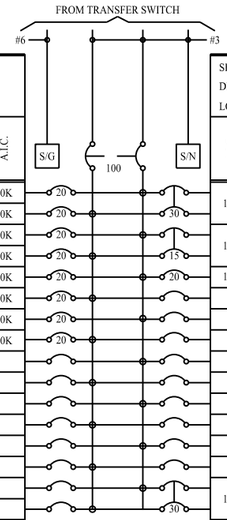
pw:\\pw8i.od.dot.state.mn.us:cadp\Documents\Projects\DM_ROS\Non_Project\FrwOps\DetailDrawings\FIBER\FIBERDETAILS_dt1.dgn
PLOTTED: 12/5/2018 9:33:10 AM reutlani T79CWW161FRW023 TMS

PANEL CIRCUIT AND LOAD SCHEDULE

	LOAD DESCRIPTION	QTY.	UNIT V.A.	LOAD PER PHASE (VA) A	LOAD PER PHASE (VA) B	TRIP	POLES	WIRE SIZE	A.I.C.
1	LIGHTS	4	58.8	352.2		20	1	12	10K
3	CEILING OUTLETS	1	360		360	20	1	12	10K
5	CEILING OUTLETS	1	360	360		20	1	12	10K
7	CEILING OUTLETS	1	360		360	20	1	12	10K
9	CEILING OUTLETS	1	360	360		20	1	12	10K
11	WALL OUTLETS	5	180		900	20	1	12	10K
13	GFI	1	180	180		20	1	12	10K
15	SPARE	1				20	1	12	10K
17									
19									
21									
23									
25									
27									
29									
31									
		SUBTOTAL		1264.8	1620				

VOLTAGE: 120/240V. CYCLE: 60 PHASE: 1 WIRES: 4
NEUTRAL:
MAIN BREAKER: 100 AMP FRAME A/C: 22 KA TRIP: 100 AMP
MAIN LUGS: MAIN COPPER BUS: 100 AMP
MAINS: TOP ☒ BOTTOM ☐

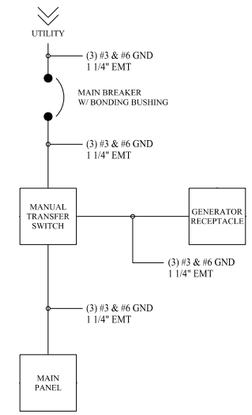


SERVICE:
DESIGNATION:
LOCATION:

A.I.C.	WIRE SIZE	POLES	TRIP	LOAD PER PHASE (VA) B	LOAD PER PHASE (VA) A	UNIT V.A.	QTY.	LOAD DESCRIPTION	
10K	10	2	30		5232	5232	1	HVAC	2
				5232					4
10K	10	2	15				1	SPARE	6
									8
10K	12	1	20				1	ALARM CONTROLS	10
									12
									14
									16
									18
									20
									22
									24
									26
									28
10K	10	2	30				1	SURGE ARRESTOR	30
									32
				5232	5232	SUBTOTAL CONTINUOUS			

MANUFACTURER: SQUARE D
CATALOG NUMBERS: Q0132M100
NO EQUAL: ☐ APPROVED EQUAL: ☒
MOUNTING: SURFACE ☒ FLUSH ☐

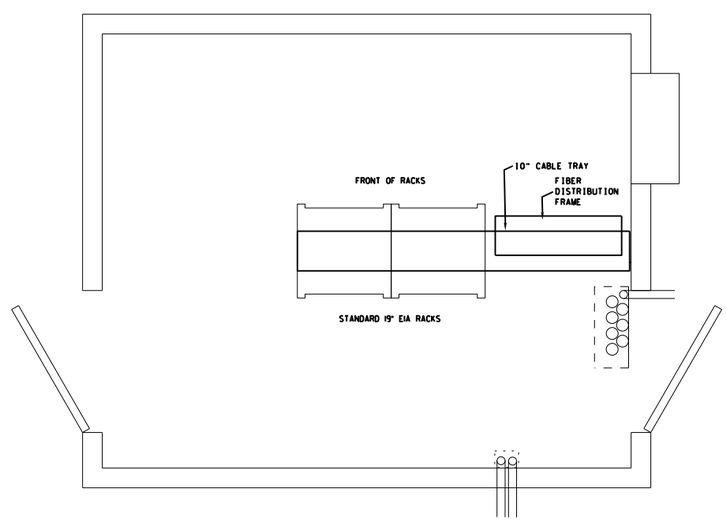
TOTAL KVA PHASE A	6.497
TOTAL KVA PHASE B	6.852
TOTAL AMPS PHASE A	54.14
TOTAL AMPS PHASE B	57.1



WIRING SCHEMATIC

ELECTRICAL NOTES

1. ALL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
2. ALL ELECTRICAL MATERIALS SHALL BE U.L. LISTED AND CLASSIFIED AS SUITABLE FOR THE PURPOSE SPECIFIED.
3. ALL WIRING SHALL BE SURFACE MOUNTED IN A RACEWAY OR EMT CONDUIT USING APPROVED CONNECTORS, COUPLINGS, AND CLAMPS, ALL CONDUIT SHALL BE ANCHORED IN PLACE AT APPROXIMATELY EVERY 4 FT.
4. ALL WIRING SHALL BE A SOLID CONDUCTOR, THHN OR THWN COPPER, NO SMALLER THAN A #12.
5. ALL WIRE RUNS SHALL BE CONTINUOUS.
6. LOW VOLTAGE WIRE MAY BE STRANDED.
7. ALL WIRING SHALL BE TESTED AND INSPECTED PRIOR TO SHIPMENT.
8. GREEN GROUND CONDUCTORS SHALL BE RUN TO ALL OF THE BUILDINGS A/C POWERED DEVICES. CONDUIT SHALL NOT BE USED AS THE SOLE SOURCE OF GROUND.
9. ALL ALARM DEVICES WIRING SHALL BE RUN IN ITS OWN CONDUIT TO THE ALARM CABINET.
10. ALL METALLIC OBJECTS LARGER THAN 4' x 4' SHALL BE GROUNDED.
11. DROP LIGHT FIXTURE IF NECESSARY TO ACCOMMODATE WIRING CONDUIT TO THE WIREWAY.
12. MOUNT OVERHEAD RECEPTACLES IN A VERTICAL POSITION
13. PROVIDE #4 GROUND WIRE FROM SERVICE PANEL BUSS-BAR TO BUILDING BUSS-BAR IN ½" EMT
14. ELECTRICALLY ISOLATE RACKS FROM EACH OTHER AND THE FLOOR



LADDER/RACK LAYOUT

PROPOSED 10' X 12' TMS SHELTER
DETAIL SHEET 2

REVISED 6/27/18

REV. NO.	DATE: / /
REV. NO.	DATE: / /

CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC.NO. 12345 DATE ___ 2018

STATE PROJ. NO. XXXX-XXX SHEET NO. XXXX? OF XXXXX SHEETS