



Review Comments #2

Project: Brighton Recovery Campus-Building C
Project No: 20160686

From: Jason Worthen
Date: April 12, 2017

DISCIPLINES

Mechanical Engineering
Electrical Engineering
Technology Design
Acoustical Engineering
Lighting Design
Theatre Design
Fire Protection Engineering
Building Commissioning

CENTERS OF

ENGINEERING EXCELLENCE

Healthcare
Higher Education
K-12 Education
Government
Houses of Worship
Special Projects

SALT LAKE CITY

324 S. State Street
Suite 400
Salt Lake City, UT 84111
phone: 801-328-5151
fax: 801-328-5155

PHOENIX

1501 W. Fountainhead Parkway
Suite 340
Tempe, AZ 85282
phone: 480-621-3444
fax: 480-621-3445

www.spectrum-engineers.com
800-678-7077

BUILDING C RESPONSES

E5. Sheet EP601: Please address the following:

C. Per NEC 250.32 a separate grounding electrode is required to be provided for each of the buildings supplied by the feeders from building A. Please clarify how this grounding electrode is to be provided. Where no grounding electrode is available please provide grounding electrode per NEC 250.50.

I. Please specify the size of the grounding electrode conductor to be provided to the grounding electrode per NEC 250.32(E) and NEC 250.66.

Response: Updated one-line diagram to show grounding electrodes and grounding electrode conductors for each building.

BUILDING C DRAWINGS

EP601 (see attached sheet)

1. Changed one-line diagram to show the grounding electrode conductors for Building A as new.
2. Added grounding electrodes and grounding electrode conductors for the panels in buildings B, C, D, E and F.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN.
	ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN.
	ROOM IDENTIFIER WITH ROOM NAME AND NUMBER.
	KEYNOTE INDICATOR.
	REVISION INDICATOR.
	EQUIPMENT INDICATOR.
	BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING.
	BREAK, ROUND.
WIRING METHODS	
	WIRING.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN THE ELECTRICAL SPECIFICATIONS.
	WIRING AND/OR RACEWAY: THIN LINE. WHERE "X" = : CATV = CABLE TELEVISION NC = NURSE CALL CCTV = CLOSED CIRCUIT P = POWER TELEVISION RC = RIGID CONDUIT FA = FIRE ALARM S = SOUND FO = FIBER OPTICS T = TELEPHONE I = INTERCOM TV = TELEVISION OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED.
	CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK.
	CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM.
	JUNCTION BOX.
	CABLE TRAY ABOVE ACCESSIBLE CEILING.
	LADDER RACK.
WIRING DEVICES	
	RECEPTACLE, SINGLE: NEMA 5-20R.
	RECEPTACLE, DUPLEX: NEMA 5-20R.
	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
	RECEPTACLE, DUPLEX, DEDICATED CIRCUIT: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, DRINKING FOUNTAIN: CONCEAL WATER COOLER RECEPTACLE BEHIND WATER COOLER. SEE MECHANICAL/PLUMBING SHOP DRAWINGS FOR INSTALLATION REQUIREMENTS.
	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
	RECEPTACLE, DUPLEX, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, DUPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
	RECEPTACLE, QLADRAPLEX: NEMA 5-20R.
	RECEPTACLE, QLADRAPLEX ON EMERGENCY POWER: NEMA 5-20R.
	RECEPTACLE, QLADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
	RECEPTACLE, DRYER: NEMA 14-30R.
	RECEPTACLE, RANGE: NEMA 10-50R.
	MULTI-OUTLET ASSEMBLY: NEMA 5-20R.
	SWITCH, DIMMER.
	SWITCH, SINGLE POLE ("X" INDICATES FIXTURES CONTROLLED).
	SWITCH, THREE-WAY ("X" INDICATES FIXTURES CONTROLLED).
	POWER POLE. REFER TO KEYED NOTE AND WIRING DEVICES SPECIFICATIONS FOR CONFIGURATION AND DEVICES.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
ELECTRICAL POWER AND DISTRIBUTION	
	CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM).
	TRANSFORMER (ONE-LINE DIAGRAM).
	PANELBOARD (ONE-LINE DIAGRAM).
	PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).
	TRANSITION CABINET (ONE-LINE DIAGRAM).
	CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM).
	SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM).
	METER.
	DISCONNECT SWITCH, FUSED.
	DISCONNECT SWITCH, UNFUSED.
	STARTER, COMBINATION WITH DISCONNECT SWITCH.
	STARTER OR MOTOR CONTROLLER.
	PANELBOARD CABINET, FLUSH MOUNTED.
	PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION.
	PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION.
	DISTRIBUTION PANEL OR SWITCHBOARD.
	LIGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.
	TRANSFORMER: NUMBER INDICATES KVA.
	MECHANICAL EQUIPMENT CONNECTION.
LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS)	
	FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED.
	EGRESS DIRECTION ARROW.
	NIGHT LIGHT, DO NOT SWITCH.
LIGHTING CONTROL	
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, OMNI-DIRECTIONAL, CEILING.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, WALL.
	OCCUPANCY SENSOR, DUAL TECHNOLOGY, DIRECTIONAL.
	VACANCY SENSOR, DUAL TECHNOLOGY.
STRUCTURED CABLING	
	TELEPHONE, WALL MOUNTED ("X" INDICATES QUANTITY OF CABLES).
	TELEPHONE, WALL MOUNTED: PAY PHONE.
	TELEPHONE, WALL MOUNTED: WALL PHONE.
	TWO-WAY EMERGENCY COMMUNICATION DEVICE PER IBC, WALL MOUNTED IN RECESSED BOX.
	OUTLET, DATA COMMUNICATION ("X" INDICATES QUANTITY OF CABLES).
	OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION.
	TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED.
	LAN RACK, FLOOR STANDING.
	DATA CABLE, CATEGORY 5 (ONE-LINE DIAGRAM).
	VOICE CABLE, CATEGORY 3 (ONE-LINE DIAGRAM).
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP), REQUIRES (2) DATA DROPS PER DEVICE.
	DATA CONNECTION: WIRELESS ACCESS POINT (WAP), REQUIRES (2) DATA DROPS PER DEVICE.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
FIRE ALARM	
	FIRE SYSTEM ANNUNCIATOR.
	FIRE ALARM CONTROL PANEL, SEMI-RECESSED.
	FIRE ALARM NOTIFICATION POWER SUPPLY.
	CONTROL MODULE.
	MONITOR MODULE.
	FIRE ALARM MANUAL PULL STATION.
	MAGNETIC DOOR HOLDER.
	DETECTOR, SMOKE.
	DETECTOR, SMOKE, RESIDENTIAL, CONNECTED TO FIRE ALARM INITIATING LOOP, EMITS LOW-FREQUENCY ALARM.
	DETECTOR, SMOKE, DUCT WITH HOUSING AND SAMPLING TUBE.
	DETECTOR, HEAT.
	STROBE.
	ALARM, HORN/SPEAKER, WEATHERPROOF.
	ALARM, HORN/STROBE, ONE ASSEMBLY.
	DETECTOR, FLOW SWITCH: FLOW SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	DETECTOR, TAMPER SWITCH WITH VALVE: TAMPER SWITCHES SHALL BE PROVIDED AND INSTALLED WITH FIRE SPRINKLER SYSTEM AND SHALL BE CONNECTED TO LOCATIONS SHOWN ON THE FIRE SPRINKLER SHOP DRAWINGS.
	SMOKE DAMPER.
	FIRE AND SMOKE DAMPER.
	DETECTOR, CARBON MONOXIDE.
TECHNOLOGY SYSTEMS	
	SPEAKER, CEILING MOUNTED.
	EQUIPMENT CABINET.
	MEDIA CONNECTION PLATE.
	AUDIO/VISUAL OUTLET.
	TRANSIENT VOLTAGE SURGE SUPPRESSER, AC LINE CONDITIONER.
NURSE CALL	
	JUNCTION BOX.
	CORRIDOR LIGHT.
	BATHROOM PULL CORD STATION.
	DUTY STATION.
	EMERGENCY ASSISTANCE CALL STATION.
	EMERGENCY ASSISTANCE CODE BLUE CALL STATION.
	PATIENT STATION.
	STAFF STATION.
	TOUCH SCREEN NURSE CALL MASTER STATION.
	ZONE LIGHT CONTROLLER.
	NURSE CALL AREA CONTROL UNIT & POWER SUPPLIES.
CCTV	
	CCTV CABLE, POWER.
	CCTV CABLE, VIDEO SIGNAL.
	CCTV HEADEND EQUIPMENT.
	CCTV MONITOR.
	CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE.
	CCTV CAMERA WITH PAN, TILT AND ZOOM.
	PANNING CAMERA TRANSVERSE ANGLE.

SYMBOL LEGEND	
SYMBOL	DESCRIPTION
SECURITY	
	SECURITY CABLE. SEE EQUIPMENT SCHEDULE FOR CABLE TYPE.
	ACCESS CONTROL HEADEND EQUIPMENT.
	SECURITY CONTROL PANEL.
	INTRUSION DETECTION HEADEND EQUIPMENT.
	CARD ACCESS DOOR TYPE #1 OR AS NOTED. SEE SCHEDULE.
	CARD READER.
TV DISTRIBUTION	
	TV DISTRIBUTION CABLE, INDIVIDUAL DROPS.
	TV DISTRIBUTION CABLE, TRUNK.
	COMBINER.
	DIRECTIONAL COUPLER.
	DISTRIBUTION AMPLIFIER (ONE-LINE DIAGRAM).
	SPLITTER (ONE-LINE DIAGRAM).
	TV OUTLET.
	SATELLITE ANTENNA.
	TV ANTENNA (ONE-LINE DIAGRAM).
	TERMINATOR, 75 OHM (TV DISTRIBUTION).
DEFINITIONS	
NOTE: ALL DEFINITIONS MAY NOT BE USED.	
INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.	
DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.	
APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.	
FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."	
INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."	
PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."	
INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.	
TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC...	

GENERAL ELECTRICAL NOTES

- CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
- OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
 - THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
 - THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING, DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
 - THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ARCHITECT.
- SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH TAB.
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- ALL WORK SHALL BE DONE ACCORDINGS TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFG. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE A.H.J.

ELECTRICAL SHEET INDEX

SHEET NO	SHEET TITLE
EE001	SYMBOL SCHEDULE, SHEET INDEX
ES101	ELECTRICAL SITE PLAN
EP11C	POWER PLAN - BUILDING 'C'
EP401	TYPICAL POWER PLANS
EP501	DETAILS
EP502	DETAILS
EP503	DETAILS
EP601	ONE LINE DIAGRAM
EP602	PANEL SCHEDULES
EP603	PANEL SCHEDULES
EL11C	LIGHTING PLAN - BUILDING 'C'
EL601	LIGHTING FIXTURE SCHEDULE
EY11C	AUXILIARY PLAN - BUILDING 'C'
EY601	AUXILIARY RISER DIAGRAMS
EY602	AUXILIARY RISER DIAGRAMS
EY603	AUXILIARY RISER DIAGRAMS
FA11C	FIRE ALARM PLAN - BUILDING 'C'
FA601	FIRE ALARM RISER DIAGRAM

BUILDING 'C' 4905 South 900 East PARCEL #22081850080000

Donald L. Welch
Architect
7583 Sandy Land Lane
Midvale, Utah 84047
801.348.6381
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS, CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:

PETER E. JOHANSEN
STATE OF UTAH

project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date
January 04, 2017

revisions
PERMIT SET-December 28, 2016
ADDENDUM #1-January 04, 2017
ADDENDUM #2-January 06, 2017
ADDENDUM #3-January 11, 2017
ADDENDUM #4-January 17, 2017
ADDENDUM #5-January 19, 2017
ADDENDUM #7-March 31, 2017

data
project no:
drawn by:
checked by:

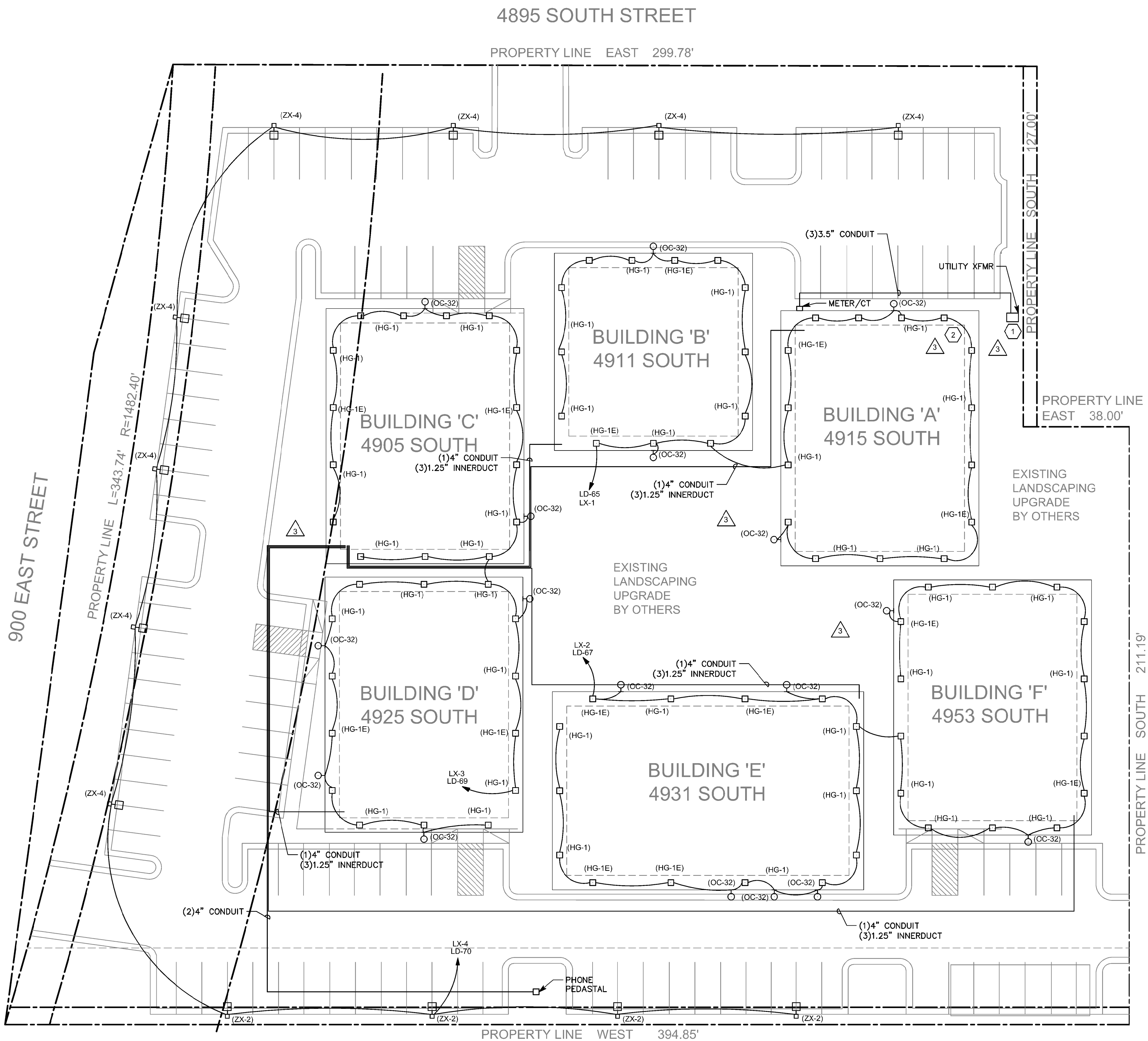
title
SYMBOL
SCHEDULE,
SHEET INDEX
sheet

EE001

File Name: P:\2016\20160686\Drawings\3Sheet\Building C\86ES101.dwg Last Plotted: 2017/03/31 @ 12:48 PM By: jrw

1 ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"



GENERAL SHEET NOTES

SHEET KEYNOTES

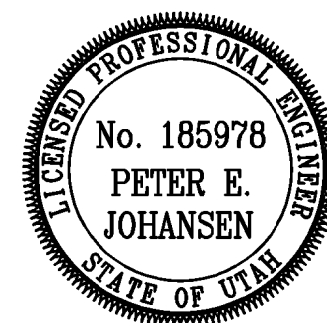
1. EXISTING ROCKY MOUNTAIN TRANSFORMER. COORDINATE WITH ROCKY MOUNTAIN POWER TO DETERMINE IF THE EXISTING TRANSFORMER NEEDS TO BE REPLACED.
2. THE EXISTING ELECTRICAL ROOM IS LOCATED IN NORTHEAST CORNER OF BUILDING A. ALL OF THE ELECTRICAL EQUIPMENT IN THIS ROOM IS TO BE DEMOLISHED, INCLUDING THE ELECTRICAL PANEL AND METER CENTER. REMOVE ALL ASSOCIATED WIRING BACK TO THE UTILITY TRANSFORMER.

Donald L. Welch
Architect
7533 Sandy Lane
Midvale, Utah 84047
801.548-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN, INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS, THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT.

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS, CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET--December 28, 2016
- ADDENDUM #1--January 04, 2017
- ADDENDUM #2--January 06, 2017
- ADDENDUM #3--January 11, 2017
- ADDENDUM #4--January 17, 2017
- ADDENDUM #5--January 19, 2017
- ADDENDUM #7--March 31, 2017

data

project no:

drawn by:

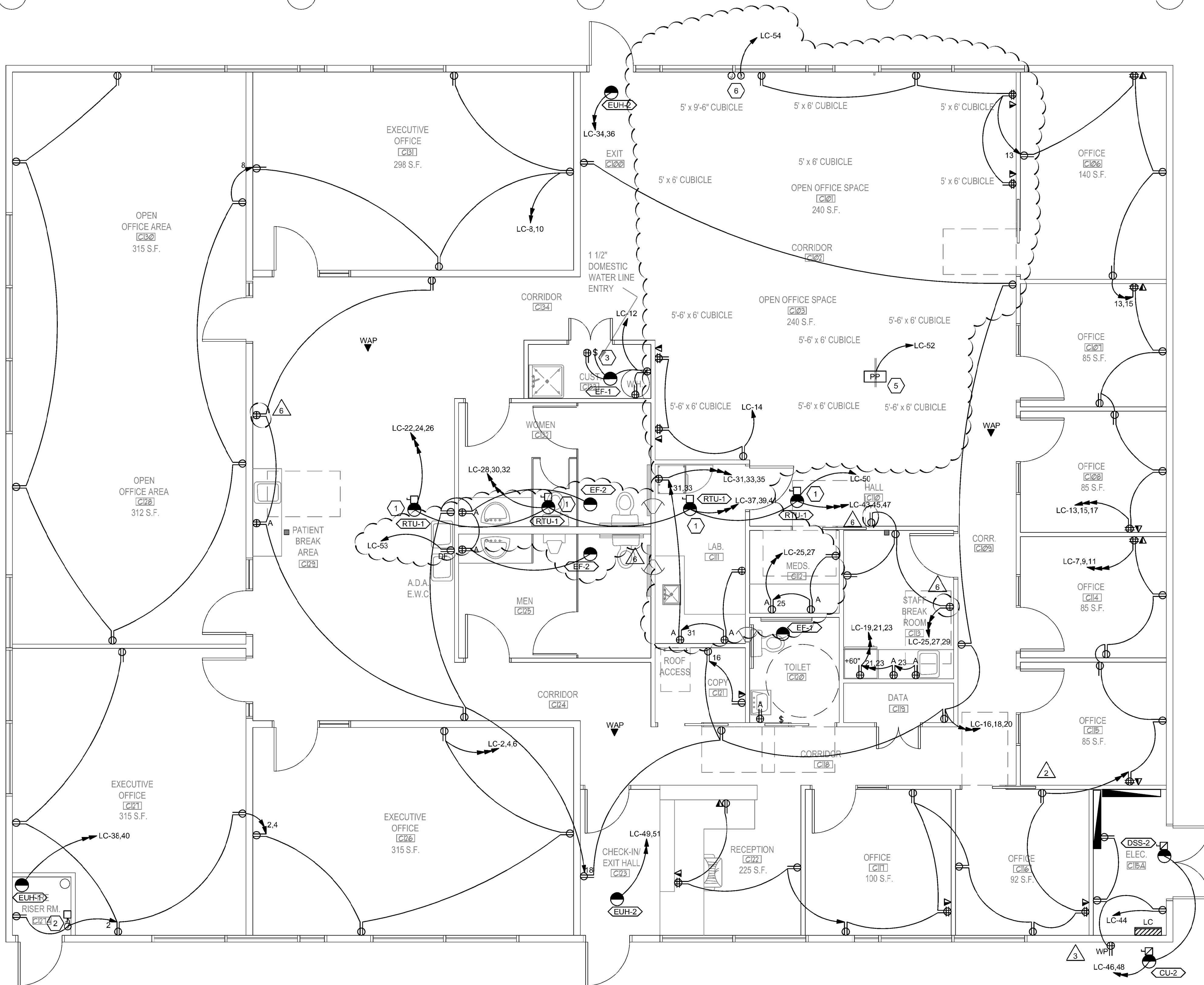
checked by:

title

ELECTRICAL SITE
PLAN

sheet

ES101



GENERAL SHEET NOTES

1.

SHEET KEYNOTES

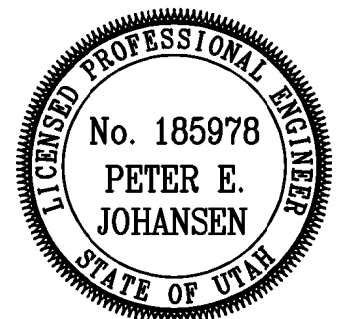
1. RTU LOCATED ON ROOF. PROVIDE 208/3 DEDICATED CIRCUIT FOR EACH RTU AND A 120/1 CIRCUIT FOR ALL CONVENIENCE OUTLETS INTEGRAL WITH RTU.
2. PROVIDE DEDICATED 120V CIRCUIT AND A 30/3P DISCONNECT FOR FIRE ENTRY FLOW SWITCH AND AIR COMPRESSOR.
3. PROVIDE A 20A/1P SWITCH TO CONTROL CUSTODIAN EXHAUST FAN.
4. PROVIDE SYSTEMS FURNITURE POWER CONNECTION WHIP WITH INDICATED NUMBER OF CIRCUITS AND FURNITURE DATA CONNECTION WHIP WITH NUMBER OF DATA DROPS SHOWN ON THE PLANS. DATA INSTALLER WILL MAKE ALL DATA CABLING TERMINATIONS IN SYSTEMS FURNITURE. PROVIDE TWO 1.5" CONDUITS FOR DATA CABLING.
5. PROVIDE POWER POLE TO SYSTEMS FURNITURE WITH TWO RACEWAYS. ONE FOR POWER AND ONE FOR DATA. PROVIDE THE INDICATED CIRCUITS AND NUMBER OF DATA DROPS. DATA INSTALLER WILL MAKE ALL DATA CABLING TERMINATIONS IN SYSTEMS FURNITURE.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.548-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS, CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET-December 28, 2016

ADDENDUM #1-January 04, 2017
ADDENDUM #2-January 06, 2017

ADDENDUM #3-January 11, 2017

ADDENDUM #4-January 17, 2017

ADDENDUM #5-January 19, 2017

ADDENDUM #7-March 31, 2017

data

project no

drawn by:

checked b

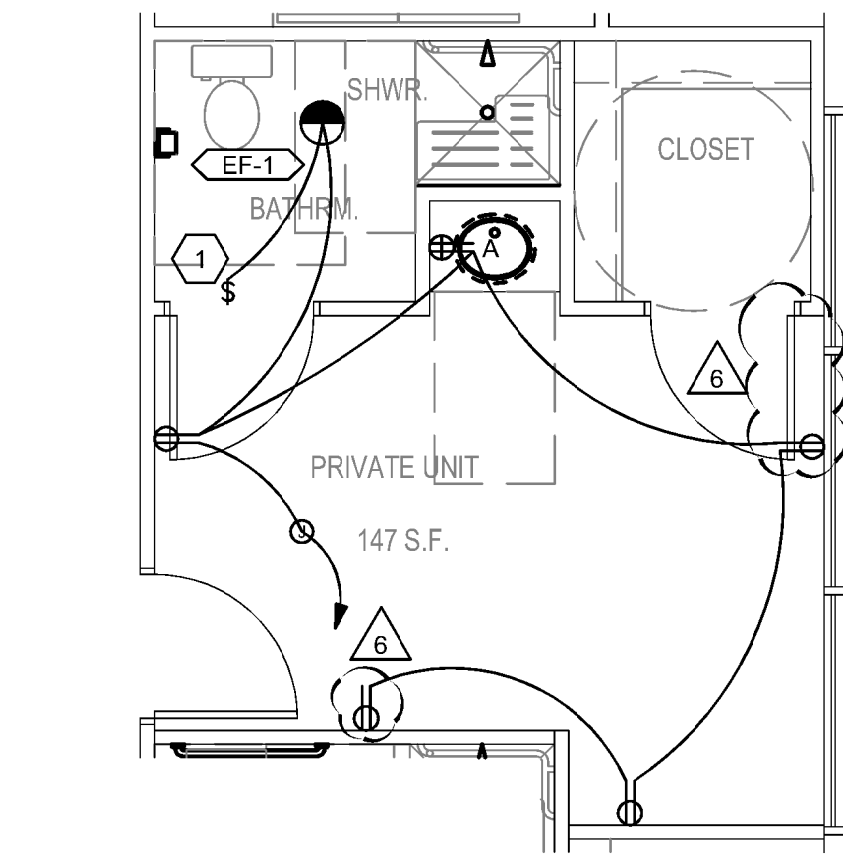
title
POWER PLAN - BUILDING 'C'

sheet

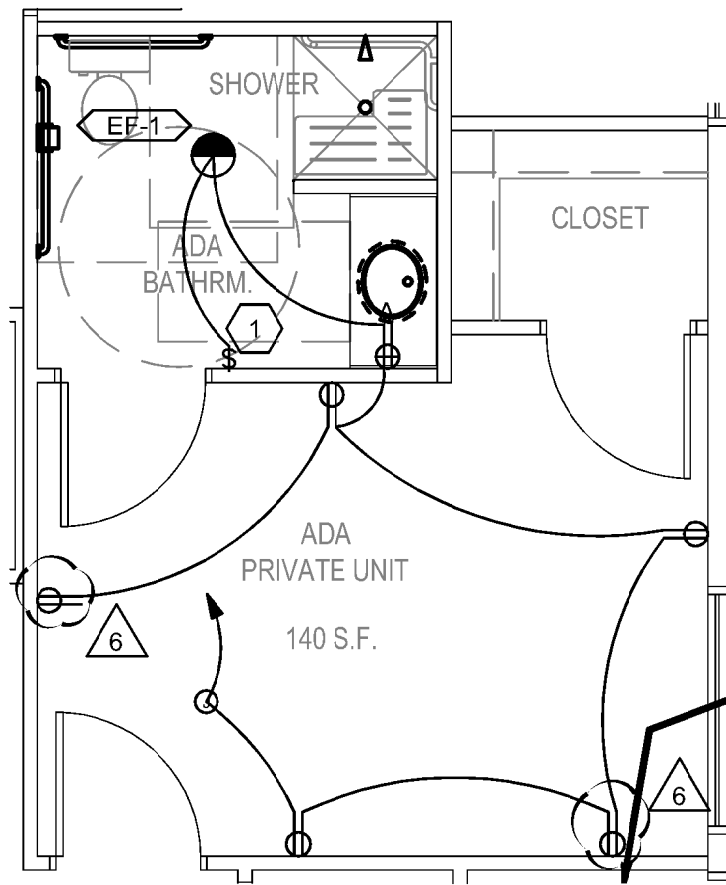
EP1 | 1C

1 POWER PLAN - BUILDING 'C'

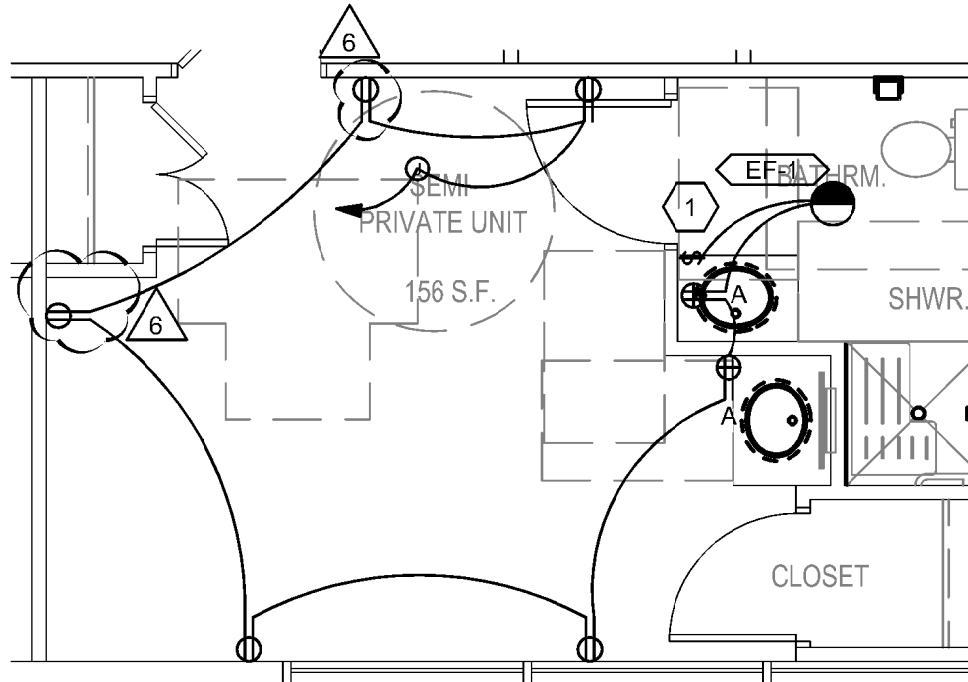
SCALE: 1/4"=1'-0"



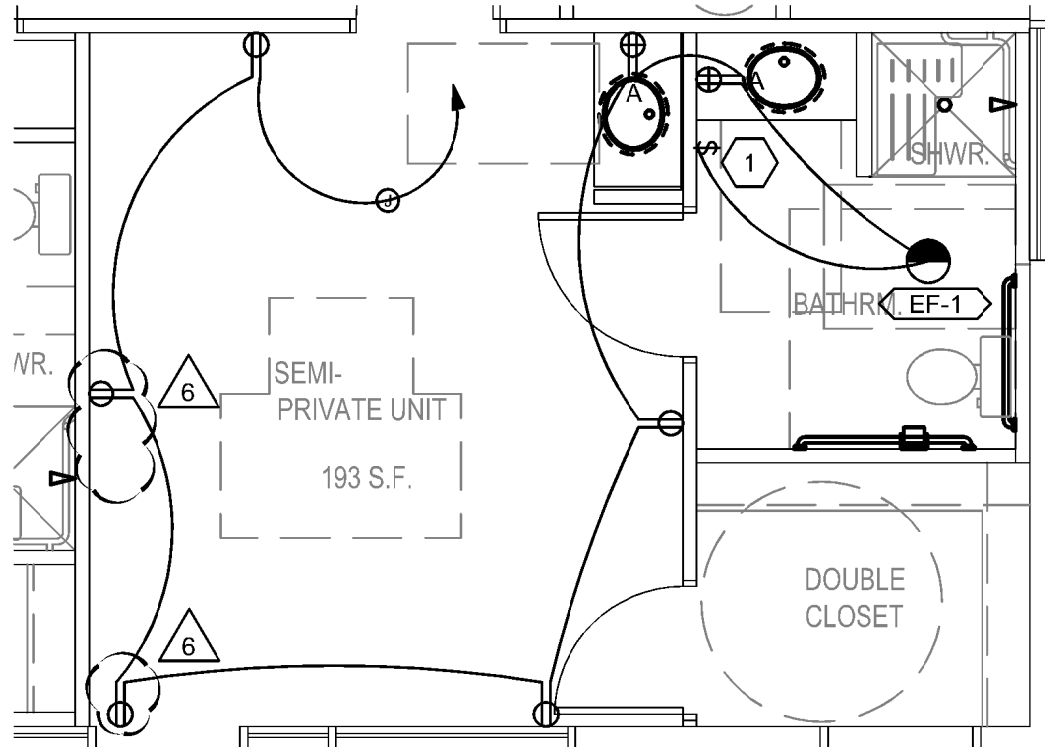
1 TYPICAL PRIVATE UNIT POWER PLAN
SCALE: 1/4"=1'-0"



2 TYPICAL ADA PRIVATE UNIT POWER PLAN
SCALE: 1/4"=1'-0"



3 TYPICAL SEMI-PRIVATE UNIT POWER PLAN
SCALE: 1/4"=1'-0"



4 TYPICAL ADA SEMI-PRIVATE UNIT POWER PLAN
SCALE: 1/4"=1'-0"

GENERAL SHEET NOTES

- ALL BRANCH CIRCUITS FEEDING 15 AMP OR 20 AMP RECEPTACLES SHALL BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTER (ACFI) TYPE CIRCUIT BREAKER.
- ALL RECEPTACLES SHALL BE TAMPER RESISTANT.

SHEET KEYNOTES

- PROVIDE A 20A/1P SWITCH TO CONTROL BATHROOM EXHAUST FAN.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET--December 28, 2016
- ADDENDUM #1--January 04, 2017
- ADDENDUM #2--January 06, 2017
- ADDENDUM #3--January 11, 2017
- ADDENDUM #4--January 17, 2017
- ADDENDUM #5--January 19, 2017

data

project no:

drawn by:

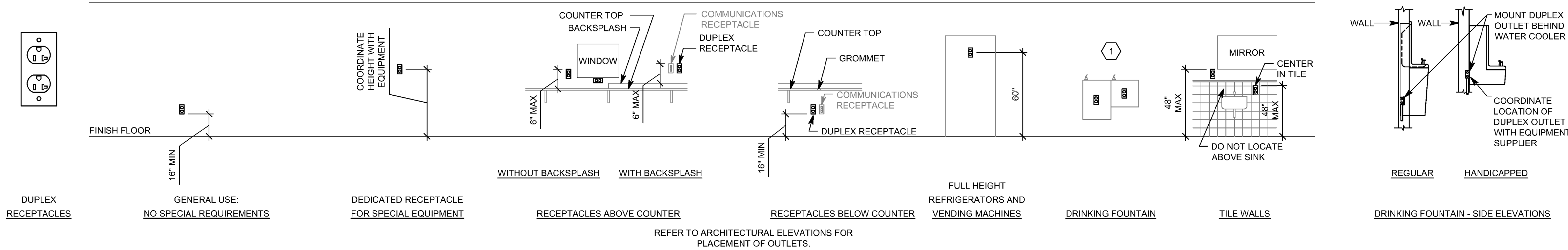
checked by:

title

TYPICAL POWER PLANS

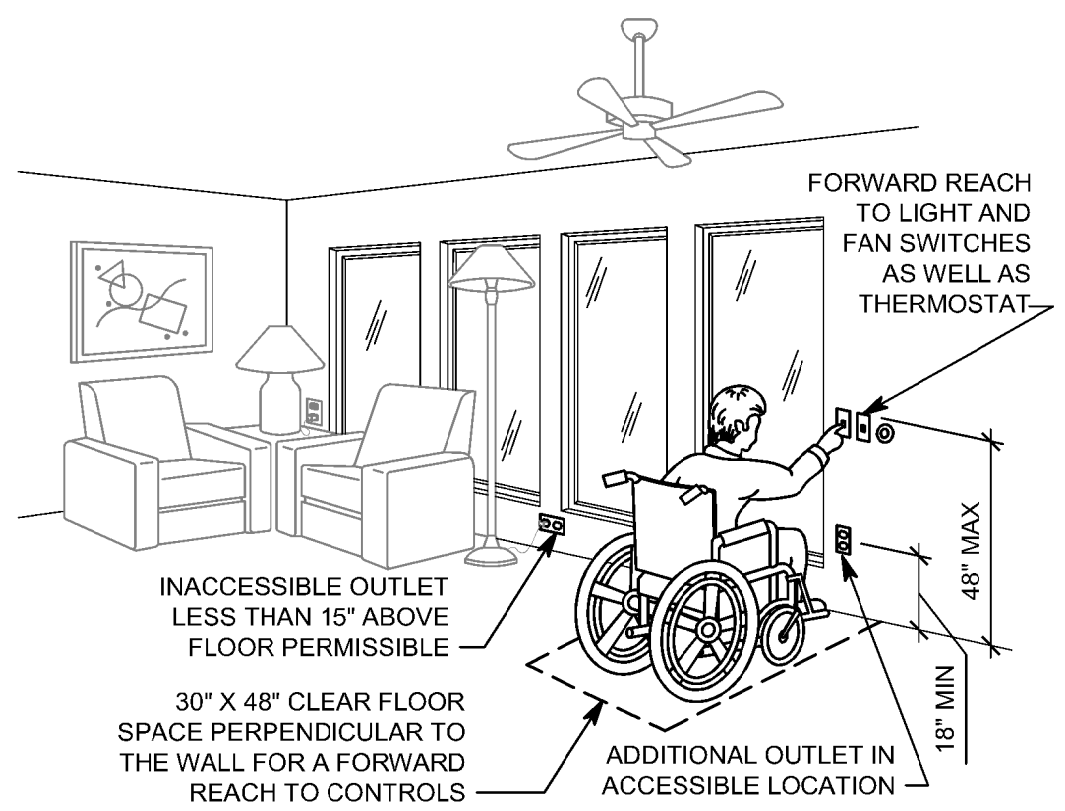
sheet

EP401



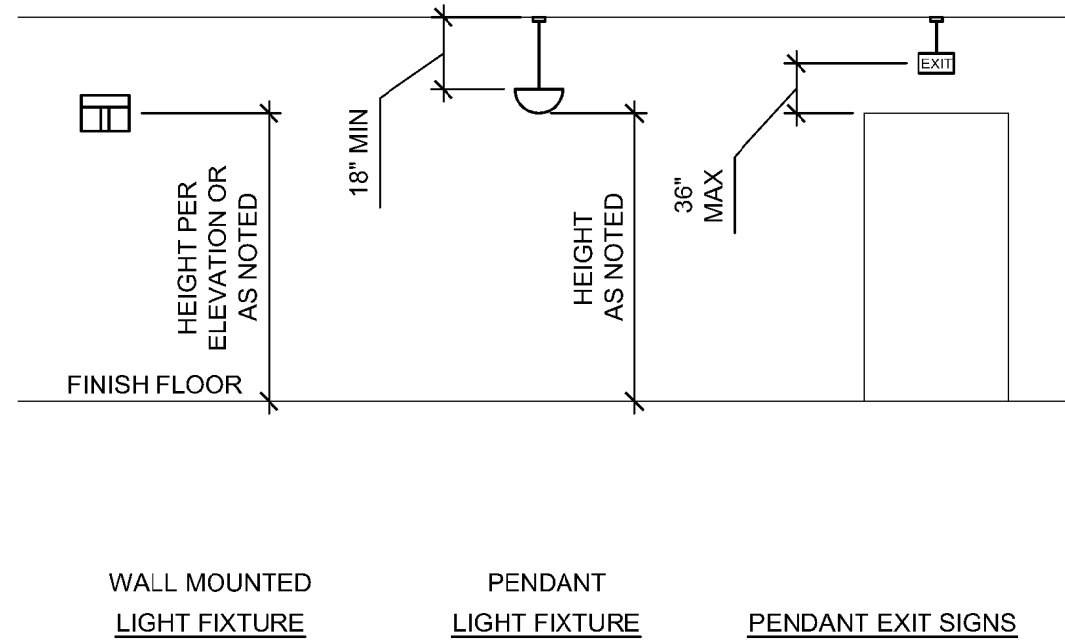
7 RECEPTACLE MOUNTING DETAILS

NTS



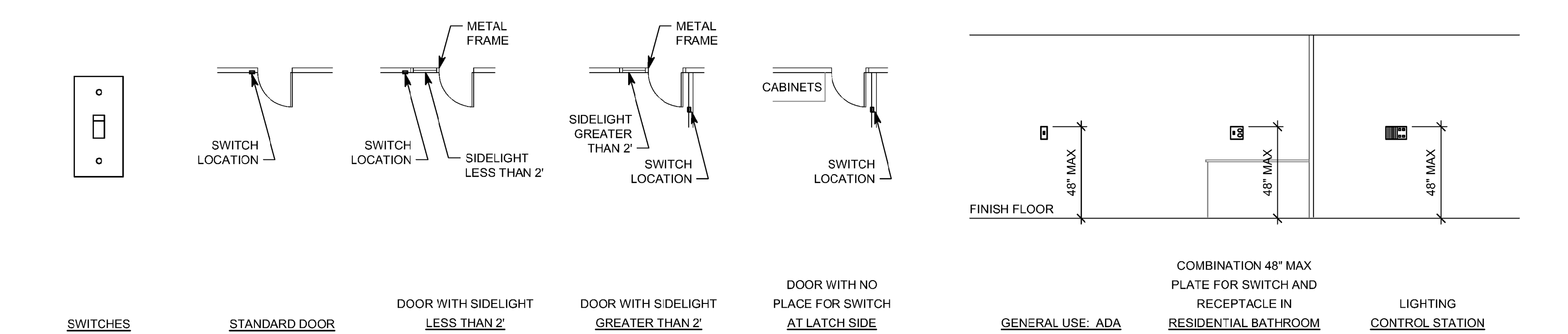
5 ADA DETAIL

NTS



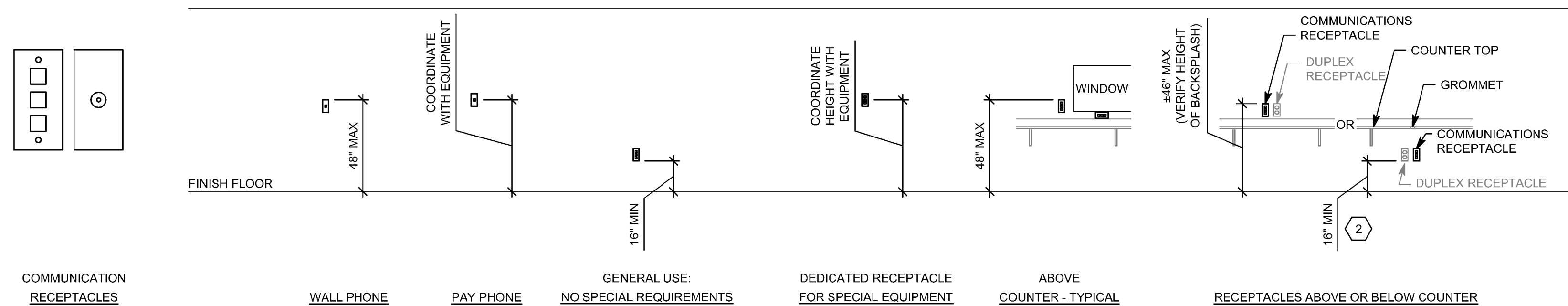
2 LIGHTING MOUNTING DETAILS

NTS



6 SWITCH MOUNTING DETAILS

NTS



3 COMMUNICATION MOUNTING DETAILS

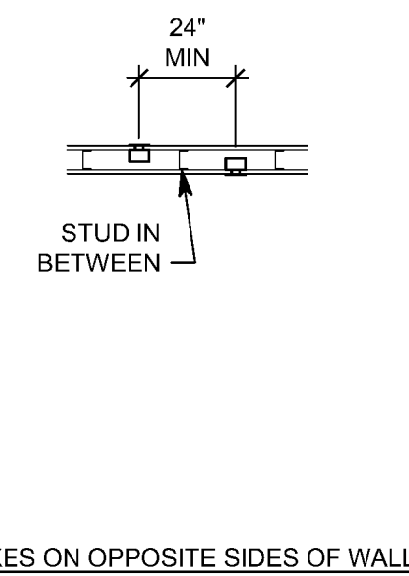
NTS

GENERAL SHEET NOTES

1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
 - 1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
 - 2 - EQUIPMENT SHOP DRAWINGS.
 - 3 - FIELD INSTRUCTIONS.
2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

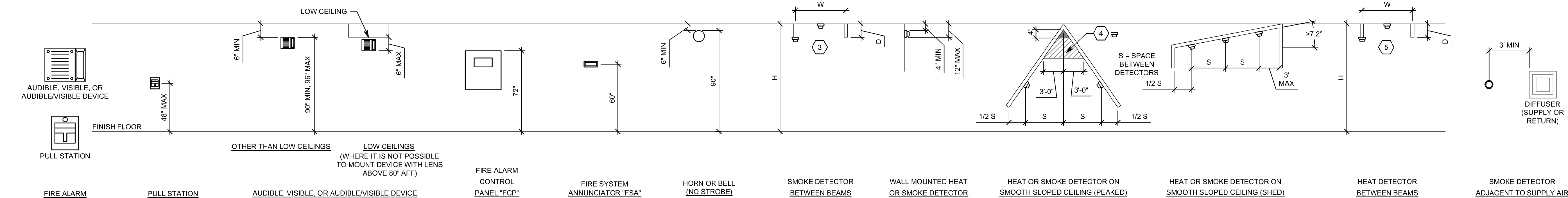
SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.
3. LOCATE AT BOTTOM OF BEAMS IF D < 1H AND W < 4H OR AT CEILING FOR LEVEL CEILINGS. FOR PAN-TYPE CEILINGS, CORRIDORS, SMALL ROOMS, SLOPED/BEAMED CEILINGS, AND OTHER CONDITIONS, REFER TO NFPA 72.
4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.
5. LOCATE AT BOTTOM OF BEAMS IF D/H < 1 OR W/H < 4; OTHERWISE, LOCATE IN BEAM POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.



4 BOX MOUNTING DETAILS

NTS



1 FIRE ALARM MOUNTING DETAILS

NTS

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #1-January 04, 2017
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017

data

project no:

drawn by:

checked by:

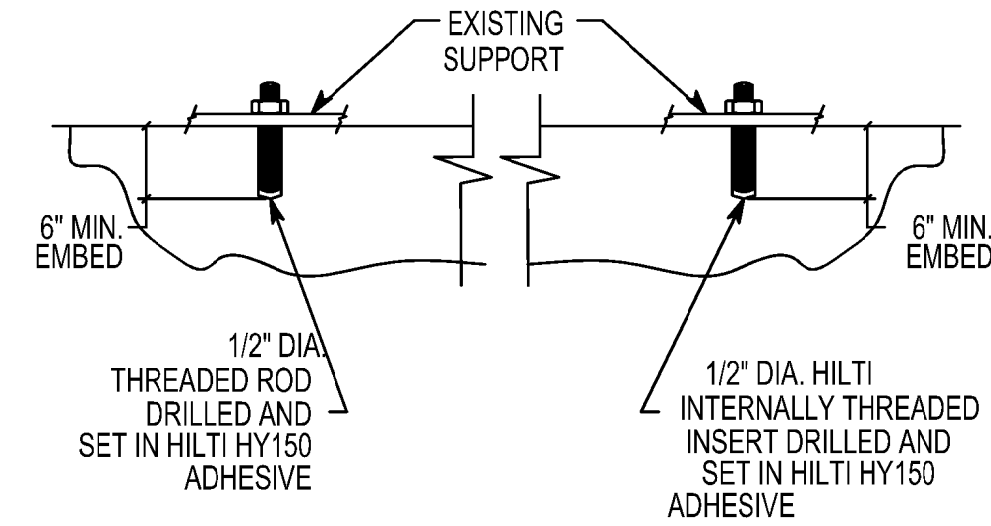
title

DETAILS

sheet

EP501

File Name: P:\2016\20160686\Drawings\3Sheet\Building_C\86EP502.dwg Last Plotted: 2017/03/31 @ 12:50 PM By: jrw

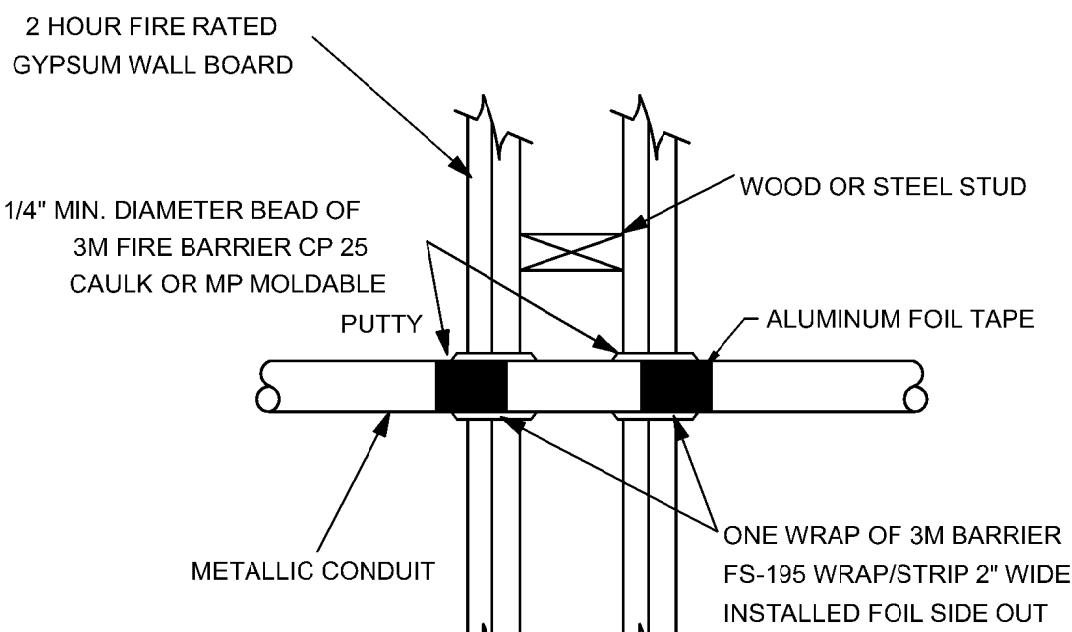


OPTION 1

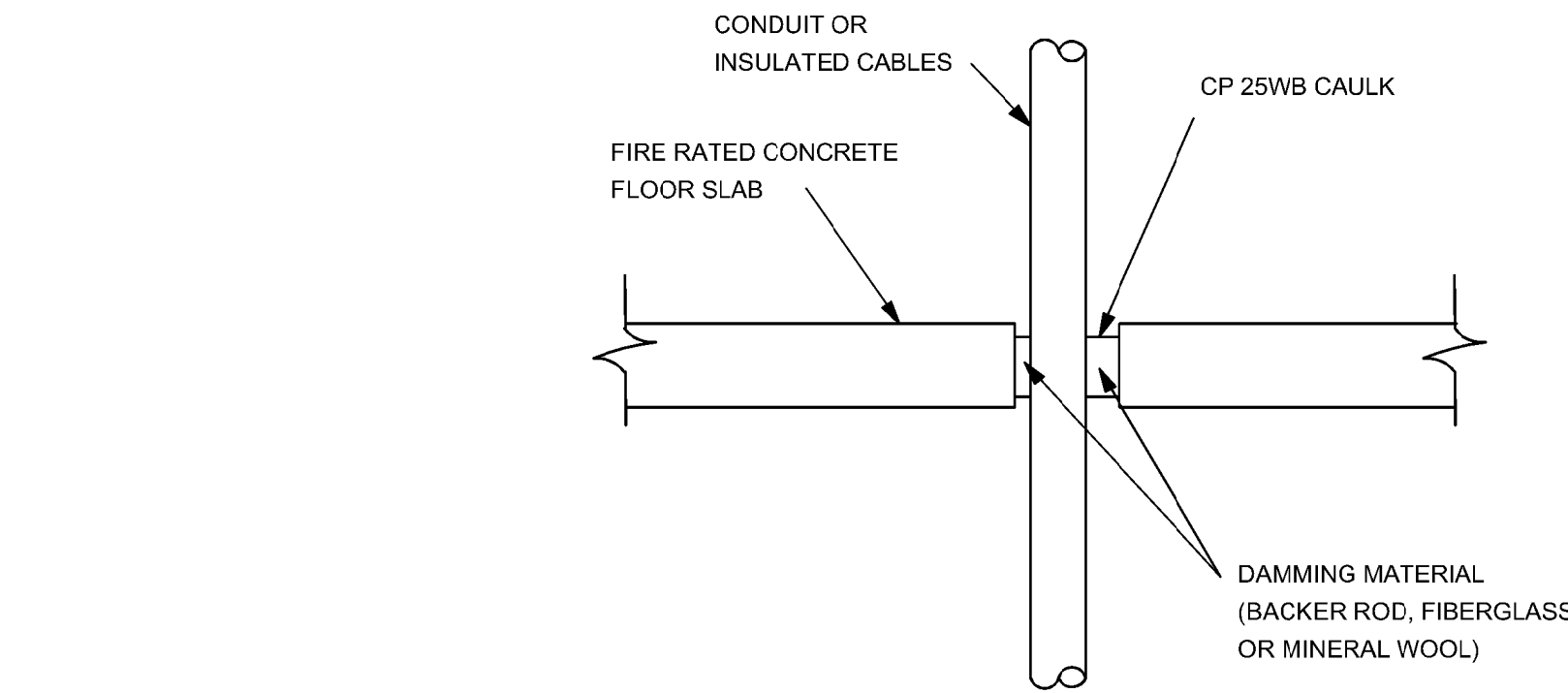
OPTION 2

NOTE:
1. BLOW ALL HOLES CLEAN W/OIL FREE COMPRESSED AIR.
2. FOLLOW ALL MANUFACTURES RECOMMENDATIONS.

4 LIGHT WEIGHT CONCRETE ANCHORAGE

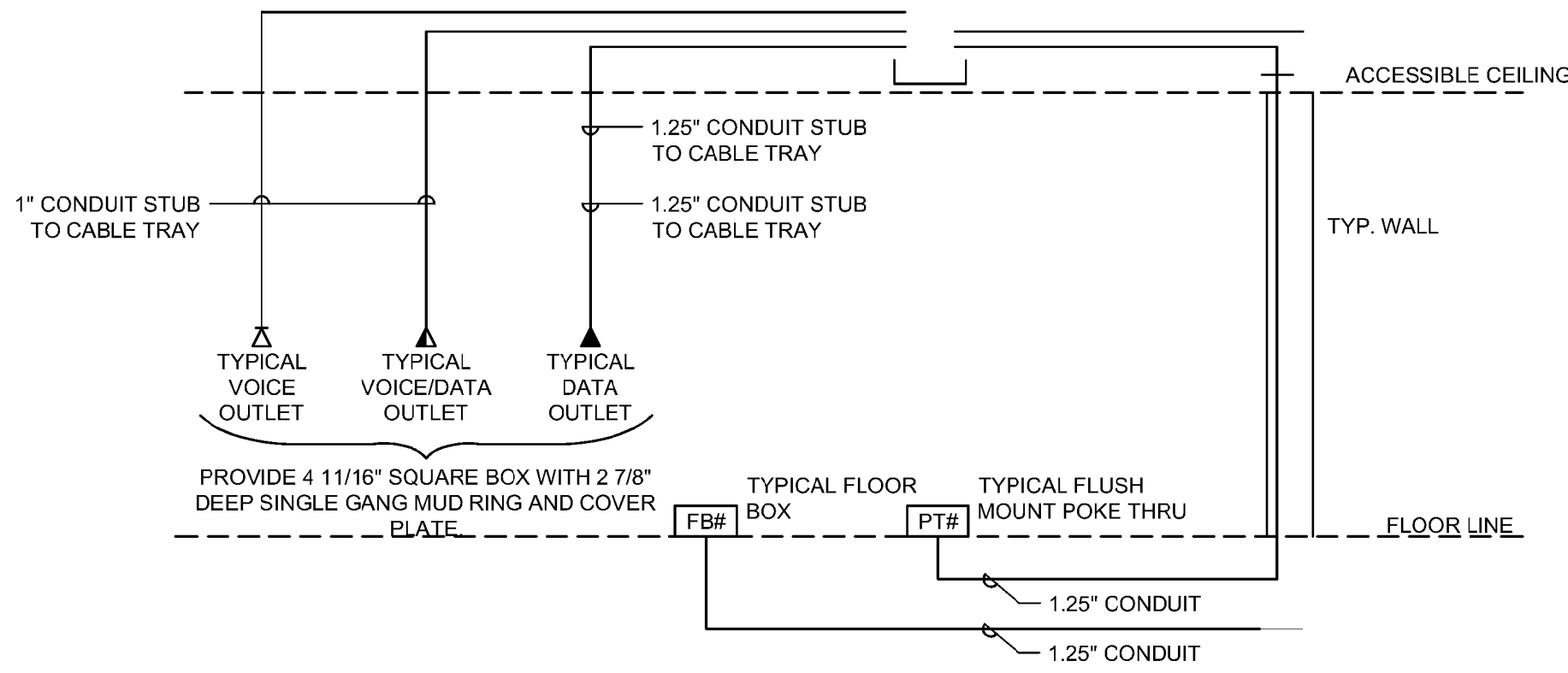


1 FIRESTOP FOR METAL CONDUIT THRU GYPSUM WALL BOARD



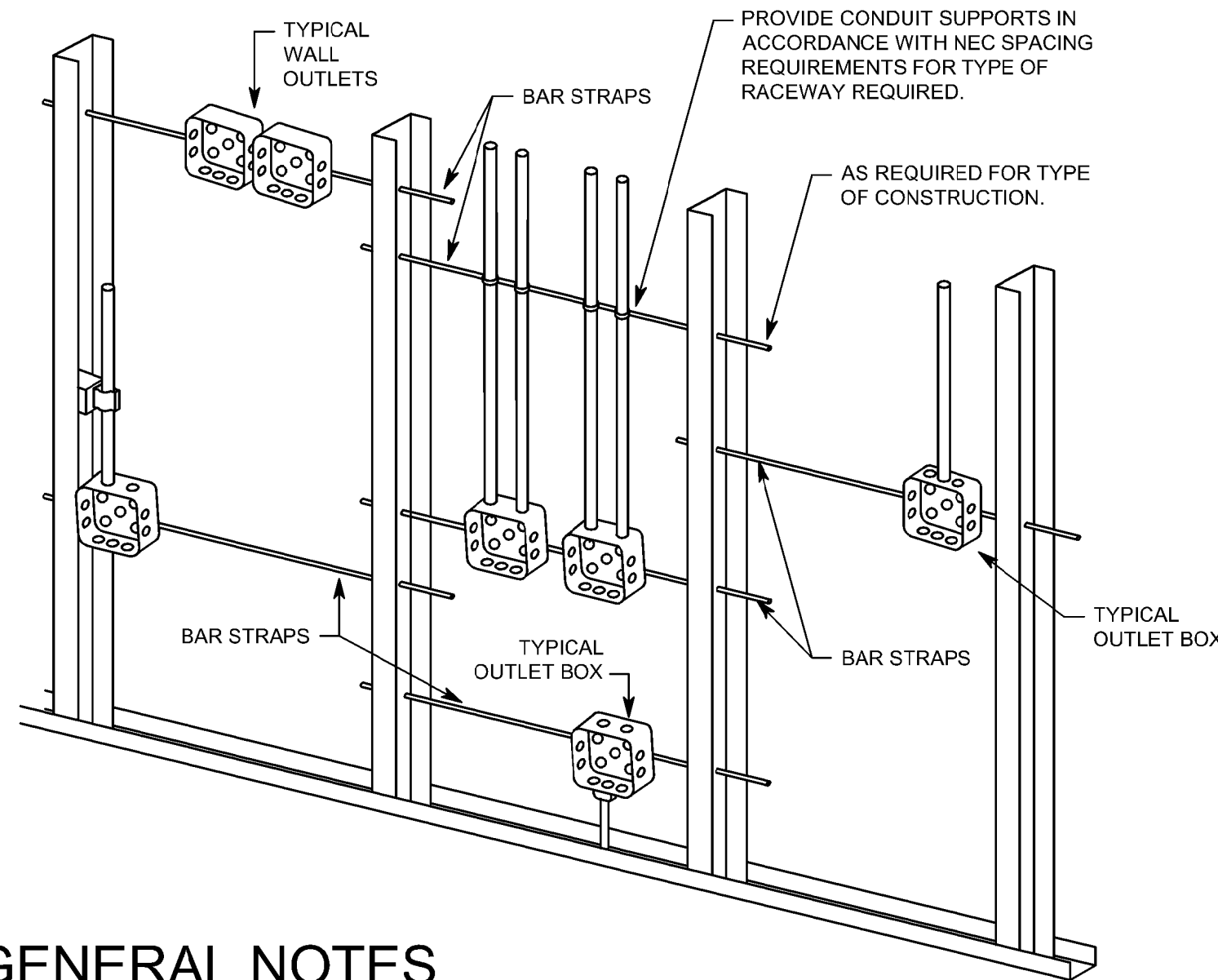
7 TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE FLOORING

NTS



5 VOICE/DATA RISER

NTS

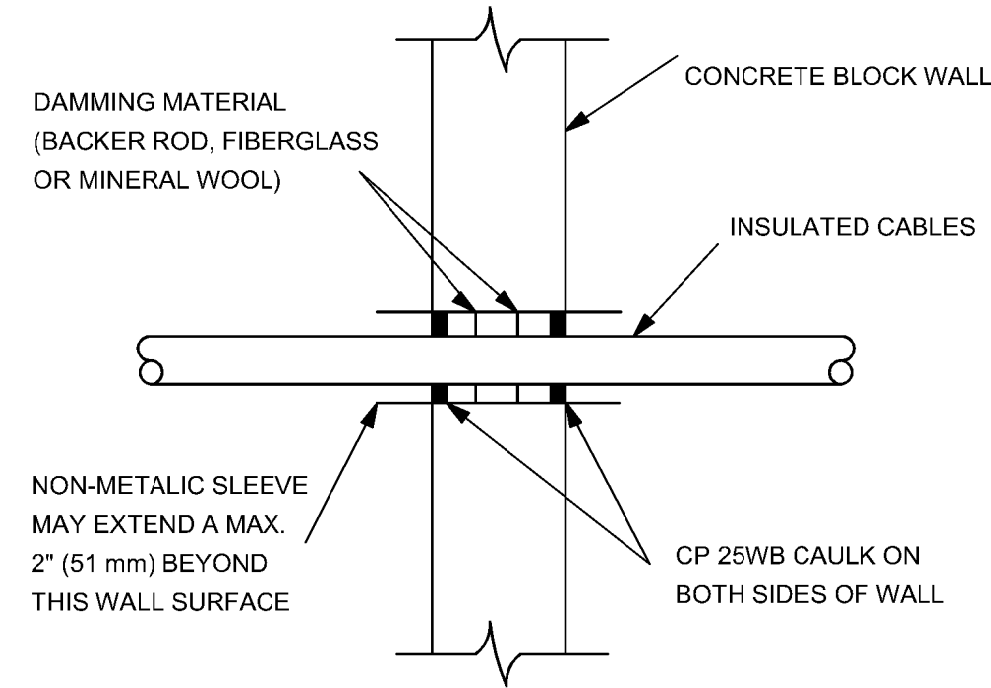


GENERAL NOTES

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH UBC 709-7 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

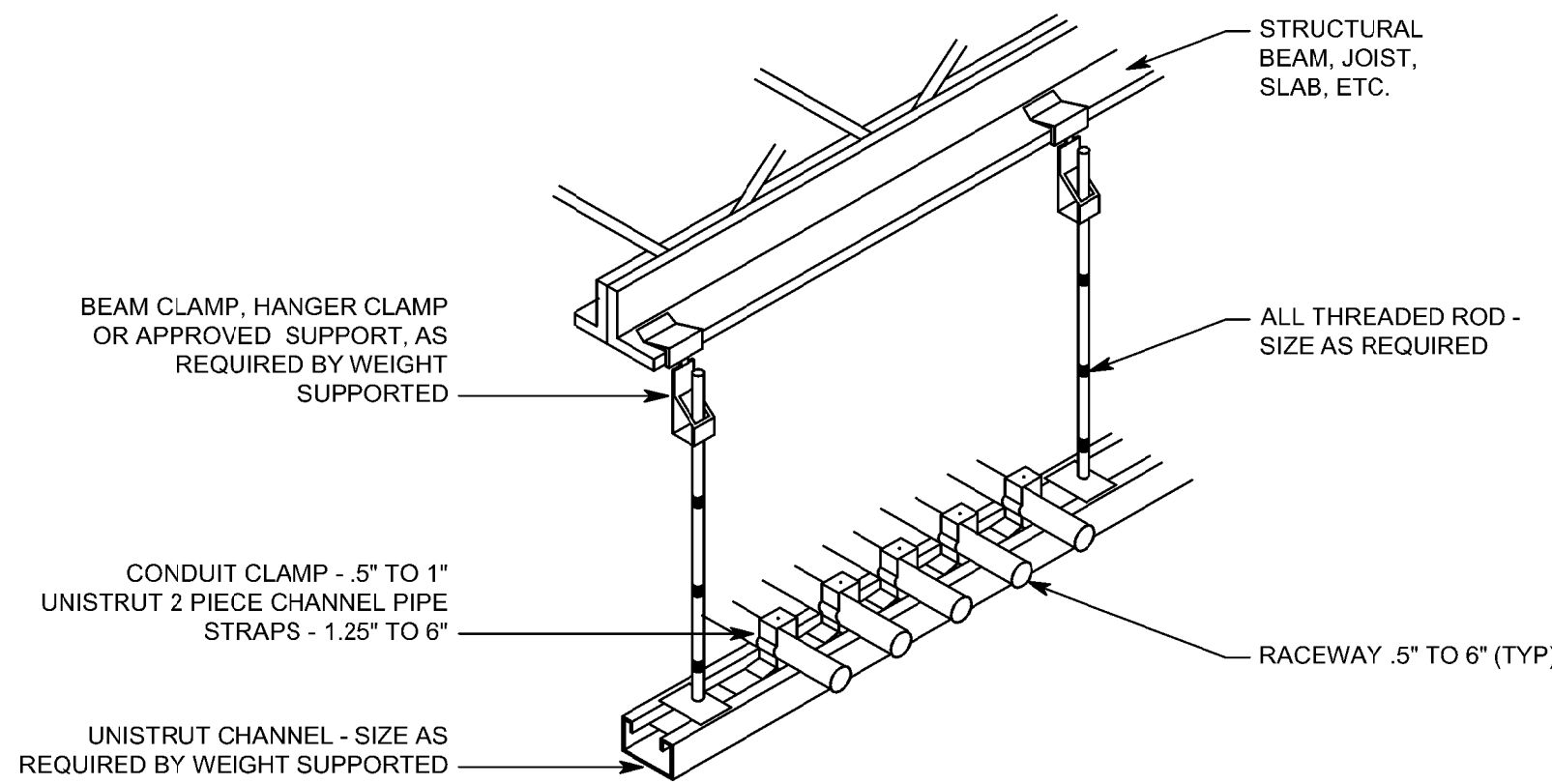
2 TYPICAL ROUGH-IN REQUIREMENTS DETAIL

NTS



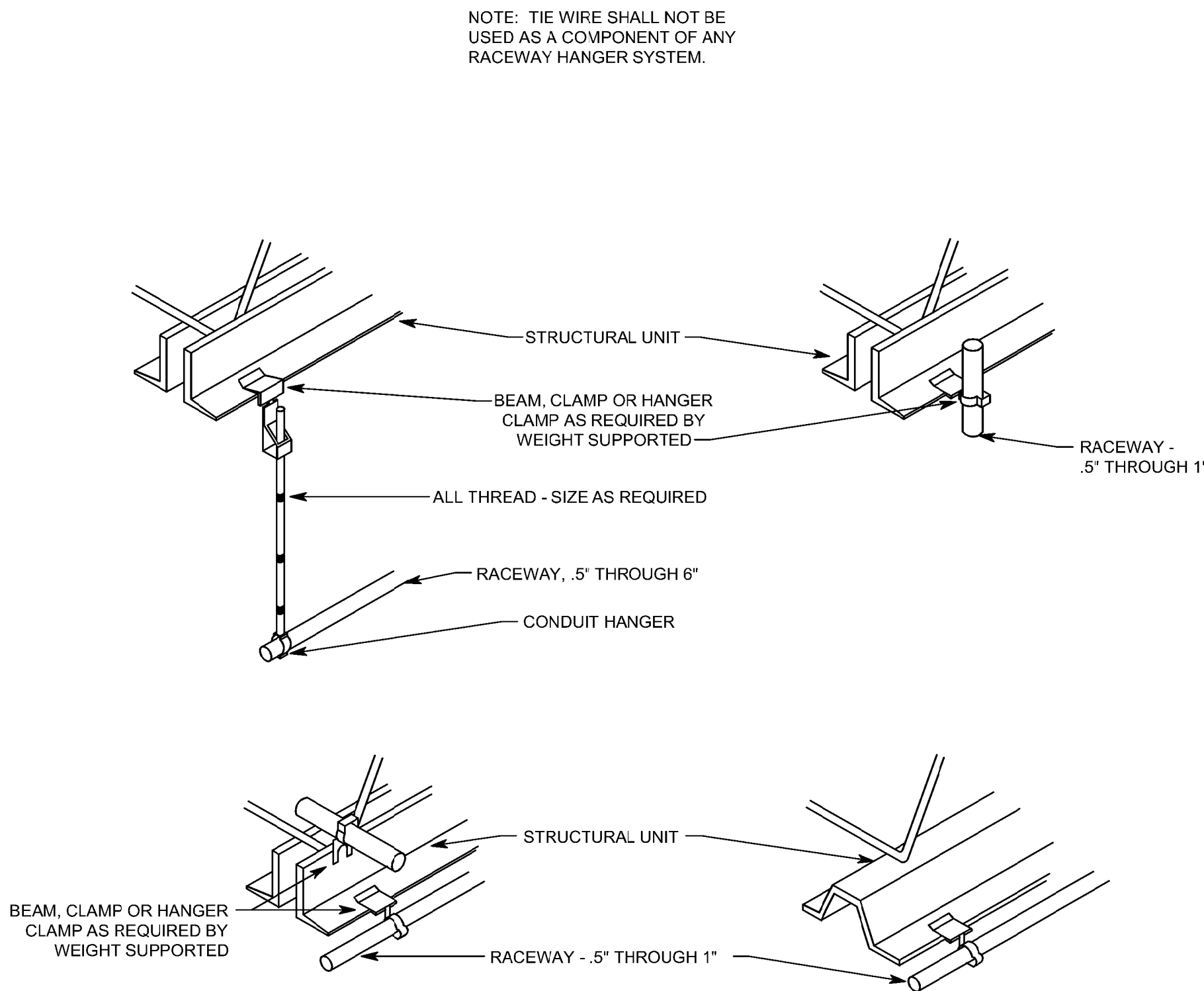
8 TYPICAL FIRESTOP FOR CABLES/CONDUIT THROUGH CONCRETE WALLS

NTS



6 TYPICAL CONDUIT RACK DETAIL

NTS



3 TYPICAL RACEWAY SUPPORT METHODS DETAIL

NTS

BUILDING 'C' 4905 South 900 East PARCEL #22081850080000

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #1-January 04, 2017
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017

data

project no:

drawn by:

checked by:

title

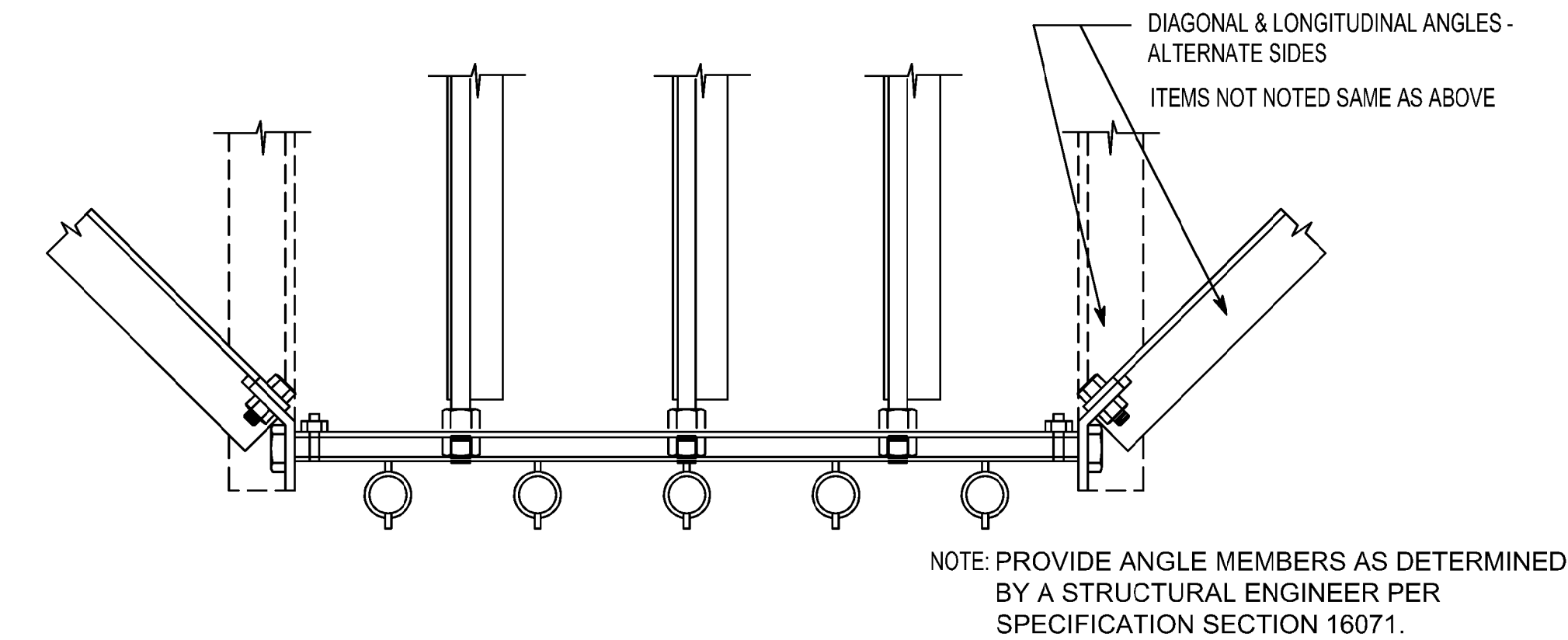
DETAILS

sheet

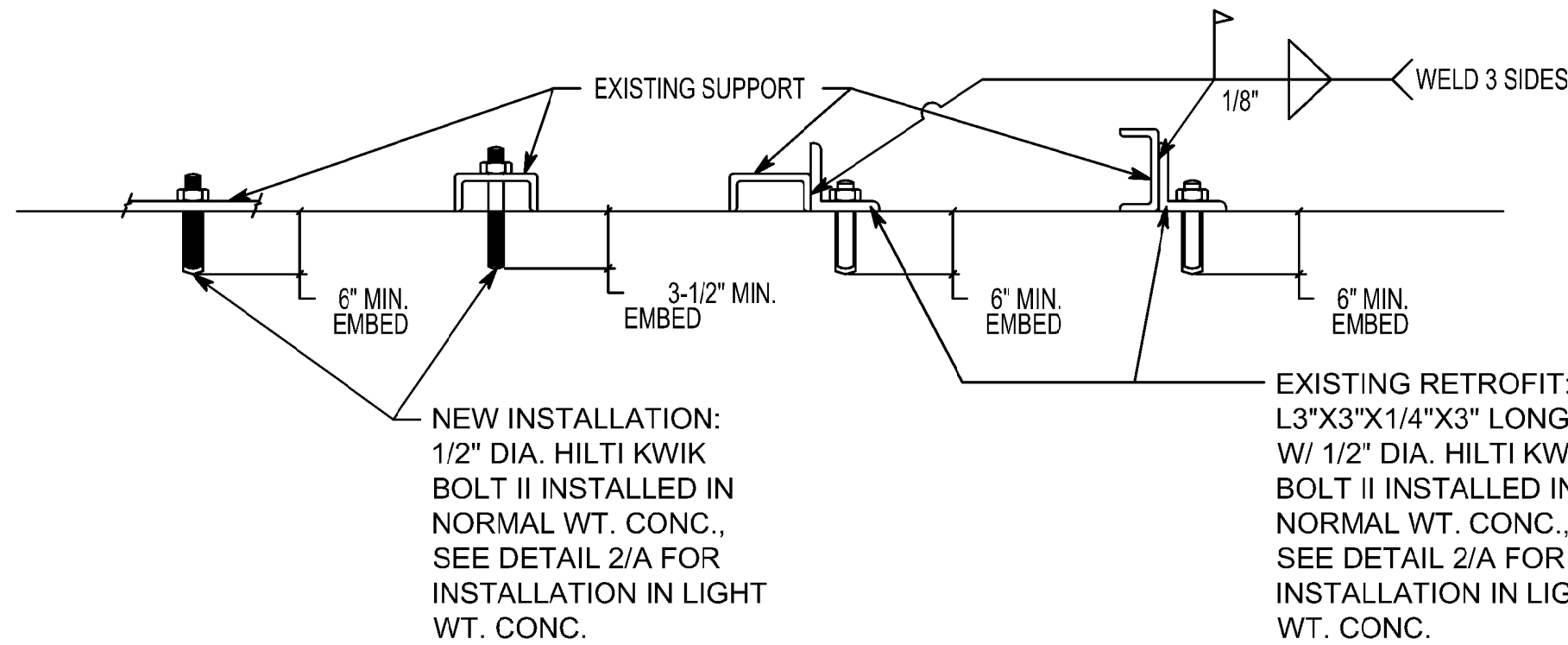
EP5.02

File Name: P:\2016\20160686\Drawings\3Sheet\Building_C\86EP503.dwg Last Plotted: 2017/03/31 @ 12:50 PM By: jrw

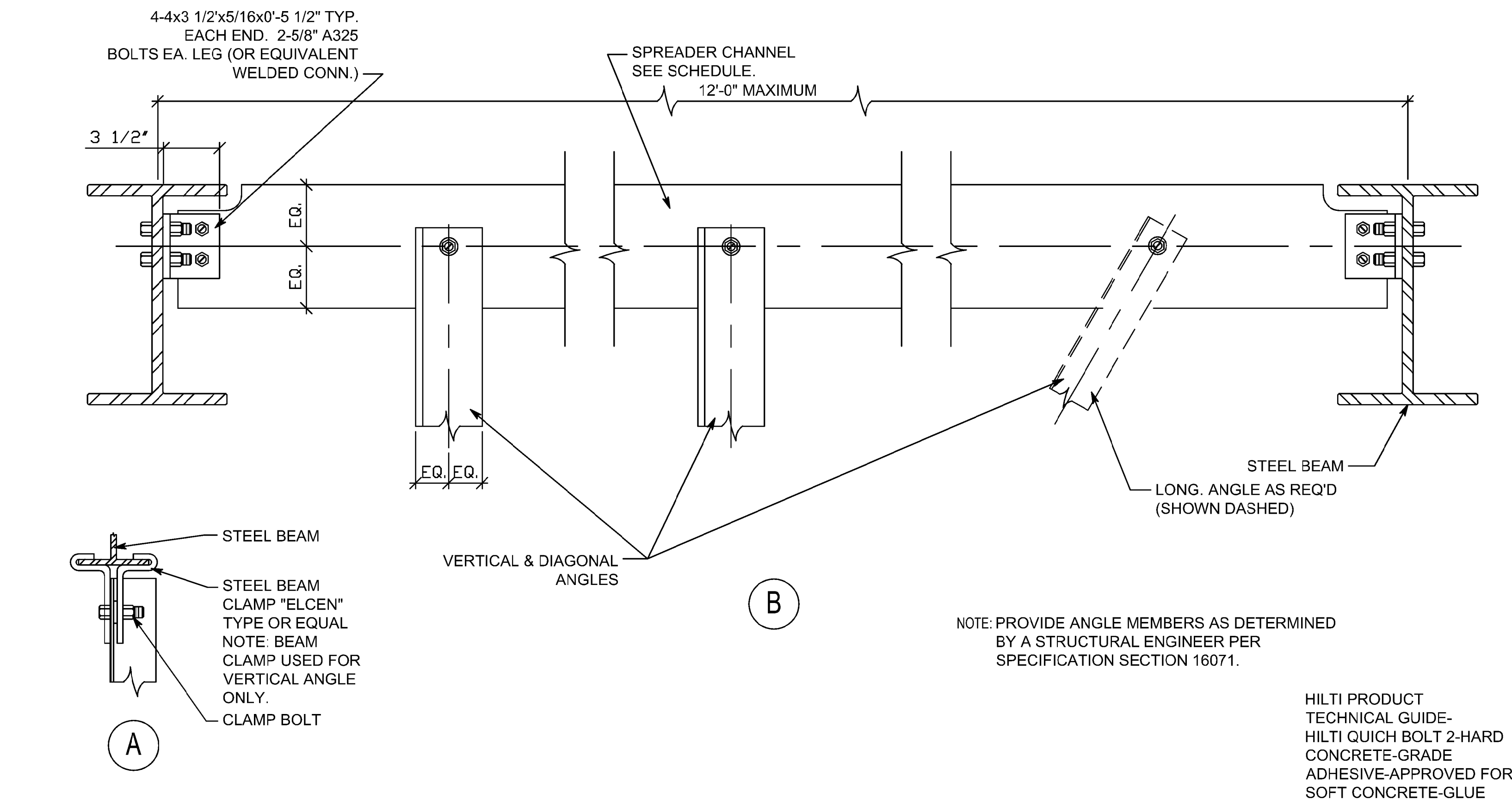
5 TYPICAL CONDUIT RACK BRACING



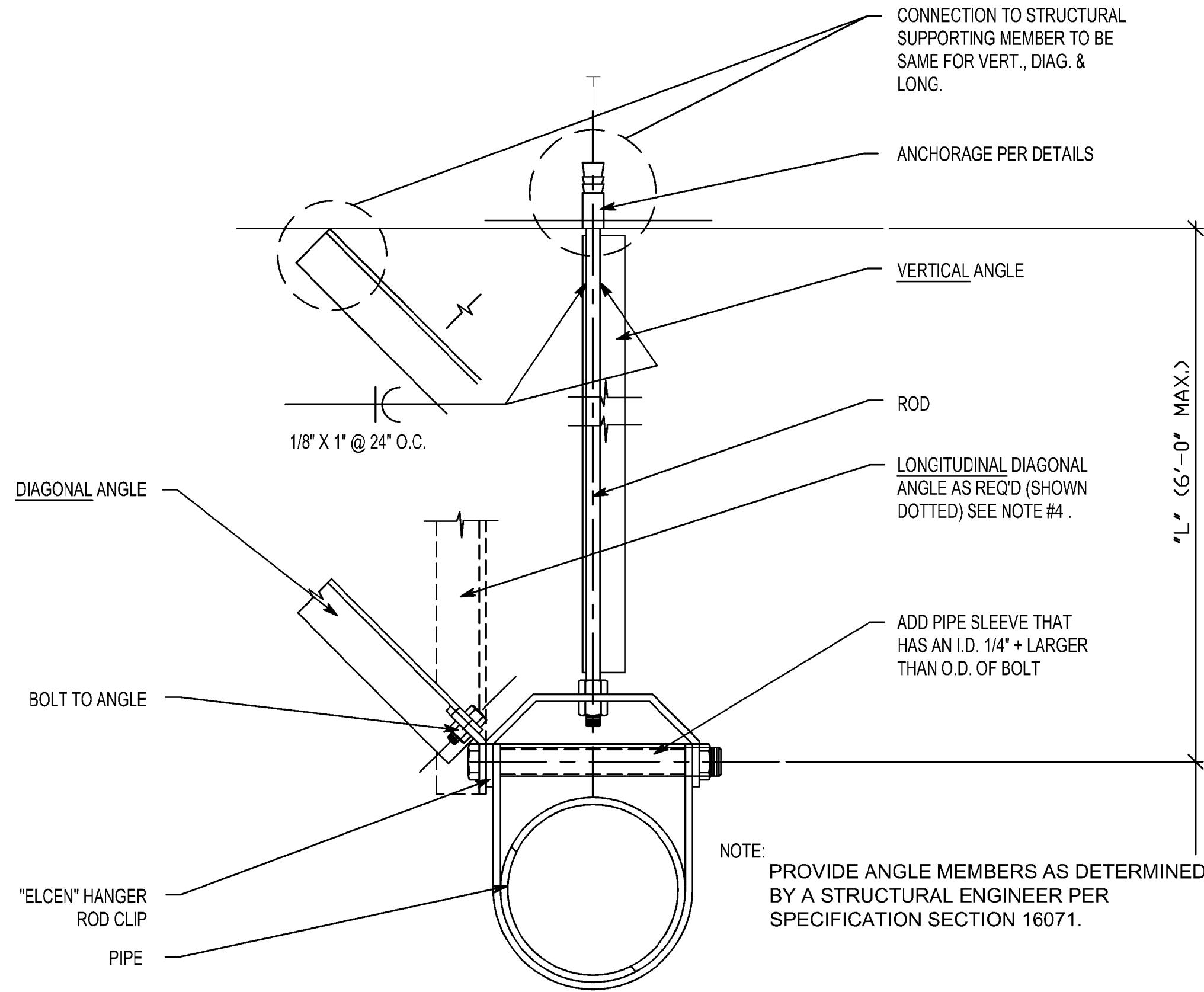
3 NORMAL WEIGHT CONCRETE ANCHORAGE



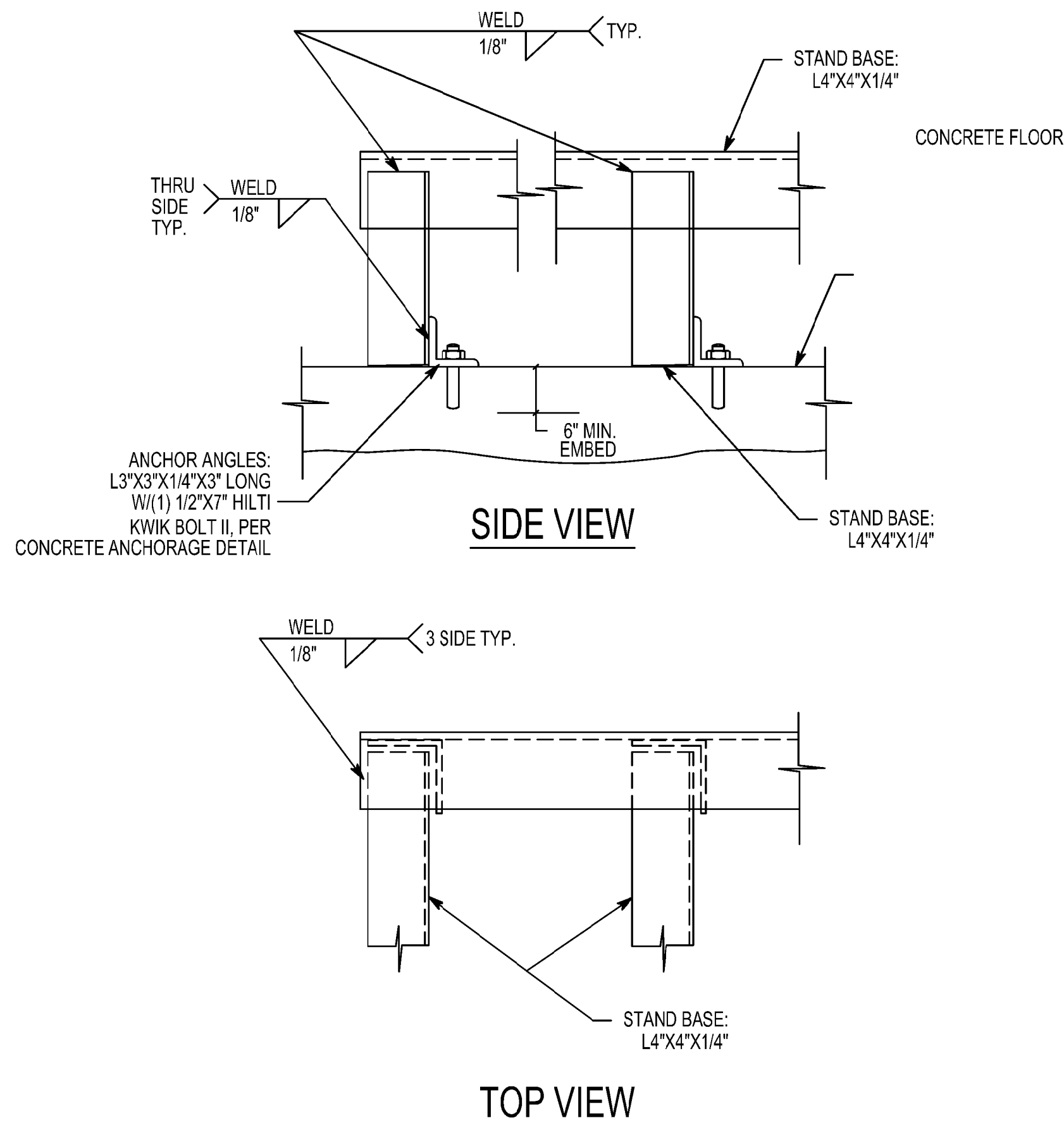
1 TYPICAL SINGLE CONDUIT BRACING



4 TYPICAL SINGLE CONDUIT BRACING



2 BASE STAND



SEISMIC BRACING GENERAL NOTES

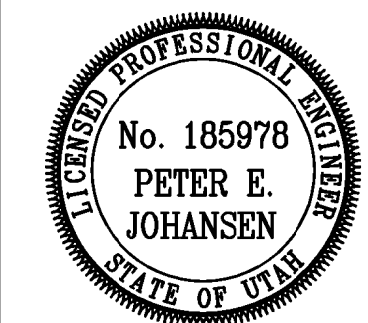
- BRACE ALL CONDUIT WITH 2 1/2" I.D. AND LARGER, AND ALL BUSWAY, CABLE TRAY AND CONDUIT RACKS.
- DETAILS SHOWN PROVIDE A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED. HOWEVER, WHERE BRACE OCCURS THE VERTICAL ANGLE SHOWN MAY REPLACE A TYPICAL VERTICAL SUPPORT.
- TRANSVERSE BRACING AT 30'-0" O.C. MAX.
- LONGITUDINAL BRACINGS AT 60'-0" O.C. MAX.
- TRANSVERSE BRACING FOR ONE CONDUIT OR BUSWAY SECTION MAY ALSO ACT AS LONGITUDINAL BRACING FOR THE CONDUIT OR BUSWAY SECTION CONNECTED PERPENDICULAR TO IT, IF THE BRACING IS INSTALLED WITHIN 24" OF THE ELBOW OR TEE AND SIMILAR SIZE.
- DO NOT USE BRANCH LINES TO BRACE MAIN LINES.
- PROVIDE FLEXIBILITY IN JOINTS WHERE PIPES PASS THROUGH BUILDING SEISMIC OR EXPANSION JOINTS, OR WHERE RIGIDLY SUPPORTED PIPES CONNECT TO EQUIPMENT WITH VIBRATION ISOLATORS.
- AT VERTICAL CONDUIT AND BUSWAY RISERS, WHEREVER POSSIBLE, SUPPORT OF WEIGHT OF THE RISER AT A POINT OR POINTS ABOVE THE CENTER OF GRAVITY OF THE RISER. PROVIDE LATERAL GUIDES AT THE TOP AND BOTTOM OF THE RISER, AND AT INTERMEDIATE POINTS NOT TO EXCEED 30'-0" ON CENTER.
- PROVIDE LARGE ENOUGH CONDUIT SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.
- DO NOT FASTEN ONE RIGID CONDUIT OR BUSWAY SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE: FOR EXAMPLE, A WALL AND A ROOF.
- REFER TO SPECIFICATIONS AND MANUFACTURER'S LITERATURE FOR ADDITIONAL REQUIREMENTS.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.348-6381
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET--December 28, 2016
- ADDENDUM #1--January 04, 2017
- ADDENDUM #2--January 06, 2017
- ADDENDUM #3--January 11, 2017
- ADDENDUM #4--January 17, 2017
- ADDENDUM #5--January 19, 2017
- ADDENDUM #7--March 31, 2017

data

project no:

drawn by:

checked by:

title

DETAILS

sheet

EP5.03

FAULT CURRENT TABLE

BUS	FAULT CURRENT
METER/CT	25,008 SCA
MDP	24,762 SCA
LA	23,147 SCA
LB	10,931 SCA
LC	7,729 SCA
LD	8,216 SCA
LE	7,572 SCA
LF	9,682 SCA

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

EQUIPMENT SCHEDULE

MARK	ITEM DESCRIPTION	LOAD DATA						WIRE AND CONDUIT SIZE	COND. AND CONDUIT SCHED.	OVERCURRENT PROTECTION		DISCONNECT		STARTER DATA												NOTES	MARK		
		HP	KW	MCA	FLA	VOL.1	PH			142	URM BY	DEVICE	LOCATION	URM BY	DEVICE	LOCATION	URM BY	DEVICE	LOCATION	SIZE	SPEED	CTRL. VOLT.	SELECTOR SWITCH	PUSH BUTTON	PILOT LAMP			NORMALLY OPEN CONTACTS	NORMALLY CLOSED CONTACTS
EUH-1	ELECTRIC UNIT HEATER WATER ENTRIES	3.3	20	19.88	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E													EUH-1
EUH-2	ELECTRIC UNIT HEATER EXIT DOORS	2.0	12	9.6	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E													EUH-2
EUH-3	ELECTRIC UNIT HEATER CUSTODIAN	1.5	9	7.2	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E													EUH-3
EF-1	EXHAUST FAN PRIVATE UNIT BATHROOMS	.06			120	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E													AC-1
EF-2	EXHAUST FAN PRIVATE UNIT BATHROOMS	.01			120	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E													AC-1
GEF-1	EXHAUST FAN	2		9.5	7.5	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN-10	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	0	HOA		R.G	2	2				GEF-1
RTU-1	ROOF TOP UNIT BUILDING ROOFS			19.1		208	3	60	4 #10, #10 GR 0.75" CND	6	E	30A/3P CB	PANEL	E	30A/3P NON-FUSED	ADJ TO EQUIP	E										1		RTU-1
RTU-2	ROOF TOP UNIT BUILDING ROOFS			28.9		208	3	60	4 #8, #10 GR 1" CND	9	E	40A/3P CB	PANEL	E	50A/3P	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP		HOA		R.G	2	2	2			RTU-2
MAU-1	MAKE UP AIR UNIT	1.5		10.2	6.8	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN-9	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	60	HOA		R.G	2	2				MAU-1
DSS-1	SPLIT SYSTEM INDOOR UNIT			0.25		208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP	E												DSS-1
CU-1	SPLIT SYSTEM OUTDOOR UNIT			16	12.8	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-20	ADJ TO EQUIP	E												CU-1
DSS-2	SPLIT SYSTEM INDOOR UNIT			0.4		208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP	E												DSS-2
CU-2	SPLIT SYSTEM OUTDOOR UNIT			20	16	208	1	60	2 #10, #10 GR 0.75" CND	4	E	30A/3P CB	PANEL	E	30A/3P FRN-25	ADJ TO EQUIP	E												CU-2

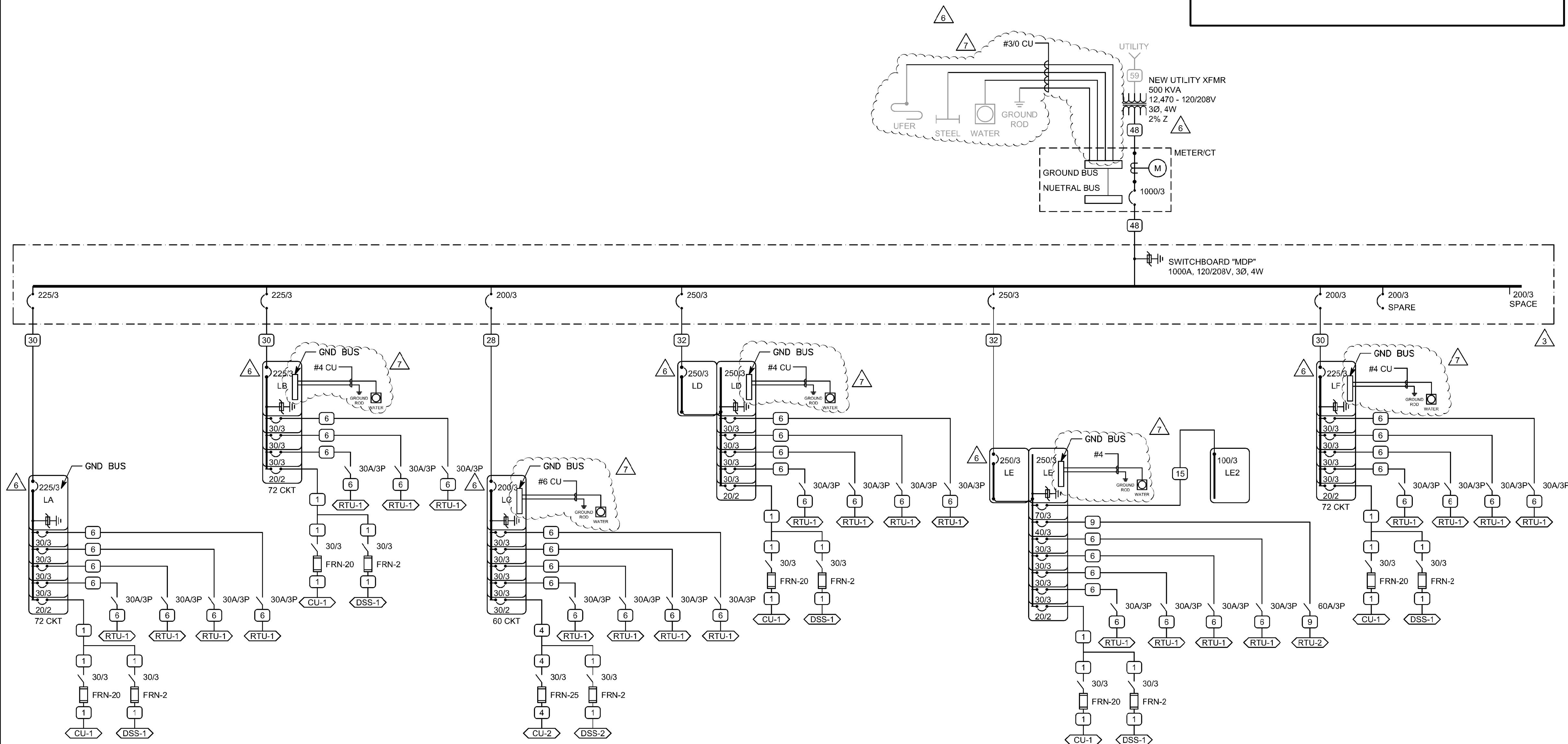
1 120V convenience outlet integral to unit.

EQUIPMENT SCHEDULE KEY

E	DIVISION 26
Q	FURNISHED WITH THE EQUIPMENT
*	COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
**	AUTOMATIC CONTROL WIRING BY DIVISION 23

GENERAL SHEET NOTES

- ALL OVERCURRENT PROTECTIVE DEVICES SHALL HAVE THE SAME AIC RATING AS THE PANEL OR GEAR THEY ARE LOCATED WITHIN.
- ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED WITH THE CALCULATED AVAILABLE FAULT CURRENT PER NEC 110.24(A).



COPPER CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)

(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1)		QTY	SIZE	G	IG/HH	SBJ	NOTES
1	20	.75	2	12	12	12	8	2		
2	20	.75	3	12	12	12	8	2,3		
3	20	.75	4	12	12	12	8	2,3		
4	30	.75	2	10	10	10	8	2		
5	30	.75	3	10	10	10	8	2		
6	30	.75	4	10	10	10	8	2		
7	40	1	2	8	10	8	6	2		
8	40	1	3	8	10	8	6	2		
9	40	1	4	8	10	8	6	2		
10	55	1	2	6	10	8	4	2		
11	55	1	3	6	10	8	4	2		
12	55	1.25	4	6	10	8	4	2		
13	70	1	2	4	8	4	2	2		
14	70	1.25	3	4	8	4	2	2		
15	70	1.25	4	4	8	4	2	2		
16	85	1.25	2	3	8	3	2	2		
17	85	1.25	3	3	8	3	2	2		
18	85	1.25	4	3	8	3	2	2		
19	95	1.25	3	2	8	2	2	2		
20	95	1.50	4	2	8	2	2	2		
21	130	1.50	3	1	6	2	2	2		
22	130	1.50	4	1	6	2	2	2		
23	150	2	3	1/0	6	2	1/0	2		
24	150	2	4	1/0	6	2	1/0	2		
25	175	2	3	2/0	6	2	2/0	2		
26	175	2	4	2/0	6	2	2/0	2		
27	200	2	3	3/0	6	2	2/0	2		
28	200	2.50	4	3/0	6	2	2/0	2		
29	230	2.50	3	4/0	4	2	2/0	2		
30	230	2.50	4	4/0	4	2	2/0	2		
31	255	2.50	3	250	4	1	2/0	2		
32	255	2.50	4	250	4	1	2/0	2		
33	310	3	3	350	3	1/0	3/0	2		
34	310	3	4	350	3	1/0	3/0	2		
35	380	3.50	3	500	3	3/0	3/0	2		
36	380	4	4	500	3	3/0	3/0	2		
37	400	2 EA 2	3	3/0	3	3/0	3/0	2		
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2		
39	510	2 EA 2.50	3	250	1	4/0	3/0	2		
40	510	2 EA 3	4	250	1	4/0	3/0	2		
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4		
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4		
43	760	2 EA 3.50	3	500	1/0	4/0	3/0	2,4		
44	760	2 EA 4	4	500	1/0	4/0	3/0	2,4		
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4		
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4		
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4		
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4		
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4		
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4		
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4		
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4		
53	1675	5 EA 4	4	400	4/0	4/0	4/0	4		
54	2010	6 EA 4	4	400	250	250	250	4		
55	2660	7 EA 4	4	500	350	350	350	4		
56	3040	8 EA 4	4	500	500	500	500	4		
57	4180	11 EA 4	4	500	500	500	500	4		
58		5 EA 4						6		
59		5						6		
60		10 EA 4						6		

CONDUCTOR AND CONDUIT SCHEDULE NOTES

- CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
- PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
- PROVIDE #10 NEUTRALS FOR MULTI-WIRE BRANCH CIRCUITS SERVING COMPUTERS.
- GROUND CONDUCTOR SHALL BE OMITTED BETWEEN THE UTILITY TRANSFORMER AND THE FIRST OVERCURRENT PROTECTIVE DEVICE.
- SYMBOL SUBSCRIPTS:
 - "2N": INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASED AND NEUTRAL CONDUCTORS.
 - "FG": FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE THE SAME SIZE AS THE PHASE CONDUCTORS.
 - "HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.
 - "IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH GROUND OF EQUIPMENT GROUND CONDUCTOR.
 - "SBJ": SUBSTITUTE "SBJ" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE SYSTEM BONDING JUMPER OF THE SEPARATELY DERIVED SYSTEM.
- RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346.6381
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 491, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017
- ADDENDUM #8-April 12, 2017

data

project no:

drawn by:

checked by:

title

ONE LINE
DIAGRAM

sheet

EP601

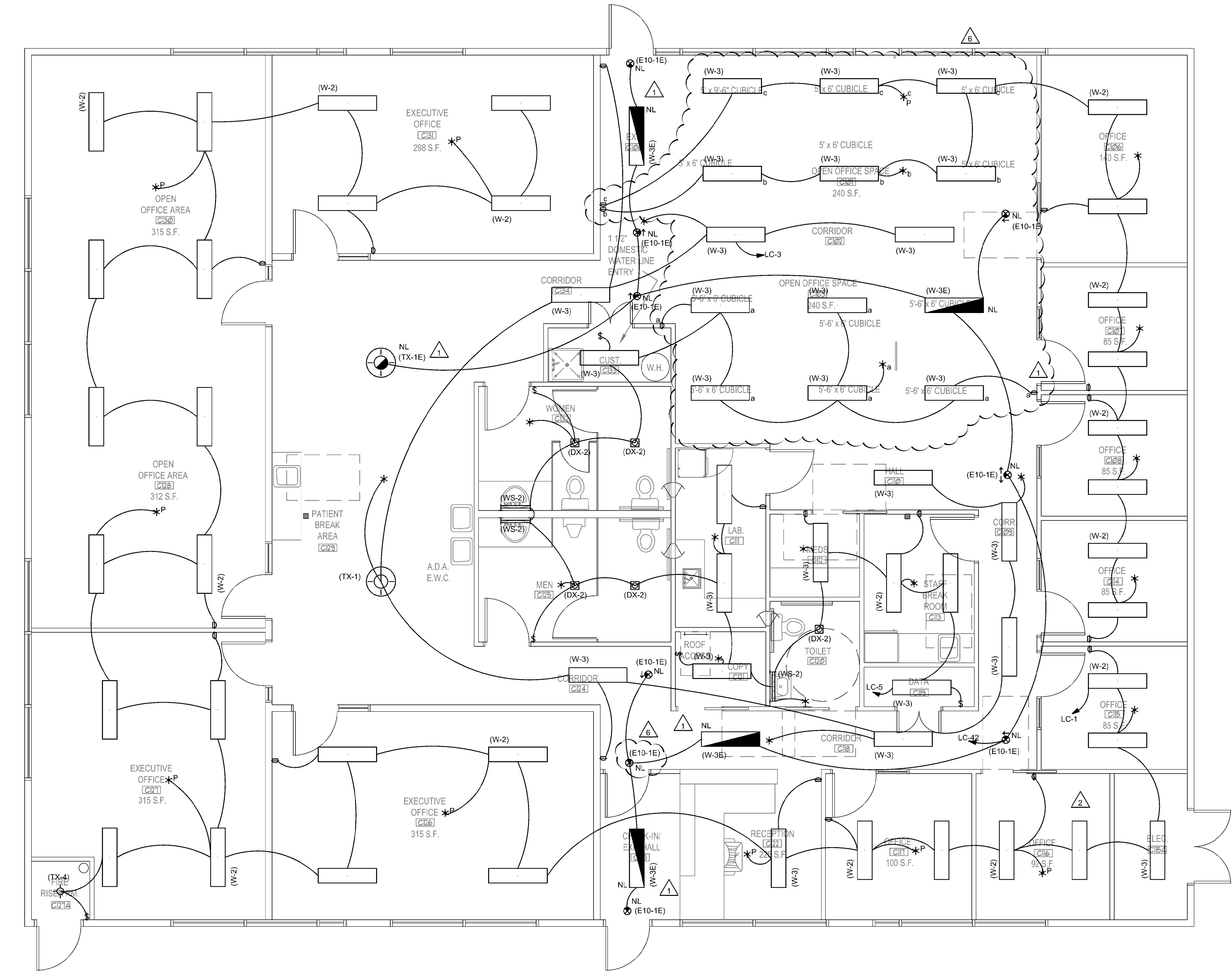
6 DISTRIBUTION PANELBOARD "MDP"																													
VOLTS/PHASE/WIRE: 120/208 V, 3 PH 4 WIRE						MAIN SIZE & TYPE: 1000 AMP MAIN LUGS					LOCATION: BUILDING A					AIC RATING: 30,000 AIC			NOTES:										
ACCESSORIES:						IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR																							
CKT NO	OCB	LOAD (kVA)			PANEL / EQUIPMENT					LCL	PHASE LOAD			LCL	PANEL / EQUIPMENT					LOAD (kVA)			OCB		CKT				
		AMP	POLE	LTG	CO	PWR					A	B	C				LTG	CO	PWR	AMP	POLE	NO							
1	200	3	1.6	7.7	17.3				LA	27.0	59.6			33.7		LD	2.9	10.9	19.2	200	3	2							
-	-	-	1.5	7.9	18.5				-	28.2		54.4		27.3		-	2.9	10.1	13.6	-	-	-							
-	-	-	0.0	4.8	20.8				-	25.6			58.7	33.9		-	3.0	9.6	20.5	-	-	-							
3	200	3	1.3	5.9	16.9				LB	24.4	57.8			34.1		LE	1.7	9.8	22.2	200	3	4							
-	-	-	1.6	6.2	14.6				-	22.8		60.3		38.3		-	1.5	10.2	26.2	-	-	-							
-	-	-	0.0	6.2	20.6				-	26.8			61.0	34.5		-	1.0	7.9	25.3	-	-	-							
5	200	3	1.5	9.2	10.9				LC	22.0	48.3			27.2		LF	1.8	6.2	18.7	200	3	6							
-	-	-	1.2	6.6	13.4				-	21.5		48.4		27.6		-	1.6	6.5	19.1	-	-	-							
-	-	-	1.4	6.8	11.7				-	20.3			46.3	26.4		-	0.0	7.5	18.9	-	-	-							
7	200	3							SPARE	0.0	0.0					SPACE					-	3	8						
-	-	-							-	0.0		0.0		0.0		-				-	-	-							
-	-	-							-	0.0		0.0		0.0		-				-	-	-							
TOTALS:										CONNECTED kVA PER PHASE 166 163 166					CONNECTED TOTAL kVA 495														
										CONNECTED AMPS PER PHASE 1381 1360 1383					CONNECTED AVERAGE AMPS PER PHASE 1375														
NEC DIVERSIFIED LOAD CALCULATIONS																													
LIGHTING 27kVA @125% =										33 kVA					ALL OTHER LOADS @100% =					328 kVA					DIVERSIFIED TOTAL kVA = 436				
RECEPTACLES 10kVA @100% =										10 kVA					25% OF LARGEST MOTOR =					0 kVA					AVERAGE AMPS PER PHASE = 1212				
REMAINDER 130kVA @ 50% =										65 kVA																			

6 PANEL "LA" 3																										
VOLTS/PHASE/WIRE: 120/208 V, 3 PH 4 WIRE						PANEL SIZE & TYPE: 22" W x 6" D. BOLT-ON					MAIN SIZE & TYPE: 225 AMP MAIN CB					LOCATION:			AIC RATING: 42,000 AIC		NOTES:					
ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR																										
CKT NO	OCB	LOAD (kVA)				DESCRIPTION					LCL kVA	PHASE LOAD			LCL kVA	DESCRIPTION					LOAD (kVA)				OCB	CKT NO
	AMP	POLE	LTG	CO	PWR							A	B	C					LTG	CO	PWR	AMP	POLE			
1	20	1	1.3							1.6	2.3				1.0		WASHER LAUNDRY A127		1.0		20	1		2		
3	20	1	1.5							1.9		1.9			0.4		CO LAUNDRY A127		0.4		20	1		4		
5	30	2				1.3				1.3				2.6	1.3		DRYER LAUNDRY A101				1.3	30	2	6		
7	-	-				1.3				1.3	2.6				1.3		-				1.3	-	-	8		
9	20	1				1.0				1.0		2.6			1.6		ROOMS A126, A125		1.4	0.2	20	1		10		
11	20	1				1.4	0.2			1.6			1.9	0.3			CUSTODIAN		0.2	0.1	20	1		12		
13	20	1				0.8				0.8	2.0				1.2		RM A122		1.1	0.1	20	1		14		
15	20	1				0.6	0.6			1.2		2.4			1.2		RM A119		1.1	0.1	20	1		16		
17	20	1				1.1	0.1			1.2			1.8	0.6			CO STORAGE/DINING A130		0.6		20	1		18		
19	20	1				1.1	0.1			1.2	2.1			0.9			CO FAMILY ROOM A131		0.9		20	1		20		
21	20	1				1.1	0.1			1.2		2.4			1.2		RM A118		1.1	0.1	20	1		22		
23	20	1				0.9				0.9			3.3	2.4			RANGE KITCHEN A132		2.4	50	2			24		
25	20	1				0.6				0.6	3.0				2.4		-		2.4	-	-	-	-	26		
27	50	2				2.4				2.4		3.4			1.0		REFRIGERATOR A132		1.0		20	1		28		
29	-	-				2.4				2.4			2.6	0.2			CO KITCHEN A132		0.2		20	1		30		
31	20	1				1.0				1.0	2.0				1.0		DISWASHER A132			1.0	20	1		32		
33	20	1				0.2				0.2		1.2			1.0		GARBAGE DISP. A132			1.0	20	1		34		
35	20	1				1.0				1.0			2.9	1.9			RTU-1			1.9	30	3		36		
37	20	1				1.0				1.0	2.9				1.9	-	-			1.9	-	-	-	38		
39	30	3				1.9				1.9		3.8			1.9	-	-			1.9	-	-	-	40		
41	-	-				1.9				1.9			3.8	1.9			RTU-1			1.9	30	3		42		
43	-	-				1.9				1.9		3.8			1.9	-	-			1.9	-	-	-	44		
45	30	3				1.9				1.9			3.8	1.9		-	-			1.9	-	-	-	46		
47	-	-				1.9				1.9				2.7	0.8		EUH-3			0.8	20	2		48		
49	-	-				1.9				1.9		2.7			0.8	-	-			0.8	-	-	-	50		
51	20	1				1.0				1.0		2.0			1.0		EUH-2			1.0	20	2		52		
53	20	1				1.0				1.0			2.0	1.0		-	-			1.0	-	-	-	54		
55	20	1				1.7				1.7	2.0				0.4		EGRESS LIGHTING		0.3		20	1		56		
57	20	1				1.7				1.7		3.4			1.7		CU-1/DSS-1			1.7	20	2		58		
59	20	1				0.4				0.4			2.1	1.7			-			1.7	-	-	-	60		
61	20	1				0.8				0.8	1.2				0.4		KITCHEN ISLAND CO		0.4		20	1		62		
63	20	1				1.0				1.0		1.0			0.0		SPARE				20	1		64		
65	20	1								0.0				0.0	0.0		SPARE				20	1		66		
67	20	1								0.0	0.0				0.0		SPARE				20	1		68		
69	20	1										0.0			0.0		SPARE				20	1		70		
71	20	1								0.0				0.0	0.0		SPARE				20	1		72		
TOTALS:										CONNECTED kVA PER PHASE					27	28	26	CONNECTED TOTAL kVA					80			
										CONNECTED AMPS PER PHASE					221	232	213	CONNECTED AVERAGE AMPS PER PHASE					222			
NEC DIVERSIFIED LOAD CALCULATIONS																										
LIGHTING 3kVA @125% =					4 kVA					ALL OTHER LOADS @100% =					57 kVA					DIVERSIFIED TOTAL kVA = 77						
RECEPTACLES 10kVA @100% =					10 kVA					25% OF LARGEST MOTOR =					2 kVA					AVERAGE AMPS PER PHASE = 215						
REMAINDER 10kVA @ 50% =					5 kVA																					

VOLTS/PHASE/WIRE: 120/208 V, 3 PH 4 WIRE										PANEL SIZE & TYPE: 22" W x 6" D, BOLT-ON				MAIN SIZE & TYPE: 225 AMP MAIN CB				LOCATION:				AIC RATING: 22,000 AIC		NOTES:																			
ACCESSORIES:										PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS																																	
CKT NO	OCP AMP	POLE	LOAD (kVA)			DESCRIPTION	LCL kVA	PHASE LOAD			LCL kVA	DESCRIPTION	LOAD (kVA)			OCP AMP	POLE	CKT NO																									
			LTG	CO	PWR			A	B	C			LTG	CO	PWR																												
1	20	1	1.3			LIGHTING	1.8	2.6			1.3	DRYER LAUNDRY B125			1.3	30	2	2																									
3	20	1	1.3			LIGHTING	1.6		2.6		1.3	-			1.3	-	4	4																									
5	30	2				DRYER LAUNDRY B101	1.3			1.7	0.4	CO LAUNDRY B125	0.4			20	1	6																									
7	-	-				-	1.3	2.3			1.0	WASHER B125	1.0			20	1	8																									
9	20	1		1.4	0.2	ROOMS B104, B105	1.8		3.2		1.6	ROOMS B12, B123	1.4	0.2	20	1	10	10																									
11	20	1		1.0		WASHER LAUNDRY B101	1.0			2.3	1.3	WH/PUMP/FIRE COMP	1.3			20	1	12																									
13	20	1		0.8		CO ROOMS B101, B102	0.8	2.0			1.2	ROOM B119	1.1	0.1	20	1	14	14																									
15	20	1		0.2	0.1	CO & EF-1 CLUST B106	0.3		1.5		1.2	ROOM B117	1.1	0.1	20	1	16	16																									
17	20	1		1.1	0.1	ROOM B108	1.2			2.2	1.0	REFRIGERATOR B129	1.0			20	1	18																									
19	20	1		1.1	0.1	ROOM B111	1.2	1.7			0.5	CO DINING B127	0.5			20	1	20																									
21	20	1		0.5		CO FAMILY RM B114	0.5		1.3		0.8	CO FAMILY/STOR. B128,B121	0.8			20	1	22																									
23	20	1		0.8		CO DINING RM B113	0.8			3.2	2.4	RANGE B129			2.4	50	2	24																									
25	20	1		1.0		REFRIGERATOR B115	1.0	3.4			2.4	-			2.4	-	-	26																									
27	50	2			2.4	RANGE B115	2.4		3.4		1.0	GARBAGE DISP.			1.0	20	1	28																									
29	-	-			2.4	-	2.4			3.4	1.0	DISHWASHER B129			1.0	20	1	30																									
31	20	1		0.2		CO KITCHEN B115	0.2	0.4		0.2	0.2	CO KITCHEN B129	0.2			20	1	32																									
33	20	1			1.0	DISHWASHER B115	1.0		2.9		1.9	RTU-1			1.9	30	3	34																									
35	20	1			1.0	GARBAGE DISP. B115	1.0			2.9	1.9	-			1.9	-	-	36																									
37	30	3			1.9	RTU-1	1.9	3.8			1.9	-			1.9	-	-	38																									
39	-	-			1.9	-	1.9		2.9		1.0	EUH-2			1.0	20	2	40																									
41	-	-			1.9	-	1.9			2.9	1.0	-			1.0	-	-	42																									
43	30	3			1.9	RTU-1	1.9	2.7			0.8	EUH-3			0.8	20	2	44																									
45	-	-			1.9	-	1.9		2.7		0.8	-			0.8	-	-	46																									
47	-	-			1.9	-	1.9			3.6	1.7	EUH-1			1.7	20	-	48																									
49	20	2			0.8	EUH-3	0.8	2.5			1.7	-			1.7	-	-	50																									
51	-	-			0.8	-	0.8		1.1		0.4	EGRESS LIGHTING	0.3			20	1	52																									
53	20	2			1.0	EUH-2	1.0			2.7	1.7	CU-1/DSS-1			1.7	20	2	54																									
55	-	-			1.0	-	1.0	2.7			1.7	-			1.7	-	-	56																									
57	20	1		0.4		KITCHEN ISLAND CO	0.4		0.8		0.4	KITCHEN ISLAND CO	0.4			20	1	58																									
59	20	1		0.6		RTU CO'S	0.6			1.6	1.0	SMOKE DETECTORS			1.0	20	1	60																									
61	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	62																									
63	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	64																									
65	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	66																									
67	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	68																									
69	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	70																									
71	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	72																									
TOTALS:							CONNECTED KVA PER PHASE							24			18			26			CONNECTED TOTAL KVA							73													
							CONNECTED AMPS PER PHASE							201			222			221			CONNECTED AVERAGE AMPS PER PHASE							193													
NEC DIVERSIFIED LOAD CALCULATIONS																																											
LIGHTING 3kVA @125% =																			4 kVA					ALL OTHER LOADS @100% =					52 kVA					DIVERSIFIED TOTAL KVA =					71				
RECEPTACLES 10kVA @100% =																			10 kVA					25% OF LARGEST MOTOR =					2 kVA					AVERAGE AMPS PER PHASE =					198				
REMAINDER 8kVA @ 50% =																			4 kVA																								

6 PANEL "LD" 3																													
VOLTS/PHASE/WIRE: 120/208 V, 3 PH 4 WIRE					PANEL SIZE & TYPE: 22" W x 6" D BOLT-ON					MAIN SIZE & TYPE: 250 AMP MAIN CB					LOCATION:					AIC RATING: 10,000 AIC					NOTES:				
ACCESSORIES: PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS																													
CKT NO	OCP AMP	POLE	LOAD (kVA)			DESCRIPTION	LCL kVA	PHASE LOAD			LCL kVA	DESCRIPTION	LOAD (kVA)			OCP AMP	POLE	CKT NO											
			LTG	CO	PWR			LTG	CO	PWR			AMP																
1	20	1	1.4			LIGHTING	1.8	2.8			1.4	CO DINING D103			1.4	20	1	2											
3	20	1	1.2			LIGHTING	1.5		2.4		1.2	CO COMMON AREA D112			1.2	20	1	4											
5	20	1	0.6			LIGHTING	0.8			1.6	1.0	FB WORKOUT RM D113			1.0	20	1	6											
7	20	1		0.9		CO RECEPTION D109	0.9	1.9			1.0	FB WORKOUT RM D113			1.0	20	1	8											
9	20	1		0.7		WH/PUMP	0.7		1.7		1.0	FB WORKOUT RM D113			1.0	20	1	10											
11	20	1		0.9	0.3	CO D108A, D108, D107, D106	1.2			2.2	1.0	CO WORKOUT RM D113			1.0	20	1	12											
13	20	1		0.6		CO PNTRY/SERV, D104,105	0.6	1.6			1.0	CO WORKOUT RM D113			1.0	20	1	14											
15	20	1		1.0		REFRIGERATOR D105	1.0		2.0		1.0	DRINKING FOUNTAIN			1.0	20	1	16											
17	20	1		1.3		FREEZER D105	1.3			2.3	1.0	CO WORKOUT RM D113			1.0	20	1	18											
19	20	1			1.5	KITCHEN HOOD	1.5	2.5			1.0	CO WORKOUT RM D113			1.0	20	1	20											
21	30	2			1.7	SOFT SERVE MACHINE	1.7		2.3		0.6	CO WORKOUT RM D113			0.6	20	1	22											
23	-	-			1.7	-	1.7				2.5	0.8	FIRE CO/FIRE COMP D114A		0.2	0.6	20	1	24										
25	20	1		0.6		CO KITCHEN D101	0.6	1.4			0.8	CO OFFICE/STOR D115			0.8	20	1	26											
27	20	1		1.0		CO KITCHEN D101	1.0		1.8		0.8	CO YOGA STUDIO D114			0.8	20	1	28											
29	50	2			4.0	DISHWASHER	4.0			5.0	1.0	CO OFFICE D118			1.0	20	1	30											
31	-	-			4.0	-	4.0	4.8			0.8	CO MUSIC ROOM D117			0.8	20	1	32											
33	20	1		0.6		SANDWICH/SALAD FRIDGE	0.6		1.4		0.8	CO ART ROOM D116			0.8	20	1	34											
35	20	1		1.0		CO KITCHEN D101	1.0			1.4	0.4	CO COMPUTER LAB D119			0.4	20	1	36											
37	20	1		1.8		ESPRESSO MACHINE	1.8	2.2			0.4	CO COMPUTER LAB D119			0.4	20	1	38											
39	20	1		1.0		CO KITCHEN D101	1.0		1.4		0.4	CO COMPUTER LAB D119			0.4	20	1	40											
41	20	3		0.5		GEF-1	0.5			2.4	1.9	RTU-1			1.9	30	3	42											
43	-	-		0.5		-	0.5	2.4			1.9	-			1.9	-	-	44											
45	-	-		0.5		-	0.5		2.4		1.9	-			1.9	-	-	46											
47	20	3		0.4		MAU-1	0.4			2.3	1.9	RTU-1			1.9	30	3	48											
49	-	-		0.4		-	0.4	2.3			1.9	-			1.9	-	-	50											
51	-	-		0.4		-	0.4		2.3		1.9	-			1.9	-	-	52											
53	30	3		1.9		RTU-1	1.9			2.9	1.0	EUH-2			1.0	20	2	54											
55	-	-		1.9		-	1.9	2.9			1.0	-			1.0	-	-	56											
57	-	-		1.9		-	1.9		3.8		1.9	RTU-1			1.9	30	3	58											
59	20	1		1.8		ICE MAKER	1.8			3.7	1.9	-			1.9	-	-	60											
61	20	1		1.5		ANSUL FIRE PANEL	1.5	3.4			1.9	-			1.9	-	-	62											
63	20	1	0.2			EGRESS LIGHTING	0.3		1.9		1.7	EUH-1			1.7	20	2	64											
65	20	1	1.5			BLDG A & B CANOPY LTG	1.9			3.2	1.7	-			1.7	-	-	66											
67	20	1	1.5			BLDG E & F CANOPY LTG	1.9	2.5			1.0	EUH-2			1.0	20	2	68											
69	20	1	1.5			BLDG C & D CANOPY LTG	1.9		2.5		1.0	-			1.0	-	-	70											
71	20	1	0.9			PARKING LOT LTG	1.1			2.6	1.7	CU-1/DSS-1			1.7	20	2	72											
73	20	1		0.6		RTU CO'S	0.6	2.3			1.7	-			1.7	-	-	74											
75	20	2		0.8		EUH-3	0.8		1.8		1.0	EUH-2			1.0	20	1	76											
77	-	-		0.8		-	0.8			1.8	1.0	-			1.0	20	1	78											
79	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	80											
81	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	82											
83	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	84											
TOTALS:							CONNECTED kVA PER PHASE							33	28	34	CONNECTED TOTAL kVA							95					
							CONNECTED AMPS PER PHASE							275	231	282	CONNECTED AVERAGE AMPS PER PHASE							263					
NEC DIVERSIFIED LOAD CALCULATIONS																													
LIGHTING 9kVA @125% =					11 kVA					ALL OTHER LOADS @100% =					55 kVA					DIVERSIFIED TOTAL kVA =					86				
RECEPTACLES 10kVA @100% =					10 kVA					25% OF LARGEST MOTOR =					0 kVA					AVERAGE AMPS PER PHASE =					240				
REMAINDER 21kVA @50% =					10 kVA																								

6 PANEL "LE2"																													
VOLTS/PHASE/WIRE: 120/208 V, 3 PH 4 WIRE					PANEL SIZE & TYPE: 22" W x 6" D BOLT-ON					MAIN SIZE & TYPE: 100 AMP MAIN LUGS					LOCATION:					AIC RATING: 10,000 AIC		NOTES:							
ACCESSORIES:					PANEL DIRECTORY, IDENTIFICATION, GROUNDING BAR, INSULATED GROUND BAR, SUBFEED LUGS																								
CKT NO	OCP AMP	POLE	LOAD (kVA)			DESCRIPTION	LCL kVA	PHASE LOAD				LCL kVA	DESCRIPTION	LOAD (kVA)			OCP AMP	POLE	CKT NO										
			LTG	CO	PWR			A	B	C	LTG			CO	PWR														
1	20	2			0.8	EUH-3	0.8	1.0			0.2	CO SERVING E140			0.2	20	1	2											
3	-	-			0.8	-	0.8			1.0	0.2	CO SERVING E140			0.2	20	1	4											
5	20	2			1.0	EUH-2	1.0			2.0	1.0	REFRIGERATOR E140			1.0	20	1	6											
7	-	-			1.0	-	1.0	2.1			1.1	GATHERING/LEARN E136			1.1	20	1	8											
9	20	2			0.8	EUH-3	0.8		1.6		0.8	CO AV E139			0.8	20	1	10											
11	-	-			0.8	-	0.8			0.8	0.0	SPARE				20	1	12											
13	20	2			0.8	EUH-3	0.8	0.8			0.0	SPARE				20	1	14											
15	-	-			0.8	-	0.8		0.8		0.0	SPARE				20	1	16											
17	20	2			1.7	EUH-1	1.7			1.7	0.0	SPARE				20	1	18											
19	-	-			1.7	-	1.7	1.7			0.0	SPARE				20	1	20											
21	20	2			1.0	EUH-2	1.0		1.0		0.0	SPARE				20	1	22											
23	-	-			1.0	-	1.0			1.0	0.0	SPARE				20	1	24											
25	20	1		0.2	0.6	CO FIRE E135/FIRE COMP.	0.8	0.8			0.0	SPARE				20	1	26											
27	20	1		1.0		DRINKING FOUNTAIN	1.0		1.0		0.0	SPARE				20	1	28											
29	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	30											
31	20	1				SPARE	0.0	0.0			0.0	SPARE				20	1	32											
33	20	1				SPARE	0.0		0.0		0.0	SPARE				20	1	34											
35	20	1				SPARE	0.0			0.0	0.0	SPARE				20	1	36											
TOTALS:							CONNECTED kVA PER PHASE			6	5	6	CONNECTED TOTAL KVA			17													
							CONNECTED AMPS PER PHASE			53	45	46	CONNECTED AVERAGE AMPS PER PHASE			48													
NEC DIVERSIFIED LOAD CALCULATIONS																													
LIGHTING 0kVA @125% =						0 kVA						ALL OTHER LOADS @100% =						13 kVA						DIVERSIFIED TOTAL kVA = 17					
RECEPTACLES 5kVA @100% =						5 kVA						25% OF LARGEST MOTOR =						0 kVA						AVERAGE AMPS PER PHASE = 48					
REMAINDER 0kVA @50% =						0 kVA																							



1 LIGHTING PLAN - BUILDING 'C'
SCALE: 1/4"=1'-0"

GENERAL SHEET NOTES

- OCCUPANCY SENSORS SHALL NOT TURN LIGHTS ON TO MORE THAT 50%. LIGHTS MUST BE MANUALLY ADJUSTED TO 100%. PHOTOCELLS TO BE SET AT 30 FC. PROVIDE ROOM/DIMMING CONTROLLERS AS NECESSARY TO FACILITATE LIGHTING OPERATION AS DESCRIBED.

SHEET KEYNOTES

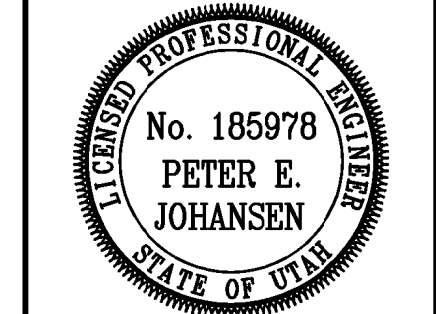
-

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.348-6381
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #1-January 04, 2017
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017

data

project no:
drawn by:
checked by:

title
LIGHTING PLAN -
BUILDING 'C'

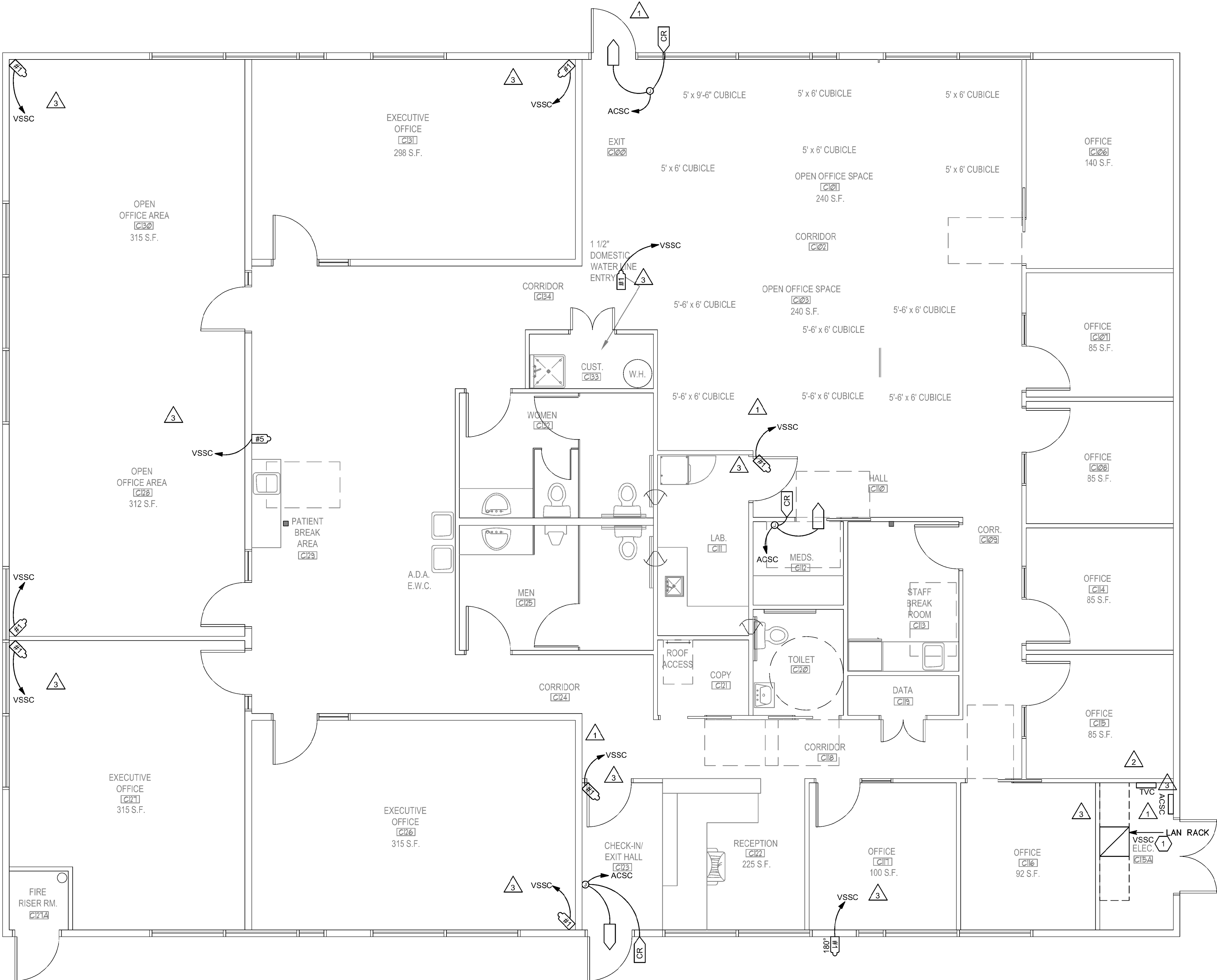
sheet

EL11C

BUILDING 'C' 4905 South 900 East PARCEL #22081850080000

LIGHTING FIXTURE SCHEDULE									
NOTE TO BIDDERS: COMPLY WITH THE SPECIFICATIONS.									
REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED. CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. DIM/ENSION SEQUENCE = (LENGTH X WIDTH X DEPTH) IN INCHES.									
		FIXTURE CHARACTERISTICS							
SYMBOL	MARK	BODY / AIR / MOUNTING / DOOR	LAMP	WATTS	VOLTS	MANUFACTURER	CATALOG NUMBER	NOTES	
DX		LENS/LOUVER/REFLECTOR/OTHER							
LED DOWNLIGHT, THERMALLY PROTECTED HOUSING; TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF-FLANGING TRIM UNLESS NOTED.									
DX-1		RECESSED DOWNLIGHT; VERTICAL, FULL ON AT 0 VOLTS CONTROL INPUT 6" 3500 K DIMMALE 0-10V	1500 LU 3500k	27W	120/277V	PEACHTREE	6BLRD-IC-18-35K-80-SH-TRW-120 OR EQUIVALENT		
DX-2		RECESSED DOWNLIGHT; VERTICAL, FULL ON AT 0 VOLTS CONTROL INPUT 6" 3500K, 90 CRI 2000 LUMENS DIMMABLE 0-10V DAMP LOCATION	2000 LI 3500k	54W	120/277V	PEACHTREE	6BLRD-IC-20-35K-80-SH-RCA-120 OR EQUIVALENT		
DX-4		RECESSED DOWNLIGHT; LED 6" SHOWER LIGHT 4000k	1250 L 3500k	27W	120/277V	PEACHTREE EATON	6BLRD-IC-13-35K-80-SH-RCA-WL-120 SLD612-80-35-WH WITH H7ICAT HOUSING OR EQUIVALENT		
E		E SUFFIX INDICATES THAT FIXTURE IS PROVIDED WITH AN EMERGENCY BATTERY PACK TO PROVIDE POWER LED LAMPS, TO PROVIDE 90 MINUTES OF EMERGENCY POWER TO FIXTURE. MINIMUM LIGHT OUTPUT FOR TYPICAL 4" LAMP SHALL BE 1100 LUMENS OR HIGHER;UNIVERSAL TRANSFORMER FOR 120 OR 277 VOLTS; LOW VOLTAGE PROTECTION, COMBINATION TEST SWITCH AND AC "ON" INDICATOR; 10 YEAR PRO-RATA WARRANTY; INSTALL TEST SWITCH IN A MANNER THAT REQUIRES NO DISASSEMBLY FOR TESTING.							
E		EMERGENCY BATTERY PACK. self testing ballasts		3W	120/277V	DUAL-LITE BODINE LITHONIA EMERG1 LITE EVENLINT	UFO 6WI REDITEST PS1400CD SD FPD1UJ BAL1400		
E10		EXIT SIGN: METAL HOUSING; CEILING MOUNT, SEE DRAWINGS; ARROWS PER PLANS; LED LAMPS; EDGE LIGHTED CLEAR LENS; GREEN LETTERS ON CLEAR BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. UNITS SHOWN ARE CEILING MOUNT MODELS. CONTRACTOR TO PROVIDE MATCHING LOW LEVEL WALL MOUNTED UNITS WHERE REQUIRED.							
E10-1E		SINGLE FACE: WITH EMERGENCY BATTERY PACK	LED	2W	120/277V	DUAL-LITE MCPHILBEN EELP LITHONIA EVENLITE ISOLITE CHLORIDE LIGHTOLIER	LECGSWA 45V-L-1-GC-XX EDG 1 GC W EM LRP W 1 GC XX 120/277 SOV-AC-G-1M WH XX UC EDGL-S-S-G-BK (BLACK HOUSING) STD1X-X-1-GC-X LEAC1GCX		
E10-2E		DUAL FACE: WITH EMERGENCY BATTERY PACK	LED	2W	120/277V	DUAL-LITE MCPHILBEN EELP LITHONIA EVENLITE ISOLITE CHLORIDE LIGHTOLIER	LECDGWA 45V-L-2-GM-XX EDG 2 GC W EM LRP W 2 GMR XX 120/277 SOV AC G 2M WH XX UC EDGL-D-S-G-BK (BLACK HOUSING) STD1X-X-2-GC-X LEAC2GC7		
HG		EXTERIOR CANOPY FIXTURES							
HG-1		RECESSED SQUARE LED CANOPY LIGHT, BRONZE FINISH, WIDE DISTRIBUTION	LED 3000K	50W 3800 LU	120/277V	MCGRAW EDISON	LRC-B16-1-LED-E1-WST		
OC		WALL MOUNTED TRAPEZOIDAL WALL PACK, WET LOCATION							
OC-32		LED WALL PACK, TYPE IV OPTICS BRONZE FINISH	LED 3500K	24W 1600 LU	120/277V	LITHONIA	WST-LED-1-10A700-35K-SR4-MVOLT		
TX		SPECIAL FIXTURES AS INDICATED. MEET ALL REQUIREMENTS OF SPECIFICATIONS AND FIXTURE SCHEDULE. VISUAL AND FINISH APPROVAL REQUIRED.							
TX-1		Surface Mounted Drum 36" Diameter	LED 3500K	100W	120/277V	SHAPER SPI	122-36-L-UVN-SN AIC11866-L100.4WDM-L-PT04-120-277V-3500K-FB01		
TX-2		Surface Mounted Drum 24" Diameter	LED 3500K	37W	120/277V	SHAPER SPI	122-24-L-UVN-SN AIC11865-L46.6VDM-L-PT04-120-277V-3500K-FB01		
TX-3		Surface Mounted Bedroom Light	LED 3500K	24W	120/277V	BETACALCO	FIERO-60 1200-3500K-PC-SN		
TX-4		Surface Mounted Closet Light	LED 3000K	22W	120/277v	METALUX	FM-15-W-R-30-R		
TX-5		PENDANT	LED 3500K	21W	120/277V	SPI	SIP11783-2F21-120-F-AC1		

File Name: P:\2016\20160686\Drawings\3Sheet\Building C\86EY11C.dwg Last Plotted: 2017/03/31 @ 12:48 PM By: jrw



GENERAL SHEET NOTES

1.

SHEET KEYNOTES

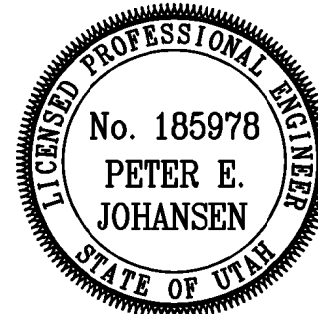
- VIDEO SURVEILLANCE CAMERA SYSTEM SHALL BE INSTALL IN "LAN" RACK WITH ASSOCIATED PATCH PANEL, NETWORK SWITCH, AND NETWORK VIDEO RECORDER/SERVER.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346-6381
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #1-January 04, 2017
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017

data

project no:

drawn by:

checked by:

title

AUXILIARY PLAN -
BUILDING 'C'

sheet

EY11C

1 AUXILIARY PLAN - BUILDING 'C'

SCALE: 1/4"=1'-0"

BUILDING 'C' 4905 South 900 East PARCEL #22081850080000



(

5

- 1.



(

--	--

1

3

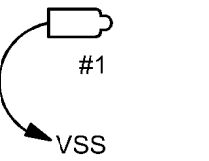
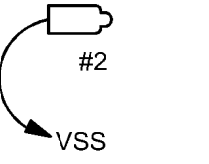
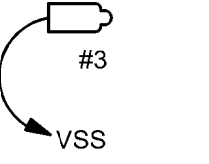
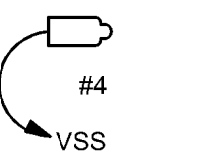
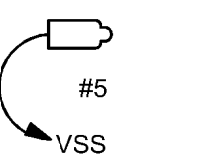
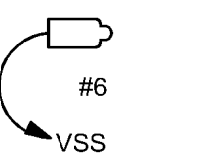
$$1/8'' = 1'-0''$$



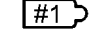

NOTES:

- 1.

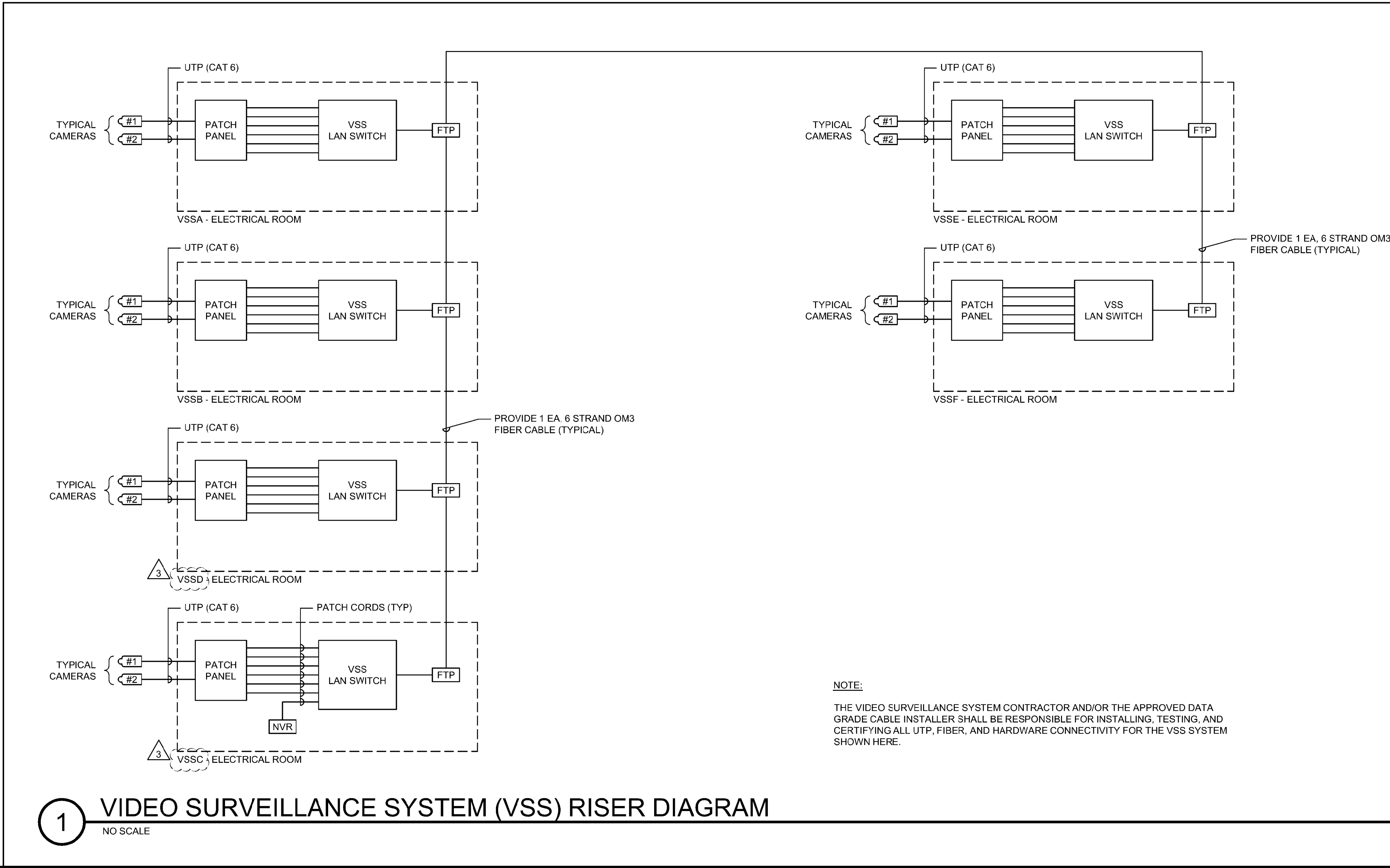
h

January 04, 2017

VSS CAMERA/ENCLOSURE TYPE SCHEDULE			
CAMERA TYPE NUMBER	SYMBOL	DESCRIPTION	INCLUDES
TYPE 1		INTERIOR CAMERA - FIXED DOME (CEILING MOUNTED UNLESS J-BOX SHOWN)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND * POE PROVIDE AVIGILON 1.0C-H4A-DC1 OR APPROVED EQUAL.
TYPE 2		INTERIOR CAMERA - FIXED DOME (WALL MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * WALL MOUNT HARDWARE PROVIDE AVIGILON 1.0C-H4A-D1 OR APPROVED EQUAL.
TYPE 3		EXTERIOR CAMERA - MULTI SENSOR (WALL PENDANT MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY * 180" PROVIDE AVIGILON 9W-H3-3MH-DP1 OR APPROVED EQUAL. WALL MOUNT - AVIGILON MNT-PEND-WALL CORNER MOUNT - AVIGILON MNT-AD-CORNER
TYPE 4		EXTERIOR CAMERA - MULTI-SENSOR (CORNER PENDANT MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY * 270" PROVIDE AVIGILON 9W-H3-3MH-DP1 OR APPROVED EQUAL. WALL MOUNT - AVIGILON MNT-PEND-WALL CORNER MOUNT - AVIGILON MNT-AD-CORNER
TYPE 5		INTERIOR CAMERA - MULTI-SENSOR (CEILING MOUNTED)	* CAMERA/ENCLOSURE-FLUSH MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * 180" - 270" PROVIDE AVIGILON 9W-H3-3MH-DC1 OR APPROVED EQUAL.
TYPE 6		EXTERIOR CAMERA - FIXED BULLET (WALL MOUNTED)	* CAMERA/ENCLOSURE-SURFACE MOUNTED * CAT6 SIGNAL CABLE AS INDICATED TO HEADEND (VSS) * POE * ENVIRONMENTAL ASSEMBLY PROVIDE AVIGILON 2.0C-H4A-B02-IR OR APPROVED EQUAL.

VIDEO SURVEILLANCE EQUIPMENT SCHEDULE		
SYMBOL	DESCRIPTION	ACCEPTABLE TYPES
	POE NETWORK SWITCH	NETGEAR
	NETWORK VIDEO RECORDER	SEE SPECIFICATION 282300
	VIDEO CAMERA	SEE VSS CAMERA SCHEDULE
	4 PAIR, CAT 6, UTP PLENUM	SEE SPECIFICATIONS

OFF = OBTAIN FROM PLANS; A/R = AS REQUIRED

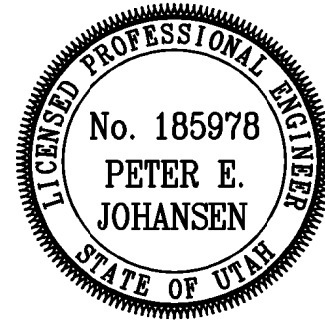


Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.348.6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET--December 28, 2016
ADDENDUM #1--January 04, 2017
ADDENDUM #2--January 06, 2017
ADDENDUM #3--January 11, 2017
ADDENDUM #4--January 17, 2017
ADDENDUM #5--January 19, 2017
ADDENDUM #7--March 31, 2017

data

project no:

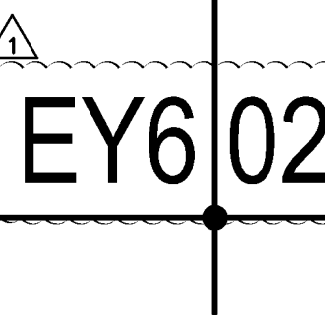
drawn by:

checked by:

title

AUXILIARY RISER
DIAGRAMS

sheet

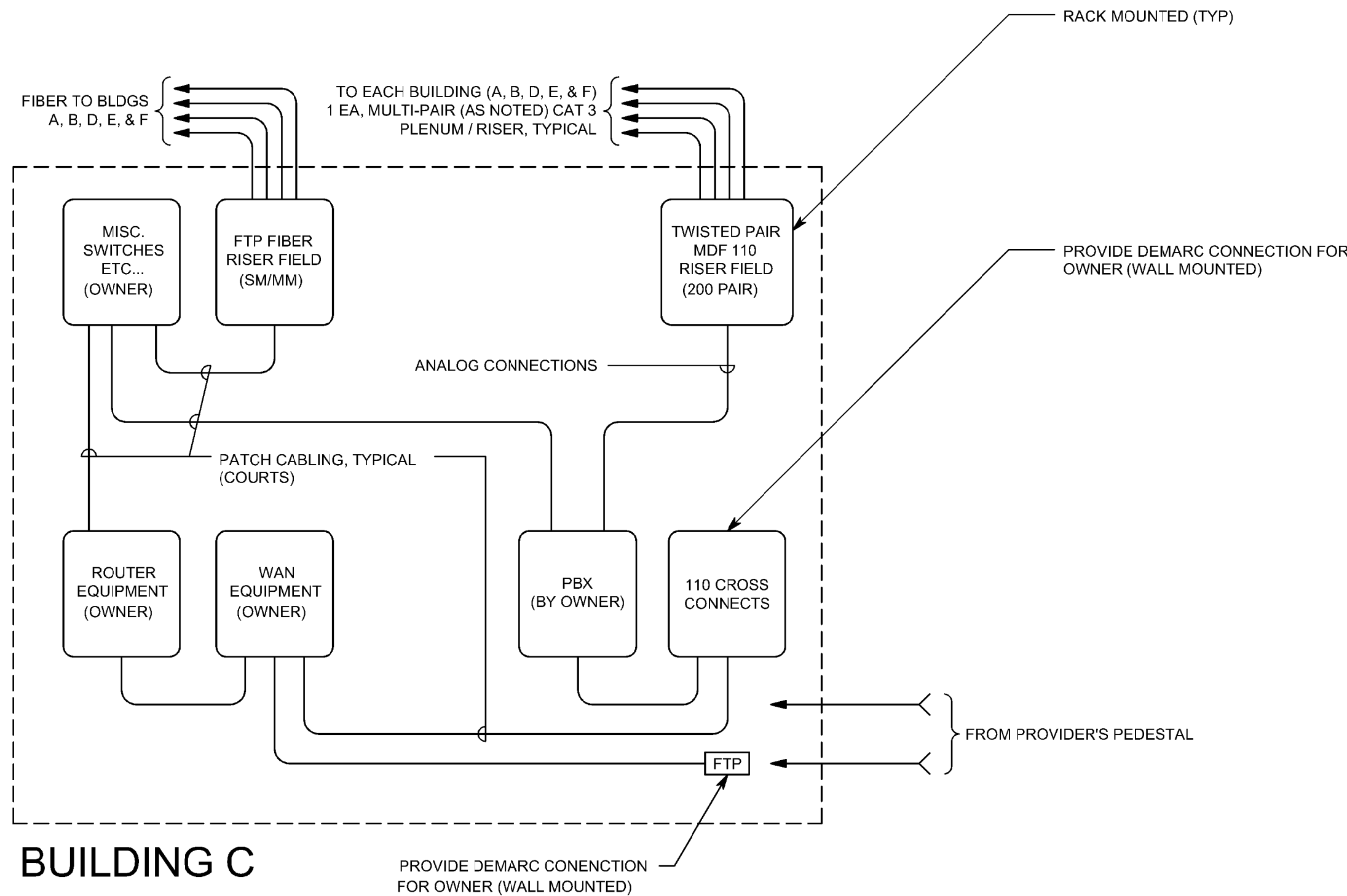


File Name: P:\2016\20160686\Drawings\3Sheet\Building_C\86E\603C.dwg Last Plotted: 2017/03/31 @ 12:46 PM By: jrw

5

MAIN NETWORK ROOM SINGLE LINE DIAGRAM W/UTILITY DEMARC INFORMATION

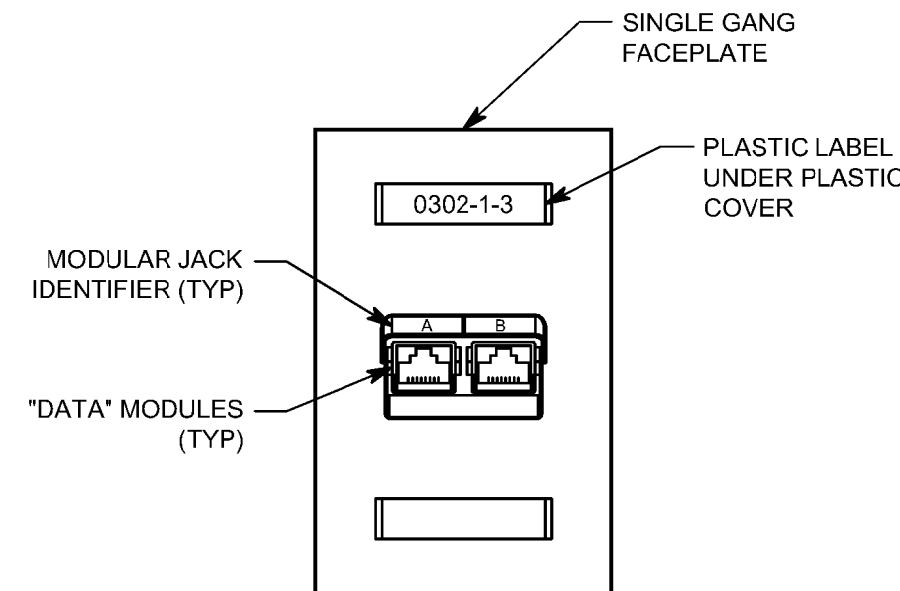
NTS



4

DATA PLATE DETAIL (TYP)

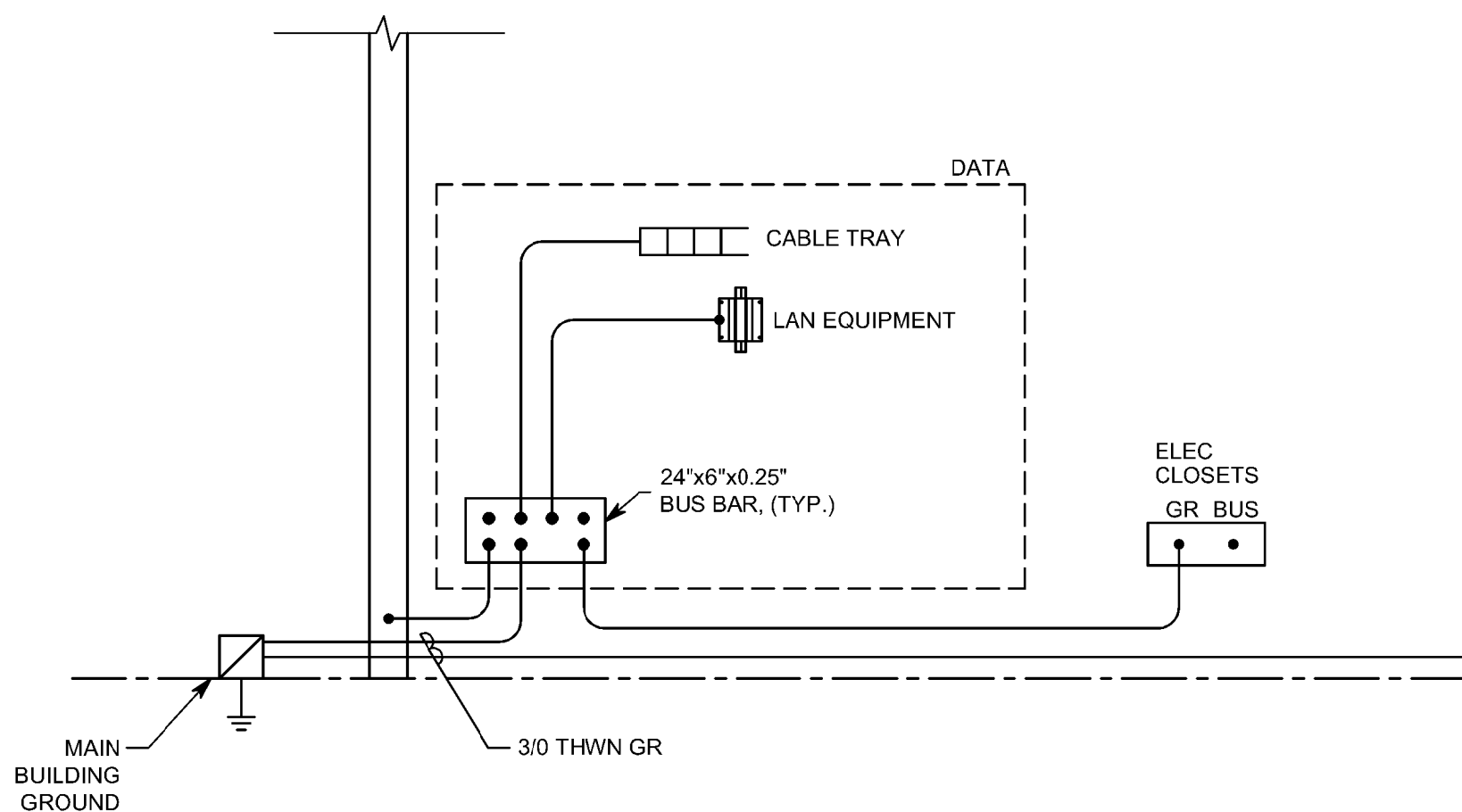
NO SCALE



3

VOICE-DATA GROUNDING AND CONDUIT RISER DIAGRAM

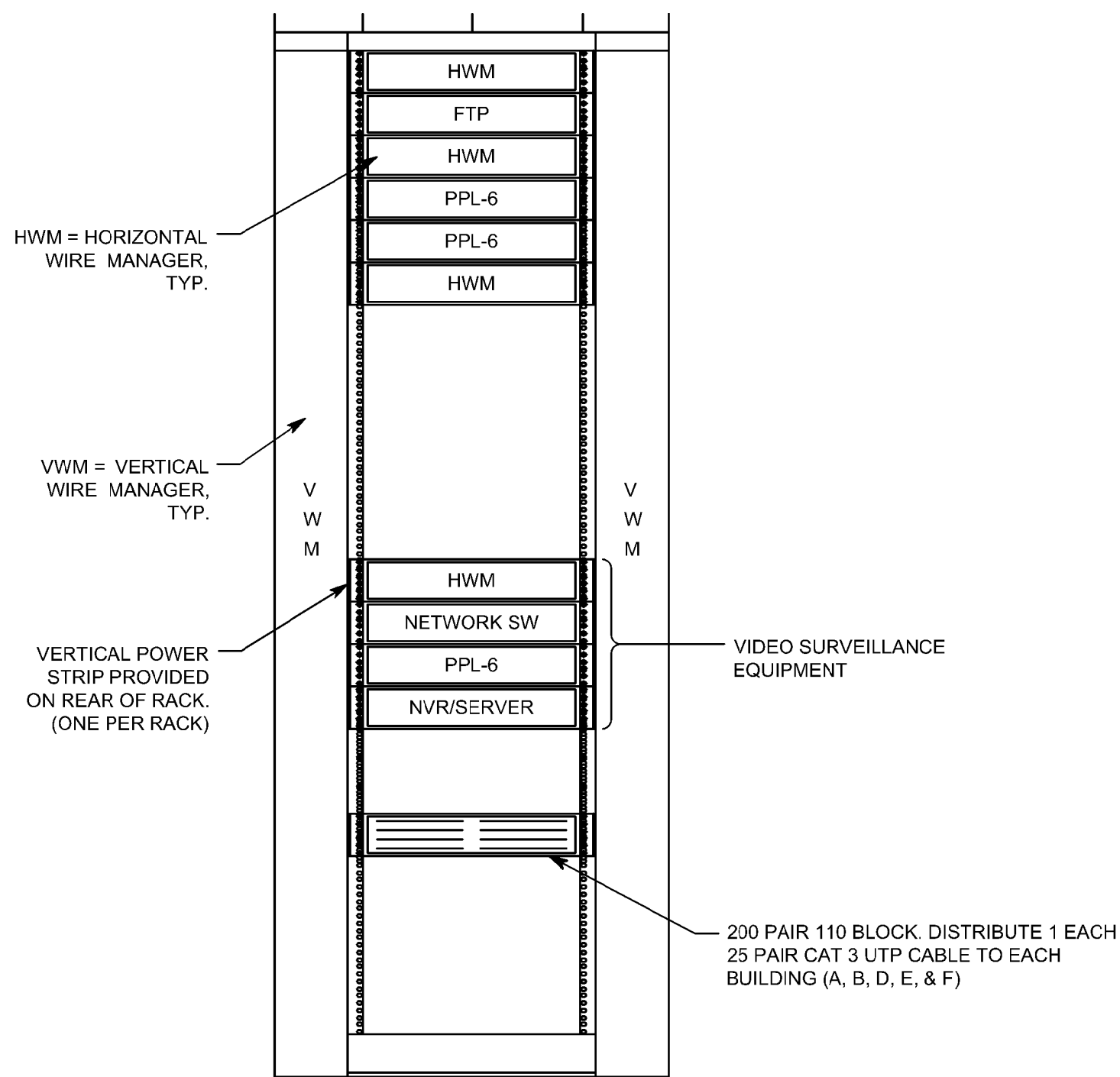
NTS



2

HORIZONTAL TERMINATION RACK ELEVATION - BUILDING C

NTS



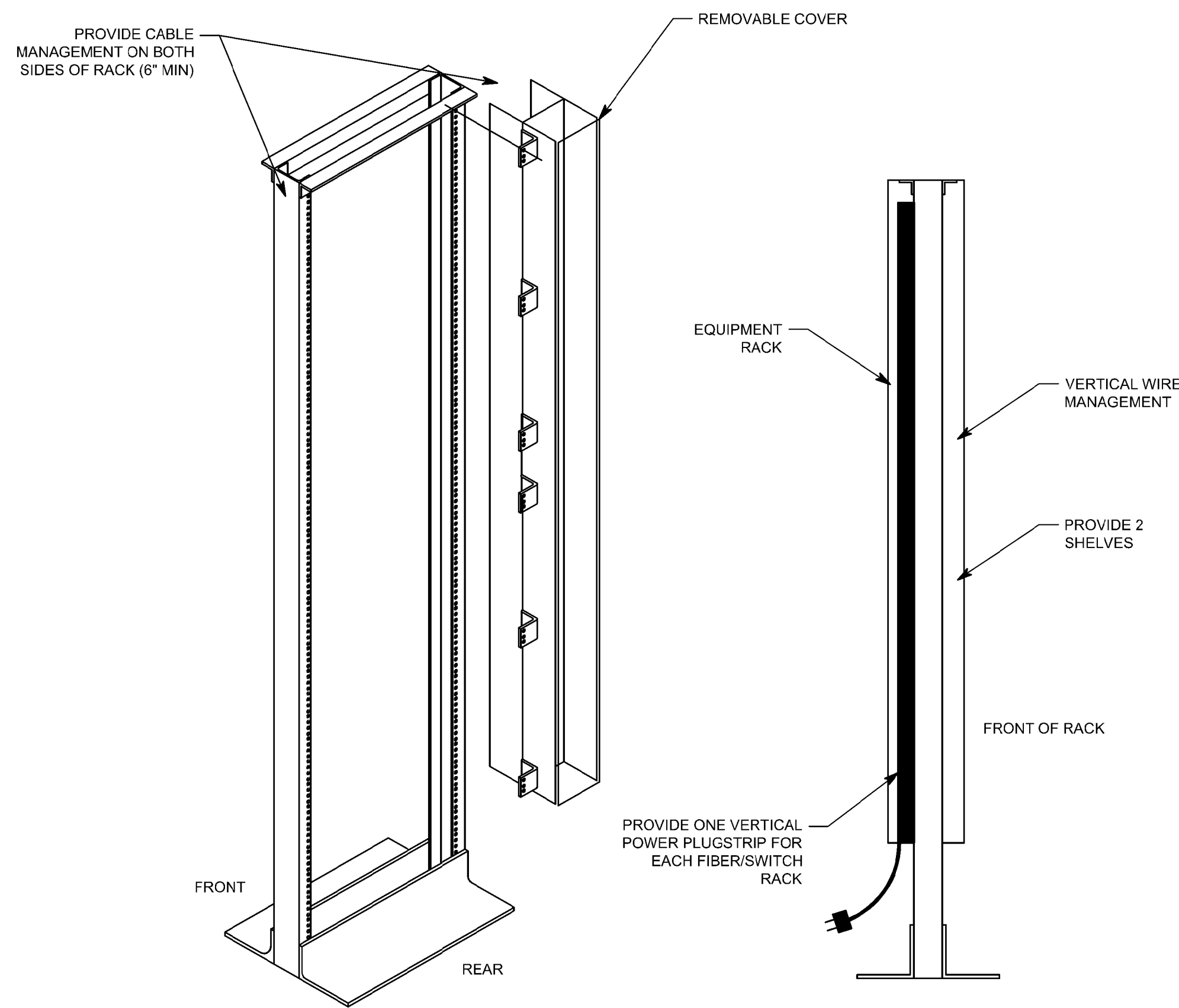
NOTES:

- RACK LAYOUTS ARE FOR COORDINATION PURPOSES. ALL FINAL RACK LAYOUTS ARE TO BE COORDINATED WITH OWNER PERSONNEL.
- PROVIDE ALL WIRE MANAGEMENT ACCESSORIES SHOWN.

1

OPEN FRAME EQUIPMENT RACK/RACEWAY MOUNTING DETAILS

NO SCALE



VOICE/DATA EQUIPMENT/CABLE LIST

GENERAL NOTE:
THIS REPRESENTS ITEMS OF SIGNIFANCE USED DURING THE DESIGN OF THE CABLING INSTALLATION, WHILE THE ITEMS INDICATED BELOW SHALL NOT BE CONSTRUED AS A "BILL OF MATERIALS". FURNISH ALL MISCELLANEOUS HARDWARE AND SUPPORTS WHICH MAY NOT BE LISTED HERE FOR A COMPLETE INSTALLATION. COMPARE CATALOG NUMBERS WITH DESCRIPTION AND PRIOR TO PURCHASING ANY EQUIPMENT OR CABLE. REFER TO SECTION 16741 FOR ADDITIONAL INFORMATION. NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO BID AND PROVIDE COMPLETE SUBMITTAL FOR APPROVAL.

SYMBOL	ITEM DESCRIPTION	COMMENTS
	4 PAIR 24 GAUGE CAT 6 UTP, PLENUM CABLE	SEE SPECIFICATIONS
	6 STRAND FIBER PLENUM CABLE, MULTI-MODE (OM3)	SEE SPECIFICATIONS
PPL6-48	48-PORT PATCH PANEL WITH CAT 6 RJ45 JACKS; MOUNTED IN RACK.	PROVIDE FOR QUANTITY OF PORTS SHOWN ON DRAWINGS, PLUS 20%
FTP	SC TYPE CONNECTOR PANEL - PORTS AS REQUIRED	PROVIDE MODULAR TYPE WITH ADAPTOR PLATES.
	DATA RACK, FLOOR MOUNTED	OPEN RACK, STANDARD 19", PROVIDE RACKS AS SHOWN IN ROOM LAYOUT DETAILS. SEE SPECIFICATIONS.
WAP	DATA JACK, 2 CAT 6 CABLES EACH	PROVIDE WITH CAT 6 COMPLIANT RJ45 MODULAR CONNECTORS. SEE DETAIL.
PATCH CORDS	PATCH CORDS, CAT 6	PROVIDE 1 EACH FOR EVERY CABLE TERMINATED FROM HORIZONTAL CABLING OUTLETS.
	110 STYLE PUNCHDOWN BLOCKS (DUAL SIDED - 1 SIDE STATION, 1 SIDE RISER)	PROVIDE QUANTITY OF PAIRS NEEDED, A 100 PAIR CABLE WOULD NEED 100 PAIR FOR EACH SIDE OF THE BLOCK

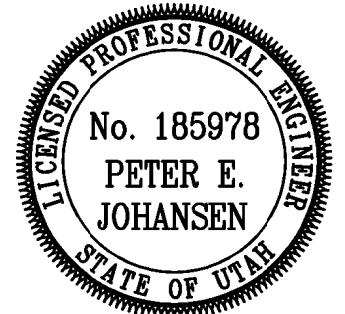
NIC = NOT IN CONTRACT

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.348.6381
dwlch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

- PERMIT SET-December 28, 2016
- ADDENDUM #1-January 04, 2017
- ADDENDUM #2-January 06, 2017
- ADDENDUM #3-January 11, 2017
- ADDENDUM #4-January 17, 2017
- ADDENDUM #5-January 19, 2017
- ADDENDUM #7-March 31, 2017

data

project no:

drawn by:

checked by:

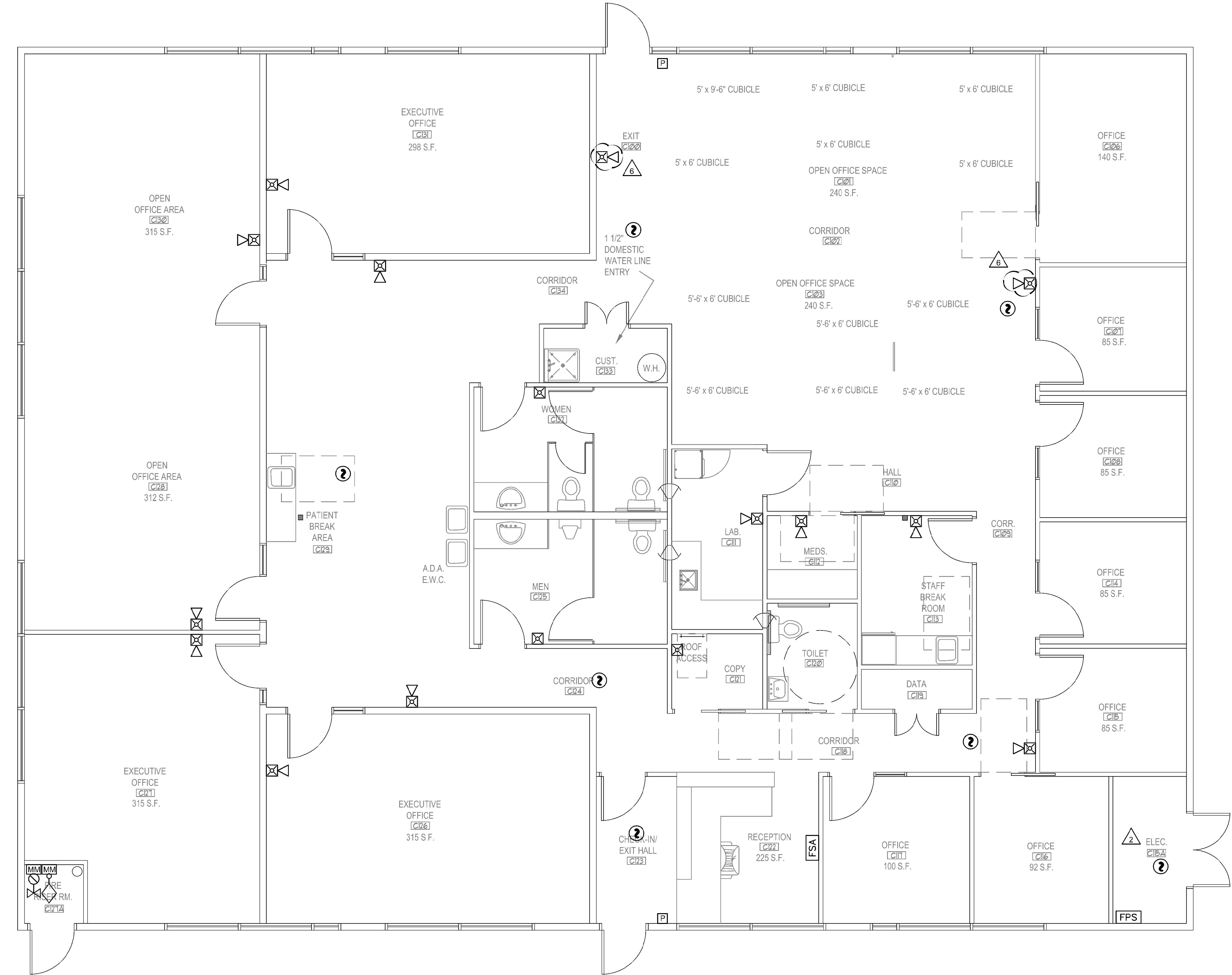
title

AUXILIARY RISER
DIAGRAMS

sheet

EY6 03

File Name: P:\2016\20160686\Drawings\3Sheet\Building C\86FA11C.dwg Last Plotted: 2017/03/31 @ 12:46 PM By: jrw



1 FIRE ALARM PLAN - BUILDING 'C'

SCALE: 1/4"=1'-0"

GENERAL SHEET NOTES

1.

SHEET KEYNOTES

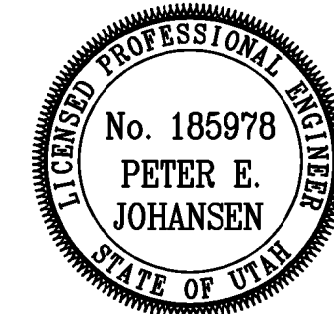
1.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.346-6391
dwelch5977@msn.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

**Tenant Finish
for New
Brighton
Recovery
Campus**
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET-December 28, 2016
ADDENDUM #1-January 04, 2017
ADDENDUM #2-January 06, 2017
ADDENDUM #3-January 11, 2017
ADDENDUM #4-January 17, 2017
ADDENDUM #5-January 19, 2017
ADDENDUM #7-March 31, 2017

data

project no:

drawn by:

checked by:

title

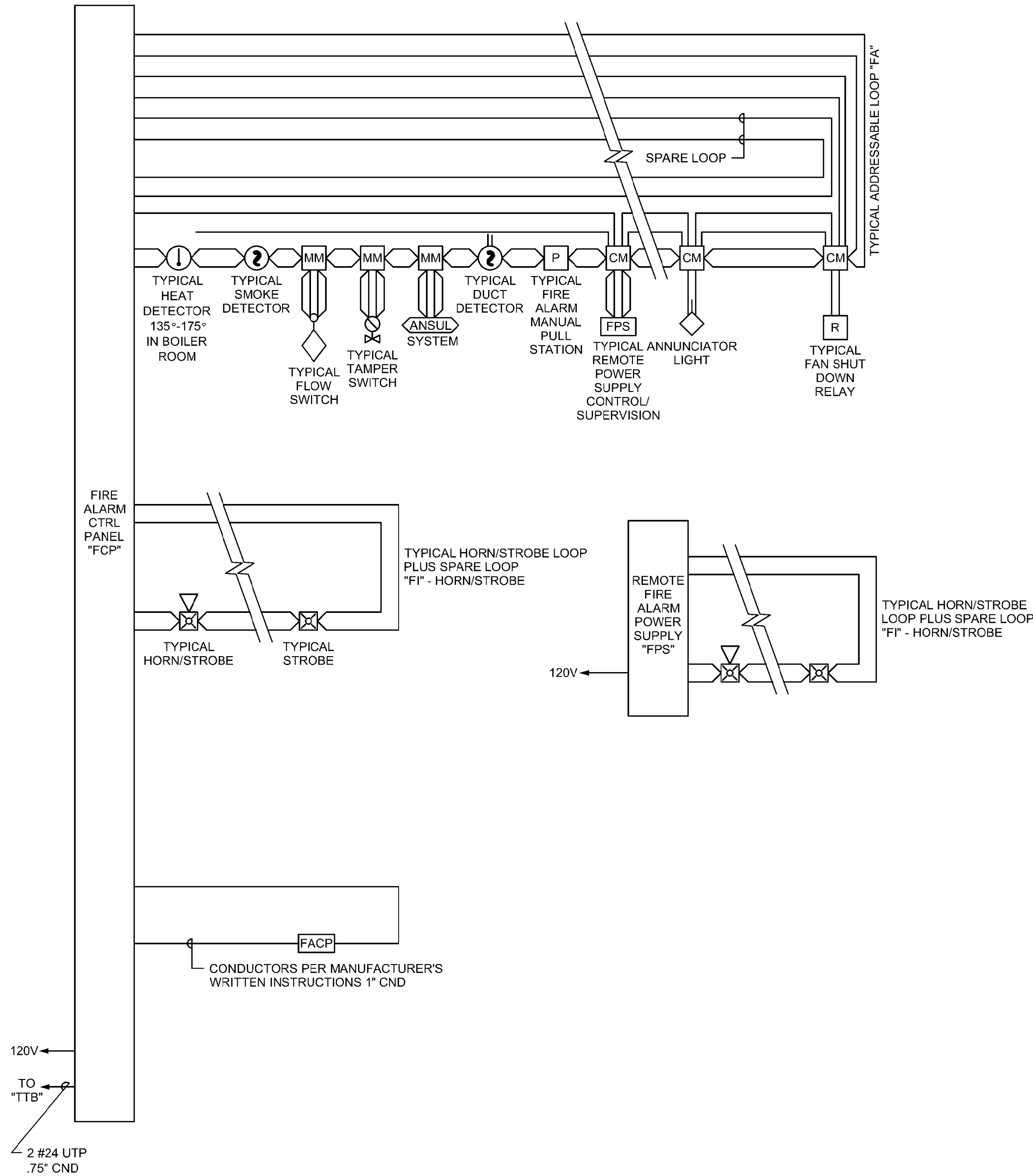
**FIRE ALARM PLAN
- BUILDING 'C'**

sheet

FA11C

WIRING SCHEDULE				
FUNCTION	< 500'	< 1000'	1000'-3000'	> 3000'
ADDRESSABLE LOOP	#18 TSP	#18 TSP	#16 TSP	#14 TSP
POWER LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
SPARE LOOP	#14 THWN	#14 THWN	#12 THWN	#10 THWN
STROBE HORNS	#14 THWN	#14 THWN	#12 THWN	#10 THWN
MAGNETIC DOOR HOLDER	#12 THWN	#10 THWN		
SPEAKERS	#16 TSP	#16 TSP	#14 TSP	#14 TSP

FIRE ALARM INPUT/OUTPUT MATRIX		OUTPUT DEVICES										NOTES
		GENERAL ALARM BLDG 'A'	GENERAL ALARM BLDG 'B'	GENERAL ALARM BLDG 'C'	GENERAL ALARM BLDG 'D'	GENERAL ALARM BLDG 'E'	GENERAL ALARM BLDG 'F'	TROUBLE ALARM	SUPERVISORY ALARM	FAN SHUTDOWN	FIRE DAMPER	
INITIATING DEVICES	1	RISER BLDG 'A' FLOW	●						●			
	2	RISER BLDG 'A' TAMPER		●						●		
	3	RISER BLDG 'B' FLOW							●			
	4	RISER BLDG 'B' TAMPER		●						●		
	5	RISER BLDG 'C' FLOW			●				●	●		
	6	RISER BLDG 'C' TAMPER								●		
	7	RISER BLDG 'D' FLOW				●			●	●		
	8	RISER BLDG 'D' TAMPER								●		
	9	RISER BLDG 'E' FLOW					●		●	●		
	10	RISER BLDG 'E' TAMPER								●		
	11	RISER BLDG 'F' FLOW						●	●	●		
	12	RISER BLDG 'F' TAMPER								●		
	13	BLDG 'A' INITIATING LOOP	●						●	●		
	14	BLDG 'B' INITIATING LOOP		●					●	●		
	15	BLDG 'C' INITIATING LOOP			●				●	●		
	16	BLDG 'D' INITIATING LOOP				●			●	●		
	17	BLDG 'E' INITIATING LOOP					●		●	●		
	18	BLDG 'F' INITIATING LOOP						●	●	●		
19	CIRCUIT TROUBLE								●			
20	AC POWER LOSS								●			
21	LOW BATTERY POWER								●			
22	SYSTEM TROUBLE								●			
23	REMOTE POWER SUPPLY TROUBLE								●			



1 FIRE ALARM RISER
NO SCALE

GENERAL SHEET NOTES

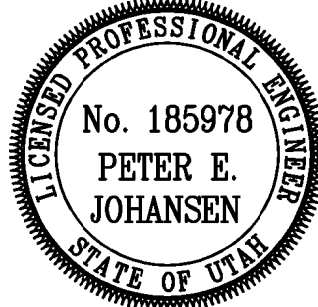
- PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
- PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
- FLOW AND TAMPER CONFIGURATION BASED UPON FIRE SPRINKLER DESIGN CONCEPT. FIELD VERIFY ACTUAL REQUIREMENTS. INCLUDE ANY ADDITIONAL MONITOR MODULES REQUIRED BY ACTUAL DESIGN REQUIREMENTS.
- BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
- VFD REQUIRES TWO RELAYS, ONE FOR SMOKE CONTROL, ONE SPARE.
- RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
- PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT ARRANGEMENT.
- PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
- PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
- LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
- PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
- INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
- ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
- HORN/STROBE BASED ON 120 MILLIAMPS. DOOR HOLDERS BASED ON 70 MILLIAMPS.
- INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

Donald L. Welch
Architect
7533 Sandy Land Lane
Midvale, Utah 84047
801.348.6381
dwelch5977@nash.com

THE DESIGNS SHOWN AND DESCRIBED HEREIN INCLUDING ALL TECHNICAL DRAWINGS, GRAPHIC REPRESENTATION & MODELS THEREOF, ARE PROPRIETARY & CAN NOT BE COPIED, DUPLICATED, OR COMMERCIALY EXPLOITED IN WHOLE OR IN PART WITHOUT THE SOLE AND EXPRESS WRITTEN PERMISSION FROM DONALD L. WELCH ARCHITECT

THESE DRAWINGS ARE AVAILABLE FOR LIMITED REVIEW AND EVALUATION BY CLIENTS, CONSULTANTS, CONTRACTORS, GOVERNMENT AGENCIES, VENDORS, AND OFFICE PERSONNEL ONLY IN ACCORDANCE WITH THIS NOTICE.

consultant:



project:

Tenant Finish
for New
Brighton
Recovery
Campus
4905, 4911, 4915, 4925,
4931, & 4953 South 900
East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET--December 28, 2016

ADDENDUM #1--January 04, 2017

ADDENDUM #2--January 06, 2017

ADDENDUM #3--January 11, 2017

ADDENDUM #4--January 17, 2017

ADDENDUM #5--January 19, 2017

ADDENDUM #7--March 31, 2017

data

project no:

drawn by:

checked by:

title

FIRE ALARM

RISER DIAGRAM

sheet

