACE MODEL: DA-LITE Inc. 40973 [or EQUIVALENT].

LVC MS#/SG# — MOTORIZED WINDOW SHADES / SWITCH GLASS LOW VOLTAGE CONTROL INTERFACE, EITHER INTEGRAL WITH SHADES or A SEPARATE DEVICE WIRED TO THE SHADES MOTOR[s]. ELECTRICAL CONTRACTOR SHALL TERMINATE ALL HIGH-VOLTAGE WIRING TO THIS L.V. INTERFACE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. (ALL LOW VOLTAGE WIRING TO SHADE LVC SHALL BE BY THE A.V.C., IF RELEVANT; ALL WIRING TO THE SHADES WALL SWITHC SHALL BE BY THE E.C.).

— VOICE/DATA RECEPTACLES (FOR FLOOR-WIDE COMPUTER NETWORK & TELEPHONE SYSTEMS), SINGLE-GANG BACKBOX WITH SINGLE-GANG PLASTER RING AND COVER PLATE. MOUNT FLUSH WITH FINISHED WALL TREATMENT, AT BUILDING STANDARD BASE ELECTRICAL BOX HEIGHT, UNLESS NOTED OTHERWISE. SEE IT/DATA SYSTEMS CABLING PLAN FOR ACTUAL QUANTITY and LOCATION INFORMATION (THOSE PLANS TAKE PRECEDENCE OVER THE 'AV' DRAWINGS, WITH REGARD TO THESE WALL PLATES). PROVIDED BY OTHERS.

PS# — LOW-VOLTAGE WALL SWITCH FOR PROJECTION SCREEN RAISE/LOWER CONTROL. SWITCH SHALL BE SUPPLIED WITH THE PROJECTION SCREEN and WIRED AS A LOW-VOLTAGE WALL SWITCH BY THE A.V.C.; IT IS A 'DECORA' INSERT MODULE, SO IT MAY BE GANGED WITH OTHER 'DECORA' DEVICES AT THE SAME LOCATION, AS LONG AS THERE IS A DEDICATED LOW-VOLTAGE COMPARTMENT FOR THIS DEVICE WITHIN THE MULIT-GANG BACKBOX.

S — CEILING-RECESSED 70V SPEAKER (BY A.V.C.); ROUGH OPENING HOLE: IF IN HARD-LID or SPECIAL ACOUSTICAL CEILING TREATMENT (BY THE G.C.); IF IN A STANDARD LAY-IN ACOUSTICAL CEILING TILE (BY A.V.C.).

TV — 1-GANG WALL PLATE FOR SATELLITE HDTV TAP [BY VOICE/DATA SYSTEMS CABLING CONTRACTOR]; SUBSCRIPT [#] NEXT TO DRAWING SYMBOL INDICATES QUANTITY OF CATV/SATV ANTENNA TAP-OFF's REQUIRED (1= [1] TAP-OFF, 2= [2] TAP-OFFS, ETC.). ACTUAL SYSTEM TYPE and DISTRIBUTION METHOD IS TO BE DETERMINED. ALL COAX WIRING FOR CABLE and/or SATELLITE TV SHALL BE REQUESTED BY THE TENANT, COORDINATED WITH BUIDING PROPERTY MANAGER, and MAY BE INSTALLED BY THE CATV/SATV SERVICE PROVIDER and/or THEIR FIELD REPRESENTATIVE ON SITE [T.B.D.]. GENERAL CONTRACTOR MUST PROVIDE [1] 3/4"ø CONDUIT TO ACCESSIBLE CEILING. PROVIDE PLENUM-RATED COAXIAL CABLE TO COAX/TV RISER, WHERE 60' ADDITIONAL CABLE SHALL BE COILED FOR INSTALLATION BY SERVICE PROVIDER.

PB AV #"x#"x#" — AV PULL BOX WITH REMOVABLE SCREW COVER, MOUNTED FLUSH w/ ADJACENT FINISHED WALL SURFACE (OR SEMI-RECESSED WITHIN WALL [DEPENDING ON LOCATION AND AVAILABLE WALL DEPTH]. MINIMUM SIZE: 12"x12"x4" DEEP. BOX MAY BE RE-SIZED BY THE ELECTRICIAN [TO BE LARGER] IN ORDER TO ACCOMMODATE ALL CONDUITS SHOWN ON THE 'AV ELECTRICAL PLAN' DRAWNGS. MOUNT AT APPROXIMATE HEIGHT/LOCATION SHOWN ON DRAWING. SUBSCRIPT [#] DESIGNATES THE ESTIMATED SIZE OF THE BOX.

LTG-LVC — LOW VOLTAGE CONTROL INTERFACE (FOR LIGHTING DIMMER SYSTEM). MOUNT DEVICE ON WALL NEAR AV EQUIPMENT RACK, AND TERMINATE ANY CONDUIT NEARBY (AS SHOWN ON 'AV ELECTRICAL RISER DIAGRAM') DEVICE SHALL BE ENLIGHTED INC. MODEL '[T.B.D.]' (OR EQUIVALENT), FURNISHED BY THE LIGHTING SYSTEMS CONTRACTOR/INSTALLER, INSTALLED BY THE ELECTRICAL CONTRACTOR.

AV ELECTRICAL DRAWING INDEX

AV ABBREVIATIONS

A.F.C.	ABOVE FINISHED CEILING	INC.	INCORPORATED
A.F.F.	ABOVE FINISHED FLOOR	L	LEFT
AMP	AMPERE	L.	LONG (LENGTH)
A/R	AS REQUIRED	LAN	LOCAL AREA NETWORK
ARCH'L	ARCHITECTURAL	LTD.	LIMITED
ARCH'T	ARCHITECT	L.V.	LOW VOLTAGE
A.V.C.	AUDIOVISUAL (SYSTEMS) CONTRACTOR	MAX.	MAXIMUM
AV	AUDIOVISUAL	MIN.	MINIMUM
BLDG.	BUILDING	MTD.	MOUNTED
C.	(EMPTY) CONDUIT	NET	NETWORK
CKT.	CIRCUIT	N.T.S.	NOT TO SCALE
C.L.	CENTERLINE	PWR	POWER
C-VID	COMPOSITE VIDEO	QTY.	QUANTITY
D.G.	DEDICATED GROUND	R&S	RING AND STRING
DIST.	DISTANCE	R	RIGHT (LOCATION)
DN	DOWN	REQ'D	REQUIRED
DP.	DEEP (DEPTH)	RGBHV	RED/GREEN/BLUE/HORIZ/VERT. SYNC
(E)	EXISTING	SPKR	SPEAKER (LOUDSPEAKER)
E.C.	ELECTRICAL CONTRACTOR	STD.	STANDARD
ELECT'L	ELECTRICAL	SVHS	SUPER VHS
ETC.	ET CETERA (AND SO FORTH)	T.B.D.	TO BE DETERMINED
FLR	FLOOR	TEMP.	TEMPORARY
G.C.	GENERAL CONTRACTOR	TYP.	TYPICAL
H.	HIGH	U.O.N.	UNLESS OTHERWISE NOTED
HT.	HEIGHT	V	VOLT (VOLTAGE)
I.G.	ISOLATED GROUND		

AV RECOMMENDATIONS & GUIDELINES

MECHANICAL
- HVAC AND MECHANICAL SYSTEMS SHOULD BE DESIGNED WITH AN NC RATING OF 25-30.

ACOUSTICAL
- MINIMUM 2 WALLS WITH ACOUSTICALLY TREATED WALL PANELING. (1 WALL PER PARALLEL SURFACE).
- 100% ACOUSTICAL CEILING TILES OR ACOUSTICAL CEILING PANELS
- 100% CARPETED FLOORING
- DRAPES FOR GLASS WALLS OR WINDOWS.

LIGHTING
- 4-ZONE
- RECOMMENDED LIGHTING ZONES: FRONT DISPLAY WALL, WALL WASHERS, CENTER FLUORESCENT LIGHTS AND CENTER DOWN LIGHTS.
- LIGHTS NEAR DISPLAY SHOULD BE ON INDEPENDENT ZONE.
- FOR VIDEO CONFERENCE ROOMS: DO NOT MIX FLUORESCENT/INCANDESCENT/HALOGEN LIGHTING. HALOGEN LIGHTS ARE NOT RECOMMENDED FOR THESE TYPES OF ROOMS. INDIRECT FLUORESCENT LIGHTING, AT A 45-DEGREE ANGLE, WILL HELP MINIMIZE SHADOWS ON PARTICIPANTS' FACES.
- THE LIGHTING LEVEL AT THE TABLE SURFACE SHOULD BE 740 LUX OR 69FC.

COLORS AND FINISHES
- FOR VIDEO CONFERENCE ROOMS: REAR WALL SHOULD HAVE NO PATTERNS AND CONSIST OF A LIGHT SOLID COLOR (I.E. LIGHT BLUE, LIGHT GRAY, OR BEIGE). WHITE WALLS SHOULD NOT BE USED.
- TABLE FINISH SHOULD BE A LIGHT WOOD. AVOID WHITE OR DARK WOOD FINISHES.

AV ARCHITECTURAL NOTES

1. VERIFY ALL SIZES, DIMENSIONS, AND LOCATIONS WITH THE ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES OCCUR, THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE.
2. ALL AUDIOVISUAL EQUIPMENT – EXCEPT AV EQUIPMENT FURNISHED BY AUDIOVISUAL CONTRACTOR AND INSTALLED BY THE GENERAL/ELECTRICAL CONTRACTORS – IS FOR REFERENCE ONLY. UNLESS NOTED OTHERWISE, AUDIOVISUAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE A.V.C., NOT THE G.C.; CONFIRM NO JURISDICTIONAL PROBLEMS.
3. ALL CONSTRUCTION WORK SHOWN ON THESE DRAWINGS SHALL BE BY THE GENERAL CONTRACTOR, U.O.N.
4. WHERE EXACT DIMENSIONS ARE NOT INDICATED ON THESE DRAWINGS, THE DRAWING MAY BE SCALED APPROPRIATELY FOR DETERMINING APPROXIMATE LOCATIONS OF EQUIPMENT.

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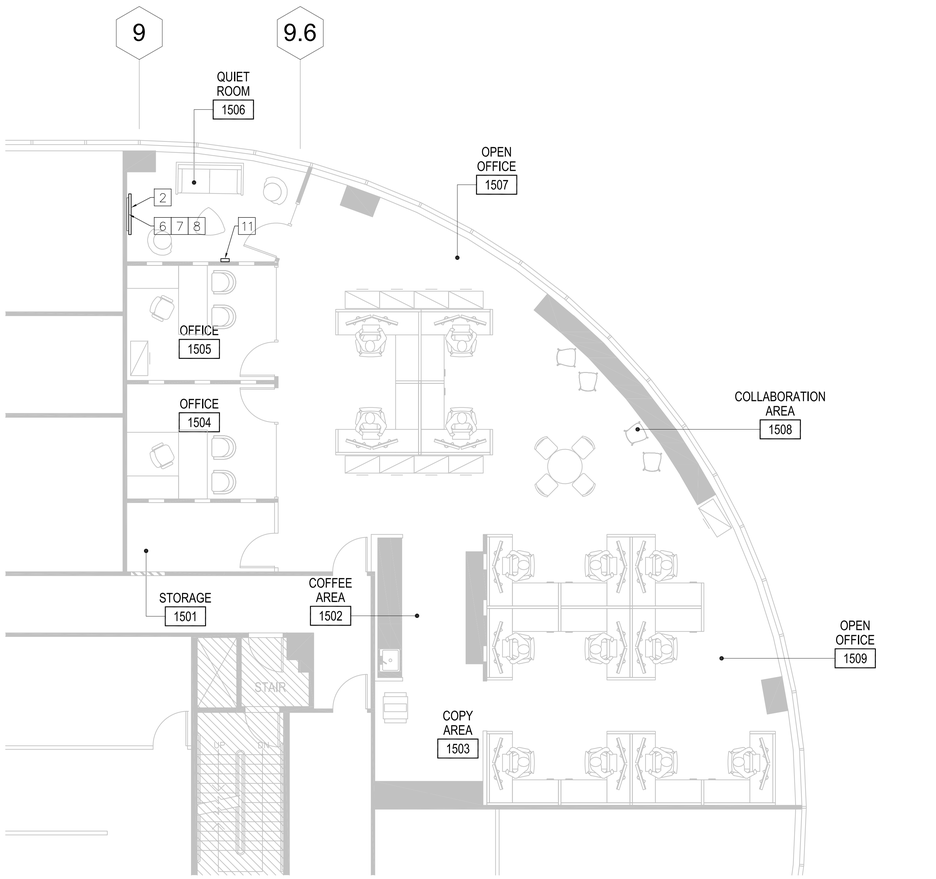
Electrical for Audiovisual
COVER SHEET

SHEET NUMBER:
EAV0.01
SHEET OF SHEETS TOTAL

C:\USERS\IAN STAUB\DOCUMENTS\# PROJECT\#4417 - CIRM\CAD\EAV0.01 COVER SHEET.DWG | IAN STAUB | 8/27/2015 5:54 PM



1 AV FACILITIES [EQUIPMENT] PARTIAL FLOOR PLAN – 15F

SCALE 3/16" = 1'

AV EQUIPMENT LEGEND:

1 WALL-MOUNTED 60" 4K-READY LED DISPLAY ON ARM MOUNT
*MFR./MODEL: SAMSUNG Inc. 'UN60HU640' [DISPLAY] + CHIEF Inc. 'PDRUB' [MOUNT]
– DISPLAY + MOUNTING HARDWARE [BY A.V.C.]

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Electrical for Audiovisual
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SHEET NUMBER:
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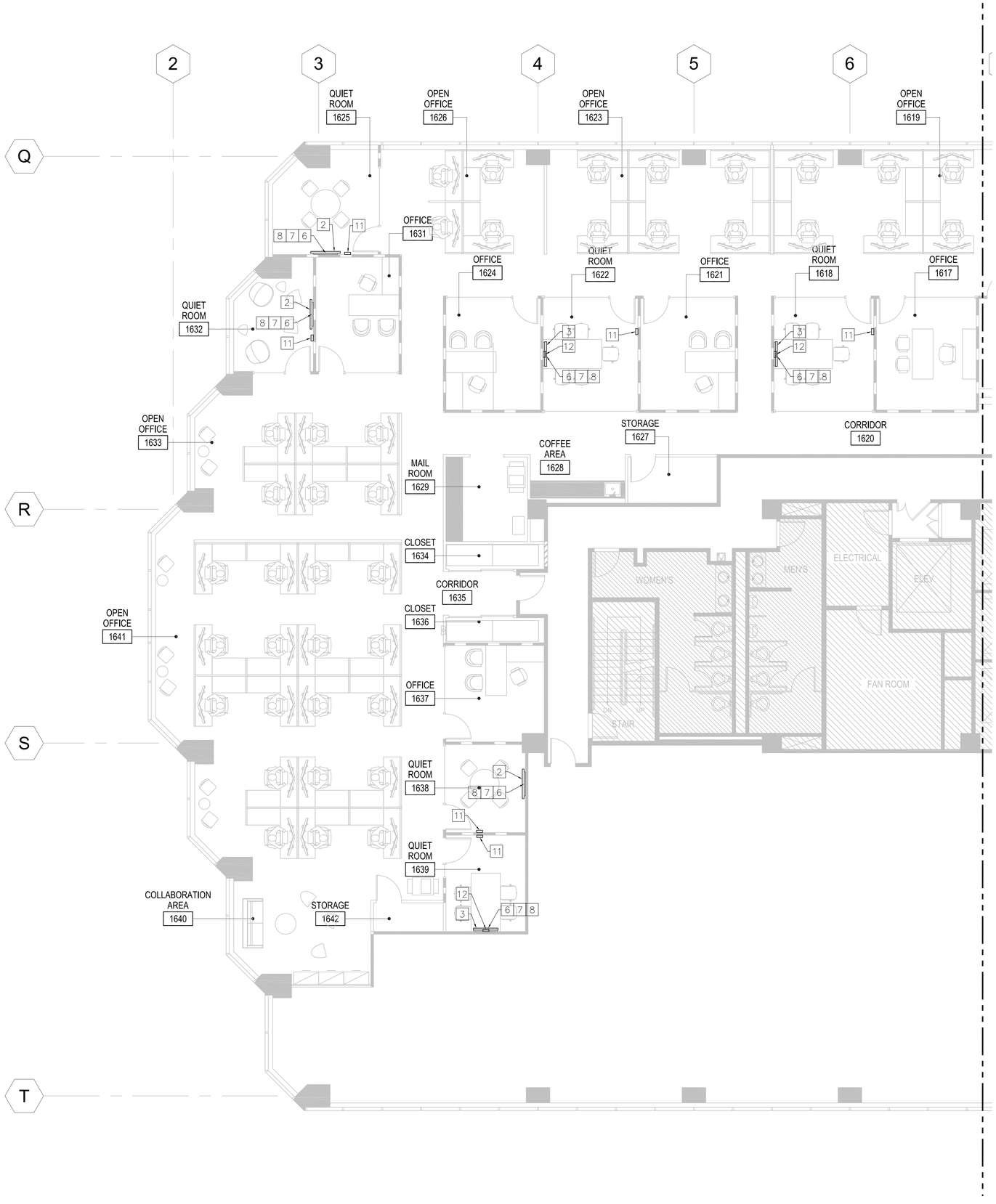

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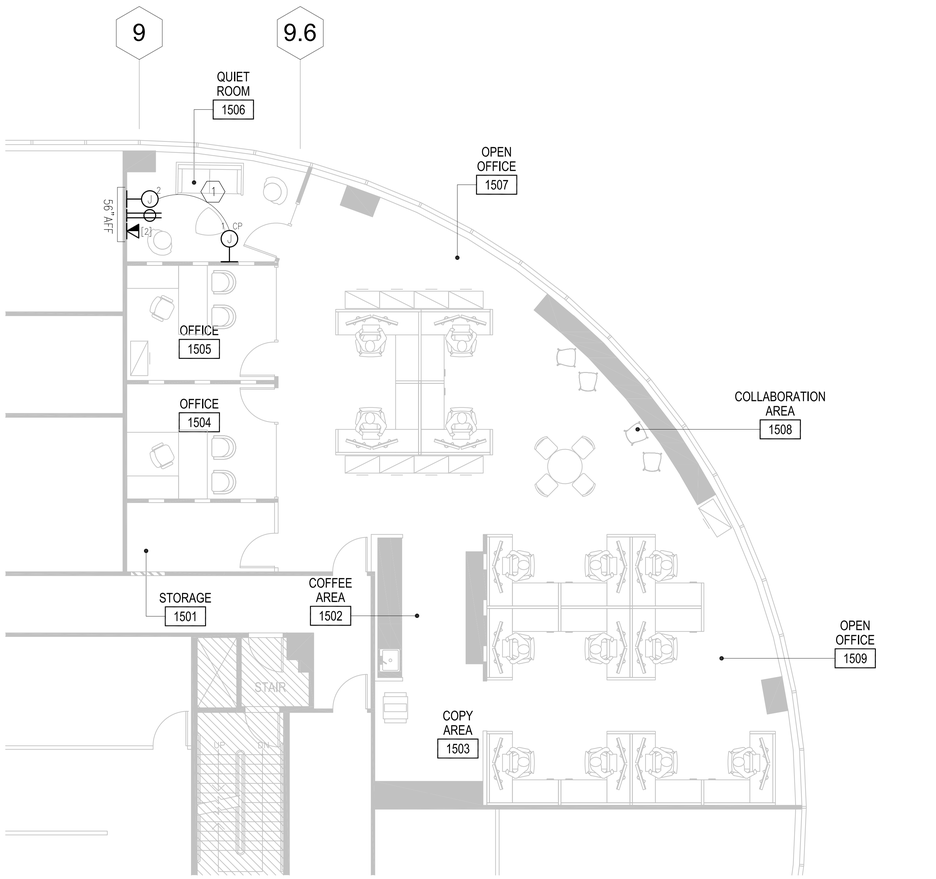

1 AV ELECTRICAL PARTIAL FLOOR PLAN – 15F

SCALE 3/16" = 1'

AV ELECTRICAL SHEET NOTES:

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2. FOR DEFINITION(S) OF ALL AV ELECTRICAL SYMBOLS SHOWN ON THIS DRAWING, REFER TO 'AV ELECTRICAL SYMBOLS LEGEND' / DRAWING 'AV0.01'.
3. EXACT LOCATIONS OF ALL FLOOR BOXES EXPOSED WALL SWITCHES and WALL-MOUNTED INPUT PLATES SHALL BE CONFIRMED BY THE ARCHITECT AND COORDINATED IN FIELD BY THE ELECTRICAL CONTRACTOR.
4. ALL ELECTRICAL INFRASTRUCTURE [POWER, DATA, AV JUNCTION BOXES] ARE MOUNTED AT PROJECT BASE HEIGHT UNLESS OTHERWISE NOTED.
5. ALL CONTROL PANEL & SCREEN SWITCH JUNCTION BOXES [INDICATED W/ 'CP' 'TP' OR 'PS'] ARE MOUNTED AT PROJECT SWITCH HEIGHT UNLESS OTHERWISE NOTED.
6. LUTRON LIGHTING CONTROLLER MUST BE MADE ACCESSIBLE TO AV SYSTEM.
1. PROVIDE (1) 1.25" CONDUIT BETWEEN BUTTON PANEL & DISPLAY.

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Electrical for Audiovisual
ELECTRICAL PLAN - 15F

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- LUTRON LIGHTING CONTROLLER MUST BE MADE ACCESSIBLE TO AV SYSTEM.
- 1 PROVIDE (1) 1.25" CONDUIT BETWEEN BUTTON PANEL & DISPLAY.
- 2 PROVIDE (1) 1.25" CONDUIT BETWEEN WALL INPUT & DISPLAY.
- 3 PROVIDE (1) 1.25" CONDUIT BETWEEN FLOOR INPUT/TABLE BOX & DISPLAY.
- 4 PROVIDE (1) 1.25" CONDUIT STUB TO AV RACK IN SERVER ROOM #1616.
- 5 PROJECTION SCREEN LOCATION: PROVIDE HARDWIRED 120V POWER TO LOW VOLTAGE MOTOR AT LEFT SIDE OF SCREEN CASE, AND 3/4" CONDUIT FROM THIS LOCATION TO AV RACK IN SERVER ROOM #1616.
- 6 PROVIDE (2) 1.25" CONDUIT STUBS TO AV RACK IN SERVER ROOM #1616.
- 7 PROVIDE (1) 1" CONDUIT STUB TO AV RACK IN SERVER ROOM #1616.

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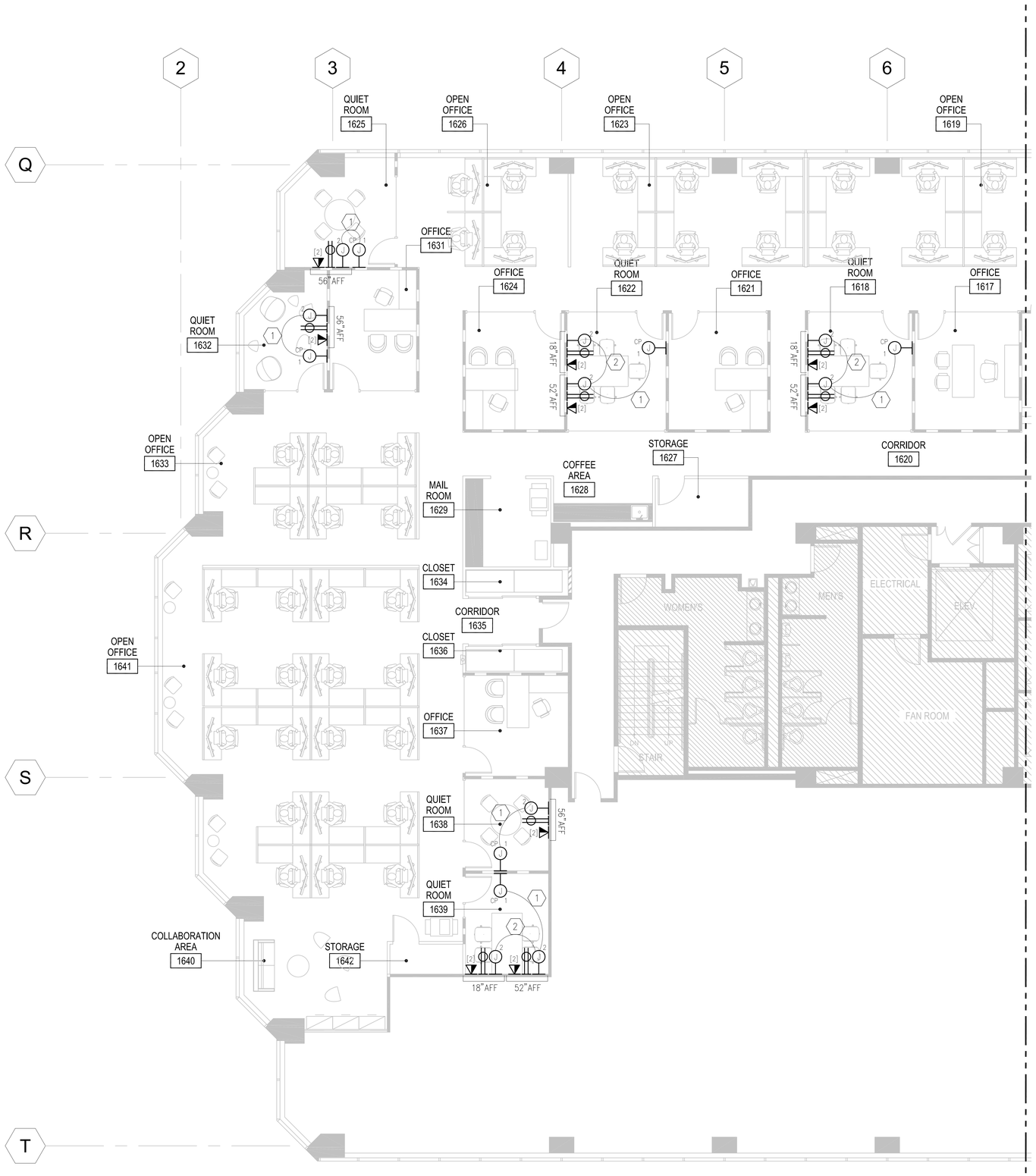

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- ALL ELECTRICAL INFRASTRUCTURE [POWER, DATA, AV JUNCTION BOXES] ARE MOUNTED AT PROJECT BASE HEIGHT UNLESS OTHERWISE NOTED.
- ALL CONTROL PANEL & SCREEN SWITCH JUNCTION BOXES [INDICATED W/ 'CP' 'TP' OR 'PS'] ARE MOUNTED AT PROJECT SWITCH HEIGHT UNLESS OTHERWISE NOTED.
- LUTRON LIGHTING CONTROLLER MUST BE MADE ACCESSIBLE TO AV SYSTEM.
- 1 PROVIDE (1) 1.25" CONDUIT BETWEEN BUTTON PANEL & DISPLAY.
- 2 PROVIDE (1) 1.25" CONDUIT BETWEEN WALL INPUT & DISPLAY.
- 3 PROVIDE (1) 1.25" CONDUIT BETWEEN FLOOR INPUT/TABLE BOX & DISPLAY.
- 4 PROVIDE (1) 1.25" CONDUIT STUB TO AV RACK IN SERVER ROOM #1616.
- 5 PROJECTION SCREEN LOCATION: PROVIDE HARDWIRED 120V POWER TO LOW VOLTAGE MOTOR AT LEFT SIDE OF SCREEN CASE, AND 3/4" CONDUIT FROM THIS LOCATION TO AV RACK IN SERVER ROOM #1616.
- 6 PROVIDE (2) 1.25" CONDUIT STUBS TO AV RACK IN SERVER ROOM #1616.
- 7 PROVIDE (1) 1" CONDUIT STUB TO AV RACK IN SERVER ROOM #1616.

PROJECT:

CIRM
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

Audiovisual Systems & Infrastructure

1999 Harrison St., 16th Floor

San Francisco, CA

AUDIOVISUAL SYSTEMS ENGINEERED BY:

AUDIO VISUAL DESIGN GROUP
2143 E. FRANCISCO BLVD.
SAN RAFAEL, CA 94901
[415] 455-9913 MAIN
[415] 532-2533 FAX
WWW.AVDG.COM

ARCHITECT:

Brereton Architects

GENERAL CONTRACTOR:

AUDIOVISUAL CONSULTANT:

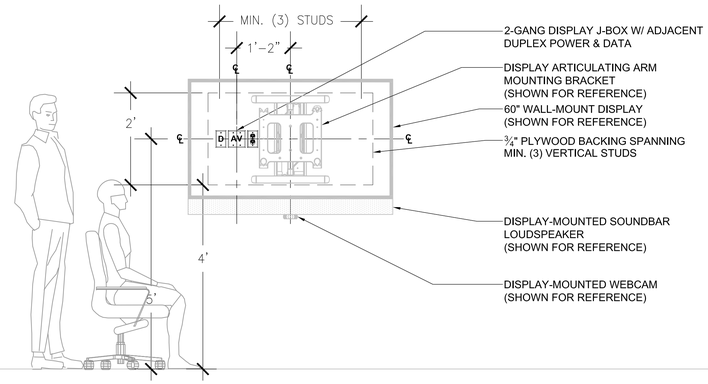
NO.	DATE:	DESCRIPTION:
1	8/28/15	EAV - FOR REVIEW

DRAWING DATE: 8/28/15
DRAWN BY: IMS
CHECKED BY: AM
FILENAME:
DRAWING SCALE: AS NOTED
PLOTSCALE:
AVDG PROJECT NO.: 3918

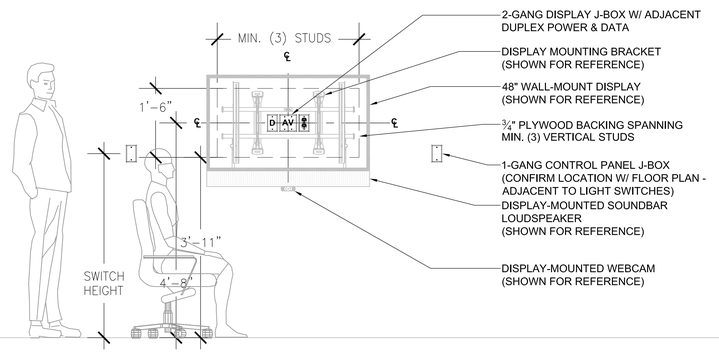
DRAWING TITLE:
Electrical for Audiovisual
ELECTRICAL PLAN - 16F - WEST

SHEET NUMBER:
EAV4.16B

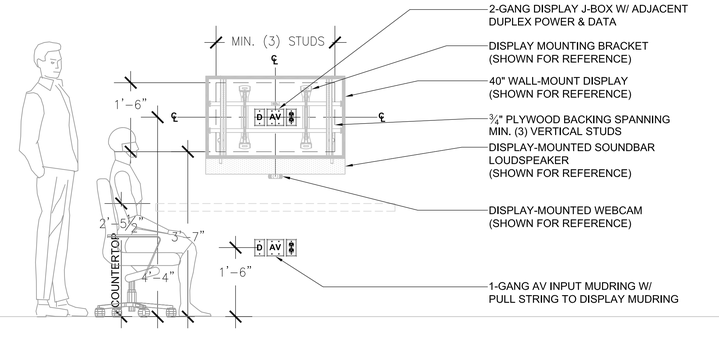
SHEET OF SHEETS TOTAL



3 EXEC. CONF. #1612 – 60" DISPLAY ELEVATION
SCALE 3/4" = 1'



2 QUIET ROOM# 1506, 1625, 1632, 1638 – TYP. 48" DISPLAY ELEVATION
SCALE 3/4" = 1'



1 QUIET ROOM# 1618, 1622, 1639 – TYP. 40" DISPLAY ELEVATION
SCALE 3/4" = 1'

C:\USERS\IAN STAUB\DOCUMENTS\# PROJECT\#4417 - CIRM\CAD\EAV6.00 ELEVATIONS.DWG | IAN STAUB | 8/27/2015 5:45 PM

PROJECT:

CIRM
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

Audiovisual Systems & Infrastructure

1999 Harrison St., 16th Floor

San Francisco, CA

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GENERAL CONTRACTOR:

AUDIOVISUAL CONSULTANT:

NO.	DATE:	DESCRIPTION:
1	8/28/15	EAV - FOR REVIEW

DRAWING DATE: 8/28/15
DRAWN BY: IMS
CHECKED BY: AM
FILENAME:
DRAWING SCALE: AS NOTED
PLOTSCALE:
AVDG PROJECT NO.: 3918

DRAWING TITLE:

Electrical for Audiovisual
TYPICAL DISPLAY ELEVATIONS

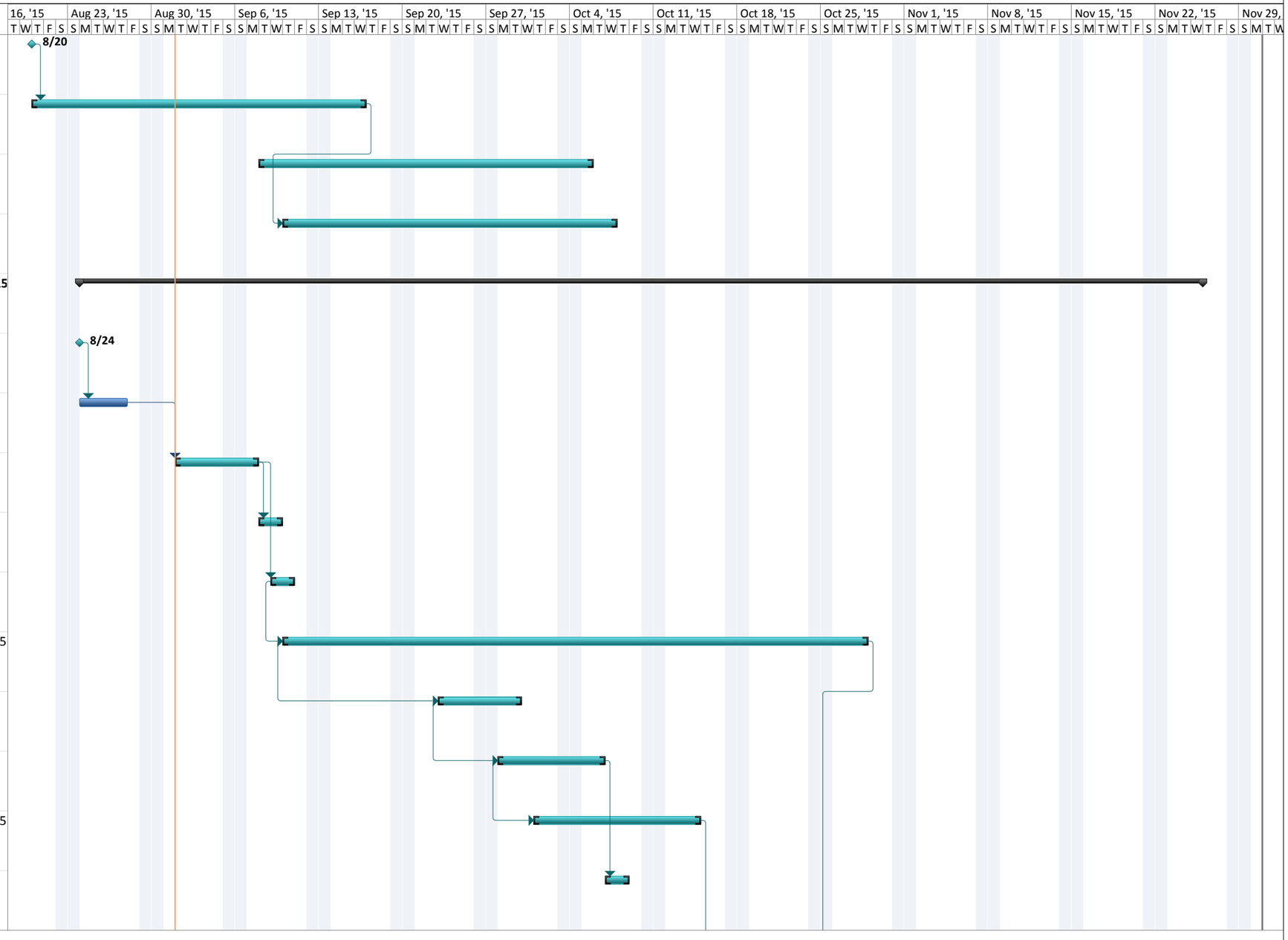
SHEET NUMBER:

EAV6.00

SHEET OF SHEETS TOTAL

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
1		Project Awarded	0 days	Thu 8/20/15	Thu 8/20/15
2		Submitals	20 days	Thu 8/20/15	Wed 9/16/15
3		Submit Sprinkler Drawings for Permit	20 days	Tue 9/8/15	Mon 10/5/15
4		Submit L/S Drawings for Permit	20 days	Thu 9/10/15	Wed 10/7/15
5		**Phase 1 16th Floor**	**68 days**	**Mon 8/24/15**	**Wed 11/25/15**
6		Mobilize to Site	0 days	Mon 8/24/15	Mon 8/24/15
7		Safe off of MEPS	4 days	Mon 8/24/15	Thu 8/27/15
8		Demolition	5 days	Tue 9/1/15	Mon 9/7/15
9		Wall Layout/ Approval	2 days	Tue 9/8/15	Wed 9/9/15
10		MEPS Layout	2 days	Wed 9/9/15	Thu 9/10/15
11		MEP Rough above ceiling	35 days	Thu 9/10/15	Wed 10/28/15
12		Install New Ceiling Grid	5 days	Wed 9/23/15	Tue 9/29/15
13		Frame Ceiling High Walls	7 days	Mon 9/28/15	Tue 10/6/15
14		Rough Electrical Walls	10 days	Thu 10/1/15	Wed 10/14/15
15		Furniture/ Core Layout	2 days	Wed 10/7/15	Thu 10/8/15

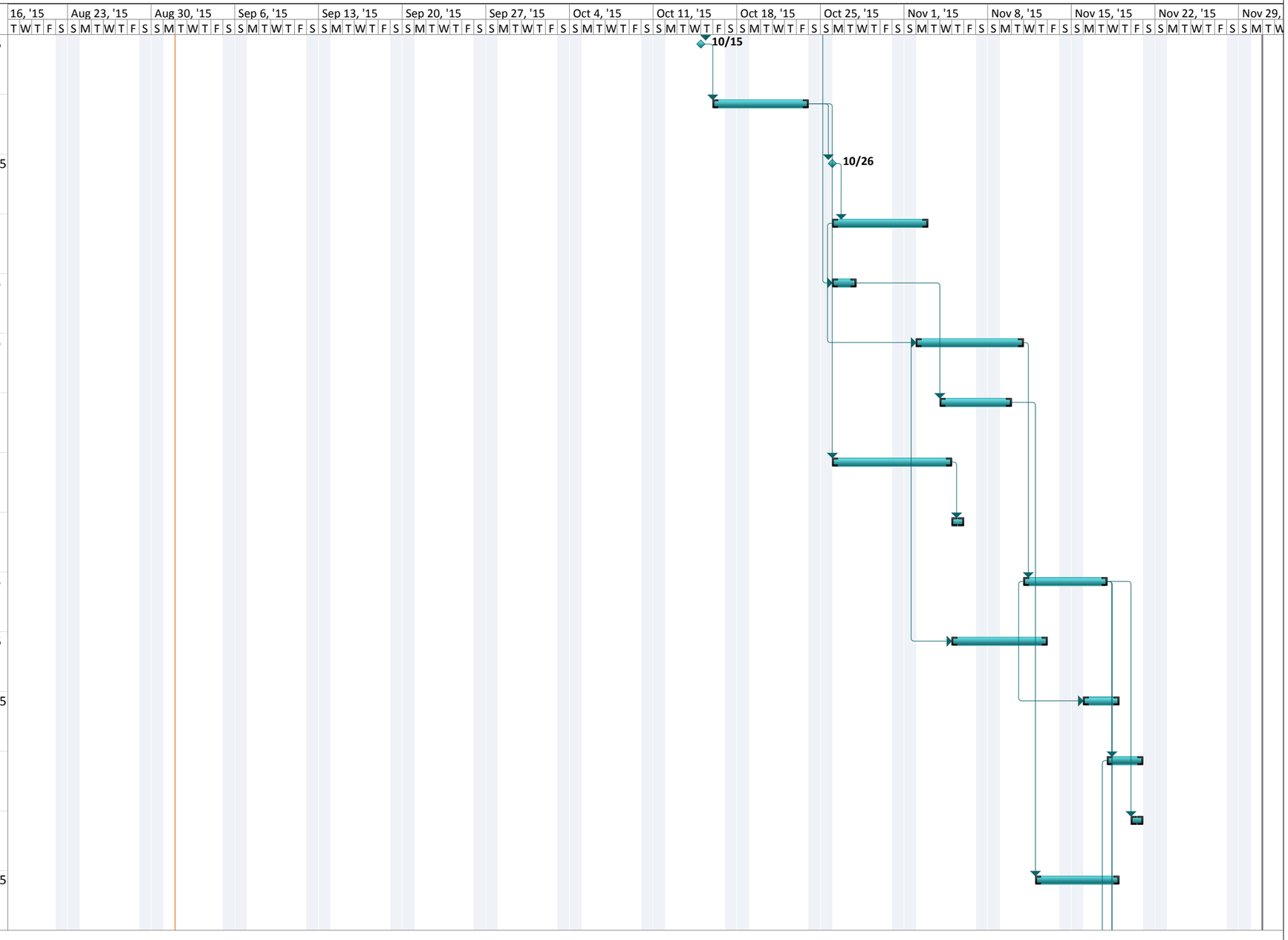


Project: CIRM Schedule REV 1 9.1
Date: Tue 9/1/15

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
16		City Inspection	0 days	Thu 10/15/15	Thu 10/15/15
17		Hang Drywall	6 days	Fri 10/16/15	Fri 10/23/15
18		Screw Inspection	0 days	Mon 10/26/15	Mon 10/26/15
19		Finish Drywall	6 days	Mon 10/26/15	Mon 11/2/15
20		City above ceiling inspection	2 days	Mon 10/26/15	Tue 10/27/15
21		Prime and Paint	7 days	Mon 11/2/15	Tue 11/10/15
22		Ceiling Tile	4 days	Wed 11/4/15	Mon 11/9/15
23		Door Frames	8 days	Mon 10/26/15	Wed 11/4/15
24		Measure Sidelights	1 day	Thu 11/5/15	Thu 11/5/15
25		Installing Flooring	5 days	Wed 11/11/15	Tue 11/17/15
26		Millwork	6 days	Thu 11/5/15	Thu 11/12/15
27		Baseboard	3 days	Mon 11/16/15	Wed 11/18/15
28		Doors and Hardware	3 days	Wed 11/18/15	Fri 11/20/15
29		Install Sidelights	1 day	Fri 11/20/15	Fri 11/20/15
30		Trim out MEPS	5 days	Thu 11/12/15	Wed 11/18/15



Project: CIRM Schedule REV 1 9.1
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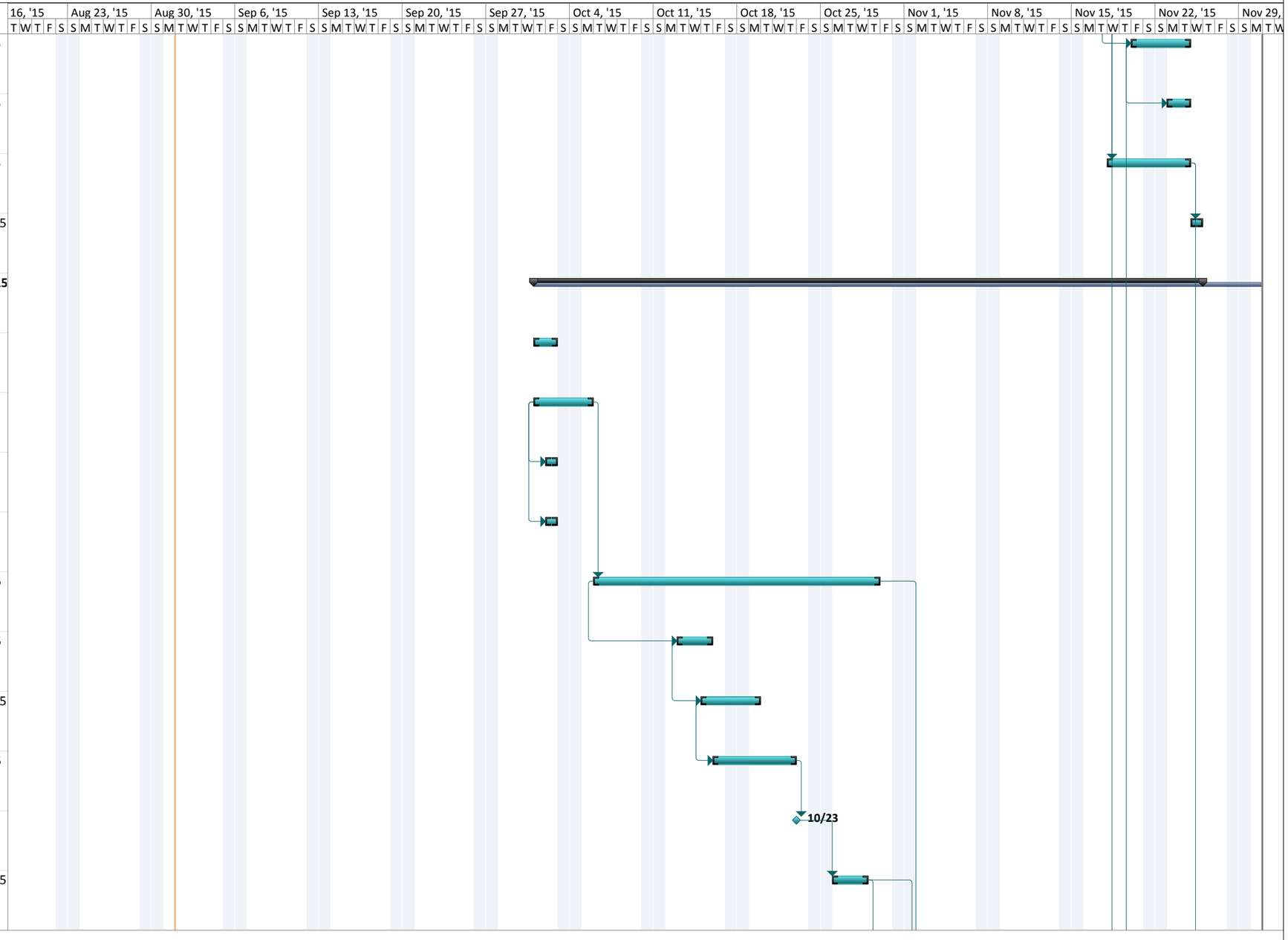
Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
31		Clean Space	3 days	Fri 11/20/15	Tue 11/24/15
32		Punch out	2 days	Mon 11/23/15	Tue 11/24/15
33		Furniture Delivery / Build	5 days	Wed 11/18/15	Tue 11/24/15
34		Final Inspections	1 day	Wed 11/25/15	Wed 11/25/15
35		**Phase 2 16th Floor**	**40 days**	**Thu 10/1/15**	**Wed 11/25/15**
36		Safe off of MEPS	2 days	Thu 10/1/15	Fri 10/2/15
37		Demolition	3 days	Thu 10/1/15	Mon 10/5/15
38		Wall Layout	1 day	Fri 10/2/15	Fri 10/2/15
39		MEPS Layout	1 day	Fri 10/2/15	Fri 10/2/15
40		Rough Mechanical Electrical & Sprinklers above Ceiling	18 days	Tue 10/6/15	Thu 10/29/15
41		Install New Ceiling Grid	3 days	Tue 10/13/15	Thu 10/15/15
42		Frame Walls	3 days	Thu 10/15/15	Mon 10/19/15
43		Rough Electrical Walls	5 days	Fri 10/16/15	Thu 10/22/15
44		City Inspection	0 days	Fri 10/23/15	Fri 10/23/15
45		Drywall	3 days	Mon 10/26/15	Wed 10/28/15

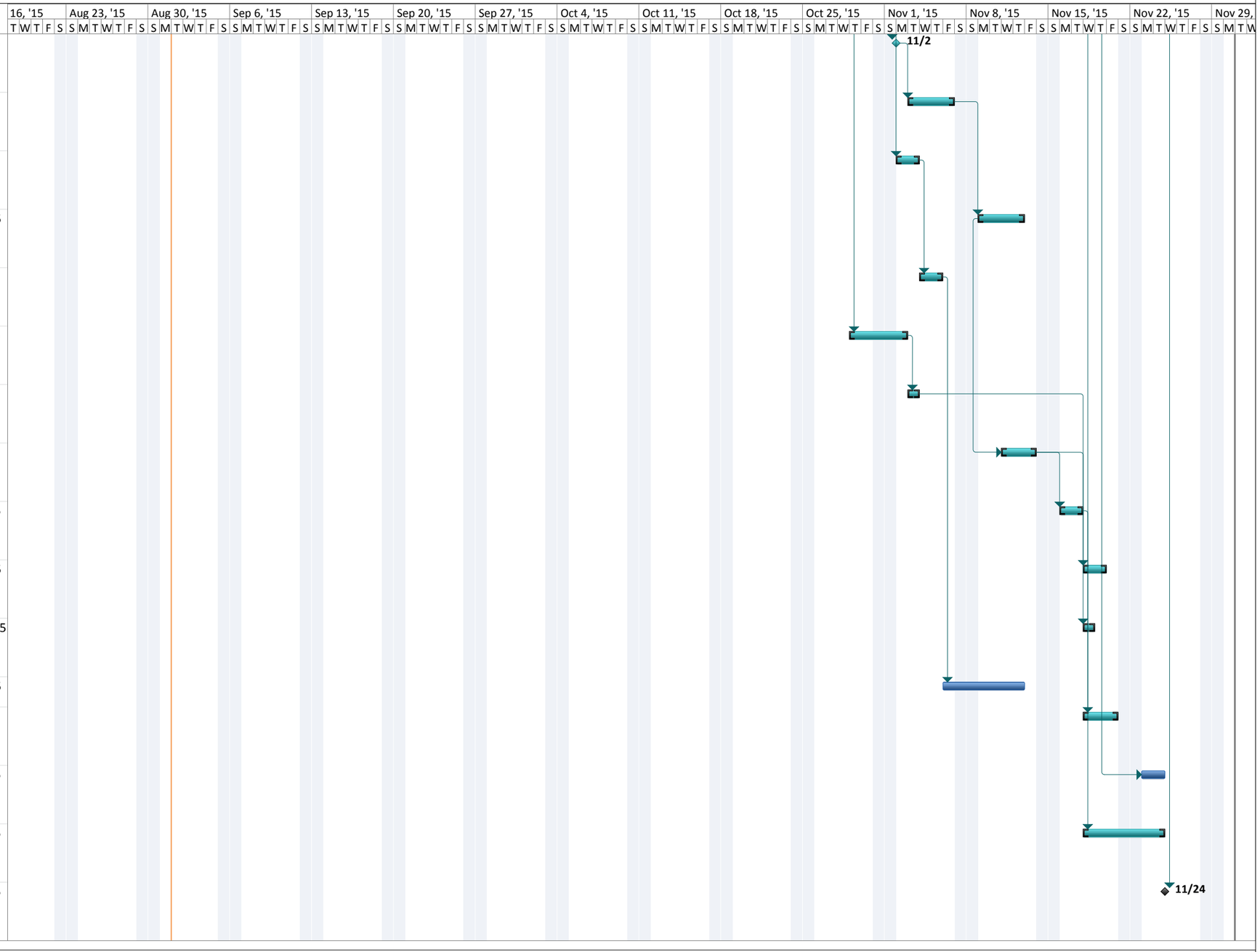


Project: CIRM Schedule REV 1 9.1
Date: Tue 9/1/15

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
46		Screw Inspection	0 days	Mon 11/2/15	Mon 11/2/15
47		Finish Drywall	4 days	Tue 11/3/15	Fri 11/6/15
48		City above ceiling inspection	2 days	Mon 11/2/15	Tue 11/3/15
49		Prime and Paint	4 days	Mon 11/9/15	Thu 11/12/15
50		Ceiling Tile	2 days	Wed 11/4/15	Thu 11/5/15
51		Door Frames	3 days	Thu 10/29/15	Mon 11/2/15
52		Measure Sidelights	1 day	Tue 11/3/15	Tue 11/3/15
53		Installing Flooring	3 days	Wed 11/11/15	Fri 11/13/15
54		Baseboard	2 days	Mon 11/16/15	Tue 11/17/15
55		Doors and Hardware	2 days	Wed 11/18/15	Thu 11/19/15
56		Install Sidelights	1 day	Wed 11/18/15	Wed 11/18/15
57		Trim out MEPS	5 days	Fri 11/6/15	Thu 11/12/15
58		Clean Space	3 days	Wed 11/18/15	Fri 11/20/15
59		Punch out	2 days	Mon 11/23/15	Tue 11/24/15
60		Furniture Delivery / Build	5 days	Wed 11/18/15	Tue 11/24/15
61		Final Inspections	0 days	Tue 11/24/15	Tue 11/24/15

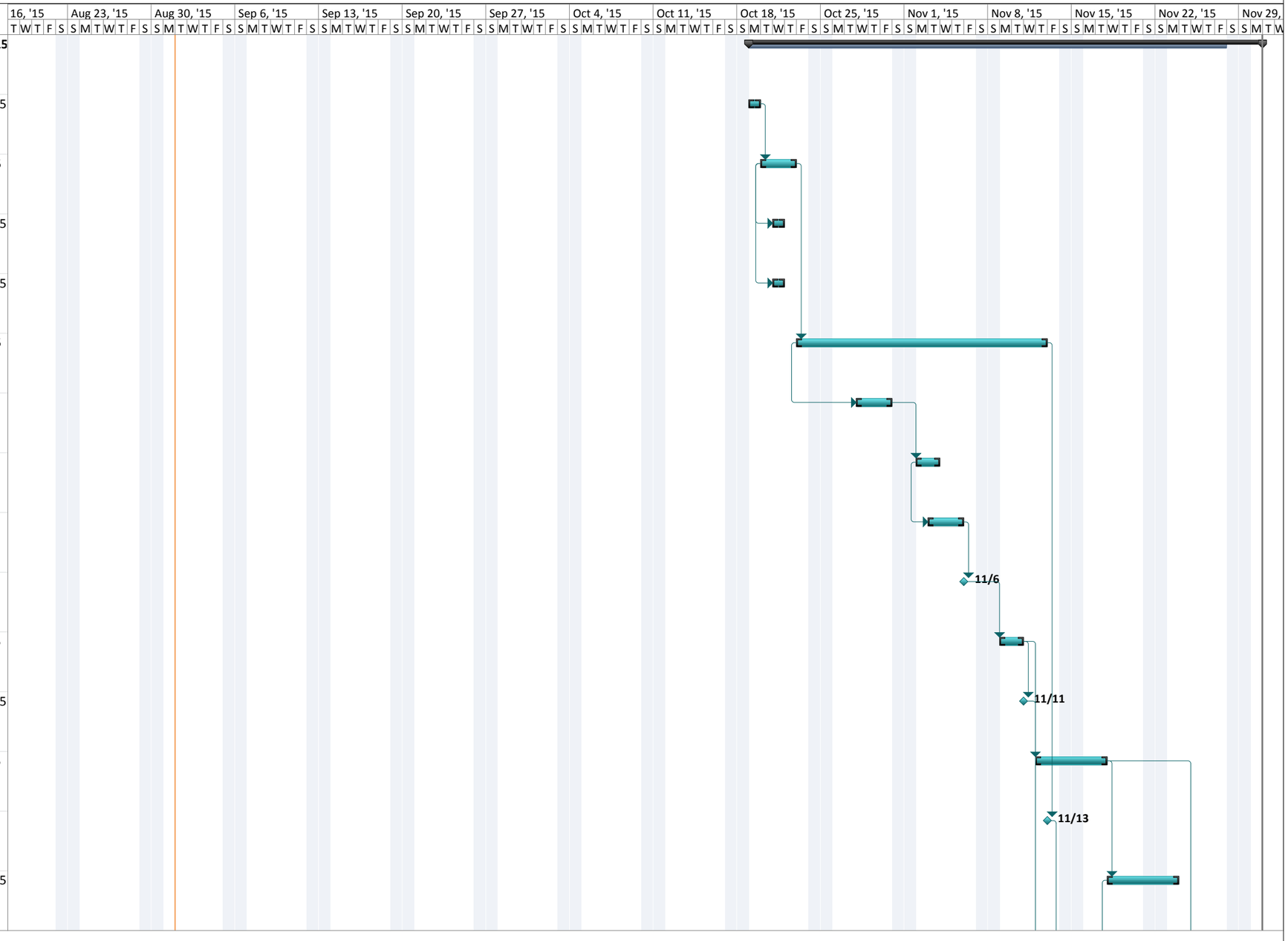


Project: CIRM Schedule REV 1 9.1
Date: Tue 9/1/15

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only		
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline		
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress		

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
62		**Phase 3 15th Floor**	**31 days**	**Mon 10/19/15**	**Mon 11/30/15**
63		Safe off of MEPS	1 day	Mon 10/19/15	Mon 10/19/15
64		Demolition	3 days	Tue 10/20/15	Thu 10/22/15
65		Wall Layout	1 day	Wed 10/21/15	Wed 10/21/15
66		MEPS Layout	1 day	Wed 10/21/15	Wed 10/21/15
67		Mechanical, Lights and Sprinkler rough in above ceiling	15 days	Fri 10/23/15	Thu 11/12/15
68		Install New Ceiling Grid	3 days	Wed 10/28/15	Fri 10/30/15
69		Frame Walls	2 days	Mon 11/2/15	Tue 11/3/15
70		Rough Electrical Walls	3 days	Tue 11/3/15	Thu 11/5/15
71		City Inspection	0 days	Fri 11/6/15	Fri 11/6/15
72		Drywall	2 days	Mon 11/9/15	Tue 11/10/15
73		Screw Inspection	0 days	Wed 11/11/15	Wed 11/11/15
74		Finish Drywall	4 days	Thu 11/12/15	Tue 11/17/15
75		City above ceiling inspection	0 days	Fri 11/13/15	Fri 11/13/15
76		Prime and Paint	4 days	Wed 11/18/15	Mon 11/23/15

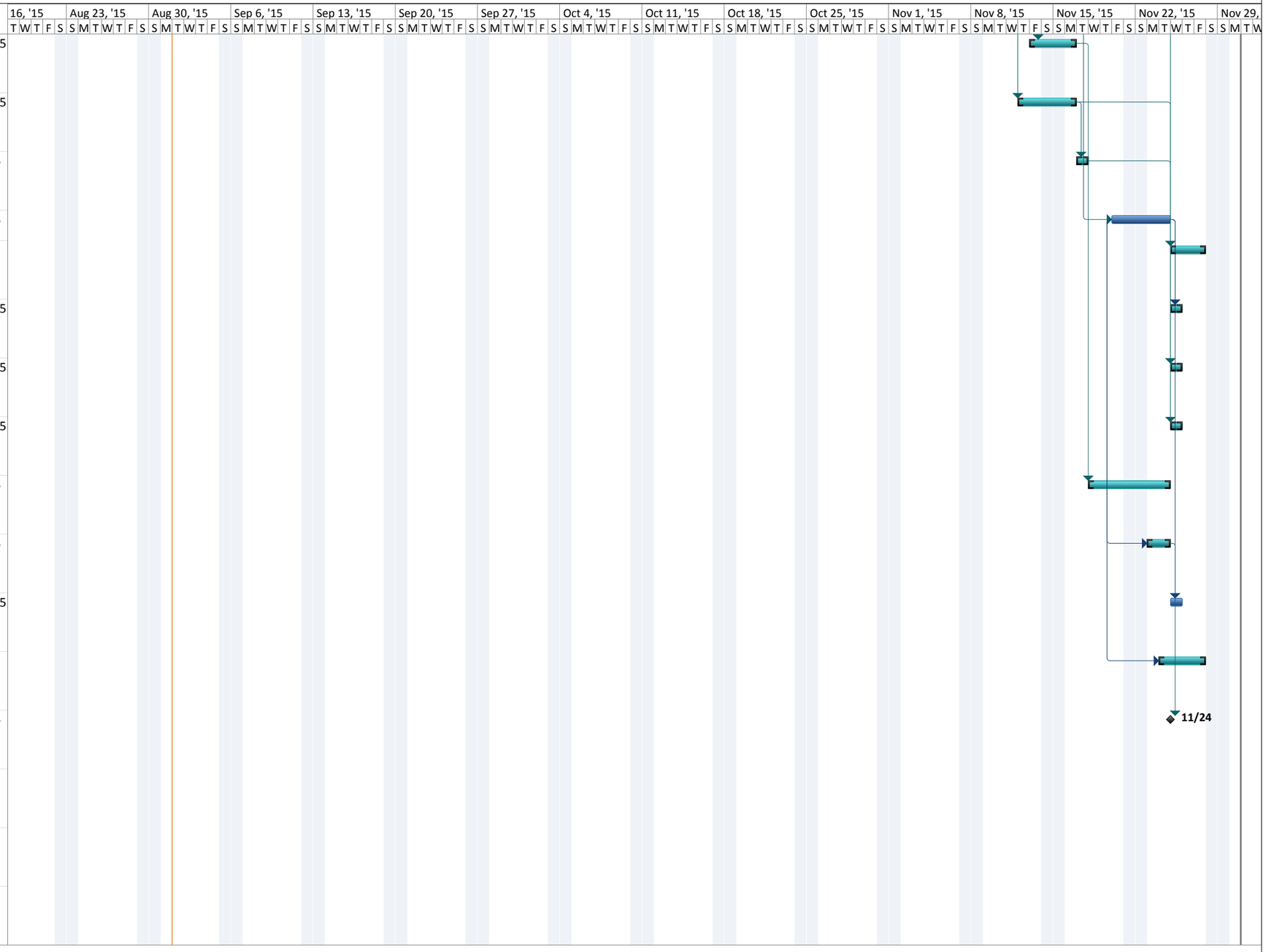


Project: CIRM Schedule REV 1 9.1
Date: Tue 9/1/15

Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Progress

Preliminary Schedule
CIRM 1999 Harrison Floors 15 & 16
September 1, 2015

ID	Task Mode	Task Name	Duration	Start	Finish
77		Ceiling Tile	2 days	Fri 11/13/15	Mon 11/16/15
78		Door Frames	3 days	Thu 11/12/15	Mon 11/16/15
79		Measure Sidelights	1 day	Tue 11/17/15	Tue 11/17/15
80		Installing Flooring	3 days	Fri 11/20/15	Tue 11/24/15
81		Millwork	3 days	Wed 11/25/15	Fri 11/27/15
82		Baseboard	1 day	Wed 11/25/15	Wed 11/25/15
83		Doors and Hardware	1 day	Wed 11/25/15	Wed 11/25/15
84		Install Sidelights	1 day	Wed 11/25/15	Wed 11/25/15
85		Trim out MEPS	5 days	Wed 11/18/15	Tue 11/24/15
86		Clean Space	2 days	Mon 11/23/15	Tue 11/24/15
87		Punch out	1 day	Wed 11/25/15	Wed 11/25/15
88		Furniture Delivery / Build	4 days	Tue 11/24/15	Fri 11/27/15
89		TCO Inspections	0 days	Tue 11/24/15	Tue 11/24/15
90					
91					
92					



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