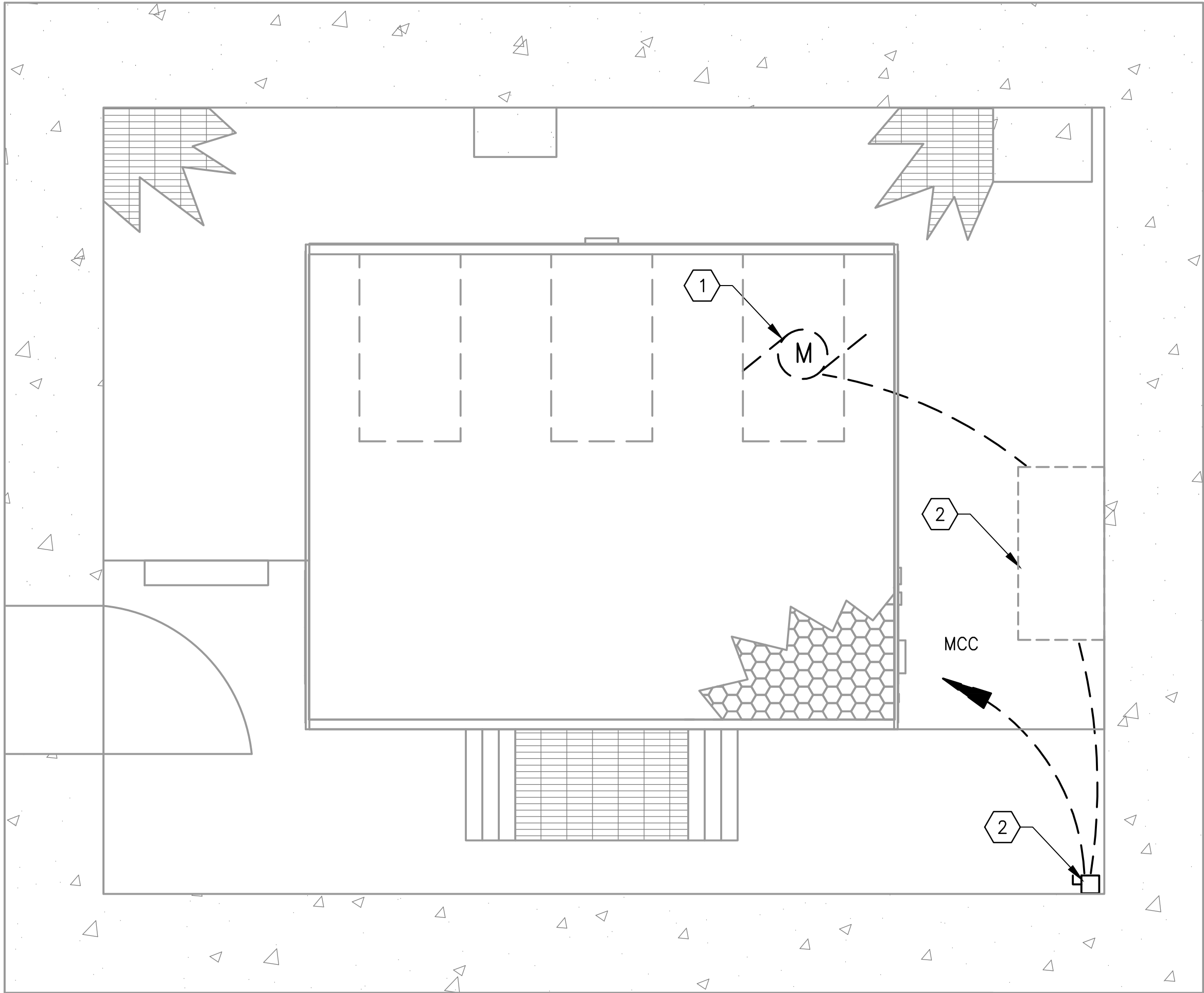


- KEYNOTES:
- 1

EXISTING COOLING TOWER FAN TO BE DEMOLISHED BY MECHANICAL.
- 2

EXISTING FAN MOTOR CONTROL PANEL AND DISCONNECT SWITCH TO BE DEMOLISHED.

- SHEET NOTES:
1. ALL SHOWN EQUIPMENT IS EXISTING TO REMAIN UNLESS SHOWN OTHERWISE.
2. REMOVE AND DISPOSE OF ALL ELECTRICAL CONDUIT, WIRING AND EQUIPMENT ASSOCIATED WITH EXISTING WATER TREATMENT EQUIPMENT.
3. REMOVE AND DISPOSE OF DEMOLISHED EQUIPMENT ALONG WITH ASSOCIATED WIRING.
4. FOR EQUIPMENT TO BE DEMOLISHED: ALL EXISTING CONDUIT AND WIRING SHALL BE REMOVED. PERMISSION TO USE EXISTING CONDUIT (WIRES REMOVED) SHALL BE REQUESTED FROM AR.



1

ELECTRICAL PLAN - DEMOLITION (COOLING TOWER)

CWPA5-E-101

SCALE: 1/2" = 1'-0"

GFP

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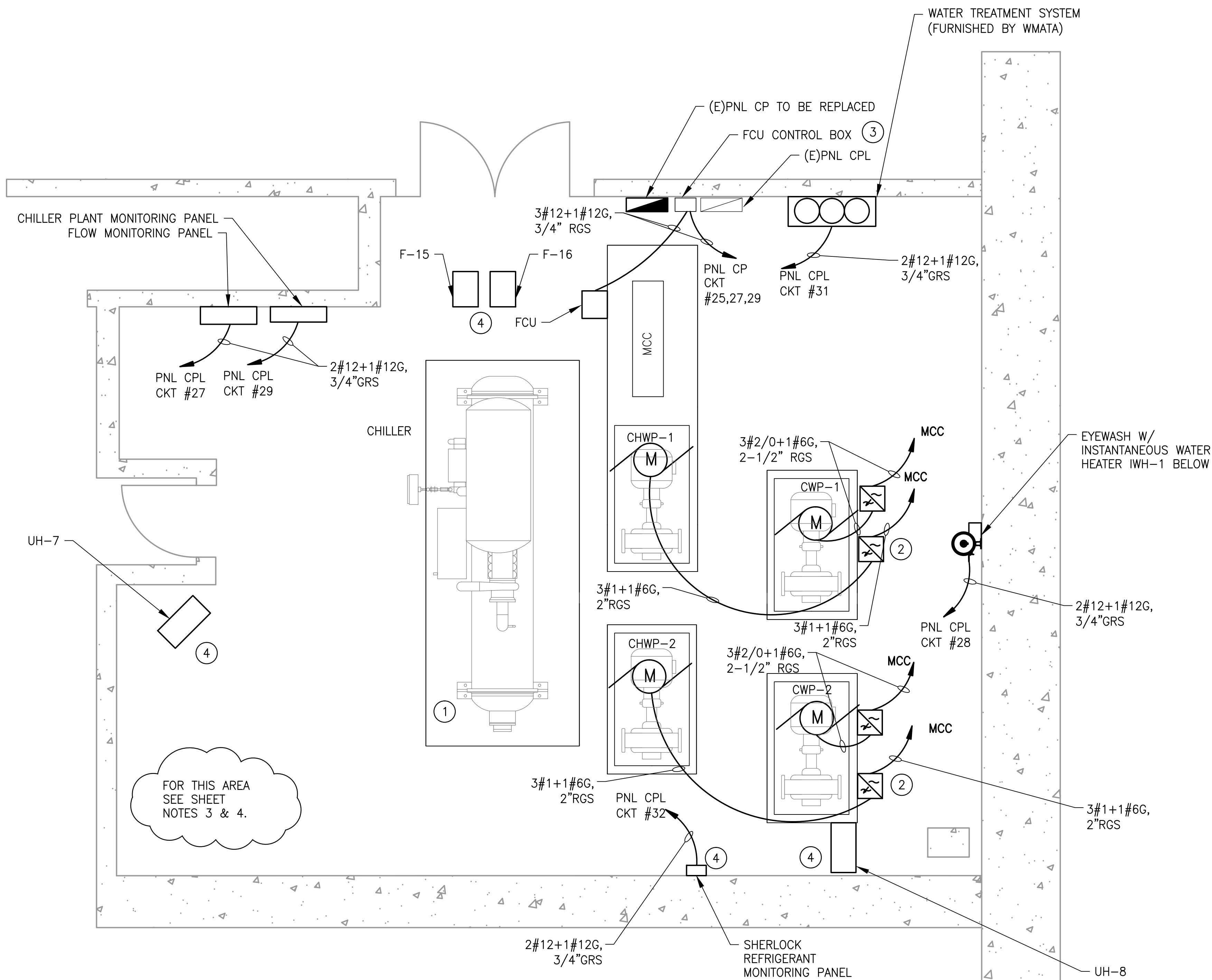
<div>DESIGNED</div> <div>B. IDILBI</div> <div>09/30/17</div> <div>DATE</div> <div>DRAWN</div> <div>J. ZHU</div> <div>09/30/17</div> <div>DATE</div> <div>CHECKED</div> <div>D. KHAN</div> <div>03/23/18</div> <div>DATE</div>	REFERENCE DRAWINGS		REVISIONS			<div><div><div><div>M</div><div>metro</div></div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES</div><div>OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP</div></div><div><div>APPROVED</div><div><i>Mark H. Magnusson</i></div><div>03/2018</div><div>DATE</div><div>MARK MAGNUSSEN</div><div>MANAGER, ENV. PLANNING AND COMP</div></div><div><div>APPROVED</div><div><i>Gabe Spiller</i></div><div>03/2018</div><div>DATE</div><div>GRAHAM SPILLER</div><div>GFP DEPUTY PROGRAM MANAGER</div></div></div>	REPLACEMENT OF CHILLERS AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS CWPA5 - BETHESDA (A09) ELECTRICAL PLAN - DEMOLITION				
	NUMBER	TITLE	DATE	NUM	DESCRIPTION		M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
			03/30/2018	0	FINAL CONTRACT DRAWINGS		M1304	FQ-18102	1/2"=1'-0"	CWPA5-E-101	49 of 173

KEYNOTES:

- 1 CHILLER VFD/DISCONNECT SUPPLIED WITH CHILLER
INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
- 2 PROVIDE AND INSTALL VFD/DISCONNECT FOR CHILLED
WATER AND CONDENSER WATER PUMPS. PROVIDE
AND INSTALL WIRING FROM MOTOR TO VFD AND
FROM VFD TO MCC.
- 3 FCU CONTROL BOX SUPPLIED WITH FCU, INSTALLED
AND WIRED BY ELECTRICAL CONTRACTOR.
- 4 REUSE EXISTING CKTS & CONDUITS, USE NEW
WIRES.

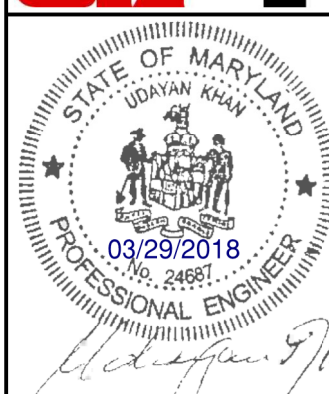
SHEET NOTES:

1. PROVIDE FILTERS FOR VFD'S AS REQUIRED.
2. ALL WIRING FOR VFD'S SHALL BE VFD RATED CABLES.
3. THE CONTRACTOR SHALL RELOCATE LIGHTING FIXTURE
AND/OR CONDUITS AS NECESSARY TO ACCOMMODATE
THE NEWLY DESIGNED VENTILATION UNIT MAINTENANCE
PLATFORM.
4. INSTALL NEW LIGHTING FIXTURE AT CEILING ABOVE THE
NEWLY INSTALLED VENTILATION UNIT MAINTENANCE
PLATFORM.



1 ELECTRICAL PLAN - NEW WORK (CHILLER ROOM)
CWPAS-E-102

SCALE: 3/8" = 1'-0"



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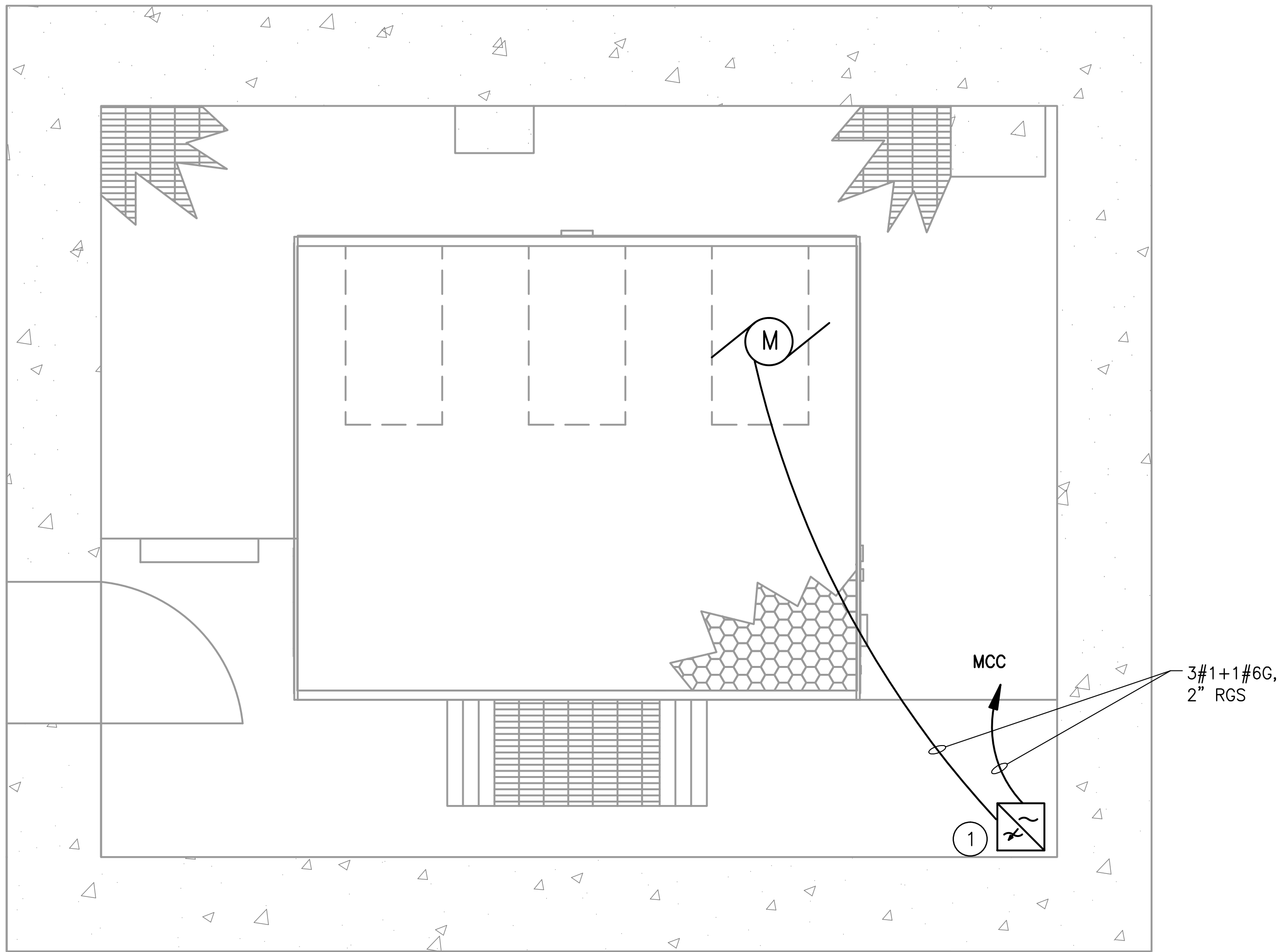
<div>DESIGNED <u>B. IDILBI</u> 09/30/17 DATE</div> <div>DRAWN <u>J. ZHU</u> 09/30/17 DATE</div> <div>CHECKED <u>D. KHAN</u> 03/23/18 DATE</div>			REFERENCE DRAWINGS		REVISIONS			<div><div><div><div>M</div><div>metro</div></div></div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES</div><div>OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP</div><div><div>APPROVED <u>Mark H. Magnusson</u> 03/2018</div><div>MARK MAGNUSSEN MANAGER, ENV. PLANNING AND COMP</div><div>DATE</div></div><div><div>APPROVED <u>Graham Spiller</u> 03/2018</div><div>GRAHAM SPILLER GFP DEPUTY PROGRAM MANAGER</div><div>DATE</div></div></div>		REPLACEMENT OF CHILLERS AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS CWPA5 - BETHESDA (A09) ELECTRICAL PLAN - NEW WORK				
			NUMBER	TITLE	DATE	NUM	DESCRIPTION			M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
					03/30/2018	0	FINAL CONTRACT DRAWINGS			M1304	FQ-18102	3/8"=1'-0"	CWPA5-E-102	50 of 173

KEY NOTES:

- ① PROVIDE AND INSTALL VFD/DISCONNECT FOR CTF MOTOR.
PROVIDE AND INSTALL WIRING FROM MOTOR TO VFD FROM
VFD TO MCC IN THE CHILLER PLANT.

SHEET NOTES:

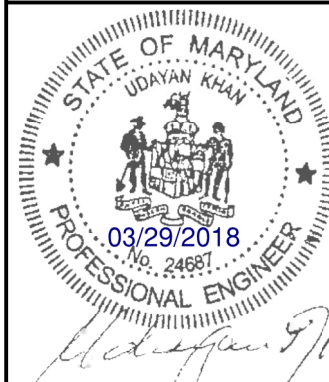
1. PROVIDE FILTERS FOR VFD'S AS REQUIRED.
2. ALL WIRING FOR VFD'S SHALL BE VFD RATED CABLES.
3. THE CHILLER PLANT IS APPROX. 20' UNDERGROUND.
THE CHILLER PLANT TO THE REGENCY HOTEL IS
ROUGHLY 100'.
THE COOLING TOWER IS LOCATED ON THE ROOF OF THE
REGENCY HOTEL WHICH IS 12 STORIES TALL
APPROXIMATE DISTANCE 500'. CONTRACTOR TO UTILIZE
CONDUITS IN EXISTING DUCTBANK.



① ELECTRICAL PLAN - NEW WORK (COOLING TOWER)
CWPA5-E-103

SCALE: 1/2" = 1'-0"

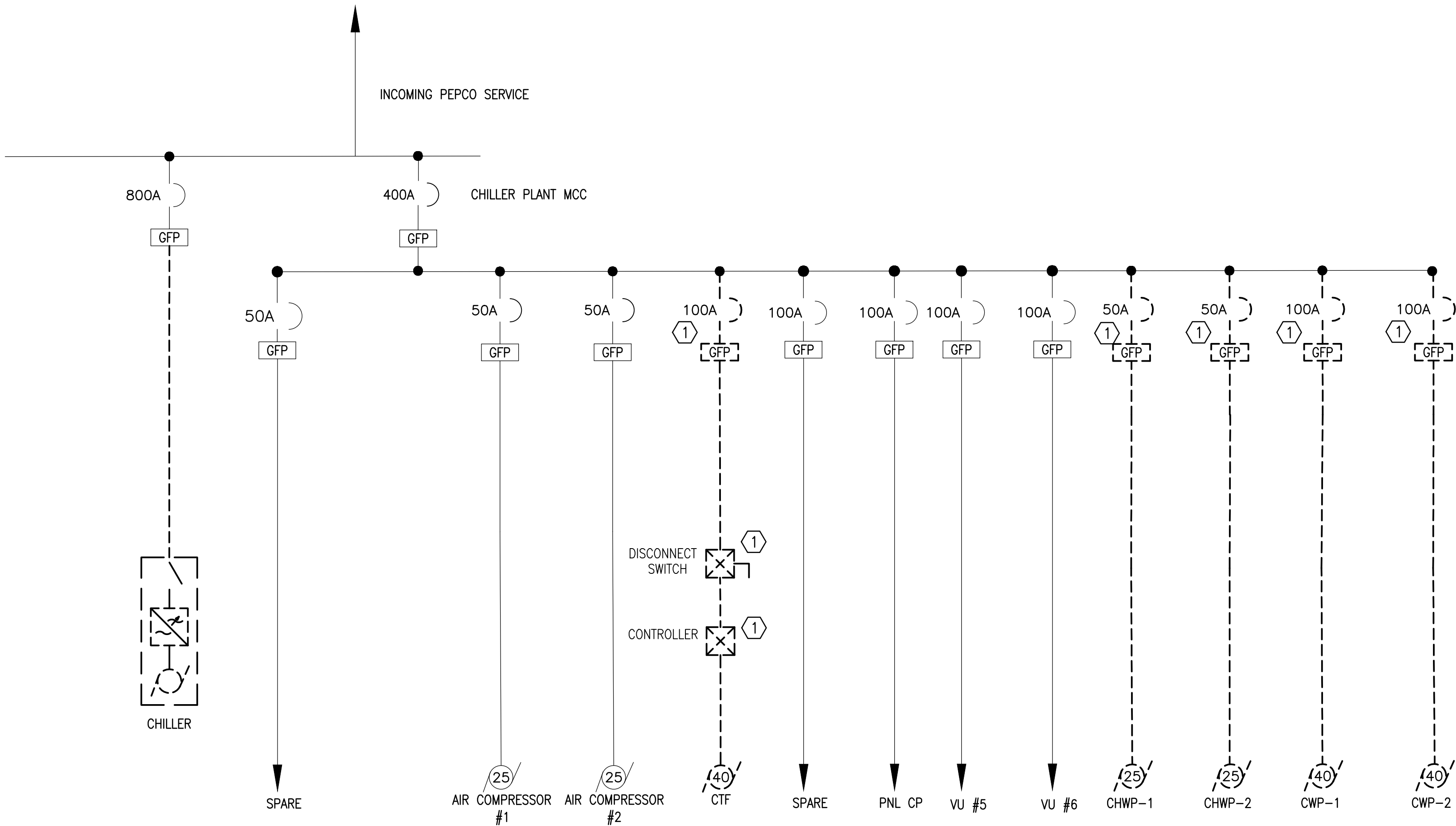
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	NUMBER	TITLE	DATE	NUM	DESCRIPTION	M NO. M1304	CONTRACT NO. FQ-18102	SCALE 1/2"=1'-0"	DRAWING NO. CWPA5-E-103	SHEET NO. 51 of 173
			03/30/2018	0	FINAL CONTRACT DRAWINGS					

- SHEET NOTE:
- FOR EQUIPMENT TO BE DEMOLISHED: ALL EXISTING CONDUIT AND WIRING SHALL BE REMOVED. PERMISSION TO USE EXISTING CONDUIT (WIRES REMOVED) SHALL BE REQUIRED FROM WMATA ENGINEER.
- PLAN NOTE:
- 1 EXISTING CIRCUIT BREAKER, DISCONNECT SWITCH, AND COOLING TOWER MOTOR CONTROLLER TO BE DEMOLISHED.



B ELECTRICAL SIGNLE LINE DIAGRAM - DEMOLITION
CWPA5-E-601


SCALE: NONE



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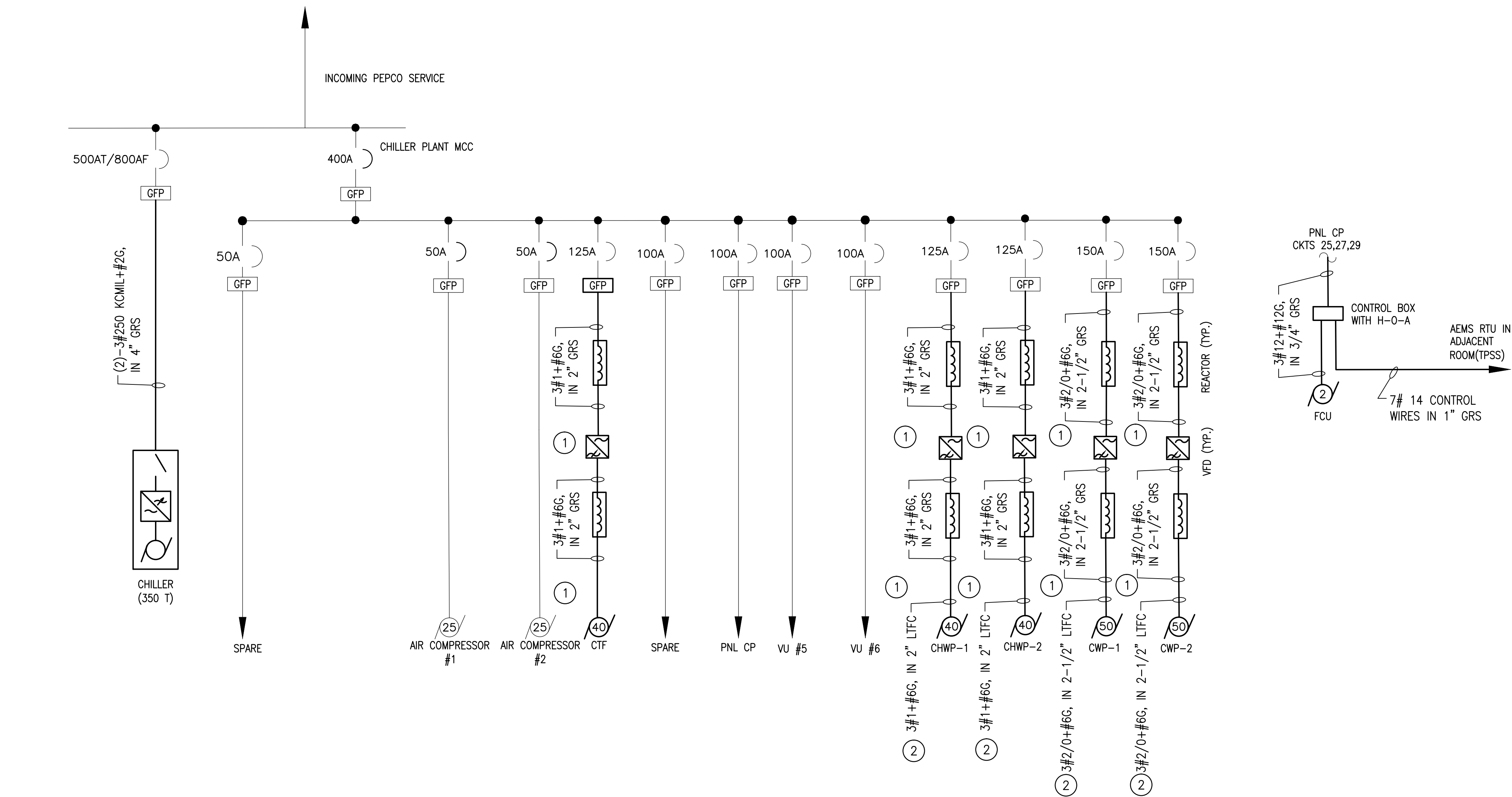


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<div>DESIGNED <u>B. IDILBI</u> 09/30/17 DATE</div> <div>DRAWN <u>J. ZHU</u> 09/30/17 DATE</div> <div>CHECKED <u>D. KHAN</u> 03/23/18 DATE</div>	REFERENCE DRAWINGS		REVISIONS			<div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES</div><div>OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP</div></div> <div><div>APPROVED <u>Mark H. Magnusson</u> 03/2018 MARK MAGNUSSEN MANAGER, ENV. PLANNING AND COMP</div><div>DATE</div><div>APPROVED <u>Graham Spiller</u> 03/2018 GRAHAM SPILLER GFP DEPUTY PROGRAM MANAGER</div><div>DATE</div></div>	REPLACEMENT OF CHILLERS AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS CWPA5 - BETHESDA (A09) ELECTRICAL SIGNLE LINE DIAGRAM - DEMOLITION				
	NUMBER	TITLE	DATE	NUM	DESCRIPTION		M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
			03/30/2018	0	FINAL CONTRACT DRAWINGS		M1304	FQ-18102	NONE	CWPA5-E-601	52 of 173

- SHEET NOTES:
1. PROVIDE NEW CIRCUIT WITH GROUND FAULT PROTECTION IN EXISTING MCC.

- PLAN NOTES:
- ① LINE AND LOAD REACTORS FOR EACH VFD SHALL BE MOUNTED IN A SINGLE NEMA 4X ENCLOSURE
 - ② RUN NEW RGS FROM CABLE TROUGH AND STOP AT CONVENIENT PLACE NEAR MOTOR. CONTINUE WITH LTFC TO MOTOR.
 - ③ ALL VFD'S WIRING SHALL BE VFD RATED.



B ELECTRICAL SIGNLE LINE DIAGRAM - NEW WORK
CWPA5-E-602

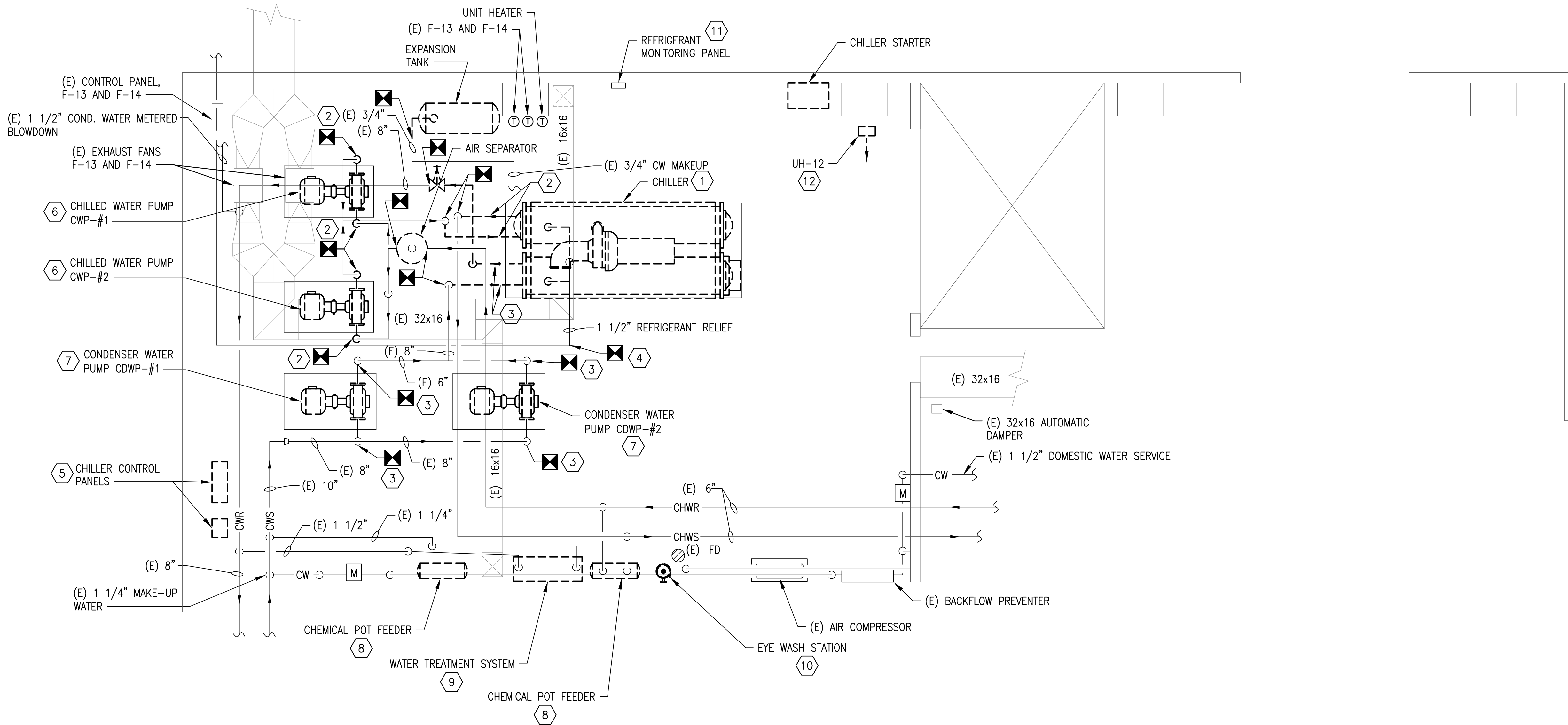
SCALE: NONE

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DESIGNED B. IDILBI 09/30/17 DATE			REFERENCE DRAWINGS		REVISIONS			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP		REPLACEMENT OF CHILLERS AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS CWPA5 - BETHESDA (A09) ELECTRICAL SIGNLE LINE DIAGRAM - NEW WORK						
			NUMBER	TITLE	DATE	NUM	DESCRIPTION			M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.		
DRAWN J. ZHU 09/30/17 DATE					03/30/2018	0	FINAL CONTRACT DRAWINGS	APPROVED Mark H. Magnusson 03/2018 MARK MAGNUSSEN MANAGER, ENV. PLANNING AND COMP DATE		APPROVED Gabe Spiller 03/2018 GRAHAM SPILLER GFP DEPUTY PROGRAM MANAGER DATE		M1304	FQ-18102	NONE	CWPA5-E-602	53 of 173
CHECKED D. KHAN 03/23/18 DATE																

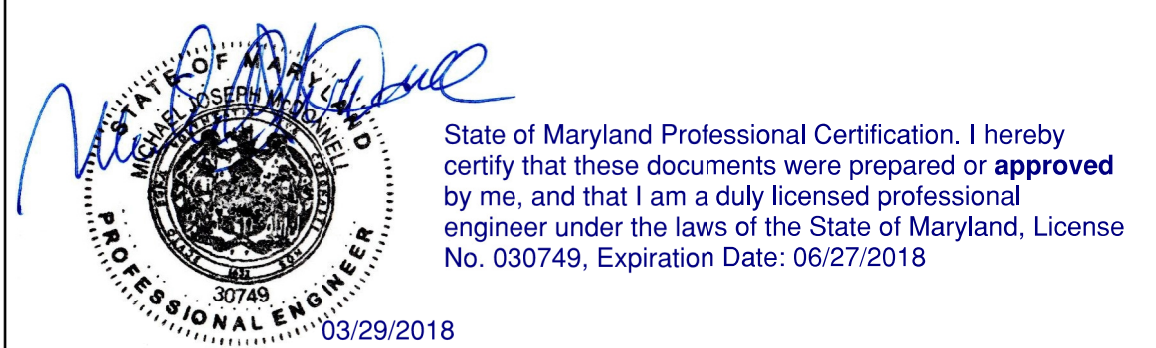


- GENERAL NOTES:**
- A. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND QUANTITIES OF EQUIPMENT, PIPING, VALVES, DUCTWORK, ELECTRICAL AND CONTROL WIRING PRIOR TO DEMOLITION. ITEMS SHOWN ON THIS PLAN ARE APPROXIMATE.
 - B. REFER TO LEGEND SHEET FOR GENERAL ABBREVIATIONS AND SYMBOLS.

- KEYNOTES:**
- 1 REMOVE AND DISPOSE OF CHILLER, CHILLER SUPPORT, STARTER, WIRING, CONDUIT, JUNCTION AND PULL BOXES DISCONNECT, AEMS SENSORS, AND CONTROLS. REMOVAL SHALL INCLUDE R-134a EVACUATION BY A CERTIFIED COMPANY. RECOVERED REFRIGERANT SHALL BE CLEANED AND THEN BE RETURNED TO WMATA PLANT MAINTENANCE IN 125 POUND CONTAINERS.
 - 2 REMOVE AND DISPOSE OF CHILLED WATER PIPING (CHWS, CHWR), INSULATION, SUPPORT, TEMPERATURE AND PRESSURE GAUGES. REMOVE PIPING TO AND FROM CHILLER INCLUDING ISOLATION VALVES. EXACT DEMOLITION POINT SHALL BE FIELD COORDINATED BY CONTRACTOR TO ACCOMMODATE NEW PIPING CONNECTIONS.
 - 3 REMOVE AND DISPOSE OF CONDENSER WATER PIPING (CWR, CWS), TEMPERATURE AND PRESSURE GAUGES. REMOVE CONDENSER WATER SUPPLY PIPING FROM THE CHILLER UP TO AND INCLUDING THE ISOLATION VALVE. REMOVE CONDENSER WATER RETURN PIPING FROM VERTICAL ELBOW TO CHILLER. EXACT DEMOLITION POINT SHALL BE FIELD COORDINATED BY CONTRACTOR TO ACCOMMODATE NEW PIPING CONNECTIONS.
 - 4 REMOVE EXISTING 1 1/2" REFRIGERANT RELIEF (VENT) PIPING TO EXTENT SHOWN.
 - 5 REMOVE AND DISPOSE OF CHILLER CONTROL PANEL.
 - 6 REMOVE AND DISPOSE OF CHILLED WATER PUMPS CWP-1 AND CWP-2. REMOVE PIPING AND VALVES INCLUDING THE ISOLATION VALVES, STRAINERS, CHECK VALVES AND BALANCING VALVES UP TO THE PIPE CONNECTION FLANGES. REMOVAL SHALL INCLUDE PUMP, MOTOR, AND CONTROL WIRING. EXISTING VIBRATION SUPPORT, INERTIA PAD, AND EQUIPMENT PAD TO REMAIN.
 - 7 REMOVE AND DISPOSE OF CONDENSER WATER PUMPS CDWP-1 AND CDWP-2. REMOVE PIPING AND VALVES INCLUDING THE ISOLATION VALVES, STRAINERS, CHECK VALVES AND BALANCING VALVES UP TO THE PIPE CONNECTION FLANGES. REMOVAL SHALL INCLUDE PUMP, MOTOR, AND CONTROL WIRING. EXISTING VIBRATION SUPPORT, INERTIA PAD, AND EQUIPMENT PAD TO REMAIN.
 - 8 REMOVE AND DISPOSE OF CHEMICAL POT FEEDER & ACCESSORIES FOR CHILLED WATER AND CONDENSER WATER SYSTEM.
 - 9 REMOVE AND DISPOSE OF EXISTING CONDENSER WATER TREATMENT SYSTEM INCLUDING VALVES, PIPING, SUPPORTS, CHEMICAL DRUMS, METERING PUMPS, AND RELATED ELECTRICAL/CONTROL ACCESSORIES.
 - 10 REMOVE AND DISPOSE OF EYEWASH STATION. CAP DOMESTIC WATER PIPING. COORDINATE WITH NEW WORK PLAN.
 - 11 EXISTING REFRIGERANT MONITORING PANEL SHOWN HERE FOR REFERENCE. COORDINATE WITH WMATA CONTRACT FQ14114.
 - 12 REMOVE EXISTING UNIT HEATER AND ASSOCIATED CONTROLS. HANGERS CAN REMAIN AND BE RE-USED. SEE NEW WORK PLAN.

1 MECHANICAL FLOOR PLAN - DEMOLITION
CWP A6-M-100

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



<div>DESIGNED <u>M. MCDONNELL</u> 01/26/18 DATE</div> <div>DRAWN <u>M. MCDONNELL</u> 01/26/18 DATE</div> <div>CHECKED <u>D. GHOSAL</u> 03/23/18 DATE</div>			REFERENCE DRAWINGS		REVISIONS				<div><div><div>M</div><div>metro</div></div><div>WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY</div><div>DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES</div><div>OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP</div></div> <div><div>APPROVED <u>Mark H. Magnusson</u> 03/2018</div><div>MARK MAGNUSSEN MANAGER, ENV. PLANNING AND COMP</div><div>DATE</div></div> <div><div>APPROVED <u>Gabe Spiller</u> 03/2018</div><div>GRAHAM SPILLER GFP DEPUTY PROGRAM MANAGER</div><div>DATE</div></div>				REPLACEMENT OF CHILLERS AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS CWPA6 - MEDICAL CENTER (A10) MECHANICAL PLAN - DEMOLITION					
			NUMBER	TITLE	DATE	NUM	DESCRIPTION	M NO.					CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.		
					03/30/2018	0	FINAL CONTRACT DRAWINGS	M1304	FQ-18102	1/4" = 1'-0"	CWPA6-M-100	55 of 173						