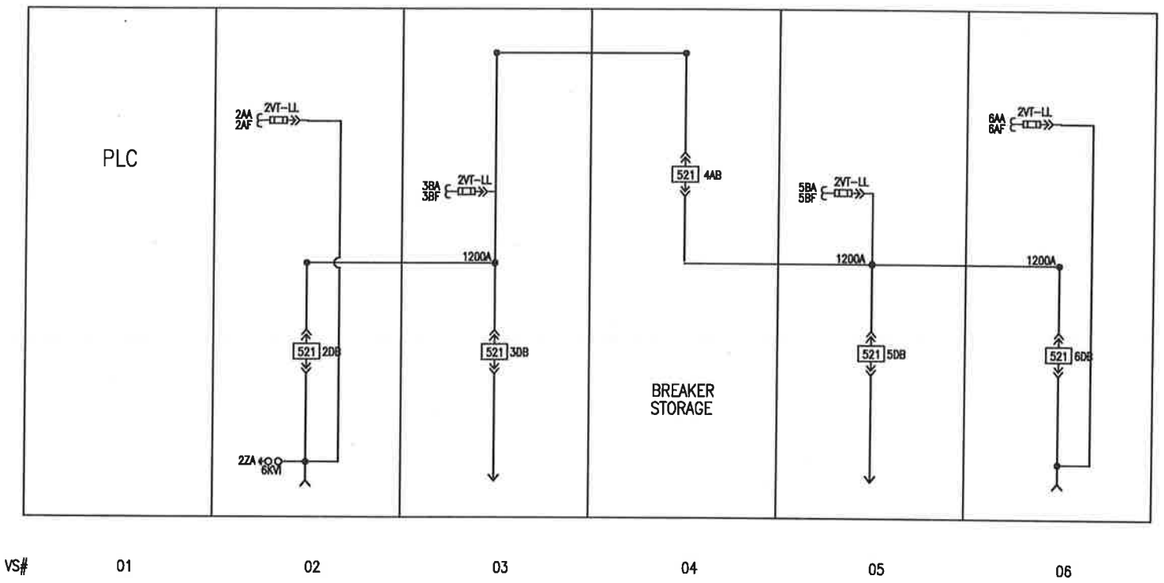
POWER FLOW



GENERAL DESCRIPTION

CUSTOMER	NAME	FINGER LAKES DDSO
	INSTALLATION	ROCHESTER,NY
	P.O.#	2271816-00
SYSTEM	LINE TO LINE VOLTAGE	4160 V
	BASIC IMPULSE LEVEL	60 KV CREST
	GROUND	SOLID GROUNDING
	NUMBER OF PHASES	3 PH
	FREQUENCY	60 HZ
	PHASE SEQUENCE	1 – 2 – 3 OR A – B – C
ENCLOSURE	ENCLOSURE	SHELTERED AISLE
	REAR ACCESS	COVERS
	REAR LATCHING	BOLTED
	FRONT LATCHING	QUARTER TURN KNOB
	AISLE EQUIPMENT	FANS AND HEATERS
	REAR COMPARTMENT FLOOR	STEEL
FINISH	ENCLOSURE EXTERIOR	ANSI 70
	VERTICAL SECTION INTERIOR	ANSI 61
	AISLE INTERIOR	ANSI 61
BUS	BUS RATING	1200A COPPER SILVER PLATED
	JOINT HARDWARE	HT STL (YELLOW ZINC CR)
	SUPPORT INSULATION	GLASS POLYESTER
	GROUND BUS	0.25 X 2 COPPER NO PLATING
SECONDARY & CONTROL	BREAKER CONTROL POWER	BATTERY
	WIRE TYPE	SIS
	WIRE SIZE NON CURRENT CKT'S	# 14 MIN
	WIRE SIZE CURRENT CKT'S	# 14 MIN
	TERMINALS	INSULATED LOCK IN FORK (ALL)
	WIRE MARKERS	ADHESIVE WRAP ON
	TERMINAL BLOCKS (GENERAL)	STANDARD 50A, 600V
	TERMINAL BLOCKS (CTS)	SHORT CKT TYPE 50A, 600V
	WIRE LABELING	STANDARD
	HEATER POWER SOURCE	REMOTE
	VOLTAGE APPLIED TO HEATERS	120V WIRED FOR STORAGE
STANDARDS	ANSI, IEEE, NEMA	
OPTIONAL EQUIPMENT	1 BREAKER LIFT DEV., BREAKER TEST CABINET, DOCKABLE DOLLY 1 SPARE BREAKER	

NEMA DRILLING OR POWER CABLE TERMINALS ARE PROVIDED FOR EXTERNAL CONNECTIONS. THESE AREAS MUST BE INSULATED. UNLESS INSULATING MATERIALS FOR THESE CONNECTIONS WERE INCLUDED IN CUSTOMER'S ORDER SPECIFICATION, THIS INSULATING MATERIAL MUST BE PROVIDED BY INSTALLING CONTRACTOR OR PURCHASER. FOR BUS BAR SHIPPING SPLIT CONNECTIONS, EATON HAS INCLUDED INSULATING MATERIAL.

	REVISION	
1	72Y1492	
2	72Y1492 LRH0006149 – 002	UPDATED FOR MFG 2/17/2010 SMS
3	72Y1492 LRH0006149 – 002	UPDATED PER CN# 2 3/10/2010 SMS

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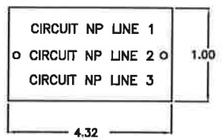
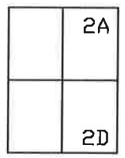
ENG DEPT REF: L492MDI

DFTR ROBERTSON	DATE 11/19/2009	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 11/19/2009	TITLE FINGER LAKES DDSO ROCHESTER,NY	
APPD PERKINS	DATE 11/19/2009	TYPE VCP-W 5 KV	POWER FLOW
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 3	DWG SIZE D
G.O. LRH0006149 – 002	DWG ML492S1L0101	SHEET 1 OF 1	

UNIT SCHEDULE

ID		DEVICE INFORMATION												TERMINATIONS								
SECTION NUMBER	DEVICE LOCATION	CIRCUIT NAMEPLATE	DEVICE TYPE	DEVICE SIZE	INTERRUPTING RATING AT MAX RATED VOLTAGE	SPRING RELEASE (CLOSE COIL)	SHUNT TRIP (OPEN COIL)	DEVICE MOTOR OPERATOR	AUX SWITCH	UVR/2ND SHUNT TRIP(2ST)	TRUCK OPERTED CELL SWITCH (TOC)	MECHANISM OPERTED CELL SWITCH (MOC)	KEY INTLK	CONTROL CABLE ENTRY DIRECTION	POWER CABLE ENTRY DIRECTION	TYPE (SEE NOTES)	POWER CABLE SIZE	# PER PHASE	GND SIZE	# PER GND	ADDITIONAL ACCESSORIES, FEATURES, & NOTES	DETAILED DRAWING REFERENCE OR CATALOG NUMBER
02	A	M1 LINE VTS	2PT-LL											T/B			–					
02	D	MAIN BREAKER M1	50 VCP-W 250 5 CYCLE	1200A	29 KA	48VDC	48VDC	48VDC	2A & 4B		4A & 5B	5A & 4B		T/B	BOTTOM	C	500 KCM	1				





WHITE WITH BLACK CHARACTERS
0.20 INCH HIGH CHARACTERS
SECURED VIA SELF TAPPING SCREWS

NOTES:
TERMINATIONS
N = NEMA DRILLING ONLY
M = MECHANICAL CU/AL
C = COMPRESSION TYPE, 2 HOLE MOUNTING, COPPER
B = NON SEGREGATED PHASE BUS

INTERRUPTING RATING
RMS SYMMETRICAL INTERRUPTING AT MAXIMUM RATED VOLTAGE OF 4.76 KV WITH K=1.24

REVISION		
1	72YL492	
2	72YL492 LRH0006149 – 002 UPDATED FOR MFG	SMS 2/17/2010

L492MDI

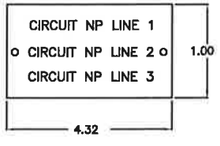
ENG REF

THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.

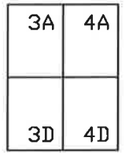
DFTR ROBERTSON	DATE 11/19/2009	EATON Cutler-Hammer GREENWOOD
APPD ERIC HUTCHENS	DATE 11/19/2009	TITLE FINGER LAKES DDSO ROCHESTER,NY
APPD PERKINS	DATE 11/19/2009	TYPE VCP-W 5 KV — UNIT SCHEDULE
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 2 — DWG SIZE D
G.O. LRH0006149 – 002	DWG ML492S1N0101	SHEET 1 OF 1

UNIT SCHEDULE

ID		DEVICE INFORMATION												TERMINATIONS								
SECTION NUMBER	DEVICE LOCATION	CIRCUIT NAMEPLATE	DEVICE TYPE	DEVICE SIZE	INTERRUPTING RATING AT MAX RATED VOLTAGE	SPRING RELEASE (CLOSE COIL)	SHUNT TRIP (OPEN COIL)	DEVICE MOTOR OPERATOR	AUX SWITCH	UVR/2ND SHUNT TRIP(2ST)	TRUCK OPERTED CELL SWITCH (TOC)	MECHANISM OPERTED CELL SWITCH (MOC)	KEY INTLK	CONTROL CABLE ENTRY DIRECTION	POWER CABLE ENTRY DIRECTION	TYPE (SEE NOTES)	POWER CABLE SIZE	# PER PHASE	GND SIZE	# PER GND	ADDITIONAL ACCESSORIES, FEATURES, & NOTES	DETAILED DRAWING REFERENCE OR CATALOG NUMBER
03	–	BUS VTS	–											T/B			–					
03	D	FEEDER BREAKER F1	50 VCP-W 250 5 CYCLE	1200A	29 KA	48VDC	48VDC	48VDC	2A & 4B		4A & 5B	5A & 4B		T/B	BOTTOM	C	500 KCM	1				
04	A	TIE BREAKER T1	50 VCP-W 250 5 CYCLE	1200A	29 KA	48VDC	48VDC	48VDC	2A & 4B		4A & 5B	5A & 4B		T/B			–					
04	D	BREAKER STORAGE	BREAKER STORAGE														–					



WHITE WITH BLACK CHARACTERS
0.20 INCH HIGH CHARACTERS
SECURED VIA SELF TAPPING SCREWS



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INTERRUPTING RATING
RMS SYMMETRICAL INTERRUPTING AT MAXIMUM RATED VOLTAGE OF 4.76 KV WITH K=1.24

REVISION			
1	72YL492		
2	72YL492 LRH0006149 – 002	UPDATED FOR MFG	2/17/2010 SMS

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ENG DEPT REF: L492MDI

DFTR	DATE
ROBERTSON	11/19/2009
APPD	DATE
ERIC HUTCHENS	11/19/2009
APPD	DATE
PERKINS	11/19/2009

EATON | Cutler-Hammer GREENWOOD

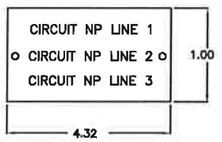
TITLE: FINGER LAKES DDSO
ROCHESTER,NY

TYPE: VCP-W 5 KV | UNIT SCHEDULE

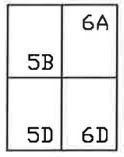
FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	2	D	LRH0006149 – 002	ML492S1N0201	1 OF 1

UNIT SCHEDULE

ID		DEVICE INFORMATION												TERMINATIONS								
SECTION NUMBER	DEVICE LOCATION	CIRCUIT NAMEPLATE	DEVICE TYPE	DEVICE SIZE	INTERRUPTING RATING AT MAX RATED VOLTAGE	SPRING RELEASE (CLOSE COIL)	SHUNT TRIP (OPEN COIL)	DEVICE MOTOR OPERATOR	AUX SWITCH	UVR/2ND SHUNT TRIP(2ST)	TRUCK OPERTED CELL SWITCH (TOC)	MECHANISM OPERTED CELL SWITCH (MOC)	KEY INTLK	CONTROL CABLE ENTRY DIRECTION	POWER CABLE ENTRY DIRECTION	TYPE (SEE NOTES)	POWER CABLE SIZE	# PER PHASE	GND SIZE	# PER GND	ADDITIONAL ACCESSORIES, FEATURES, & NOTES	DETAILED DRAWING REFERENCE OR CATALOG NUMBER
05	B	BUS VT'S	2PT-LL											T/B			–					
05	D	FEEDER BREAKER F2	50 VCP-W 250 5 CYCLE	1200A	29 KA	48VDC	48VDC	48VDC	2A & 4B		4A & 5B	5A & 4B		T/B	BOTTOM	C	500 KCM	1				
06	A	G1 LINE VTS	2PT-LL											T/B			–					
06	D	GENERATOR BREAKER G1	50 VCP-W 250 5 CYCLE	1200A	29 KA	48VDC	48VDC	48VDC	2A & 4B		4A & 5B	5A & 4B		T/B	BOTTOM	C	500 KCM	1				



WHITE WITH BLACK CHARACTERS
0.20 INCH HIGH CHARACTERS
SECURED VIA SELF TAPPING SCREWS



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C = COMPRESSION TYPE, 2 HOLE MOUNTING, COPPER
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INTERRUPTING RATING
RMS SYMMETRICAL INTERRUPTING AT MAXIMUM RATED VOLTAGE OF 4.76 KV WITH K=1.24

REVISION		
1	72YL492	
2	72YL492 LRH0006149 – 002	UPDATED FOR MFG 2/17/2010 SMS
3	72YL492 LRH0006149 – 002	UPDATED PER CN# 2 3/10/2010 SMS

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ENG DEPT REF: L492MDI

DFTR	DATE
ROBERTSON	11/19/2009
APPD	DATE
ERIC HUTCHENS	11/19/2009
APPD	DATE
PERKINS	11/19/2009

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO ROCHESTER,NY

TYPE: VCP-W 5 KV — UNIT SCHEDULE

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	3	D	LRH0006149 – 002	ML492S1N0301	1 OF 1

UNIT SCHEDULE

ID		DEVICE INFORMATION												TERMINATIONS								
SECTION NUMBER	DEVICE LOCATION	CIRCUIT NAMEPLATE	DEVICE TYPE	DEVICE SIZE	INTERRUPTING RATING AT MAX RATED VOLTAGE	SPRING RELEASE (CLOSE COIL)	SHUNT TRIP (OPEN COIL)	DEVICE MOTOR OPERATOR	AUX SWITCH	UVR/2ND SHUNT TRIP(2ST)	TRUCK OPERTED CELL SWITCH (TOC)	MECHANISM OPERTED CELL SWITCH (MOC)	KEY INTLK	CONTROL CABLE ENTRY DIRECTION	POWER CABLE ENTRY DIRECTION	TYPE (SEE NOTES)	POWER CABLE SIZE	# PER PHASE	GND SIZE	# PER GND	ADDITIONAL ACCESSORIES, FEATURES, & NOTES	DETAILED DRAWING REFERENCE OR CATALOG NUMBER
07	A		WORK AREA											T/B			–					
07	B		WORK AREA											T/B			–					
07	C		WORK AREA											T/B			–					
07	D		WORK AREA											T/B			–					
08	A		WORK AREA											T/B			–					
08	B		WORK AREA											T/B			–					
08	C		WORK AREA											T/B			–					
08	D		WORK AREA											T/B			–					

CIRCUIT NP LINE 1	
o CIRCUIT NP LINE 2 o	1.00
CIRCUIT NP LINE 3	
4.32	

7A	8A
7B	8B
7C	8C
7D	8D

WHITE WITH BLACK CHARACTERS
0.20 INCH HIGH CHARACTERS
SECURED VIA SELF TAPPING SCREWS

NOTES:
TERMINATIONS
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INTERRUPTING RATING
RMS SYMMETRICAL INTERRUPTING AT MAXIMUM RATED VOLTAGE OF 4.76 KV WITH K=1.24

REVISION		
1	72YL492	
2	72YL492 LRH0006149 - 002 UPDATED FOR MFG	SMS 2/17/2010

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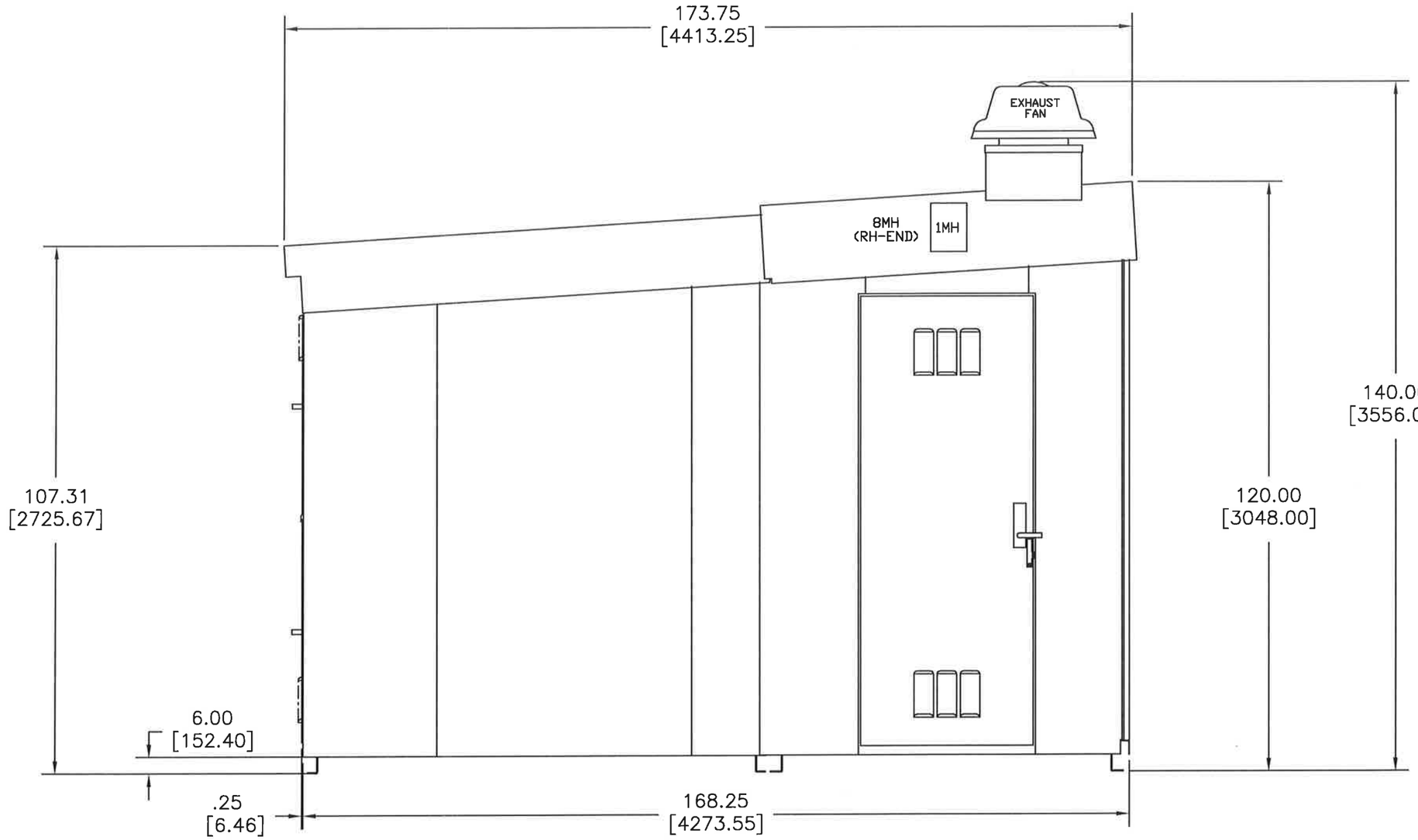
ENG DEPT REF: L492MDI

DFTR ROBERTSON	DATE 11/19/2009	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 11/19/2009	TITLE FINGER LAKES DDSO ROCHESTER,NY	
APPD PERKINS	DATE 11/19/2009	TYPE VCP-W 5 KV	UNIT SCHEDULE

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	2	D	LRH0006149 - 002	ML492S1N0401	1 OF 1

END VIEW



L.H. ELEVATION

REVISION			
1	72YL492		
2	72YL492 LRH0006149 – 002	UPDATED FOR MFG	SMS 2/17/2010

ENG DEPT REF: L492MDI

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FEDERAL ID NO	PRODUCT CODE
341756464	6064

		DATE
DFTR	ROBERTSON	11/19/2009
APPD	ERIC HUTCHENS	11/19/2009
APPD	PERKINS	11/19/2009

EATON Cutler-Hammer GREENWOOD

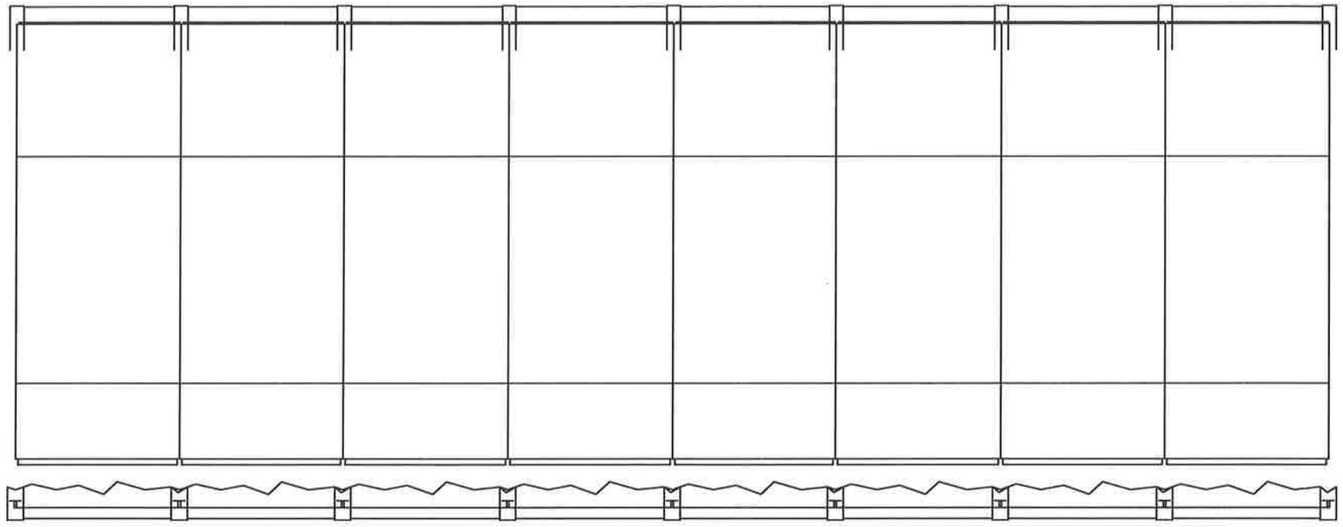
TITLE: FINGER LAKES DDSO
ROCHESTER,NY

TYPE: VCP–W 5 KV

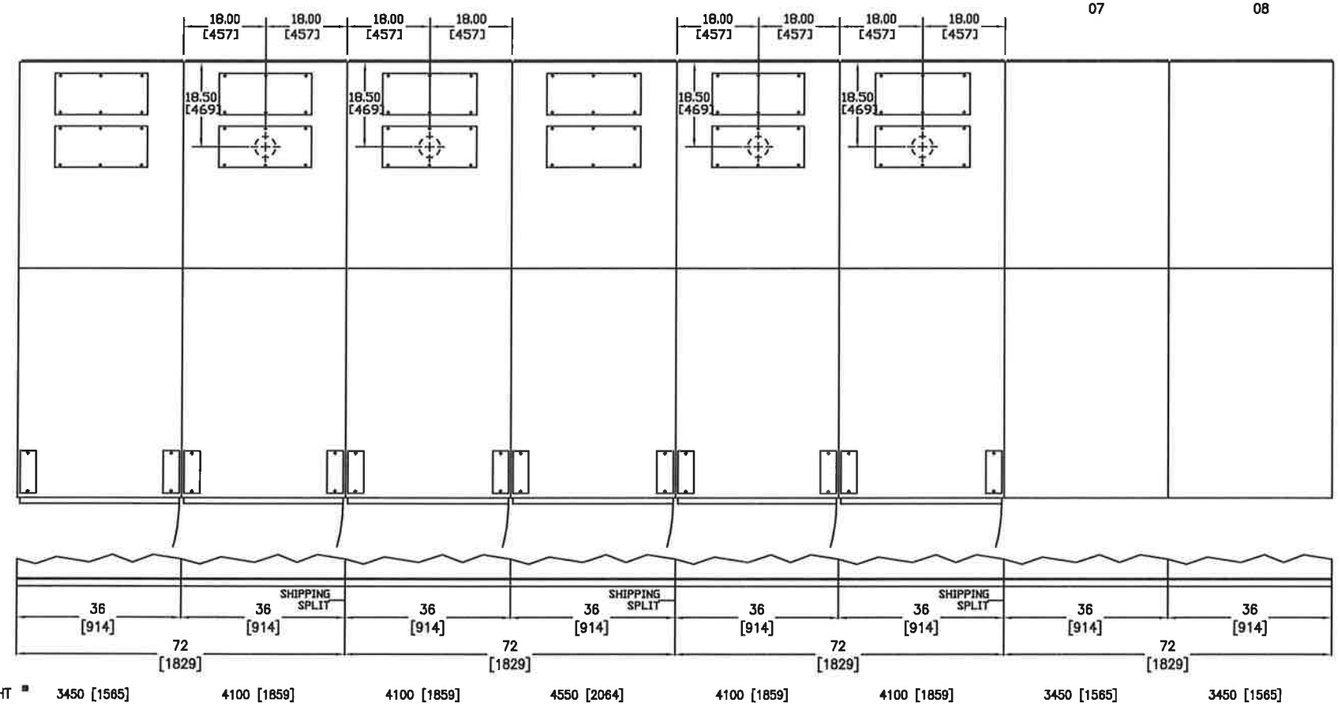
END VIEW

REVISION	DWG SIZE	G.O.	DWG	SHEET
2	B	LRH0006149 – 002	ML492S100101	1 OF 1

TOP VIEW



FOR VS #7, SEE DRAWING
ML492S1Q0201 FOR DETAILS
ON LOCATION OF PANELBOARDS.



BASE VIEW

FOR TYPICAL BASE PLAN SEE DRAWING 1C15914
* DOES NOT INCLUDE BREAKER WEIGHT

REVISION			
72YL492	1		
	2	72YL492 LRH0006149 - 002 UPDATED FOR MFG	2/17/2010 SMS

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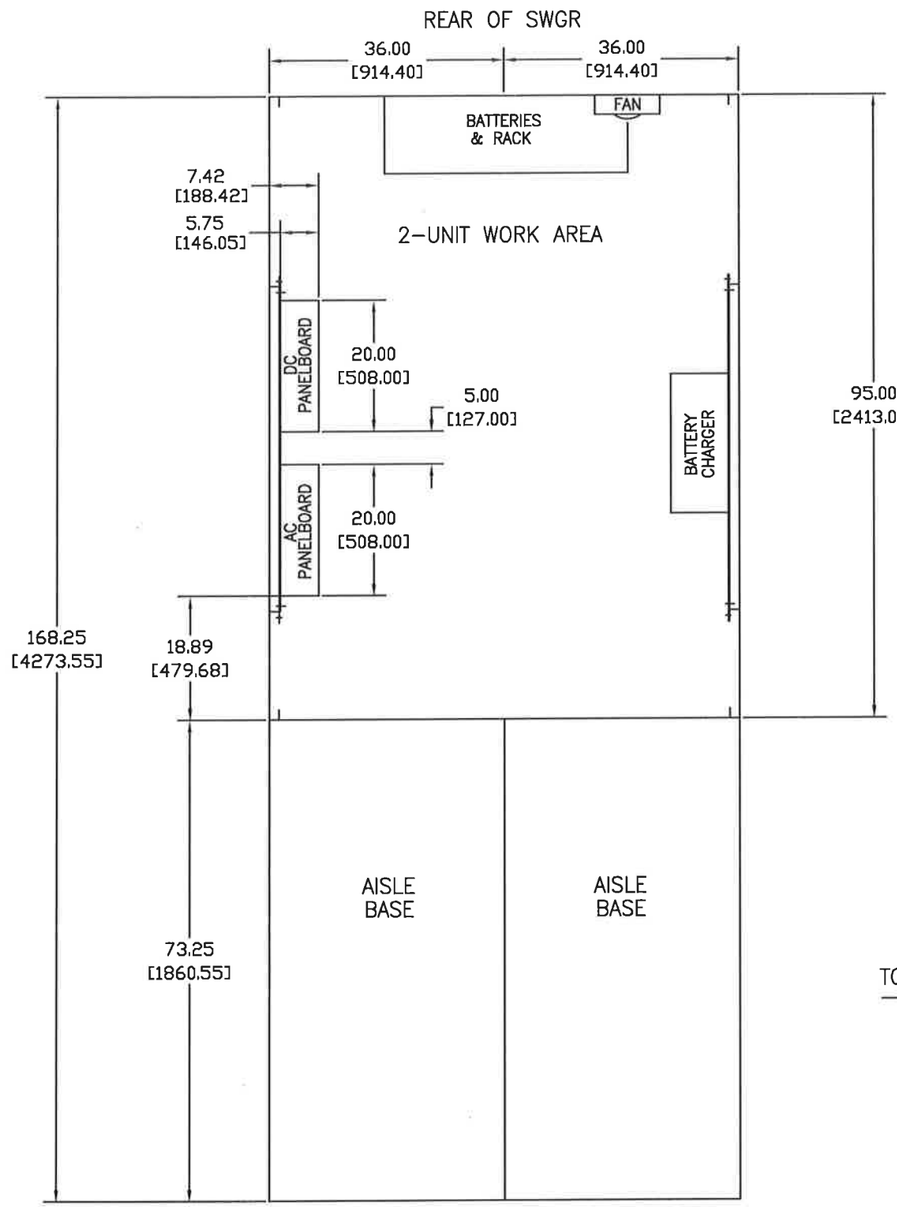
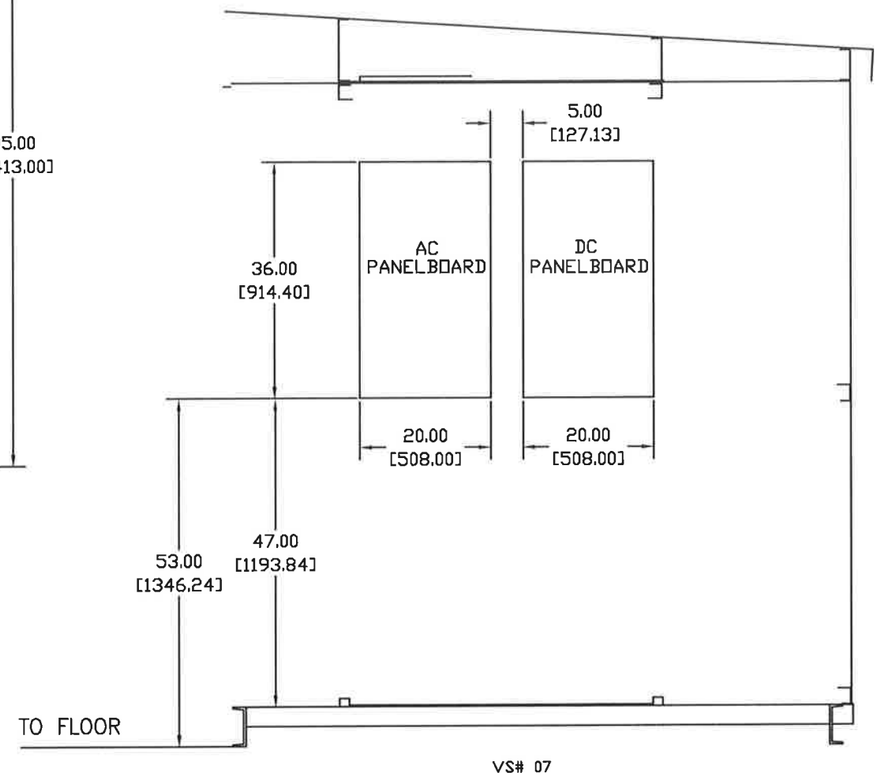
ENG DEPT REF: L492MDI

DFTR ROBERTSON	DATE 11/19/2009	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 11/19/2009	TITLE FINGER LAKES DDSO ROCHESTER,NY	
APPD PERKINS	DATE 11/19/2009	TYPE VCP-W 5 KV	PLAN VIEW
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 2	DWG SIZE D
G.O. LRH0006149 - 002	DWG ML492S1Q0101	SHEET 1 OF 1	

TOP VIEW

NOTE TO CUST/CONTRACTOR
CELL BASES THAT WORK AREAS SITS ON DO NOT HAVE ANY CUTOUTS FOR LV/HV CONDUITS. FIELD WILL NEED TO MODIFY PER PANELBOARDS LOCATED PER THIS DRAWING.





VS# 07

FOR TYPICAL BASE PLAN SEE DRAWING 1C15914

REVISION			
1	72YL492		
2	72YL492 LRH0006149 - 002	UPDATED FOR MFG	SMS 2/17/2010

L492MDI (ENG DEPT REF)

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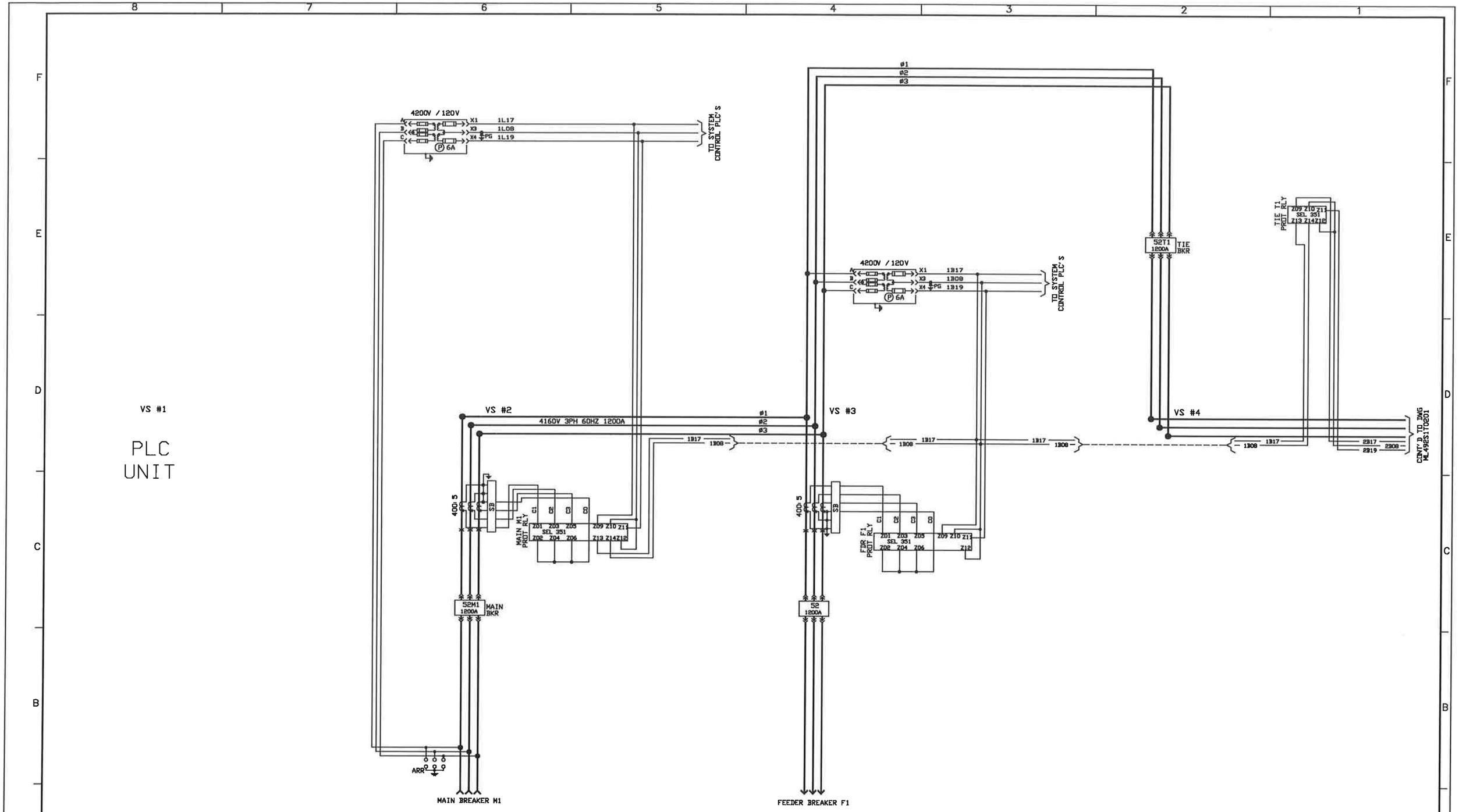
DFTR	DATE
ROBERTSON	11/19/2009
APPD	DATE
ERIC HUTCHENS	11/19/2009
APPD	DATE
PERKINS	11/19/2009

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO ROCHESTER,NY

TYPE: VCP-W 5 KV — PLAN VIEW

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	2	D	LRH0006149 - 002	ML492S100201	1 OF 1



REVISION		
72YL492 1	72YL492 2 UPDATED PER ASBUILT PRINTS.	RW 04/28/10 HUTCHENS 04/28/10 PERKINS 04/28/10

PHASOR ROTATION 1-2-3

ENG DEPT REF L492MDI

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DFTR	DATE
WALLACE	11/11/09
APPD	DATE
ERIC HUTCHENS	11/11/09
APPD	DATE
PERKINS	11/11/09

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756484	6064	2	D

EATON Cutler-Hammer GREENWOOD

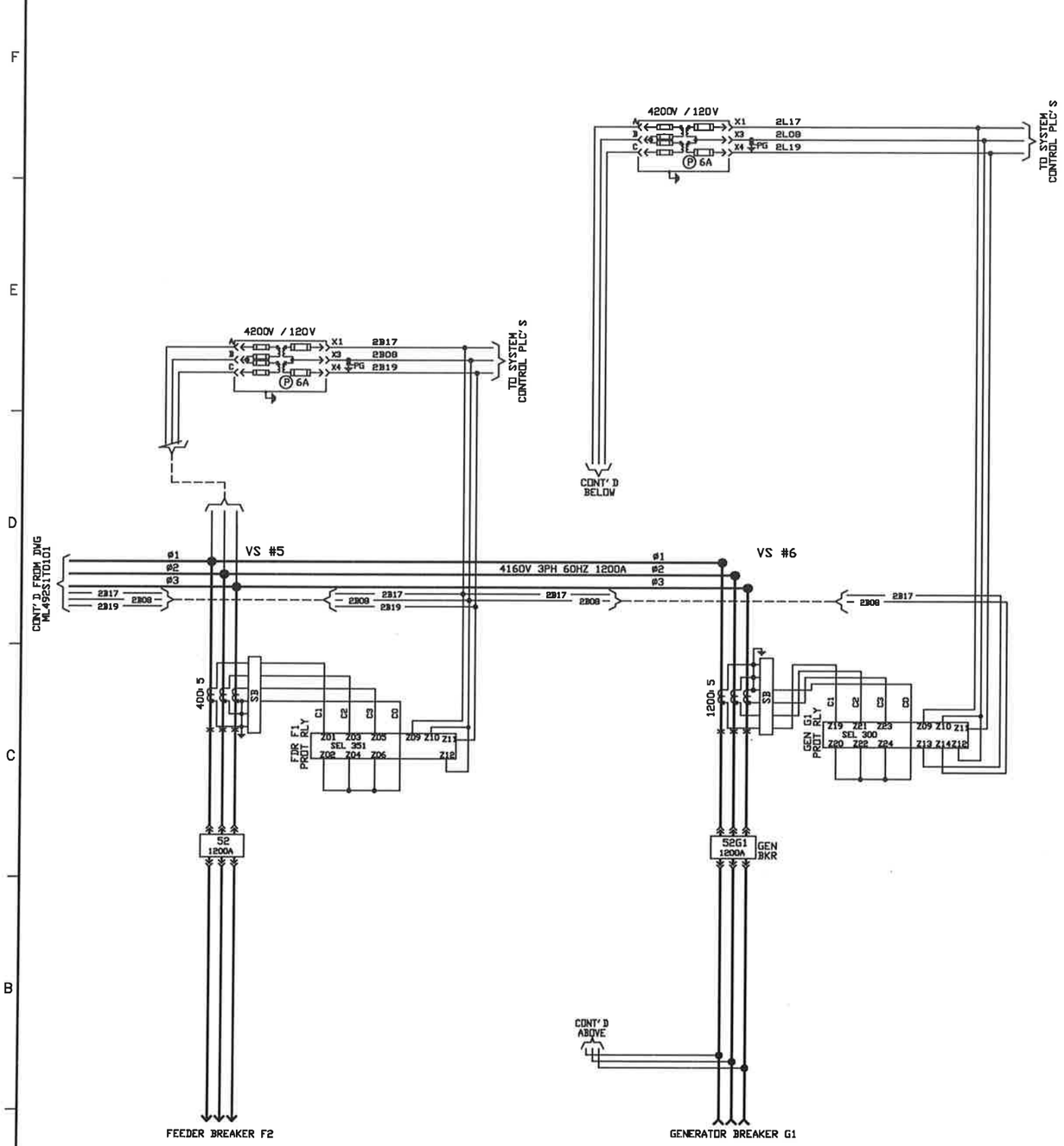
TITLE: FINGER LAKES DDSO ROCHESTER,NY

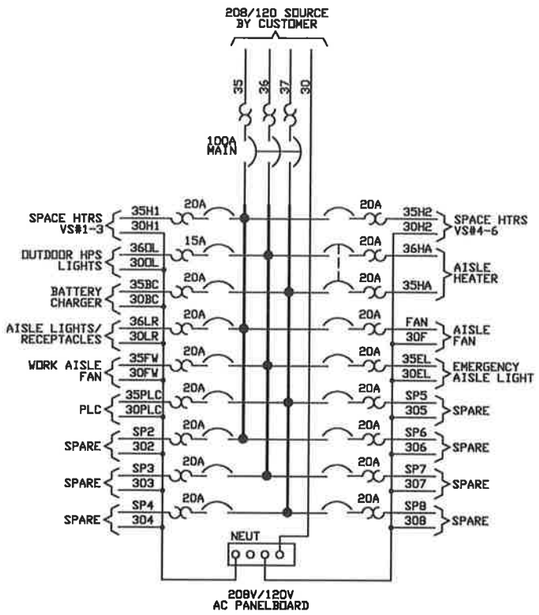
TYPE: VCP-W 5 KV — THREE LINE DIAGRAM

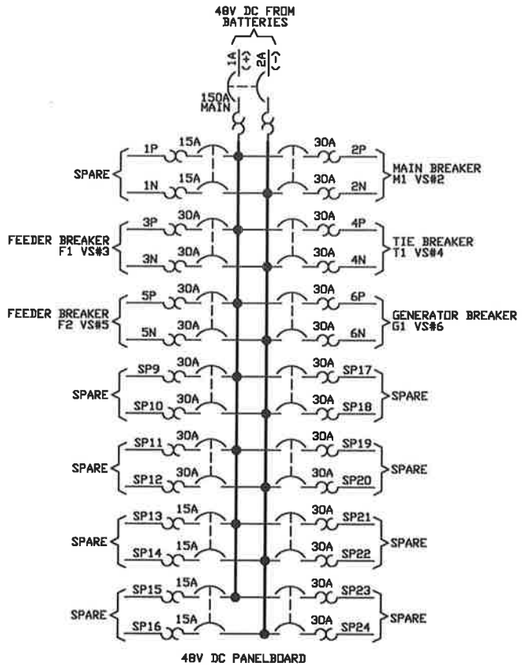
G.O.: LRH0006149-002

DWG: ML492S1T0101

SHEET: 1 OF 1







REVISION			
1	72YL492		
2	72YL492	REVISED PER MARKED DWGS FOR MFG.	US 02/19/10 ERIC HUTCHENS 02/19/10 PERKINS 02/19/10
3	72YL492	UPDATED PER ASBUILT PRINTS.	RMV 04/28/10 HUTCHENS 04/28/10 PERKINS 04/28/10

PHASOR ROTATION 1-2-3

ENG DEPT REF: L492MDI

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DFTR	WALLACE	DATE 11/11/09
APPD	ERIC HUTCHENS	DATE 11/11/09
APPD	PERKINS	DATE 11/11/09

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	3	D

EATON Cutler-Hammer GREENWOOD

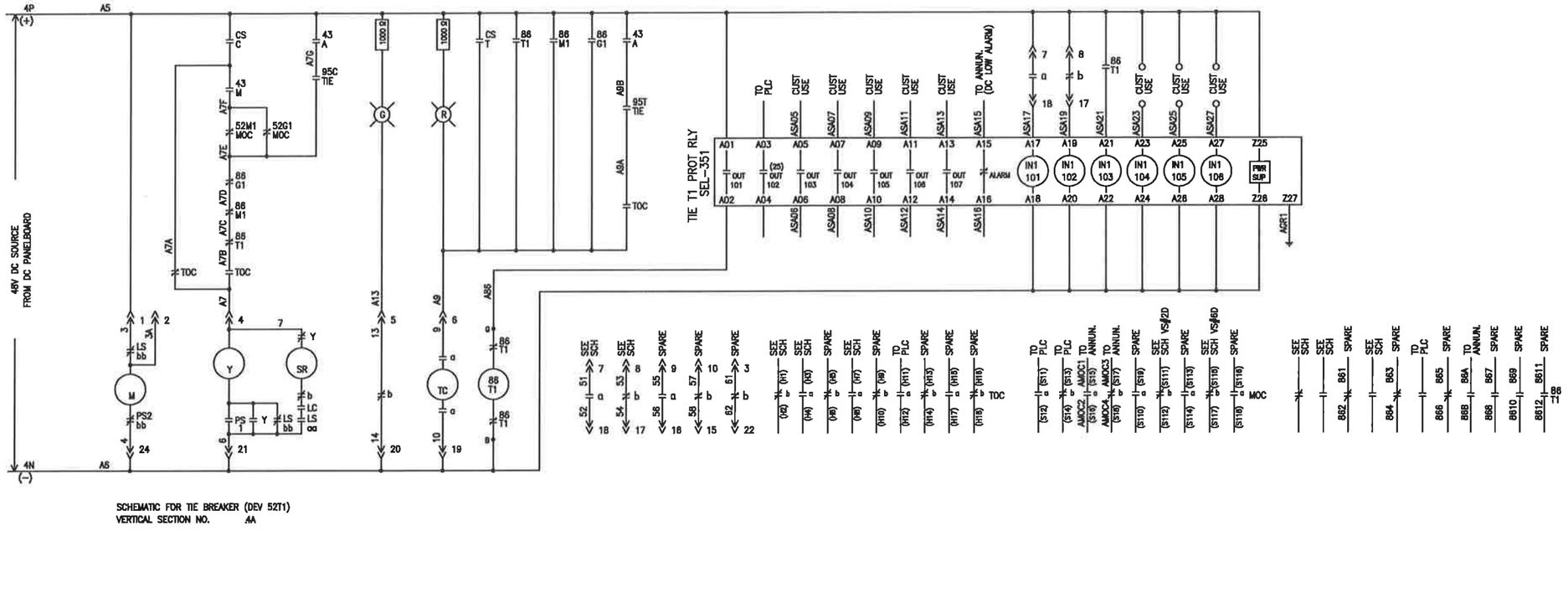
TITLE: FINGER LAKES DDSO ROCHESTER,NY

TYPE: VCP-W 5 KV — THREE LINE DIAGRAM

G.O.: LRH0006149-002

DWG: ML492S1T0201

SHEET: 1 OF 1



SCHEMATIC FOR TIE BREAKER (DEV 52T1)
VERTICAL SECTION NO. 4A

REVISION		
72YL492	72YL492	REVISED PER MARKED DWGS FOR MFG.
1	2	NGB 02/19/10 ERIC HUTCHENS 02/19/10 PERKINS 02/19/10

ENG DEPT REF: L492MDI

THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.

DFTR	DATE
WALLACE	11/17/09
APPD ENGR	DATE
ERIC HUTCHENS	11/17/09
APPD	DATE
PERKINS	11/17/09

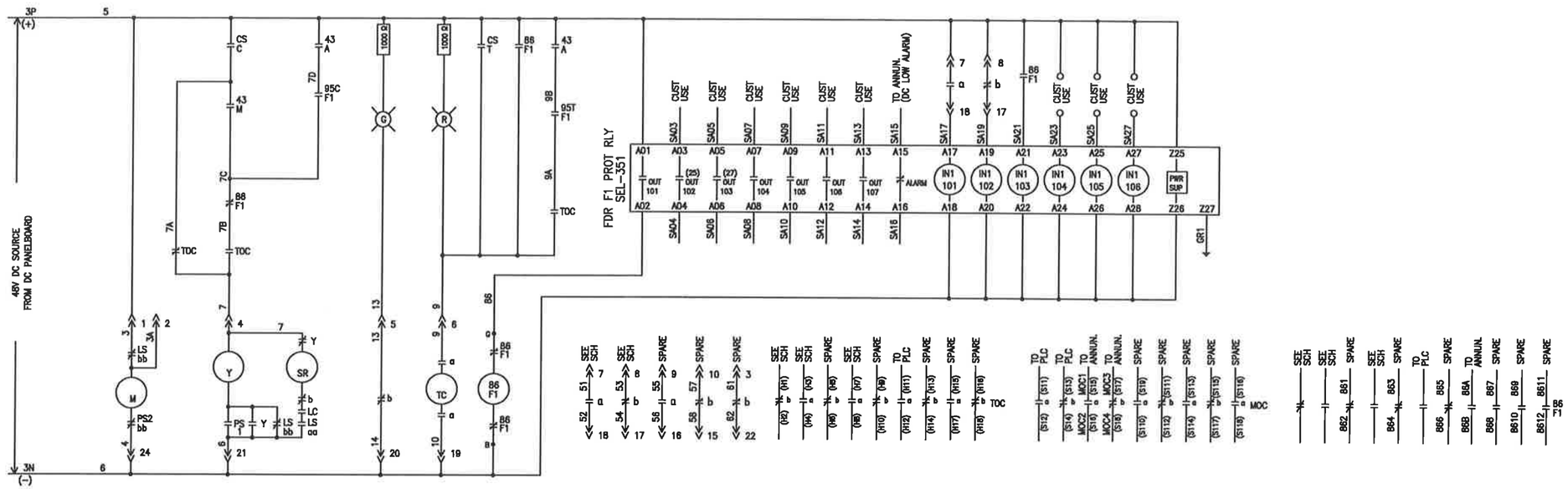
FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON Cutler-Hammer GREENWOOD

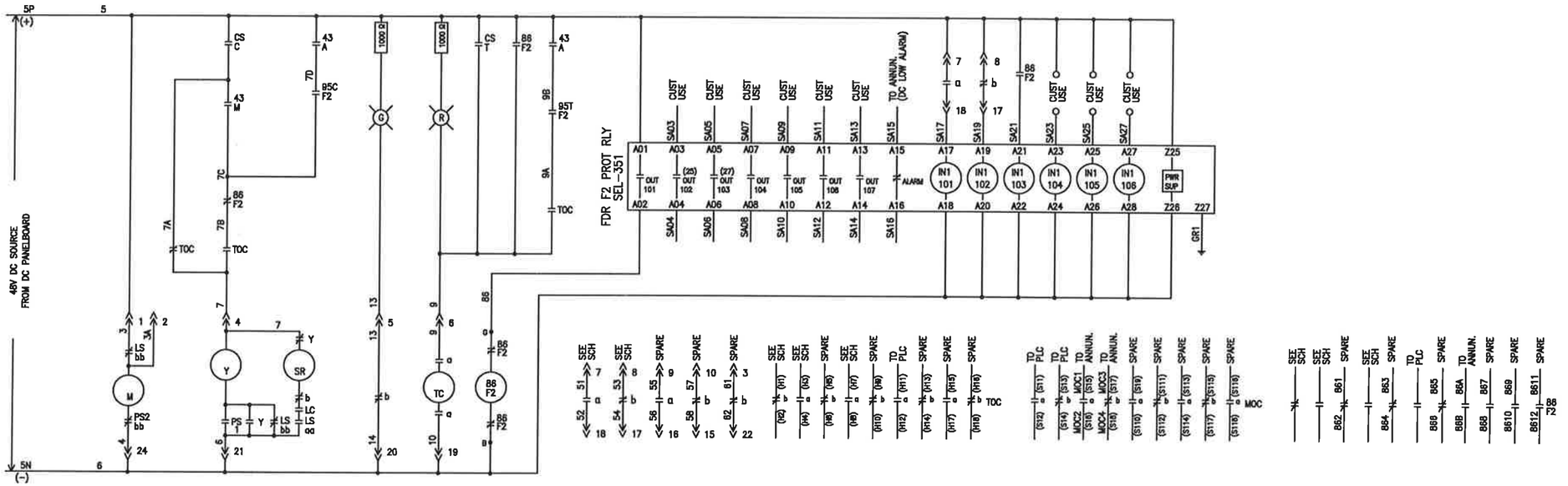
TITLE: FINGER LAKES DDSO
ROCHESTER,NY

TYPE: VCP-W 5 KV — SCHEMATIC DIAGRAM

G.O.	DWG	SHEET
LRH0006149-002	ML492S1S0201	1 OF 1



SCHEMATIC FOR FEEDER BREAKER (DEV 52)
VERTICAL SECTION NO. 3D



SCHEMATIC FOR FEEDER BREAKER (DEV 52)
VERTICAL SECTION NO. 5D

REVISION			
1	72YL492	REVISED PER MARKED DWGS FOR MFG.	NGB 02/19/10
2	72YL492		ERIC HUTCHENS 02/19/10
			PERKINS 02/19/10

ENG DEPT REF: L492MDI

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DFTR	DATE
WALLACE	11/17/09
APPD ENG	DATE
ERIC HUTCHENS	11/17/09
APPD	DATE
PERKINS	11/17/09

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON Cutler-Hammer GREENWOOD

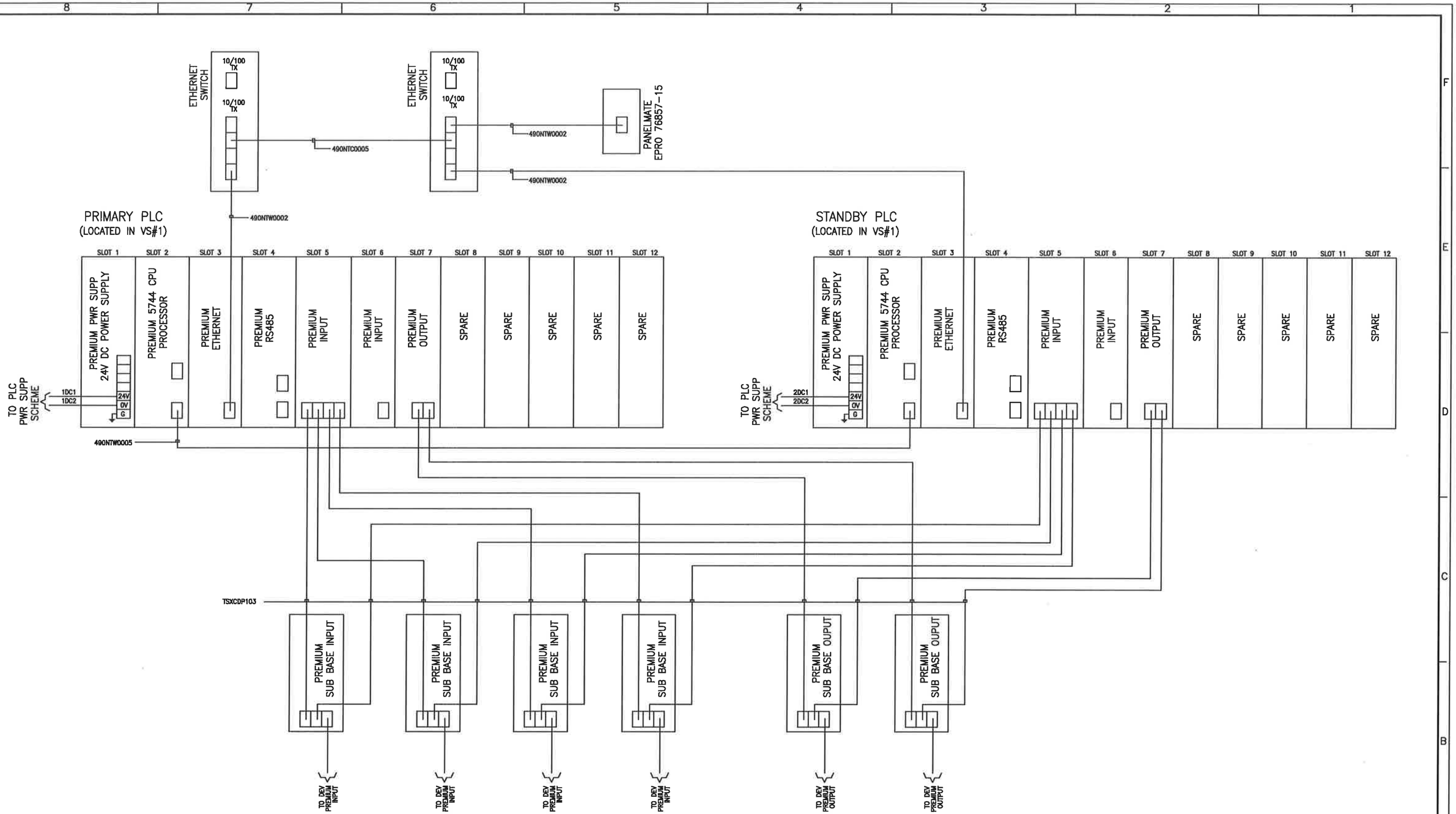
TITLE: FINGER LAKES DDSO
ROCHESTER,NY

TYPE: VCP-W 5 KV — SCHEMATIC DIAGRAM

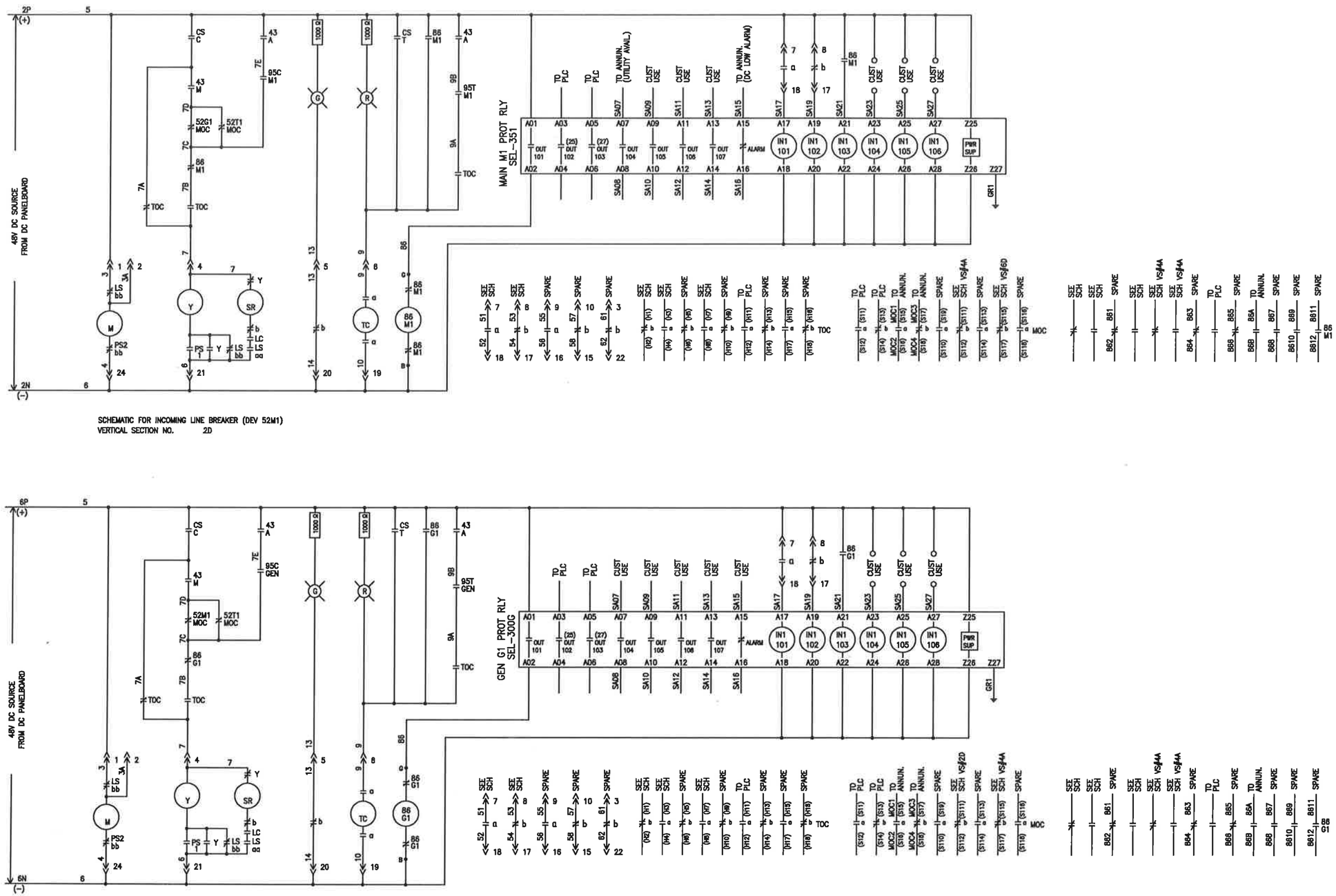
G.O.: LRH0006149-002

DWG: ML492S1S0301

SHEET: 1 OF 1



72YL492	1		ENG DEPT REF L492MDI	THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.	DFTR WALLACE DATE 11/17/09	EATON Cutler-Hammer GREENWOOD			
					APPD ERIC HUTCHENS DATE 11/17/09 ENG	TITLE FINGER LAKES DDSO ROCHESTER,NY			
					APPD PERKINS DATE 11/17/09	TYPE VCP-W 5 KV	SCHEMATIC DIAGRAM		
				FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 1	DWG SIZE D	G.O. LRH0006149-002	DWG ML492S1S0401 SHEET 1 OF 1



REVISION			
721L492	1		
721L492	2	REVISED PER MARKED DWGS FOR MFG.	NGB 02/19/10
			ERIC HUTCHENS 02/19/10
			PERKINS 02/19/10

ENG DEPT REF: L492MDI

THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.

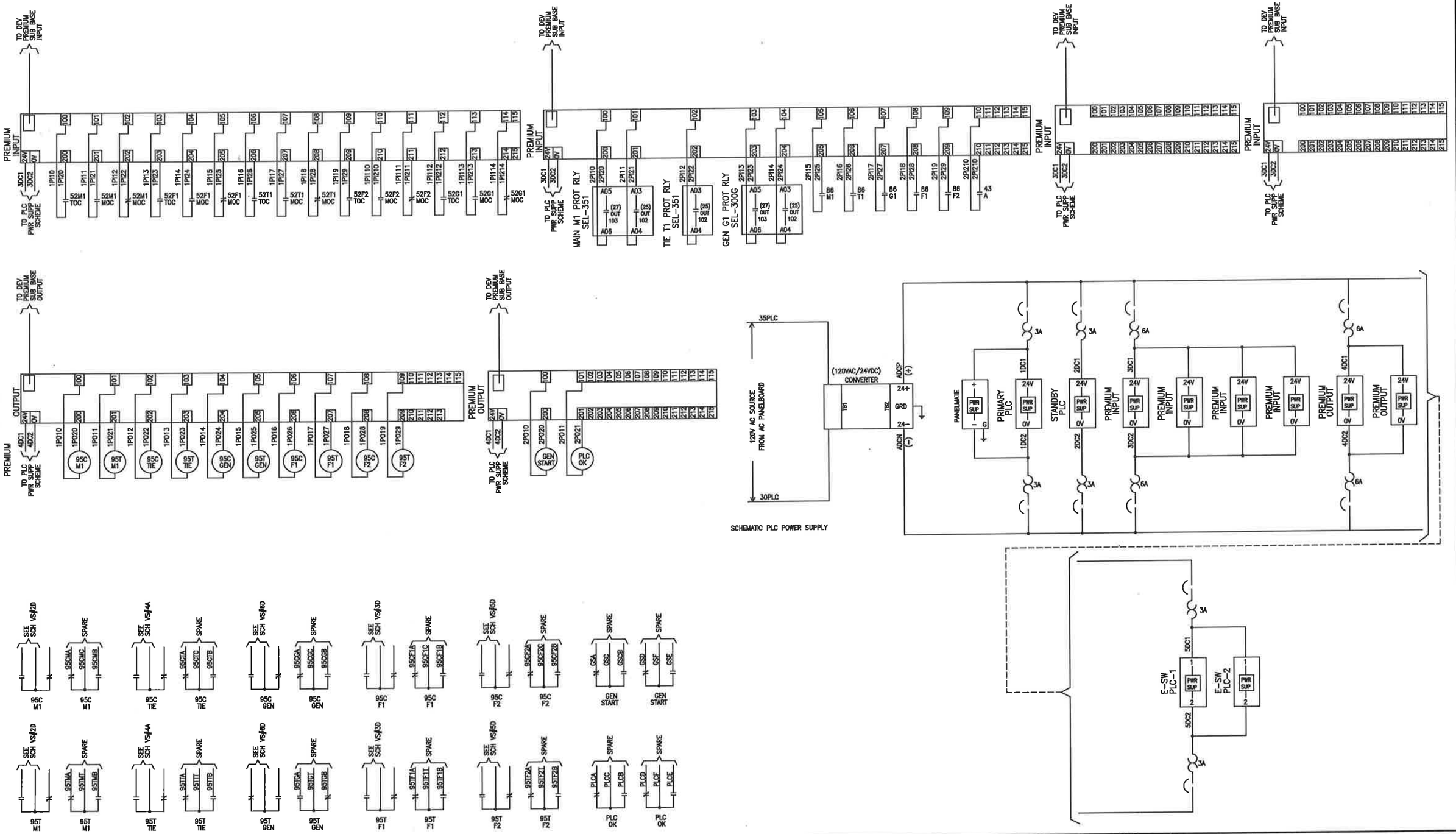
DFTR WALLACE	DATE 11/17/09	ENGR
APPD ERIC HUTCHENS	DATE 11/17/09	
APPD PERKINS	DATE 11/17/09	

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER,NY

TYPE: VCP-W 5 KV — SCHEMATIC DIAGRAM

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	2	D	LRH0006149-002	ML492S1S0101	1 OF1



REVISION		
721L492	1	
721L492 REVISED PER MARKED DWGS FOR MFG. NGB ERIC HUTCHENS PERKINS	2	02/19/10 02/19/10 02/19/10
721L492 UPDATED PER ASBUILT PRINTS. RMV HUTCHENS PERKINS	3	04/28/10 04/28/10 04/28/10

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ENG L492MDI
DFTR WALLACE 11/20/09
APPD ERIC HUTCHENS 11/20/09
APPD PERKINS 11/20/09
FEDERAL ID NO 341756464
PRODUCT CODE 6064
REVISION 3
DWG SIZE D

EATON Cutler-Hammer GREENWOOD

TITLE FINGER LAKES DDSO
ROCHESTER,NY

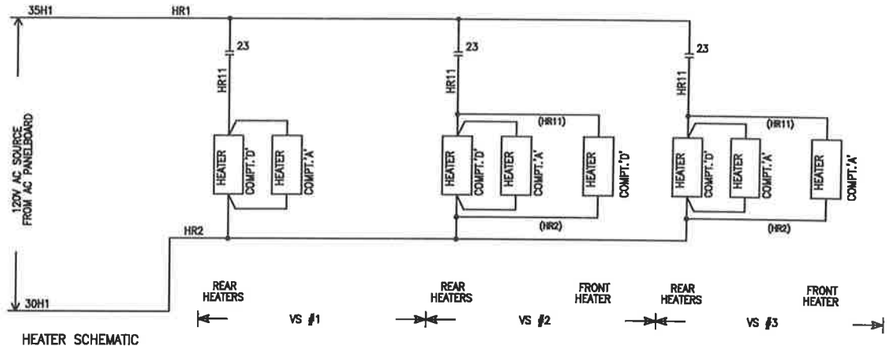
TYPE VCP-W 5 KV

SCHEMATIC DIAGRAM

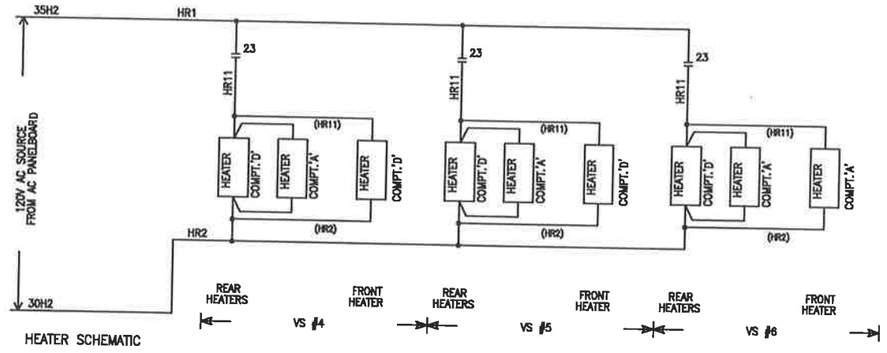
G.O. LRH0006149-002

DWG ML492S1S0501

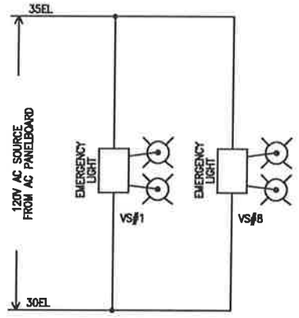
SHEET 1 OF 1



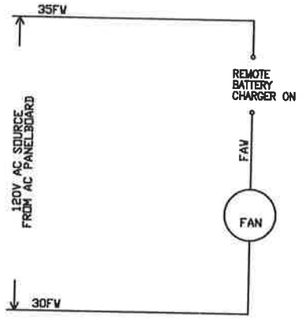
HEATER SCHEMATIC



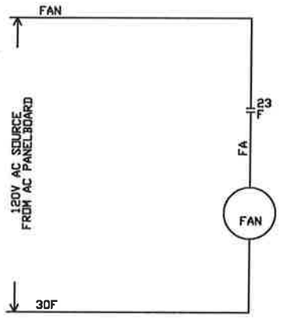
HEATER SCHEMATIC



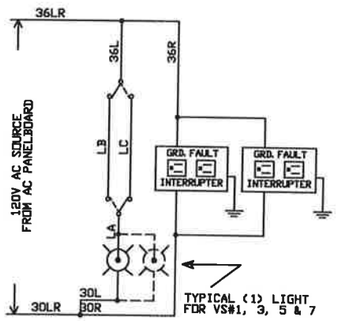
EMERGENCY LIGHT SCHEMATIC



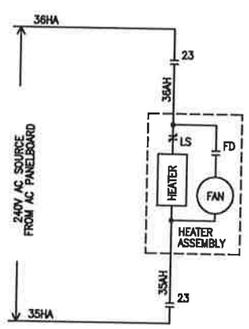
WORK AREA FAN SCHEMATIC



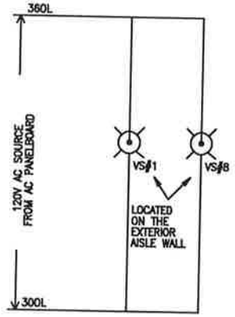
SHFM. FAN SCHEMATIC



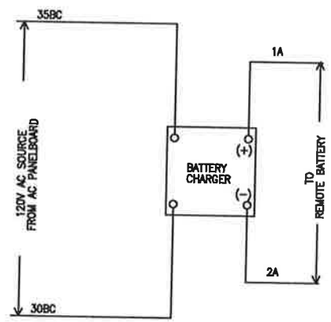
SHFM. LIGHT & RECP. SCHEMATIC



SHFM.HEATER SCHEMATIC



OUTDOOR LIGHTNING SCHEME



BATTERY CHARGER SCHEMATIC

REVISION		
1	72YL492	
2	72YL492 REVISED PER MARKED DWGS FOR MFG.	NGB 02/19/10 ERIC HUTCHENS 02/19/10 PERKINS 02/19/10

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ENG DEPT REF: L492MDI

DFTR	WALLACE	DATE	11/17/09
APPD	ERIC HUTCHENS	DATE	11/17/09
APPD	PERKINS	DATE	11/17/09

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO ROCHESTER,NY

TYPE: VCP-W 5 KV

SCHEMATIC DIAGRAM

G.O.	DWG	SHEET
LRH0006149-002	ML492S1S0601	1 OF 1

(L)

END WALL
ADJACENT VS #8

TO VS # 8
(CP)

CONDUIT

JUNCTION
BOX

CONDUIT

OUTDOOR LIGHT

(T)36OL
(T)30OL

(T)36L
(T)1LB
(T)1LC
(T)30R
(T)36R

SW

GFI
RECP

DOOR

(A)

TO VS #5
(T)

HEATER
FAN
P1T1
P1F1
TFB
FLS
#10
36AH
35AH

SHOP NOTE :
ADD JUMPER

LA
30L
CONDUIT

LIGHT CONNECTION
VERT. SECT. #5

TO VS # 4
(T)

FAN
MOTOR

FA
30F
BLU
WH

CONDUIT
LA
30L
LA
30L
CONDUIT

LIGHT CONNECTION
VERT. SECT. #3

CONDUIT
LA
30L
(R) LA
(T) 30L

LIGHT CONNECTION
VERT. SECT. #1

TO VS #8

35EL
30EL

EMERGENCY
LIGHT

TEST
CABINET

VERT. SECT. #7

36R (T)
30R (T)

VERT. SECT. #5

TO VS #1

35EL
30EL

EMERGENCY
LIGHT

36R (T)
30R (T)

VERT. SECT. #3

(R)

TO VS # 1
(CP)

CONDUIT

JUNCTION
BOX

CONDUIT

(T) FAN
(T) FA

BLK
BLU

23

OUTDOOR LIGHT

(T) 36OL
(T) 30OL

(T) 30R
(T) 36R
(T)LA
(A)LA
(T)1LB
(T)1LC

SW

GFI
RECP

DOOR

(T)36HA
(T)36AH
(T)35AH
(T)35HA

#10

23

VIEWED FACING AISLE WALL

RT = WIRE WITH RING TERMINAL.

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED.

0 0

ENG DEPT REF: L492MDI

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DFTR	DATE
US	02/24/10
APPD ERIC HUTCHENS	DATE 02/24/10
APPD PERKINS	DATE 02/24/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

SHELTERED-AISLE CONN.DIAG.

G.O.: LRH0006149 - 002

DWG: ML492S1W0000

SHEET: 1 OF 1

VERTICAL SECTION # 1
LOWER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

(J)

L51
(F) — 02 HR11 — (Z)
(T) — 23 HR2 — (Z)
01
24

(B)

(K)

(F)

(Z)
HR (REAR) 01 HR11 — (J) — (W)
02 HR2 — (J) — (W)

SEE DWG.
ML492S1W0105

GFI RECP
H W
LOAD
LINE
H W
G
36R — 30LR
GR

36R(T)
30R(T)
GR(F)

LEFT SIDE SHEET

GRD BUS
(P) GR
(F) GB
(A) GA
(H) GC

RIGHT SIDE SHEET

RT= WIRE WITH RING TERMINAL

B COMPARTMENT (FRONT VIEW)

REVISION			
1	72YL492		
2	72YL492	REVISED FOR MFG.	03/09/10 US 03/09/10 ERIC HUTCHENS 03/09/10 PERKINS
3	72YL492	UPDATED PER ASBUILT PRINTS.	04/28/10 RMV 04/28/10 HUTCHENS 04/28/10 PERKINS

#14 WIRE REQUIRED, EXCEPT AS NOTED

0 0

ENG DEPT REF: L492MDI

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DFTR	DATE
NGB	02/22/10
APPD	DATE
ERIC HUTCHENS	02/22/10
APPD	DATE
PERKINS	02/22/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	3	D

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 1

G.O.: LRH0006149-002

DWG: ML492S1W0101

SHEET 1 OF 1

VERTICAL SECTION # 1
UPPER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

PANELMATE
EPRO 76857-15

24V DC | KYSW | SERIAL PORT 1 | SERIAL PORT 2 | FAULT REL. | AUDIO

1DC1
1DC2
GC

CABLE CONNECTS TO PLC

12	2PI120	52	4-A5
13	2PI220	53	4-A7G
15	2-7A	56	4-A5
16	2-7D	57	4-A9B
22	2-5	61	5-7A
23	2-7E	62	5-7C
26	2-5	66	5-5
27	2-9B	67	5-7D
31	3-7A	72	5-5
32	3-7C	73	5-9B
36	3-5	75	6-7A
37	3-7D	76	6-7D
42	3-5	82	6-5
43	3-9B	83	6-7E
45	4-A7A	86	6-5
46	4-A7F	87	6-9B

A/M

LEFT SIDE SHEET

(L)

1DC1(F)
1DC2(F)
GC(F)
2PI120(A)
2PI220(A)
2-9B(F)
2-7E(F)
2-7D(T)
2-7A(T)
2-5(T)
3-9B(F)
3-7D(F)
3-7C(T)
3-7A(T)
3-5(T)
4-A9B(F)
4-A7G(F)
4-A7F(T)
4-A7A(T)
4-A5(T)
5-9B(F)
5-7D(F)
5-7C(R)
5-7A(R)
5-5(R)
6-9B(F)
6-7E(F)
6-7D(T)
6-7A(R)
6-5(R)

L21

(F)	01	95TMA	(F)
(F)	02	95TMB	(H)
(F)	03	95TMC	(F)
(F)	04	95CMA	(H)
(F)	05	95CMB	
(F)	06	95CMC	
(F)	07	95TTA	
(F)	08	95TTB	
(F)	09	95TTC	
(F)	10	95CTA	
(F)	11	95CTB	
(F)	12	95CTC	

L41

(2)	01	2-9A	(F)
(2)	02	2-7D	(H)
(2)	03	2-7C	(F)
(2)	04	2-7A	(H)
(2)	05	2PI10	(A)
(2)	06	2PI20	(A)
(2)	07	2PI11	(A)
(2)	08	2PI21	(A)
(2)	09	2PI15	(A)
(2)	10	2PI25	(A)
(2)	11	1PI10	(A)
(2)	12	1PI20	(A)

L23

(F)	01	95TGA	
(F)	02	95TGB	
(F)	03	95TGC	
(F)	04	95CGA	
(F)	05	95CGB	
(F)	06	95CGC	
(F)	07	95TF1A	
(F)	08	95TF1B	
(F)	09	95TF1C	
(F)	10	95CF1A	
(F)	11	95CF1B	
(F)	12	95CF1C	

L43

(2)	01	1PI11	(A)
(2)	02	1PI21	(A)
(2)	03	1PI12	(A)
(2)	04	1PI22	(A)

L25

(F)	01	95TF2A	
(F)	02	95TF2B	
(F)	03	95TF2C	
(F)	04	95CF2A	
(F)	05	95CF2B	
(F)	06	95CF2C	
(F)	07	GSA	
(F)	08	GSB	
(F)	09	GSC	
(F)	10	GSD	
(F)	11	GSE	
(F)	12	GSF	

L45

01	PLCA		(F)
02	PLCB		(F)
03	PLCC		(F)
04	PLCD		(F)
05	PLCE		(F)
06	PLCF		(F)

A COMPARTMENT (FRONT VIEW)

(T)

ROOF SHEET

TO8: 1PI27, 1PI18, 1PI28, 4-A9A, 4-A7F, 4-A7E, 4-A7A, 4-A5, 2PI19, 2PI29, 1PI19, 1PI29

TO6: 1PI110, 2PI210, 1PI111, 2PI211, 5-9A, 5-7C, 5-5, 2PI113, 2PI123, 2PI114, 2PI124

#10 — #6

TO4: HR1, HR2, 2PI17, 2PI27, 2PI112, 2PI212, 2PI113, 2PI213, 2PI114, 2PI214, 5-9A, 5-7C, 6-7D

TO1: 1P, 1N

T18: 30L, LB, LC, LA, 36R, 30R, FAN, FA, 36HA, 35HA, 36AH, 35AH

#10 — #10

T16: 36L, 30L, 35L, 30L, 2-5, 2PI18, 2PI28, 1PI13, 1PI23, 1PI14, 1PI24, 1PI15

T14: 1PI25, 3-9A, 3-7C, 3-5, 2PI12, 2PI22, 2PI16, 2PI26, 1PI16, 1PI26, 1PI17

SEE DRAWING ML492S1W0000

VERTICAL SECTION # 1

(A)

(W)

HR (READ)	01	HR11	(Z)
	02	HR2	(Z)

SEE DWG. ML492S1W0103

RIGHT SIDE SHEET

(R)

R61

(F)	01	6-7C	(3)
(H)	02	6-7A	(3)
(H)	03	6-5	(3)
(F)	04	35PLC	(3)
(F)	05	30PLC	(3)
	06		

RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED

0 | 0

ENG DEPT REF: L492MDI

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DFTR	NGB	DATE	02/22/10
APPD	ERIC HUTCHENS	DATE	02/22/10
APPD	PERKINS	DATE	02/22/10

FEDERAL ID NO	341756464	PRODUCT CODE	6064
REVISION	2	DWG SIZE	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 1

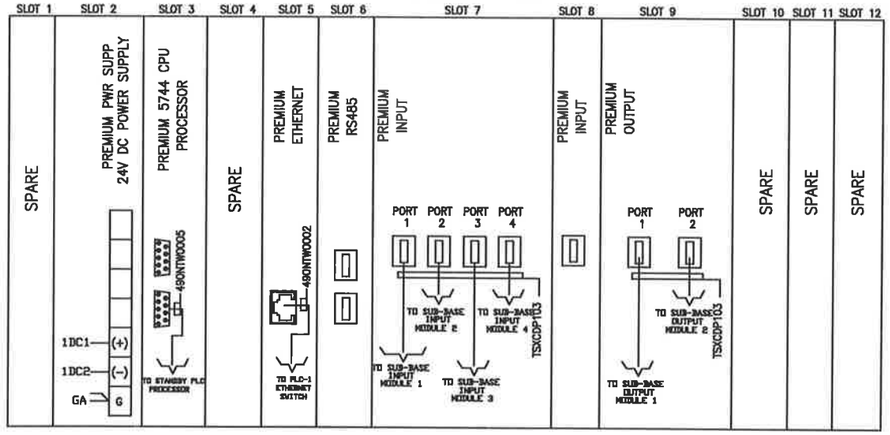
G.O.: LRH0006149-002

DWG: ML492S1W0102

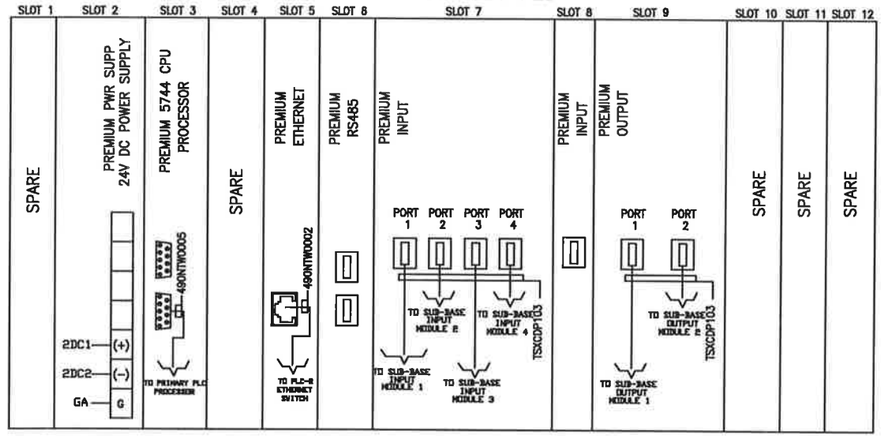
SHEET: 1 OF1

(A)

PRIMARY PLC



STANDBY PLC



SEE DWG.
ML492S1W0104

2DC2(F)
2DC1(F)
1DC2(F)
1DC1(F)
GA(F)

RT= WIRE WITH RING TERMINAL

REVISION		
1	72YL492	
2	72YL492 REVISED FOR MFG.	US 03/09/10 ERIC HUTCHENS 03/09/10 PERKINS 03/09/10

#14 WIRE REQUIRED, EXCEPT AS NOTED

0 0

ENG L492MDI
LEFT REF

THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.

DFTR	DATE
NGB	02/22/10
APPD	DATE
ERIC HUTCHENS	02/22/10
APPD	DATE
PERKINS	02/22/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

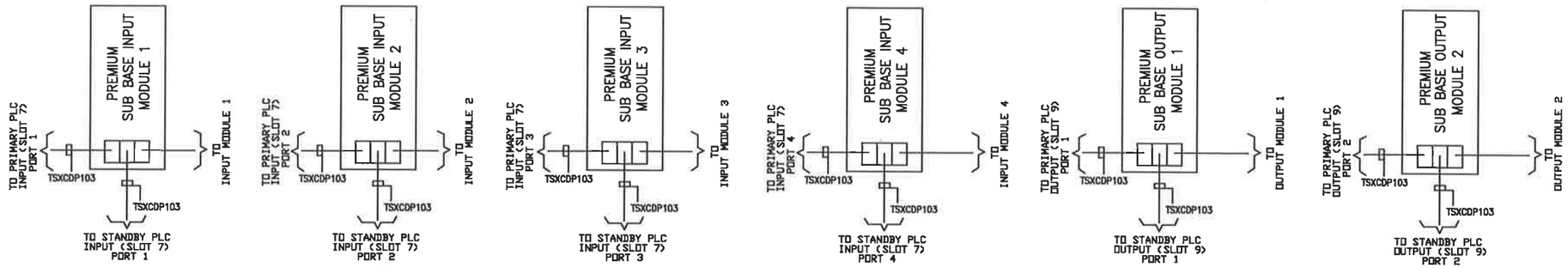
TYPE: VCP-W 5 KV | CONN DIAG VERT SECT 1

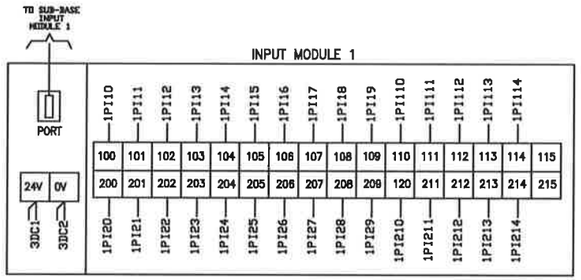
G.O.: LRH0006149-002

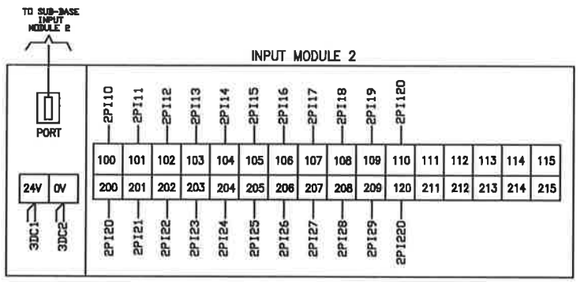
DWG: ML492S1W0103

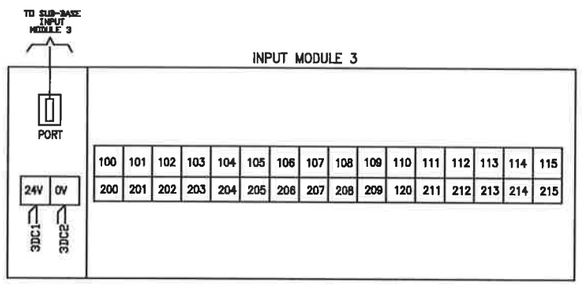
SHEET: 1 OF 1

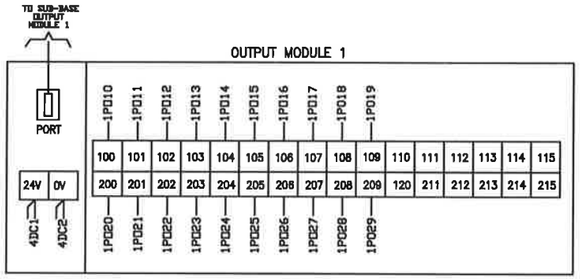
(A)

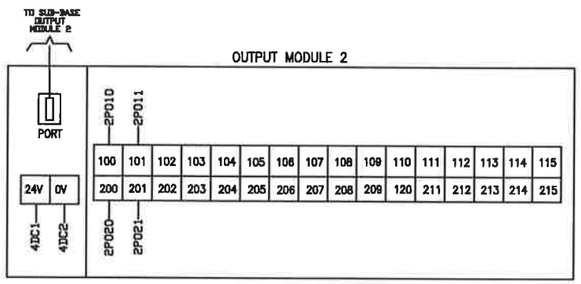


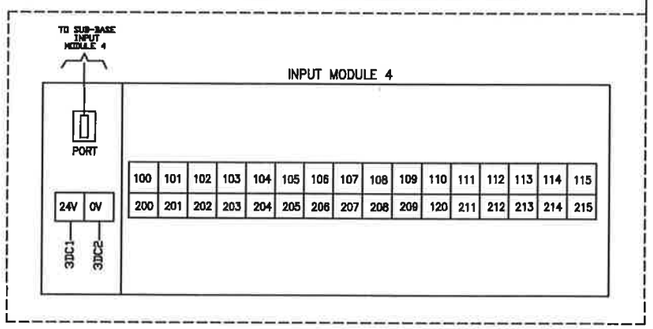












MOUNTED HERE

1PO10(A)
1PO20(A)
1PO11(A)
1PO21(A)
2PO10(A)
2PO20(A)
2PO11(A)
2PO21(A)
2PI120(H)
2PI220(H)
2PI15(L)
2PI25(L)
2PI10(L)
2PI20(L)
2PI11(L)
2PI21(L)
2PI12(T)
2PI22(T)
1PI10(L)
1PI20(L)
1PI11(L)
1PI21(L)
1PI12(L)
1PI22(L)
2PI18(L)
2PI28(T)
1PI13(T)
1PI23(T)
1PI14(T)
1PI24(T)
1PI15(T)
1PI25(T)
1PO16(F)
1PO26(F)
1PO17(F)
1PO27(F)
2PI12(T)
2PI22(T)
2PI16(T)
1PI26(T)
1PI16(T)
1PI26(T)
1PI17(T)
1PI27(T)
1PI18(T)
1PI28(T)
1PO12(F)
1PO22(F)
1PO13(F)
1PO23(F)
2PI19(T)
2PI29(T)
1PI110(T)
1PI210(T)
1PI111(T)
1PI211(T)
1PO29(F)
1PO19(F)
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1PI112(T)
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1PI113(T)
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2PI24(T)
2PI17(T)
2PI27(T)
1PO25(F)
1PO15(F)
1PO24(F)
1PO14(F)
4DC2(F)
4DC1(F)
3DC2(F)
3DC1(F)

RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED

0 0

DNG DEPT REF: L492MDI

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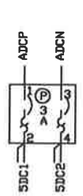
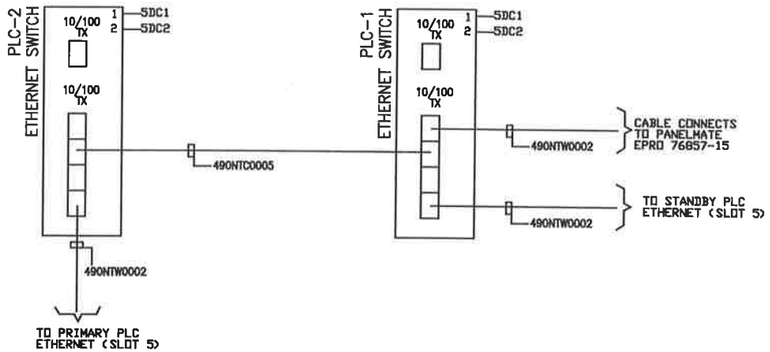
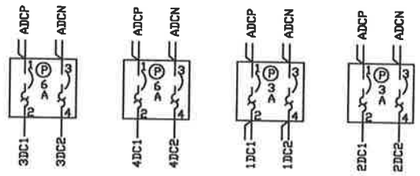
DFTR: US	DATE: 03/09/10	EATON | Cutler-Hammer GREENWOOD
APPD: ERIC HUTCHENS	DATE: 03/09/10	TITLE: FINGER LAKES DDSO ROCHESTER, NY
APPD: PERKINS	DATE: 03/09/10	TYPE: VCP-W 5 KV | CONN DIAG VERT SECT 1

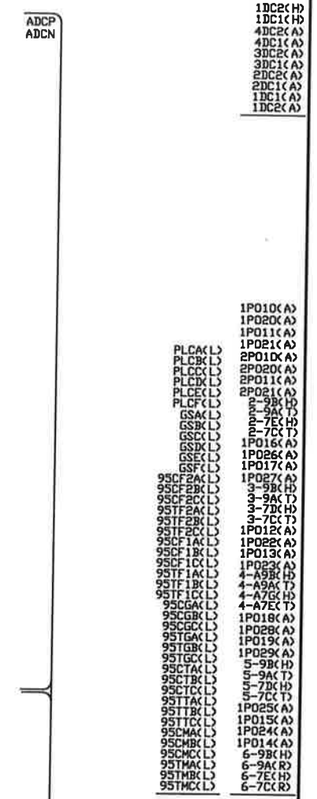
FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
341756464	6064	2	D	LRH0006149-002	ML492S1W0104	1 OF 1

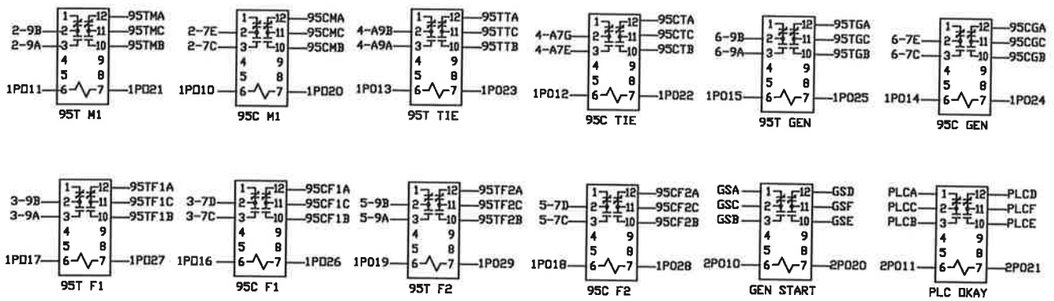
(F)

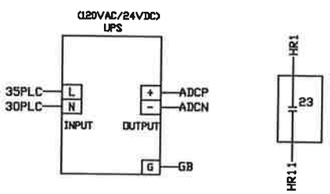












RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED.

0 0

ENG DEPT REF: L492MDI

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DFTR	US	DATE 03/09/10
APPD	ERIC HUTCHENS	DATE 03/09/10
APPD	PERKINS	DATE 03/09/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 1

G.O.: LRH0006149-002

DWG: ML492S1W0105

SHEET 1 OF 1

VERTICAL SECTION # 2
LOWER COMPARTMENT

HINGED PANEL (REAR VIEW)

(P)

1000 Ω R

1000 Ω G

CS

MAIN M1 PROT RLY
SEL-351
SCHWEITZER ENGINEERING LABORATORIES

SERIAL PORT 1 | IRIG-B (+)(-) | SERIAL PORT 2 | SERIAL PORT 3

IA IB IC IN VA VB VC N VS NS

POWER + -

RT

(J)

L51

L34

L36

L38

L55

L56

L58

(C)

(D)

MAIN BUS

RT

400 S

52M1

MAIN BKR

GRD BUS

ARR

CABLES TO UPPER COMPARTMENT

MAIN BREAKER M1

(Z)

HR (READ)

HR1

HR11

23

(K)

R73

R74

R76

R78

TDC

MDC

LEFT SIDE SHEET

CUSTOMER USE
DEVICE SEL-351(MAIN M1 PROT RLY) (2)

TO ANNUN (UTILITY AVAIL)
DEVICE SEL-351(MAIN M1 PROT RLY) (3)

TO ANNUN (DC LOW ALARM)
DEVICE SEL-351(MAIN M1 PROT RLY) (4)

RIGHT SIDE SHEET

TO ANNUN
DEVICE 86 M1 (5)

TO ANNUN
DEVICE MDC (6)

B COMPARTMENT (FRONT VIEW)

RT= WIRE WITH RING TERMINAL

#14 WIRE REQUIRED, EXCEPT AS NOTED.

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REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

	DFTR	DATE
	AAD	02/22/10
	APPD	DATE
	ERIC HUTCHENS	02/22/10
	APPD	DATE
	PERKINS	02/22/10

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 2

ENG DEPT REF	FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE	G.O.	DWG	SHEET
L492MDI	341756464	6064	2	D	LRH0006149-002	ML492S1W0201	1 OF 1

VERTICAL SECTION # 2
UPPER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

LEFT SIDE SHEET

(L)

TO SYSTEM CONTROL PLC'S DEVICE VT (1)

A COMPARTMENT (FRONT VIEW)

SHIPPING BREAK

(T)

ROOF SHEET

T08 2P115 2P116 2P11 2P121 2P110 2P120

T06 1P112 1P122 1P111 1P121 1P110 1P120 9A 7A 5 4-A5 4-A9 4-A7F

2-9A(1)
2-7A(1)
2-5(1)

T04 HR1 HR2 4-A7E 6-7D 6-7C 7C 7D 4-A7D 4-A7C 1317 1308 1319

#10

2-7C(3)
2-7D(3)

T01 2P 2N

VERTICAL SECTION # 2

RIGHT SIDE SHEET

(R)

L42
1L17 P1
1L08 P2
1L19 P3
P4

(P)

CABLES TO LOWER COMPARTMENT

A B C

4200 V
120V

6A

X1 X2 X3 X4

P1 P2 P3 P4 PG

TO GRD. BUS

(A)

(W)

HR (READ) D1 HR11 (Z)
D2 HR2 (Z)

(E)

RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMW	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED.

0 0

ENG DEPT REF: L492MDI

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DFTR	DATE
AAD	02/22/10
APPD	DATE
ERIC HUTCHENS	02/22/10
APPD	DATE
PERKINS	02/22/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 2

G.O.: LRH0006149-002

DWG: ML492S1W0202

SHEET: 1 OF1

VERTICAL SECTION # 3
LOWER COMPARTMENT

HINGED PANEL (REAR VIEW)

(P)

1000 Ω

1000 Ω

CS

FDR F1 PROT RLY
SEL-351
SCHWEITZER ENGINEERING LABORATORIES

SERIAL PORT 1 | IRIG-B (+)(-) | SERIAL PORT 2 | SERIAL PORT 3

POWER + -

RT

(J)

L51

L34

L36

L38

L55

L56

L58

(C)

(D)

MAIN BUS

RT

40D 5

52

GRD BUS

RT

(Z)

HR (READ)

HR (PRINT)

FEEDER BREAKER F1

(K)

R73

R74

R76

R78

MDC

TDC

LEFT SIDE SHEET

CUSTOMER USE
DEVICE SEL-351(FEEDER F1 PROT RLY) (2)

TO ANNUN (DC LOW ALARM)
DEVICE SEL-351(FEEDER F1 PROT RLY) (3)

B COMPARTMENT (FRONT VIEW)

RIGHT SIDE SHEET

TO ANNUN
DEVICE 86 F1 (4)

TO ANNUN
DEVICE MDC (5)

RT= WIRE WITH RING TERMINAL

1	72Y492	REVISION	#14 WIRE REQUIRED, EXCEPT AS NOTED.	0	0	ENG DEPT REF	L492MDI

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DFTR RMV	DATE 02/24/10	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 02/24/10	TITLE FINGER LAKES DDSO ROCHESTER, NY	
APPD PERKINS	DATE 02/24/10	TYPE VCP-W 5 KV	CONN DIAG VERT SECT 3
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 1	DWG SIZE D
G.O. LRH0006149-002	DWG ML492S1W0301	SHEET 1 OF1	

VERTICAL SECTION # 3
UPPER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

LEFT SIDE SHEET

(L)

TO SYSTEM CONTROL PLC'S DEVICE VT (1)

(HS) NOTE TO SHOP: LEAVE WIRES 15FT. IN LENGTH WITH T.B. CONNECTED TO END.

NOTE TO CUSTOMER: CONNECT 120V AC FOR TEMPORARY HEATER SOURCE.

HS: D1 HR1 (T), D2 HR2 (T), G (T), #10

SHIPPING BREAK

A COMPARTMENT (FRONT VIEW)

(T)

ROOF SHEET

T08: 4-A9, 4-A7F, 4-A7E, 4-A7D, 4-A7C, 4-A7A, 4-A5, 5-9A, 5-7C, 5-7A, 5-5, 6-9A

T06: 6-7D, 6-7C, 6-7A, 6-5, 2P118, 2P128, 1P115, 1P125, 1P114, 1P124, 1P113, 1P123

T04: HR1, HR2, G, 35H1, 30H1, 9A, 7C, 7A, 5, 1B17, 1B08, 1B19

T01: 3P, 3N

T18: 30L, LB, LC, LA, 36R, 30R, FAN, FA, 36HA, 35HA, 36AH, 35AH

T16: 36CL, 30CL, 35EL, 30EL, 2P112, 2P122, 2P116, 2P126, 1P116, 1P126, 1P117, 1P127

T14: 1P118, 1P128, 2P119, 2-7C, 2-7D, 4-A9A

T12: 1P, 1N

T11: 2P, 2N

NOTE TO CUSTOMER: REMOVE THESE WIRES BEFORE SWGR. IS ENERGIZED

SEE DRAWING ML492S1W0000

VERTICAL SECTION #3

RIGHT SIDE SHEET

(R)

R61: 35PLC, 30PLC

L41: 2P129, 1P119, 1P129, 1P1110, 1P1210, 1P1111, 1P1211, 2P113, 2P123, 2P114, 2P124, 2P117

L43: 2P127, 1P1112, 1P1212, 1P1113, 1P1213, 1P1114, 1P1214

(A)

CABLES TO VS#4

(W)

HR (REAR): D1 HR1 (Z), D2 HR2 (Z)

(E)

L47: 1B17 P1 (T), P2 (T); 1B08 P3 (T), P4 (T)

4200V 120V

6A

P1 P2 P3 P4 PG

TO MAIN BUS

TO GRD. BUS

RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED

0 0

ENG DEPT REF: L492MDI

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DFTR	DATE
RMV	02/24/10
APPD	DATE
ERIC HUTCHENS	02/24/10
APPD	DATE
PERKINS	02/24/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 3

G.O.: LRH0006149-002

DWG: ML492S1W0302

SHEET: 1 OF 1

VERTICAL SECTION # 4
LOWER COMPARTMENT

HINGED PANEL (REAR VIEW)

(P)

(J)

L51
(B) (T) HR11 HR2 (Z) (Z) (F) (F)

(B)

HR1 23 HR11

(B1) 1 HR11 (J) (T) 12 HR1

(K)

(F)

(Z)

HR (READ) D1 HR11 (J) (W)
D2 HR2 (J) (W)

HR (FRONT) D1 HR11 (J)
D2 HR2 (J)

GRD BUS (H) AGR1

LEFT SIDE SHEET

RIGHT SIDE SHEET

B COMPARTMENT (FRONT VIEW)

RT= WIRE WITH RING TERMINAL

A	1	72YL492 REVISION		#14 WIRE REQUIRED, EXCEPT AS NOTED	0 0	ENG DEPT REF L492MDI	THE INFORMATION ON THIS DOCUMENT IS CREATED BY CUTLER-HAMMER. IT IS DISCLOSED IN CONFIDENCE AND IS ONLY TO BE USED FOR THE PURPOSE IN WHICH IT IS SUPPLIED.	DFTR RDS DATE 02/24/10 APPD ERIC HUTCHENS DATE 02/24/10 APPD PERKINS DATE 02/24/10	EATON Cutler-Hammer GREENWOOD TITLE FINGER LAKES DDSO ROCHESTER, NY TYPE VCP-W 5 KV CONN DIAG VERT SECT 4		
								FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 1	DWG SIZE D	G.O. LRH0006149-002	DWG ML492S1W0401	SHEET 1 OF1

CUSTOMER USE
DEVICE SEL-351(TIE T1 PROT RLY) 1

TO ANNUN (DC LOW ALARM)
DEVICE SEL-351(TIE T1 PROT RLY) 2

TO ANNUN
DEVICE 86 T1 3

TO ANNUN
DEVICE MDC 4

VERTICAL SECTION # 4
UPPER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

TIE T1 PROT RLY
SEL-351
SCHWEITZER ENGINEERING LABORATORIES

OUT101 OUT102 OUT103 OUT104 OUT105 OUT106 OUT107 ALARM IN101 IN102 IN103 IN104 IN105 IN106

SERIAL PORT 1 · IRIG-B (+)(-) · SERIAL PORT 2 · SERIAL PORT 3

IA IB IC IN VA VB VC N VS NS POWER GND

1000 Ω

CS

B6 T1

LEFT SIDE SHEET

(L)

L42 L43 L23 L25 L45 L27

A COMPARTMENT (FRONT VIEW)

SHIPPING BREAK

(T)

T08 T06 T04 T01 T18

NOTE TO CUSTOMER:
REMOVE THESE WIRES BEFORE
SWGR. IS ENERGIZED

SEE DRAWING ML492S1V0000

ROOF SHEET

VERTICAL SECTION # 4

(E)

52T1 TIE BKR

MAIN BUS

TO VS#3

(W)

HR (READ)

SEE PLUG VIEWED OPPOSITE WIRE END

MDC

TDC

RIGHT SIDE SHEET

(R)

R61 R63 R65

RT= WIRE WITH RING TERMINAL

#14 WIRE REQUIRED, EXCEPT AS NOTED

REVISION			
1	721L492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
2	721L492	HUTCHENS	04/28/10
		PERKINS	04/28/10

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DFTR RDS	DATE 02/24/10	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 02/24/10	TITLE FINGER LAKES DDSO ROCHESTER, NY	
APPD PERKINS	DATE 02/24/10	TYPE VCP-W 5 KV	CONN DIAG VERT SECT 4
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 2	DWG SIZE D
G.O. LRH0006149-002	DWG ML492S1W0402	SHEET 1 OF 1	

ENG DEPT REF L492MDI

VERTICAL SECTION # 5
LOWER COMPARTMENT

HINGED PANEL (REAR VIEW)

(P)

1000 Ω R

1000 Ω G

CS

FDR F2 PROT RLY
SEL-351
SCHWEITZER ENGINEERING LABORATORIES

SERIAL PORT 1 | IRIG-B | SERIAL PORT 2 | SERIAL PORT 3

OUT101 OUT102 OUT103 OUT104 OUT105 OUT106 OUT107 ALARM IN101 IN102 IN103 IN104 IN105 IN106

IA IB IC IN VA VB VC N VS NS POWER + − GND

RT

86 F2

(J)

L34

L36

L38

L51

L55

L56

L58

LEFT SIDE SHEET

CUSTOMER USE
DEVICE SEL-351(FEEDER F1 PROT RLY) (2)

TO ANNUN (DC LOW ALARM)
DEVICE SEL-351(FEEDER F1 PROT RLY) (3)

(C)

(D) MAIN BUS

400 A

52

GRD BUS

FEEDER BREAKER F

(Z)

(K)

R73

R74

R76

R78

MDC

TDC

SEE PLUG VIEWED OPPOSITE WIRE END

RIGHT SIDE SHEET

TO ANNUN
DEVICE 86 F1 (4)

TO ANNUN
DEVICE MDC (5)

B COMPARTMENT (FRONT VIEW)

RT= WIRE WITH RING TERMINAL

#14 WIRE REQUIRED, EXCEPT AS NOTED

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DFTR	DATE
RMV	02/24/10
APPD	DATE
ERIC HUTCHENS	02/24/10
APPD	DATE
PERKINS	02/24/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	1	D

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 5

G.O. LRH0006149-002

DWG ML492S1W0501

SHEET 1 OF 1

ENG DEPT REF: L492MDI

REVISION	1
721.492	

VERTICAL SECTION # 5
UPPER COMPARTMENT

HINGED PANEL (REAR VIEW)

(H)

LEFT SIDE SHEET

(L)

TO SYSTEM CONTROL PLC'S DEVICE VT (1)

(HS) NOTE TO SHOP: LEAVE WIRES 15FT. IN LENGTH WITH T.B. CONNECTED TO END.

NOTE TO CUSTOMER: CONNECT 120V AC FOR TEMPORARY HEATER SOURCE.

HS: D1 HR1 (T), D2 HR2 (T), D3 G (T), D4 #10

SHIPPING BREAK

A COMPARTMENT (FRONT VIEW)

(T)

TD8 TD6 TD4 TD1 T18 T16 T14 T12 T11

NOTE TO CUSTOMER: REMOVE THESE WIRES BEFORE SWGR. IS ENERGIZED

SEE DRAWING ML492S1W0000

VERTICAL SECTION # 5

(A)

RIGHT SIDE SHEET

(R)

R80: 4P (7) (4), 4N (7) (4), #6

R61: 35PLC (3) (7), 30PLC (3) (7)

(W)

HR (REAR) D1 HR1 (Z), D2 HR2 (Z)

(E)

L47: 2B17 P1 (T), P2, 2B08 P3 (T), P4 (T)

CABLES TO MAIN BUS

A B C

4200V 120V

6A

X1 X2 X3 X4

P1 P2 P3 P4 PG

TO GRD. BUS

RT= WIRE WITH RING TERMINAL

REVISION			
1	72YL492		
2	72YL492 UPDATED PER ASBUILT PRINTS.	RMV	04/28/10
		HUTCHENS	04/28/10
		PERKINS	04/28/10

#14 WIRE REQUIRED, EXCEPT AS NOTED

ENG REPT 0 0

L492MDI

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DFTR	DATE
RMV	02/24/10
APPD ERIC HUTCHENS	DATE 02/24/10
APPD PERKINS	DATE 02/24/10

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO
ROCHESTER, NY

TYPE: VCP-W 5 KV

CONN DIAG VERT SECT 5

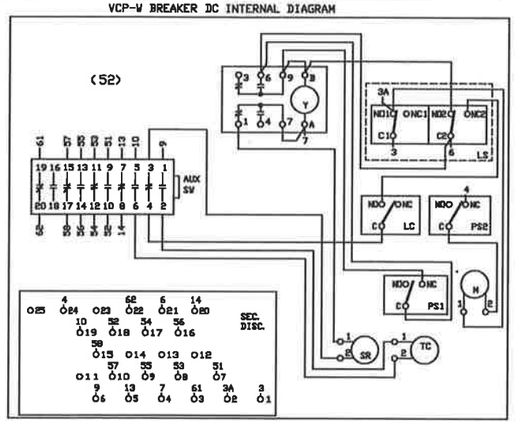
G.O. LRH0006149-002

DWG ML492S1W0502

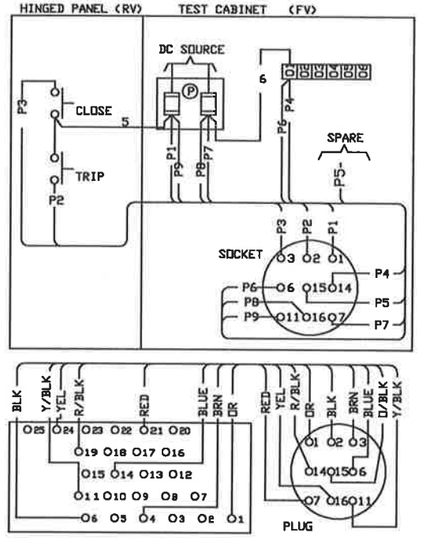
SHEET 1 OF1

2DB
3DB
4A3
5DB
6DB

VCP-W BREAKER DC INTERNAL DIAGRAM



HINGED PANEL (RV) TEST CABINET (FV)



LOCK-OUT RELAY

RESET
TRIP

86 M1	2PC
86 F1	3PC
86 T1	4HA
86 F2	5PC
86 G1	6PC

X INDICATES CONTACTS CLOSED IN POSITION SHOWN.

DECK	CONTACT	POSITION TRIP	POSITION RESET
1	11—⊬—13		X
	12—⊩—18	X	
	15—⊬—17		X
	16—⊩—14	X	
2	21—⊬—23		X
	22—⊩—28	X	
	25—⊬—27		X
	26—⊩—24	X	
3	31—⊬—33		X
	32—⊩—38	X	
	35—⊬—37		X
	36—⊩—34	X	
4	41—⊬—43		X
	42—⊩—48	X	
	45—⊬—47		X
	46—⊩—44	X	

BREAKER CONTROL

TRIP
CLOSE
PULL-TO LOCK

CS 2PD 3PD 4HC 5PD 6PD

✳ = DENOTES MAKE-BEFORE-BREAK

X INDICATES CONTACTS CLOSED IN POSITION SHOWN.

DECK	CONTACTS		POSITION PULL TRIP	TRIP	OFF AFTER TRIP	OFF AFTER CLOSE	CLOSE
1	12—⊩—13	C					X
	16—⊩—17	C					X
2	21—⊬—22	O			X	X	
	25—⊬—28	O			X	X	
3	✳ 31—⊩—38	T	X	X			
4	✳ 41—⊩—48	TC	X	X			X
5	52—⊩—53	SC				X	X
	56—⊩—57	SC				X	X

AUTO MAN

MAN
AUTO

43 1HB

X INDICATES CONTACTS CLOSED IN POSITION SHOWN.

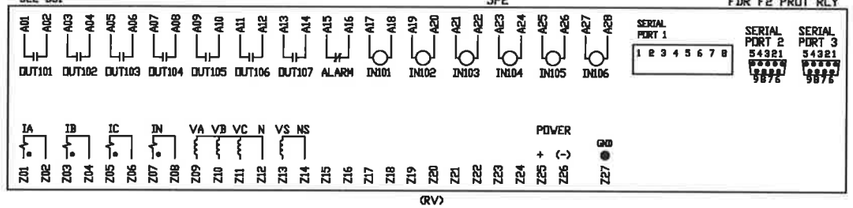
DECK	CONTACTS	POSITION MAN	POSITION AUTO
1	12—⊩—11	X	
	—⊩—13		X
	16—⊩—15	X	
	—⊩—17		X
2	22—⊩—21	X	
	—⊩—23		X
	26—⊩—25	X	
	—⊩—27		X
3	32—⊩—31	X	
	—⊩—33		X
	36—⊩—35	X	
	—⊩—37		X
4	42—⊩—41	X	
	—⊩—43		X
	46—⊩—45	X	
	—⊩—47		X
5	52—⊩—51	X	
	—⊩—53		X
	56—⊩—55	X	
	—⊩—57		X
6	62—⊩—61	X	
	—⊩—63		X
	66—⊩—65	X	
	—⊩—67		X
7	72—⊩—71	X	
	—⊩—73		X
	76—⊩—75	X	
	—⊩—77		X
8	82—⊩—81	X	
	—⊩—83		X
	86—⊩—85	X	
	—⊩—87		X

1FN 95C M1
1FG 95T M1
1FR 95C TIE
1FI 95T TIE
1FB GEN START
1FK PLC OK
1FM 95C F1
1FF 95T F1
1FQ 95C F2
1FH 95T F2
1FT 95C GEN
1FJ 95T GEN

SEL 351

2PE
3PE
4HB
5PE

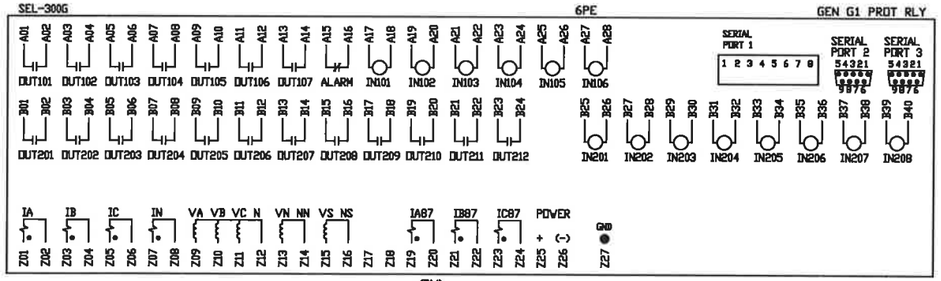
MAIN M1 PROT RLY
FDR F1 PROT RLY
TIE T1 PROT RLY
FDR F2 PROT RLY



SEL-300G

6PE

GEN G1 PROT RLY



REVISION		
1	72Y1492	
2	72Y1492	REVISED PER MARKED DWGS FOR MFG.
	US	02/19/10
	ERIC HUTCHENS	02/19/10
	PERKINS	02/19/10

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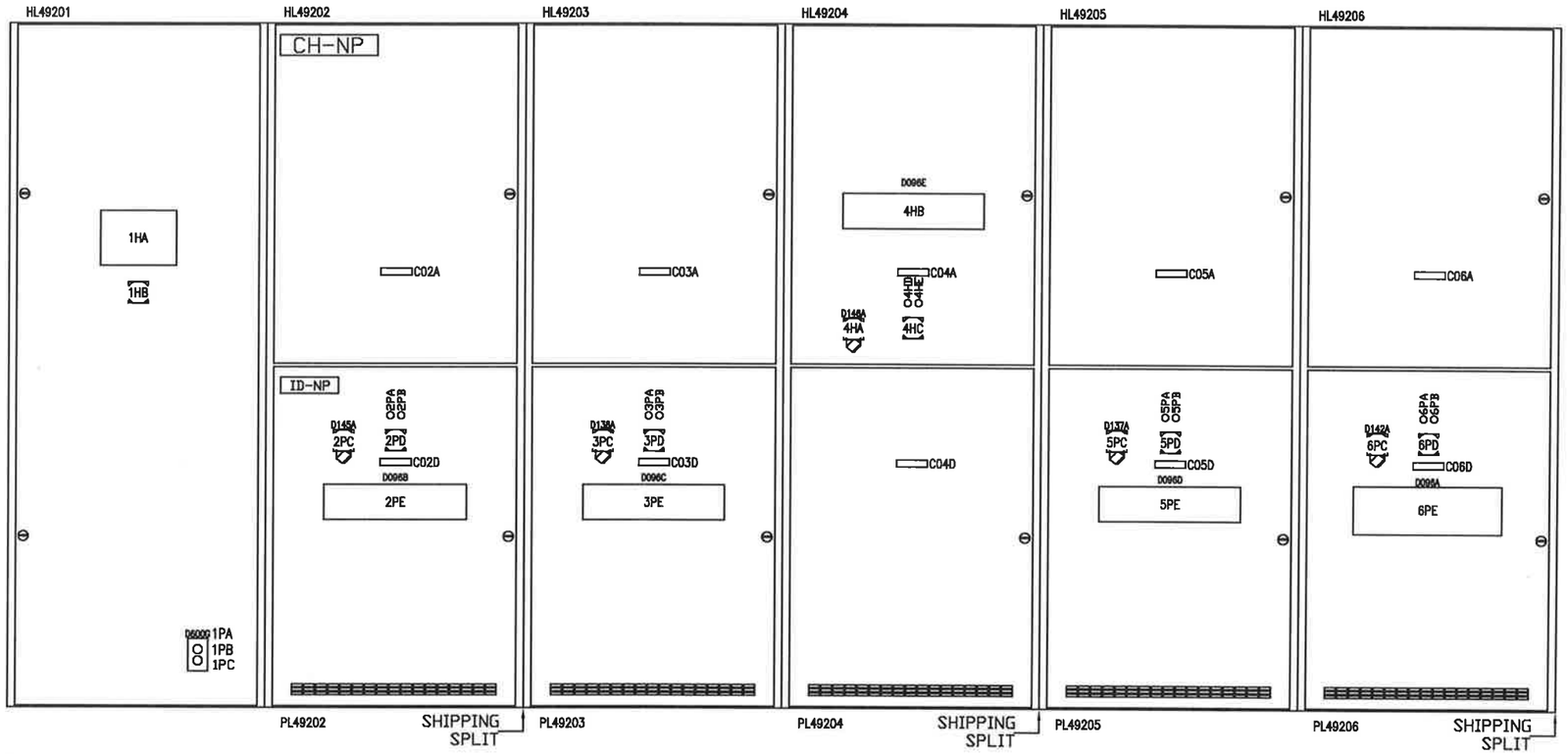
ENG REF L492MDI

DFTR WALLACE	DATE 11/11/09	EATON Cutler-Hammer GREENWOOD	
APPD ERIC HUTCHENS	DATE 11/11/09	TITLE FINGER LAKES DDSO ROCHESTER,NY	
APPD PERKINS	DATE 11/11/09	TYPE VCP-W 5 KV	ELECTRICAL LEGEND DRAWING
FEDERAL ID NO 341756464	PRODUCT CODE 6064	REVISION 2	DWG SIZE D
G.O. LRH0006149-002	DWG ML492S1E0101	SHEET 1 OF 1	

DOOR LAYOUT DETAILS



REVISION		
72Y1492	1	
72Y1492 LRH0006149 - 002 UPDATED FOR MFG SMS	2	2/17/2010

ENG REF: L492MDI

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DFTR	DATE
ROBERTSON	11/19/2009
APPD	DATE
ERIC HUTCHENS	11/19/2009
APPD	DATE
PERKINS	11/19/2009

FEDERAL ID NO	PRODUCT CODE	REVISION	DWG SIZE
341756464	6064	2	D

EATON | Cutler-Hammer GREENWOOD

TITLE: FINGER LAKES DDSO ROCHESTER,NY

TYPE: VCP-W 5 KV | FRONT VIEW

G.O.: LRH0006149 - 002

DWG: ML492S1F0101

SHEET: 1 OF 1