

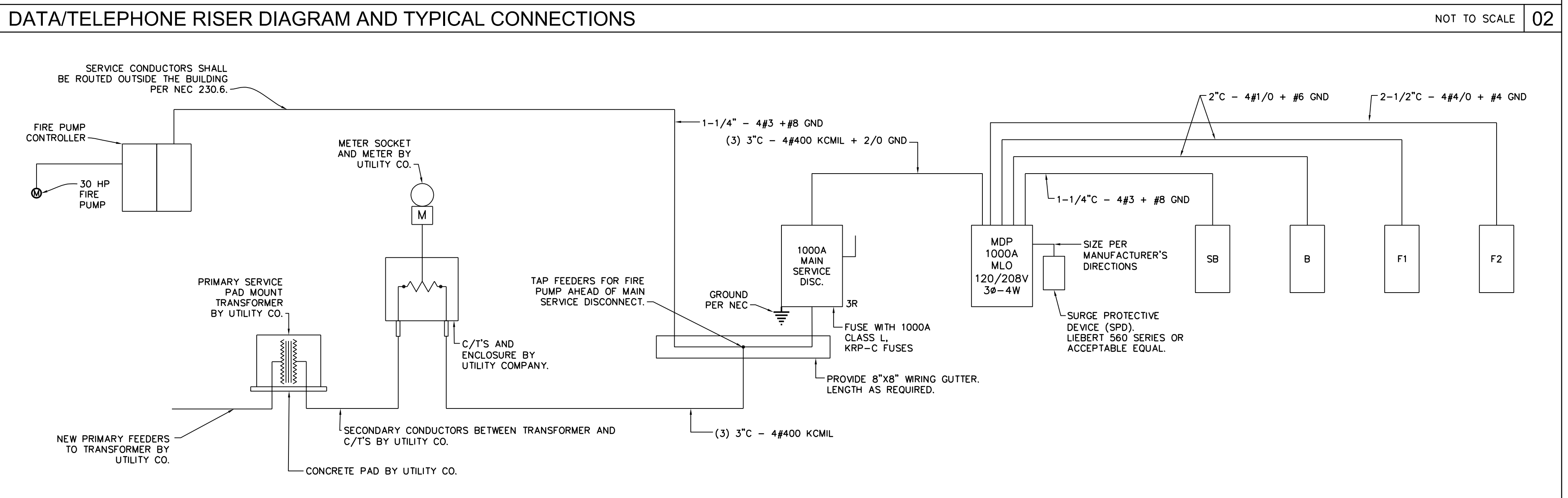
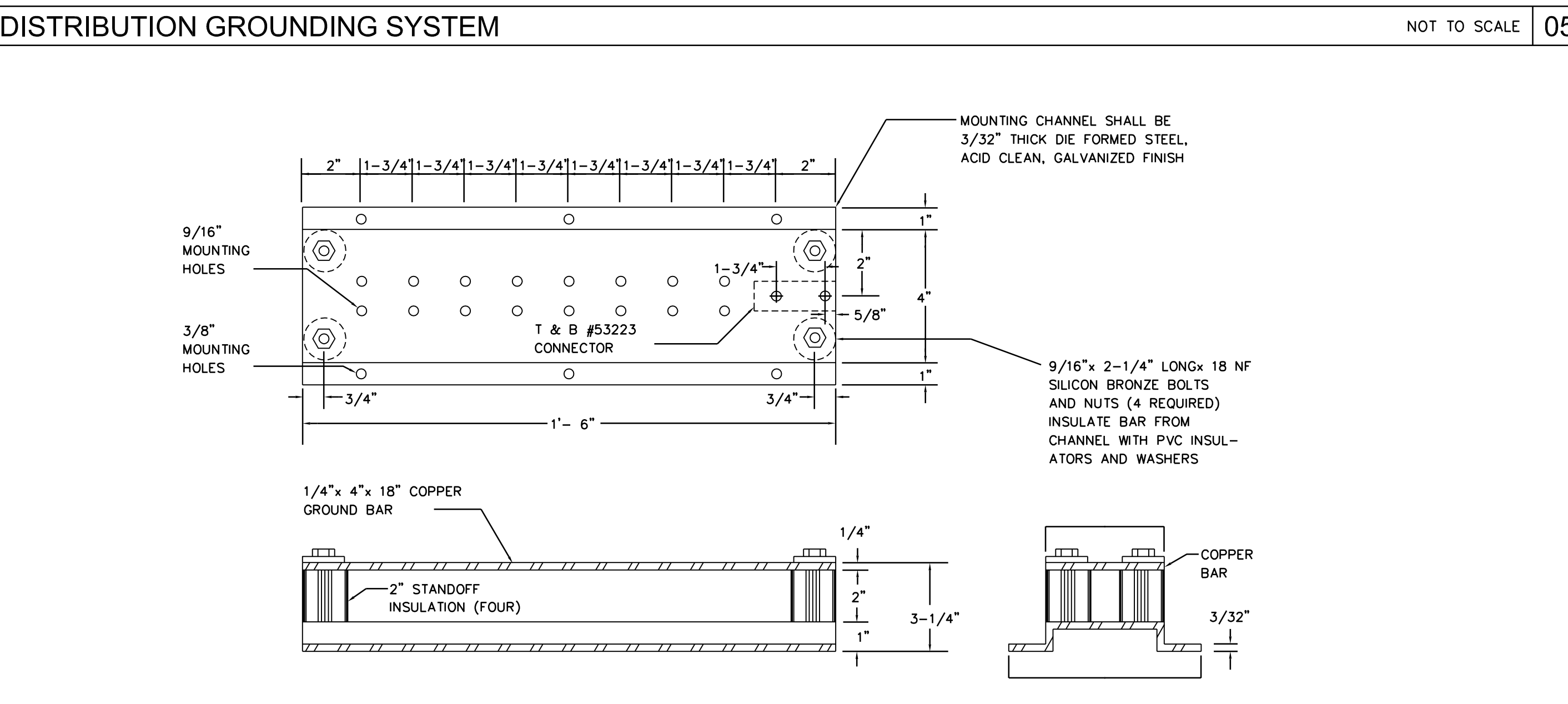
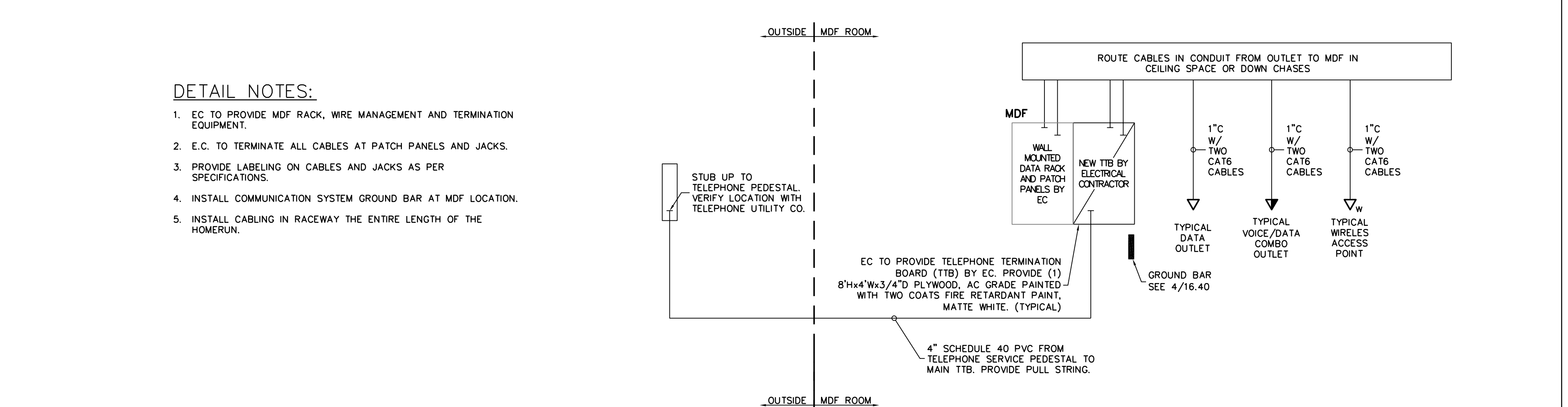
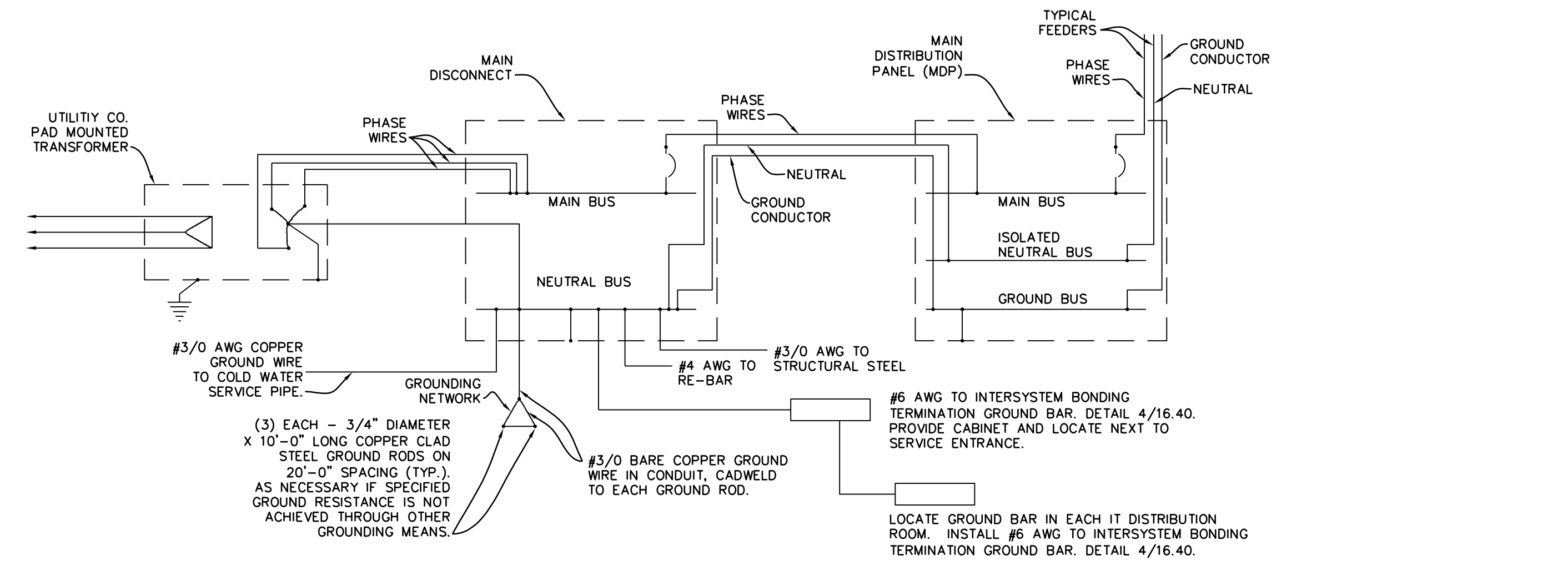
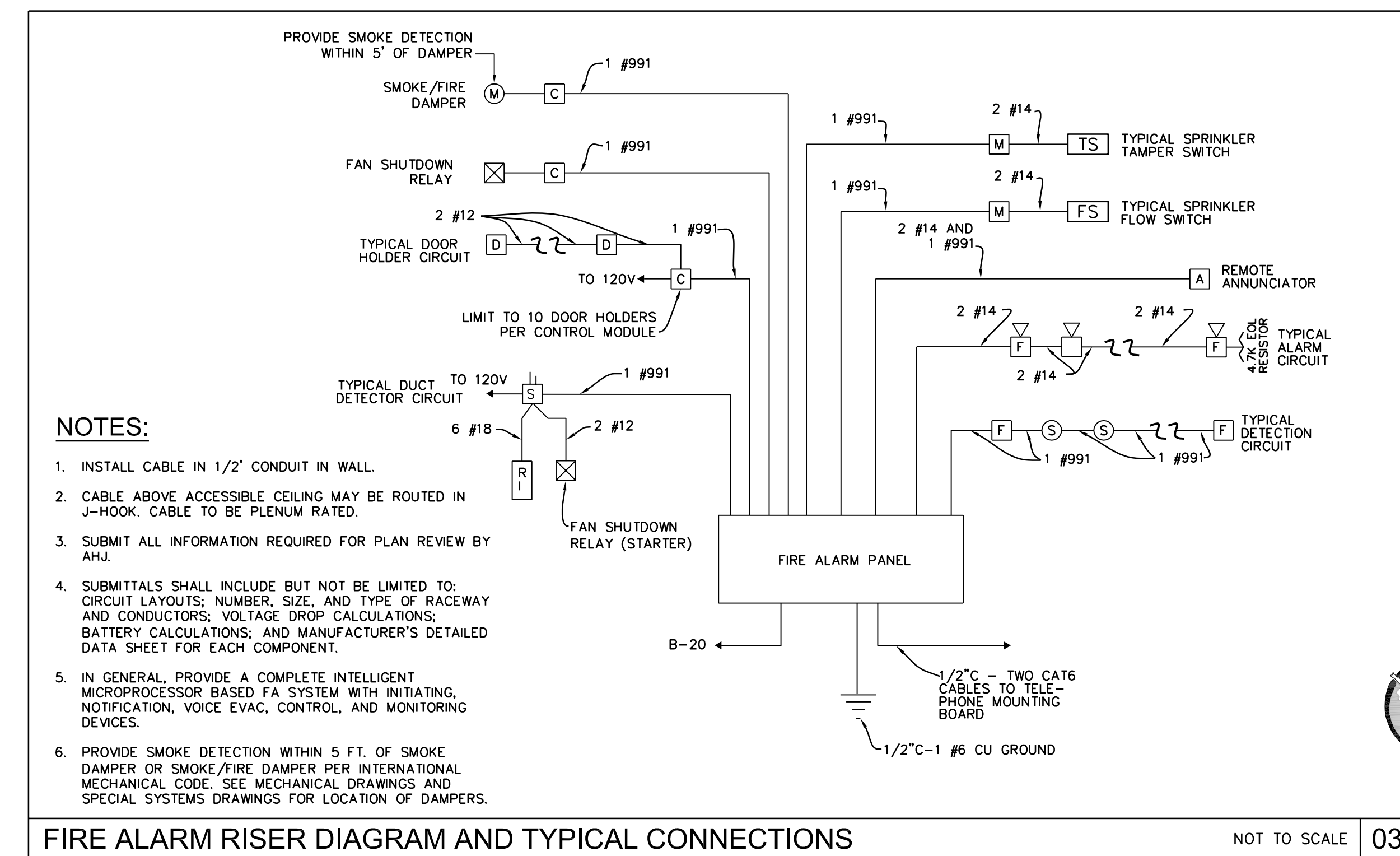
LIGHTING FIXTURE SCHEDULE						
TYPE	LAMPS	DESCRIPTION	FINISH	MOUNTING	MANUFACTURER	CATALOG NO.
A	LED	2'x2' SURFACE MOUNT PANEL FIXTURE, OPAL SHEET LENS, 3500K, L70>50000, 4000 LUMENS, 40W, SURFACE MOUNT	WHITE	SURFACE MOUNT	LUMENOPTIX	LUZ-22-40-EAB-35K-DU1
B	LED	2'x2' SURFACE MOUNT PANEL FIXTURE, OPAL SHEET LENS, 3500K, L70>50000, 4000 LUMENS, 40W, SURFACE MOUNT	WHITE	SURFACE MOUNT	LUMENOPTIX	LUZ-22-44-EAB-35K-DU1-KS
C	LED	VINTAGE PENDANT, EDISON FOOT LAMP, 3W, 2200K, 210 LUMEN, 18 FOOT CORD, MEDIUM E26 SCREW BASE, MONOPOINT CANOPY	BRASS	SURFACE MOUNT, HANG AT HEIGHT DIRECTED BY OWNER	CONTECH LIGHTING	RLMB1-6-B-16-MLE122-NK
D	LED	4' LONG STRIP LIGHT, SEMI-FROST LENS, 4100 LUMENS, 4000K, L82=60000 HRS, DIMMING DRIVER, 31W	WHITE	CEILING OR WALL SURFACE +6"-0" AFF	METALUX	4SNLED-LD5-46SL-LN-UNV-LB40-CO-1
EM	INCLUDED	EMERGENCY EGRESS LUMINAIRE, (2) 2W LED HEADS, NICKEL-CADMIUM BATTERIES, SELF-TEST DIAGNOSTICS	WHITE	CEILING SURFACE	ISOLITE	RLZLED-2-WH-SD
F	LED	3' LONG LED WALL MOUNT UP/DOWN FIXTURE, ALUMINUM HOUSING, ACRYLIC LENS, L70>50000 HRS, CRI >80, 3500K, 2300 LUMENS UP AND 2300 LUMENS DOWN, 57W	WHITE	WALL SURFACE 7'-6"	WILLIAMS	WMAUD-3-L23/835U/L23/835D-AF-DRVU/DRVU-UNV
G	LED	24' SINGLE CIRCUIT LINE VOLTAGE TRACK, (6) LED TRACK FIXTURES, 480W CURRENT LIMITING POWER FEED, AND OTHER TRACK COMPONENTS AS REQUIRED FOR A COMPLETE SYSTEM, 3000K, L70>50,000, 12" AND 28" BEAMS, 1400 LUMENS PER LAMP, 14W PER LAMP	BLACK	CEILING SURFACE	CONTECH LIGHTING	TRACK: (2) LT-12-B FIXTURE: (3) NCLT84-C2-S-3-D-B; (4) NCLT84-C2-M-3-D-B CURRENT LIMITER; LA-23-RN-B-REG05-B
G1	LED	16' SINGLE CIRCUIT LINE VOLTAGE TRACK, (7) LED TRACK FIXTURES, 480W CURRENT LIMITING POWER FEED, AND OTHER TRACK COMPONENTS AS REQUIRED FOR A COMPLETE SYSTEM, 3000K, L70>50,000, 12" AND 28" BEAMS, 1400 LUMENS PER LAMP, 14W PER LAMP	BLACK	CEILING SURFACE	CONTECH LIGHTING	TRACK: (2) LT-8-B FIXTURE: (3) NCLT84-C2-S-3-D-B; (4) NCLT84-C2-M-3-D-B CURRENT LIMITER; LA-23-RN-B-REG05-B
G2	LED	10' SINGLE CIRCUIT LINE VOLTAGE TRACK, (5) LED TRACK FIXTURES, 240W CURRENT LIMITING POWER FEED, AND OTHER TRACK COMPONENTS AS REQUIRED FOR A COMPLETE SYSTEM, 3000K, L70>50,000, 12" AND 28" BEAMS, 1400 LUMENS PER LAMP, 14W PER LAMP	BLACK	CEILING SURFACE	CONTECH LIGHTING	TRACK: (1) LT-6-B; (1) LT-4-B FIXTURE: (2) NCLT84-C2-S-3-D-B; (3) NCLT84-C2-M-3-D-B CURRENT LIMITER; LA-23-RN-B-REG021-B
G3	LED	6' SINGLE CIRCUIT LINE VOLTAGE TRACK, (3) LED TRACK FIXTURES, 240W CURRENT LIMITING POWER FEED, AND OTHER TRACK COMPONENTS AS REQUIRED FOR A COMPLETE SYSTEM, 3000K, L70>50,000, 12" AND 28" BEAMS, 1400 LUMENS PER LAMP, 14W PER LAMP	BLACK	CEILING SURFACE	CONTECH LIGHTING	TRACK: (1) LT-6-B; (1) LA-2-B FIXTURE: (2) NCLT84-C2-S-3-D-B; (3) NCLT84-C2-M-3-D-B CURRENT LIMITER; LA-23-RN-B-REG021-B
G4	LED	12' SINGLE CIRCUIT LINE VOLTAGE TRACK, (4) LED TRACK FIXTURES, 240W CURRENT LIMITING POWER FEED, 90° CORNER AND OTHER TRACK COMPONENTS AS REQUIRED FOR A COMPLETE SYSTEM, 3000K, L70>50,000, 12" AND 28" BEAMS, 1400 LUMENS PER LAMP, 14W PER LAMP	BLACK	CEILING SURFACE	CONTECH LIGHTING	TRACK: (1) LT-6-B; (1) LA-2-B FIXTURE: (2) NCLT84-C2-S-3-D-B; (3) NCLT84-C2-M-3-D-B CURRENT LIMITER; LA-23-RN-B-REG021-B
H	LED	COMPACT WALL PACK, ALUM. HOUSING, WET LOCATION, TYPE 4 DISTRIBUTION, 4500K, 21W, L70>100000, 2228 LUMENS	BRONZE	9'-0" ABOVE STAIR LANDING	LSI INDUSTRIES	WPSLS-20W-45K-BZ
J	LED	LIGHT POST, 20' TALL, TYPE 4 DISTRIBUTION, 4000K, 72W, L70>100000, 4500 LUMENS	BRONZE	18'-0" POST, SEE DETAIL	PHILIPS	ULLC100-70W4LED4K-R-LEV 4-120-DMG-18-BR1X
L	LED	FLOOD LIGHT, DIE-CAST ALUMINUM HOUSING, WET LOCATION LISTED, BARN DOORS, PHOTOCELL, L70>100000, 4000K, 4501 LUMENS, 36W	BRONZE	STANCHION MOUNTED, SEE DETAIL	LSI INDUSTRIES	XFLM-SP-LED-28-HO-NW-UB-RZ-PC120/DXA-XFLM-SMC-23-BRZ
M	LED	STEP LIGHT FIXTURE, DIFFUSED GLASS LENS, DIE CAST ALUMINUM HOUSING, 4000K, L70>50000, 300 LUMENS, 14W, WET LOCATION	BRONZE	RECESSED, MOUNTING HEIGHT SHALL BE 6" FROM TOP OF WALL TO TOP OF FIXTURE	H.E. WILLIAMS	S10-0-L/840-FTG-DBR-120
XC	INCLUDED	EXIT/EGRESS COMBO SIGN WITH 6" LETTERS, ADJUSTABLE LED EGRESS LAMPS, HIGH IMPACT THERMOPLASTIC, HIGH INTENSITY LED LIGHT SOURCE, NICKEL-CADMIUM BATTERY, UNIVERSAL MOUNTING FOR CEILING/WALL OR SINGLE/DOUBLE FACE	BLACK	CEILING SURFACE	ISOLITE	RLCLED-R-BK-SD
XW	INCLUDED	EXIT/EGRESS COMBO SIGN WITH 6" LETTERS, ADJUSTABLE LED EGRESS LAMPS, HIGH IMPACT THERMOPLASTIC, HIGH INTENSITY LED LIGHT SOURCE, NICKEL-CADMIUM BATTERY, UNIVERSAL MOUNTING FOR CEILING/WALL OR SINGLE/DOUBLE FACE	BLACK	WALL SURFACE, +7'-6" AFF	ISOLITE	RLCLED-R-BK-SD

MECHANICAL EQUIPMENT SCHEDULE										
KEY	ITEM	LOAD	VOLTS	Ø	CONDUIT	WIRING	BRKR	CIRCUIT NUMBER	NOTES	
BP-1	BOOSTER PUMP - 1	5 HP	208 V	3"	1/2"	3#10+#10 GND	35/3	MDP-1,3,5, MDP-7,9,11		
BS-1	BRANCH SELECTOR BOX - 1	0.1 MCA	208 V	1"	1/2"	2#12+#12 GND	20/2	SB-9,11		
BS-2	BRANCH SELECTOR BOX - 2	0.6 MCA	208 V	1"	1/2"	2#12+#12 GND	20/2	B-2,4		
BS-3	BRANCH SELECTOR BOX - 3	0.6 MCA	208 V	1"	1/2"	2#12+#12 GND	20/2	F1-2,4		
BS-4	BRANCH SELECTOR BOX - 4	0.4 MCA	208 V	1"	1/2"	2#12+#12 GND	20/2	F2-14,16	ALTERNATE #1	
BS-5	BRANCH SELECTOR BOX - 5	0.4 MCA	208 V	1"	1/2"	2#12+#12 GND	20/2	F2-18,20	ALTERNATE #1	
EF-1	EXHAUST FAN - 1	112 W	120 V	1"	1/2"	2#12+#12 GND	20/1	SB-1		
ERV-EH-1	ERV - ELECTRIC HEATER - 1	10 KW	208 V	3"	3/4"	3#8+#10 GND	40/3	MDP-2,4,6		
ERV-EH-2	ERV - ELECTRIC HEATER - 2	8 KW	208 V	3"	3/4"	3#10+#10 GND	30/3	F2-8,10,12		
EH-3	ELECTRIC HEATER - 3	2.25 KW	208 V	1"	1/2"	2#12+#12 GND	20/2	SEE DRAWINGS		
EH-4	ELECTRIC HEATER - 4	1.2 KW	208 V	1"	1/2"	2#12+#12 GND	20/2	SEE DRAWINGS		
EP-1	ELEVATOR PUMP - 1	1/2 HP	120 V	1"	1/2"	2#12+#12 GND	20/1	SB-12		
ERV-1	ENERGY RECOVERY VENTILATOR - 1	35.9 MCA	208 V	3"	3/4"	4#8+#10 GND	45/3	MDP-8,10,12		
ERV-2	ENERGY RECOVERY VENTILATOR - 2	16.3 MCA	208 V	3"	1/2"	4#12+#12 GND	20/3	F2-2,4,6	ALTERNATE #1	
FC-1	FAN COIL UNIT - 1	2.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	SB-3,5		
FC-2	FAN COIL UNIT - 2	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	B-2,4		
FC-3	FAN COIL UNIT - 3	1.6 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	B-2,4		
FC-4	FAN COIL UNIT - 4	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	B-2,4		
FC-5	FAN COIL UNIT - 5	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	B-2,4		
FC-6	FAN COIL UNIT - 6	1.4 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	B-2,4		
FC-7	FAN COIL UNIT - 7	1.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F1-2,4		
FC-8	FAN COIL UNIT - 8	1.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F1-2,4		
FC-9	FAN COIL UNIT - 9	1.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F1-2,4		
FC-10	FAN COIL UNIT - 10	1.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F1-2,4		
FC-11	FAN COIL UNIT - 11	1.4 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F1-2,4		
FC-12	FAN COIL UNIT - 12	3.4 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-14,16	ALTERNATE #1	
FC-13	FAN COIL UNIT - 13	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-14,16	ALTERNATE #1	
FC-14	FAN COIL UNIT - 14	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-14,16	ALTERNATE #1	
FC-15	FAN COIL UNIT - 15	1.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-18,20	ALTERNATE #1	
FC-16	FAN COIL UNIT - 16	2.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-14,16	ALTERNATE #1	
FC-17	FAN COIL UNIT - 17	1.5 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-18,20	ALTERNATE #1	
FC-18	FAN COIL UNIT - 18	1.4 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-18,20	ALTERNATE #1	
FC-19	FAN COIL UNIT - 19	2.8 MCA	208 V	1"	1/2"	2#12+#12 GND	15/2	F2-18,20	ALTERNATE #1	
HRU-1	HEAT RECOVERY UNIT - 1	61.9 MCA	208 V	3"	1"	4#8+#10 GND	70/3	MDP-13,15,17		
HRU-2	HEAT RECOVERY UNIT - 2	61.9 MCA	208 V	3"	1"	4#8+#10 GND	70/3	MDP-19,21,23		
RP-1	RE-CIRCULATION PUMP - 1	1/8 HP	120 V	1"	1/2"	2#12+#12 GND	20/1	B-6		
SP-1	SUMP PUMP - 1	1/2 HP	120 V	1"	1/2"	2#12+#12 GND	20/1	SB-7		
UH-1	UNIT HEATER - 1	30 KW	208 V	3"	1-1/4"	3#2+#6 GND	110/3	MDP-14,16,18		
UH-2	UNIT HEATER - 2	30 KW	208 V	3"	1-1/4"	3#2+#6 GND	110/3	MDP-20,22,24		
UH-3	UNIT HEATER - 3	30 KW	208 V	3"	1-1/4"	3#2+#6 GND	110/3	MDP-26,28,30		
UH-4	UNIT HEATER - 4	3.3 KW	208 V	3"	1/2"	3#12+#12 GND	20/3	MDP-32,34,36		
WH-1	WATER HEATER - 1	4.5 KW	208 V	1"	1/2"	2#10+#10 GND	30/2	B-8,10		

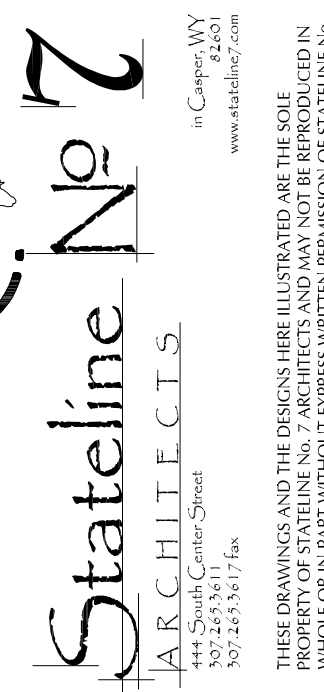
ELECTRICAL LOAD SUMMARY (CALCULATIONS PER NEC 2017 EDITION)			
DESCRIPTION	CONNECTED LOAD (KVA)	DEMAND PER NEC	KVA
EXISTING LOAD	0.00	125%	0.00
KITCHEN	0.00	65%	0.00
LIGHTING	10.75	125%	13.44
RECEPTACLES 10 KVA OR LESS	10.00	100%	10.00
RECEPTACLES OVER 10 KVA	21.80	50%	10.90
MECHANICAL	230.43	100%	230.43
LARGEST MOTOR	4.410	25%	1.103
TOTAL THREE PHASE LOAD IN KVA			275.79
SERVICE VOLTAGE=		208	
MINIMUM SERVICE CAPACITY=			766

LOCATION	SHORT CIRCUIT (KSC)	FAULT CURRENT CALCULATION SCHEDULE	CONSTANT 'C'	VOLTAGE AVAILABLE (KSC)	FEEDER LENGTH	FACTOR 'F'	MULTIPLIER 'M'
UTILITY TRANS. (ASSUMES 300 KVA)	47,640		208	47,640			
MAIN DISCONNECT (1000A KRP FUSES)	20,000		208	47,640			
MDP	17,126	54,928	208	20,000	55	0.168	0.856
PANEL 'SB'	13,182	4,760	208	17,126	10	0.299	0.770
PANEL 'B'	10,453	8,924	208	17,126	40	0.638	0.610
PANEL 'F1'	9,525	8,924	208	17,126	50	0.798	0.556
PANEL 'F2'	11,633	15,082	208	17,126	50	0.472	0.679

NOTES:
1. VOLTAGE (V) = LINE TO LINE
2. FEEDER LENGTH IN FEET (L)
3. (C) = FEEDER CONSTANT
4. (F) = (L/75 X L X AVAILABLE (KSC)) / (3 PHASE); (F) = (2 X L X AVAILABLE (KSC)) / (C X V) (1 PHASE)
5. (M) = 1/(1+F)
6. SHORT CIRCUIT (KSC) = CALCULATED FAULT CURRENT AVAILABLE AT THE POINT ON ELECTRICAL LINE.
7. AVAILABLE (KSC) = FAULT CURRENT AT FEEDER STARTING POINT OF FEEDER.



OLD STONEY REMODEL
CROOK COUNTY MUSEUM DISTRICT
108 NORTH 4TH STREET
SUNDANCE WY, 82729



PROJECT NUMBER
16-022 / 17040

DATE
11/20/2017

DRAWN BY
MNS

DISK ID.

SHEET TITLE
PHASE 1 ELECTRICAL DETAILS AND SCHEDULES

SHEET NUMBER

16.40

GROUND BAR DETAIL

ONE-LINE DIAGRAM

FIRE ALARM RISER DIAGRAM AND TYPICAL CONNECTIONS

NOT TO SCALE 03

SECONDARY DISTRIBUTION GROUNDING SYSTEM

NOT TO SCALE 05

DATA/TELEPHONE RISER DIAGRAM AND TYPICAL CONNECTIONS

NOT TO SCALE 02