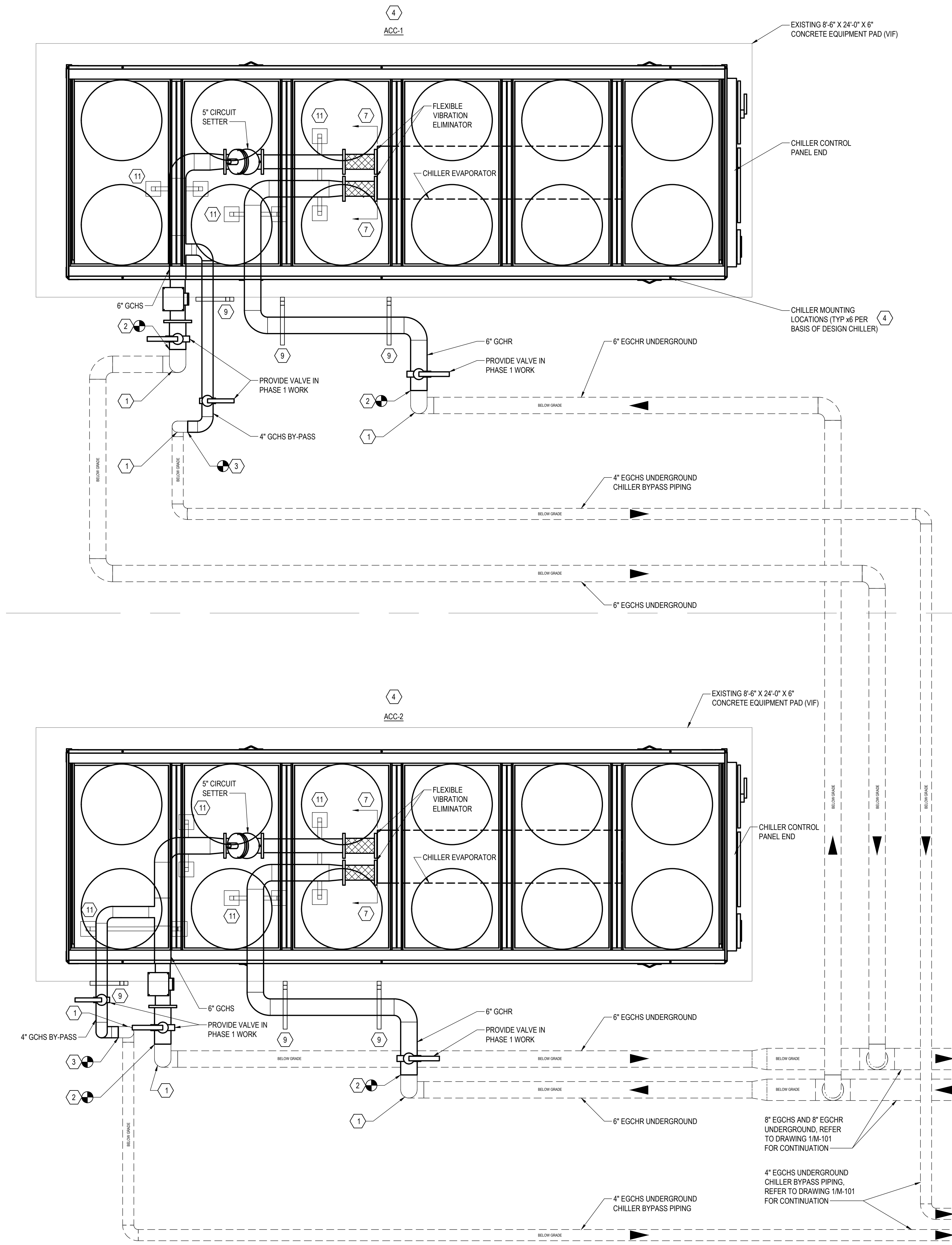


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PLOTTED: 12/14/2023 11:32:43 AM  
USER: CHRISTOPHER STROM

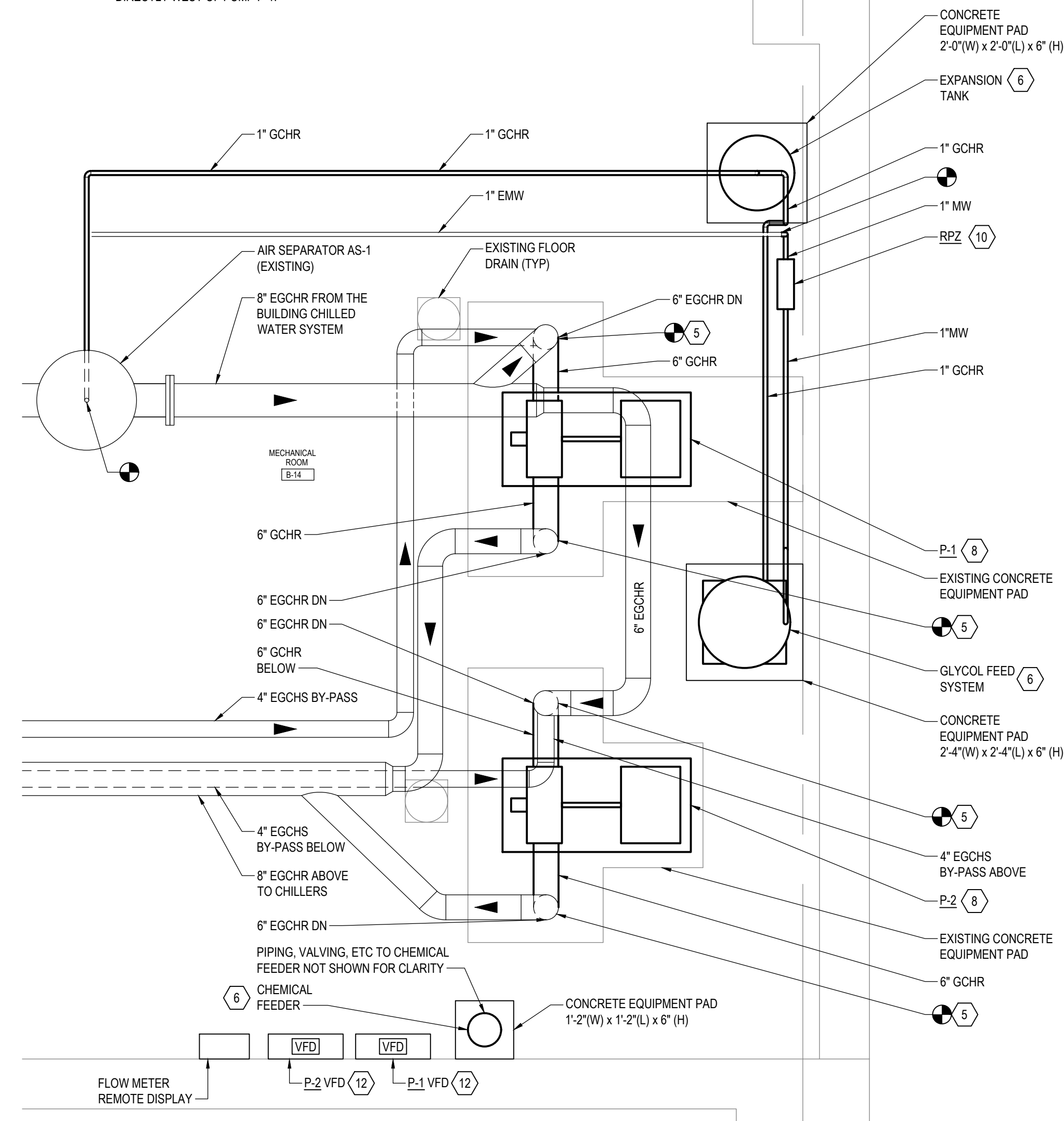


**1 CHILLERS ACC-1 & ACC-2 ENLARGED PLAN**  
SCALE: 1/2" = 1'-0"

NOTE: VALVES AND OTHER ACCESSORIES NOT SHOWN FOR CLARITY. REFER TO PIPING DIAGRAM 3/M-501 FOR VALVING, PIPING ACCESSORIES, ETC.

## KEYED NOTES

- 1 CHILLED WATER PIPING RISES ABOVE GRADE. UNDERGROUND CHILLED WATER PIPING IS ENCASED WITHIN WATERTIGHT SEALED PIPE CARRIER. PIPE CARRIER RISES ABOVE GRADE APPROXIMATELY 1'-0" WHERE EACH CHILLED WATER PIPE RISES ABOVE GRADE. PIPING SHALL BE PROVIDED/MODIFIED SUCH THAT THE PIPING CARRIER AND ITS SEAL ARE NOT DAMAGED. DAMAGED PIPING CARRIER SHALL BE REPAIRED/REPLACED TO PRIOR CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
- 2 PROVIDE 6" GCHS/R TO EXISTING ELBOW ABOVE GRADE. EXISTING ELBOW SHALL REMAIN, WITH CONNECTION POINT ON HORIZONTAL END OF ELBOW. HORIZONTAL GCHS/R PIPE CENTERLINE IS APPROXIMATELY 2'-1/4" ABOVE TOP OF THE CHILLER CONCRETE EQUIPMENT PAD, COORDINATE WITH APPROVED CHILLER CHILLED WATER PIPE CONNECTIONS. TAKE MEASURES TO AVOID DAMAGING EXISTING WATERTIGHT SEAL BETWEEN PIPE CARRIER AND EGCHS/R PIPING WHERE PIPE DROPS UNDERGROUND.
- 3 PROVIDE 4" GCHS TO EXISTING ELBOW ABOVE GRADE. EXISTING ELBOW SHALL REMAIN, WITH CONNECTION POINT ON HORIZONTAL END OF ELBOW. HORIZONTAL GCHS/R PIPE CENTERLINE IS APPROXIMATELY 2'-1/4" ABOVE TOP OF THE CHILLER CONCRETE EQUIPMENT PAD, COORDINATE WITH APPROVED CHILLER CHILLED WATER PIPE CONNECTIONS. TAKE MEASURES TO AVOID DAMAGING EXISTING WATERTIGHT SEAL BETWEEN PIPE CARRIER AND EGCHS/R PIPING WHERE PIPE DROPS UNDERGROUND.
- 4 PROVIDE CHILLER ON EXISTING EXTERIOR CONCRETE EQUIPMENT PAD. REFER TO PIPING DIAGRAM 3/M-501 FOR VALVING/SENSORS/ETC. CHILLER SHALL BE MOUNTED ON VIBRATION ISOLATORS AND CUSTOM STAINLESS STEEL SPACERS TO RAISE THE CHILLER SUCH THAT THE CHILLER CHILLED WATER PIPING CONNECTION CENTERLINES ARE AT THE SAME ELEVATION AS THE EXISTING EXTERIOR CHILLED WATER HORIZONTAL PIPING CENTER LINES. REFER TO DETAIL 5/M-601 FOR ADDITIONAL INFORMATION. VIBRATION ISOLATORS SHALL BE MAKE/MODEL AS REQUIRED BY THE CHILLER MANUFACTURER. QUANTITY OF SUPPORT LOCATIONS PER THE CHILLER MANUFACTURER'S REQUIREMENTS, BASIS OF DESIGN: 6 PER CHILLER.
- 5 PROVIDE 6" GCHR PIPING AT SUCTION AND DISCHARGE SIDES OF PUMPS P-1 AND P-2. ON PUMP SUCTION SIDE, BUTTERFLY VALVE AND PIPING ABOVE IS EXISTING TO REMAIN. REFER TO 3/M501 AND 2/M601 FOR ADDITIONAL INFORMATION.
- 6 PROVIDE EXPANSION TANK, GLYCOL FEED SYSTEM, AND CHEMICAL FEEDER. PROVIDE EQUIPMENT ON 6" TALL CONCRETE EQUIPMENT PAD THAT IS 3" LARGER THAN THE EQUIPMENT IN EACH DIRECTION. REFER TO DETAIL 4/M-601 FOR ADDITIONAL INFORMATION.
- 7 PIPING, VALVING, AND PIPING ACCESSORIES FROM THE CONNECTION TO THE CHILLER EVAPORATION AND BEYOND ARE NOT PROVIDED WITH THE BASIS OF DESIGN CHILLER AND SHALL BE PROVIDED BY UNDER THIS CONTRACT. THE FLOW SWITCH IS FURNISHED WITH THE BASIS OF DESIGN CHILLER AND SHALL BE FIELD INSTALLED UNDER THIS CONTRACT.
- 8 PROVIDE INSULATED BOX COVER TO INSULATED CHILLED WATER PUMPS, REFER TO SPECIFICATION SECTION 230719 FOR ADDITIONAL INFORMATION.
- 9 PROVIDE CANTILEVER TYPE PIPE SUPPORT FASTENED TO THE EXISTING CHILLER CONCRETE EQUIPMENT PAD. REFER TO DETAIL 7/M-601 FOR ADDITIONAL INFORMATION.
- 10 PROVIDE 1" MAKE-UP WATER RPZ 30" TO 60" ABOVE THE FINISHED FLOOR WITH 12" CLEARANCE ABOVE, 30" CLEARANCE IN FRONT, AND 8" CLEARANCE IN BACK. PROVIDE WITH AIR GAP FITTING, PIPED TO NEAREST EXISTING FLOOR DRAIN DIRECTLY WEST OF PUMP P-1.



**2 PUMPS P-1 & P-2 ENLARGED PLAN**  
SCALE: 1/2" = 1'-0"

NOTE: VALVES AND OTHER ACCESSORIES NOT SHOWN FOR CLARITY. REFER TO PIPING DIAGRAM 3/M-501 FOR VALVING, PIPING ACCESSORIES, ETC.

## KEYED NOTES CONT.

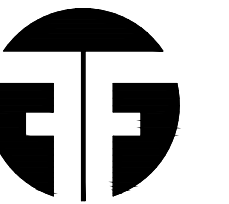
- 11 PROVIDE PIPE SUPPORT ANCHORED TO THE EXISTING CONCRETE EQUIPMENT PAD TO SUPPORT GCHS AND GCHR PIPING BELOW THE CHILLER. PIPING SHALL NOT BE SUPPORTED FROM THE CHILLER. COORDINATE PIPE SUPPORT WIDTH AND LOCATION WITH QUANTITY OF PIPES BEING SUPPORTED AND CHILLER BASE/CROSS BRACING. REFER TO DETAIL 6/M-601 FOR ADDITIONAL INFORMATION.
- 12 FURNISH VFDs FOR PUMPS P-1 AND P-2 TO THE E-CONTRACT. E-CONTRACT SHALL INSTALL THE VFDs

## GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO INITIATING WORK FOR THIS PROJECT. CONTRACT DOCUMENTS HAVE BEEN DEVELOPED FROM EXISTING DRAWINGS AND FIELD INVESTIGATION. NOTIFY THE DIRECTOR'S REPRESENTATIVE OF INCONSISTENCIES IDENTIFIED BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS THAT IMPACT THE ABILITY TO PERFORM THE WORK INDICATED ON THE CONTRACT DOCUMENTS.
2. PERFORM CUTTING AND PATCHING REQUIRED FOR THE WORK, UNLESS OTHERWISE NOTED. PATCHING SHALL MATCH SURROUNDING EXISTING SURFACES IN KIND. PROVIDE FIRE STOPPING FOR PENETRATIONS THROUGH INTERIOR WALLS.
3. COORDINATE UTILITY SHUTDOWNS WITH DIRECTOR'S REPRESENTATIVE.
4. NO MATERIAL OR EQUIPMENT SHALL BE IN CONTACT WITH EXISTING FIRE SPRINKLER PIPING.
5. PROVIDE HEAVY DUTY SPREADER PLATES BELOW THE ENTIRETY OF LIFTING/RIGGING EQUIPMENT, VEHICLES INCLUDING TRUCKS, THE EQUIPMENT BEING RIGGED, AND OTHER EQUIPMENT, ON THE GRADE/PAVEMENT/GROUND TO SPREAD OUT THE LOAD. HEAVY DUTY SPREADER PLATES SHALL BE MINIMUM 1/2" THICK STEEL PLATES (OR EQUAL) TO PREVENT DAMAGING UNDERGROUND UTILITIES. THE EXISTING GRADE/PAVEMENT/GROUND AND UNDERGROUND UTILITIES SHALL NOT BE DAMAGED BY LIFTING/RIGGING EQUIPMENT, VEHICLES INCLUDING TRUCKS, THE EQUIPMENT BEING RIGGED, OR OTHER EQUIPMENT. DAMAGE TO GRADE/PAVEMENT/GROUND AND OR UNDERGROUND UTILITIES SHALL BE RESTORED TO PRIOR CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
6. CEILING WORK AREA WITHIN THE MECHANICAL ROOMS IS CONGESTED WITH PIPING, DUCTWORK, AND CONDUIT. PIPING WITHIN THE MECHANICAL ROOMS IS INSTALLED BETWEEN 10'-0" TO 15'-0" AFF.
7. EXTERIOR PIPING SHALL BE INSULATED AND PROVIDED WITH ALUMINUM METAL JACKET.
8. VALVING AND OTHER ACCESSORIES ARE NOT SHOWN FOR CLARITY, REFER TO THE PIPING DIAGRAM ON M-501 FOR ADDITIONAL INFORMATION.
9. PRIOR TO MAKING FINAL PIPING CONNECTIONS TO EQUIPMENT AND THE EXISTING SYSTEM, FLUSH THE ENTIRE PIPING SYSTEM.

CONSULTANT

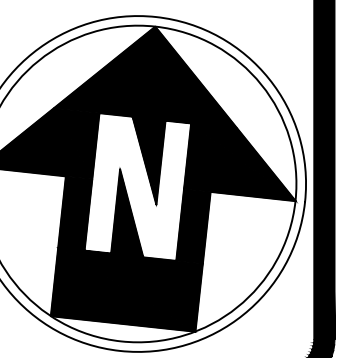
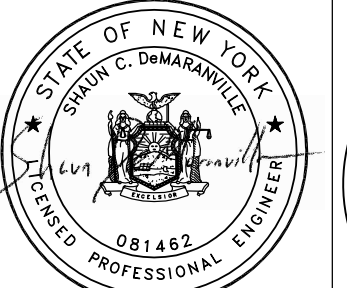
CERTIFICATE OF AUTHORIZATION #: 017869



Friedman Fisher Associates, P.C.

### WARNING:

THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.



REGISTRATION EXPIRES:  
10/31/24

CONTRACT:

**HVAC**

TITLE:  
**REPLACE BUILDING CHILLERS,  
BUILDING 144**

LOCATION:  
**COOK CHILL PRODUCTION CENTER  
145 OLD ORANGEBURG ROAD  
ORANGEBURG, NY**

CLIENT:  
**OFFICE OF  
MENTAL HEALTH**

MARK	DATE	BID DOCUMENTS	DESCRIPTION
PROJECT NUMBER:	12/6/2023	47430	- H
DESIGNED BY:		CHS	
DRAWN BY:		CHS	
FIELD CHECK:			
APPROVED:			
SHEET TITLE:			

**ENLARGED PIPING  
PLANS**

DRAWING NUMBER:

**M-301**