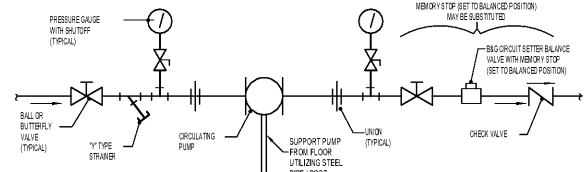


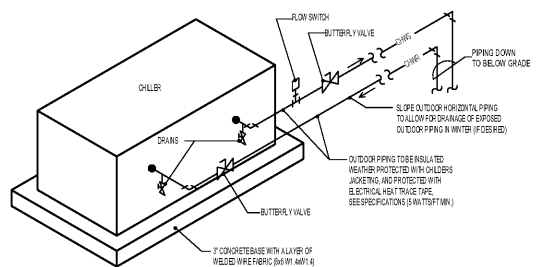
GRAPHIC SCALE 1/4"=1'-0"

GRAPHIC SCALE 1/8"=1'-0"

GRAPHIC SCALE 1/16"=1'-0"

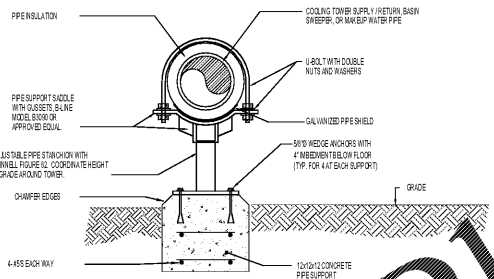


TYPICAL IN-LINE PUMP PIPING
NOT TO SCALE

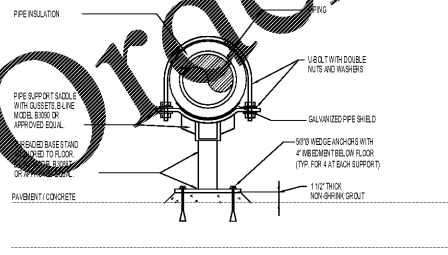


CHILLER PIPING DETAIL
NOT TO SCALE

NOTE: INSTALL THERMOMETERS IN CHWR & CHWS MAIN PIPES IN BOILER ROOM.

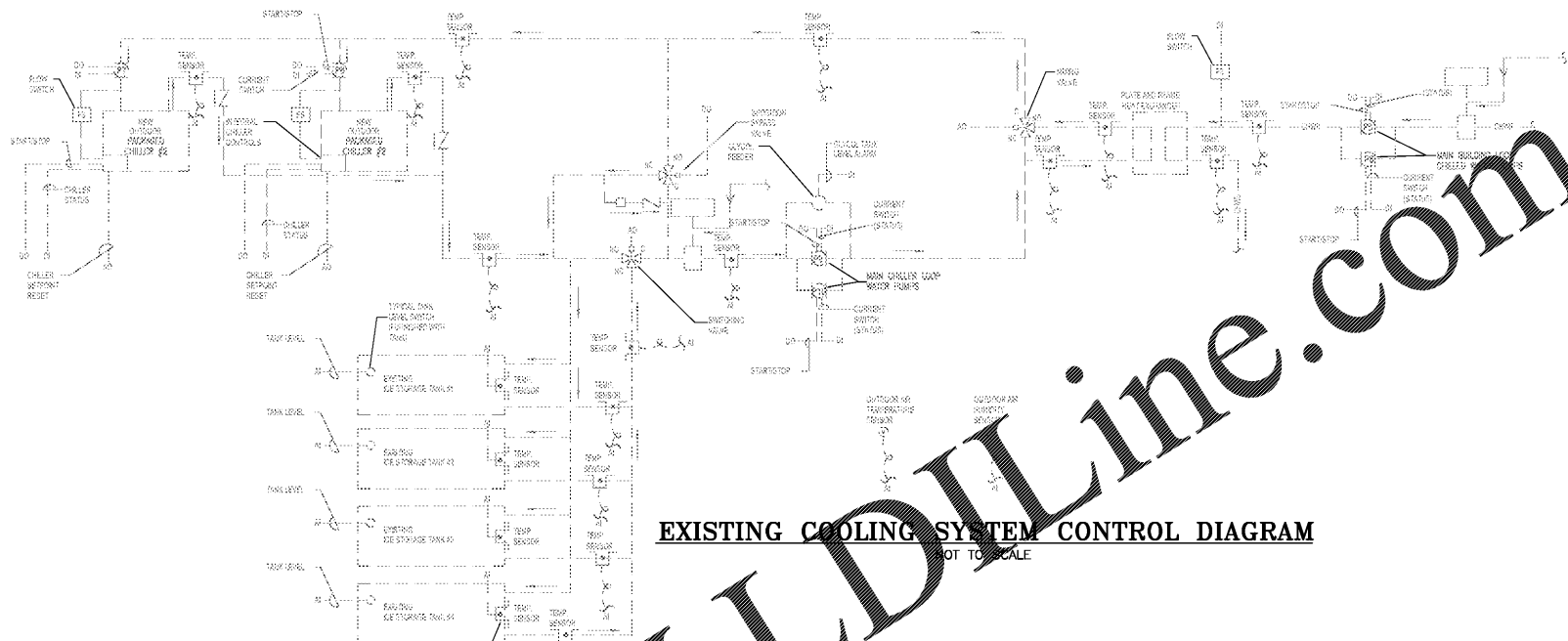


PIPE STAND SUPPORT DETAIL (GRADE)
NOT TO SCALE

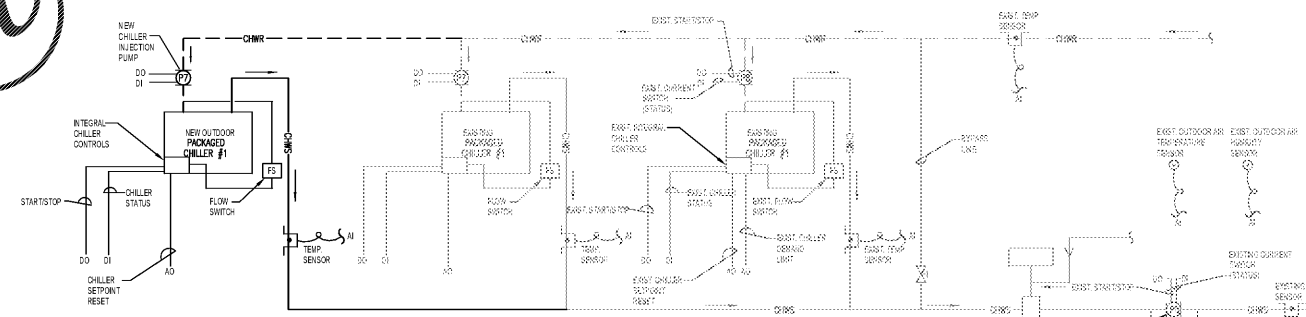


PIPE STAND SUPPORT DETAIL (SLAB)
NOT TO SCALE

NOTE: 1. ALL ANGLES, PLATES, BRACKETS, BOLTS, WASHERS, NUTS, AND ANCHORS SHALL BE GALVANIZED.



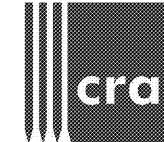
EXISTING COOLING SYSTEM CONTROL DIAGRAM
NOT TO SCALE



NEW COOLING SYSTEM CONTROL DIAGRAM

NOTE: 1. DIAGRAM IS SCHEMATIC ONLY. NOT ALL PIPING AND CONTROLS SYSTEM SHOWN. FOR CLARITY, GENERALLY ICE SYSTEM COMPONENTS, EQUIPMENT, PIPING, CONTROLS AND ICE MODE OPERATION ARE BEING VALUED OFF, OVERTIDEN, AND ABANDONED IN PLACE FOR FUTURE USE (IF DESIRED). REMAINING SYSTEM PIPING / CONTROL ARRANGEMENT TO BE PRIMARY / SECONDARY AS SHOWN ABOVE. PLEASE COORDINATE EXACT PIPING AND CONTROLS ARRANGEMENTS WITH EXISTING CONDITIONS, OTHER DRAWINGS, ETC. PRIOR TO BIDDING AND INSTALLATION.

NOTE: 2. NEW SEQUENCE OF OPERATION, FUNCTIONALITY, ACCESSIBILITY / COMMUNICATION / ALARMING, ETC. TO BE SAME AS EXISTING CHILLERS EXCEPT NEW CHILLER TO BECOME LEAD CHILLER AT ALL TIMES (WHEN OPERABLE) NOT IN ALARM. ALSO, NEW CHILLER TO CONTROL ITS RESPECTIVE CHILLER INJECTION PUMP (I.E. PROVIDE START / STOP COMMAND FOR PUMP). NOT BMS. COORDINATE WITH EXISTING CONDITIONS. FURNISH ALL BMS COMMUNICATION MODULES / INTERFACED DEVICES, AND ALL NECESSARY COMPONENTS, DEVICES, PROGRAMMING, ETC. FOR A COMPLETE SYSTEM. EXISTING SEQUENCE OF OPERATION FOR CHW PLANT TO REMAIN, EXCEPT ICE MODES TO BE DISABLED AT THIS TIME SO THAT SYSTEM OPERATES AS A PRIMARY / SECONDARY SYSTEM WITH OUTSIDE. THIS SHALL BE ACCOMPLISHED BY PROGRAM SWITCH IF POSSIBLE (I.E. DO NOT DELETE ANY PROGRAMMING OR MAKE IT INACCESSIBLE, AS THE OWNER MAY WISH TO RENITIALIZE ICE MODES) AT ANOTHER DATE. COORDINATE WITH OWNER SO THAT THEY ARE AWARE AND CLEARLY UNDERSTAND WHAT HAS BEEN OVERTIDEN (TURNED OFF) AND WHAT NEEDS TO BE DONE TO RENITIALIZE IT. DO NOT REMOVE ANY CONTROL COMPONENTS, WIRING, DEVICES, PROGRAMMING, SIMPLY DISABLE AND ABANDON AS REQUIRED. COORDINATE WITH EXISTING CONDITIONS, OWNER AND ENGINEER PRIOR TO SUBMITTALS AND INSTALLATION OR DEMO.



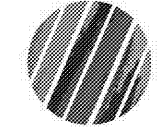
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no.	revisions

The use of these plans and specifications shall be restricted to the project and not used for any other project without the express written consent of the engineer. The engineer shall not be responsible for any errors or omissions in the plans and specifications. The engineer shall not be responsible for any damage to property or persons resulting from the use of these plans and specifications.

drawn	checked
DM	MRM
Mechanical Details	

sheet

M4.3

project no. 1716

date 4/25/19

THIS DRAWING IS NOT TO BE SCALED FOR LOCATION PURPOSES. THE SCALE WHEN INDICATED IS FOR GENERAL REFERENCE ONLY.