



## DRAWING INDEX

APPROVED BY: \_\_\_\_\_

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ENGINEERING PROGRAM MANAGER

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CALL CENTER SUPERVISOR

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INFECTION CONTROL

## SAFETY

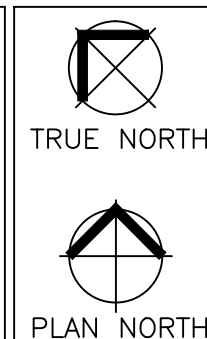
GENERAL NOTES

GENERAL CONTRACTOR AND/OR SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS, WHERE VARIATIONS ARE FOUND TO OCCUR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DISCREPANCIES BEFORE PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS & CEILING & FLOORS, ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING UTILITIES AND THE REPAIR AND REINSTATEMENT OF THE SUBCONTRACTOR BY TRADE; FIRESTOPPING OF THESE OPENING SHALL BE DONE BY THE RESPECTIVE TRADES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. THE GENERAL CONTRACTOR, PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED.

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Drawing Title	COVER SHEET
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	Approved: Division Chief
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	Approved: Service Director

Project Title	REPLACE RO/WATER SOFTENER SYSTEM BOILER PLANT
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Location	V.A. MEDICAL CENTER HOT SPRINGS, SD
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Date	

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Project No.	568-12-202
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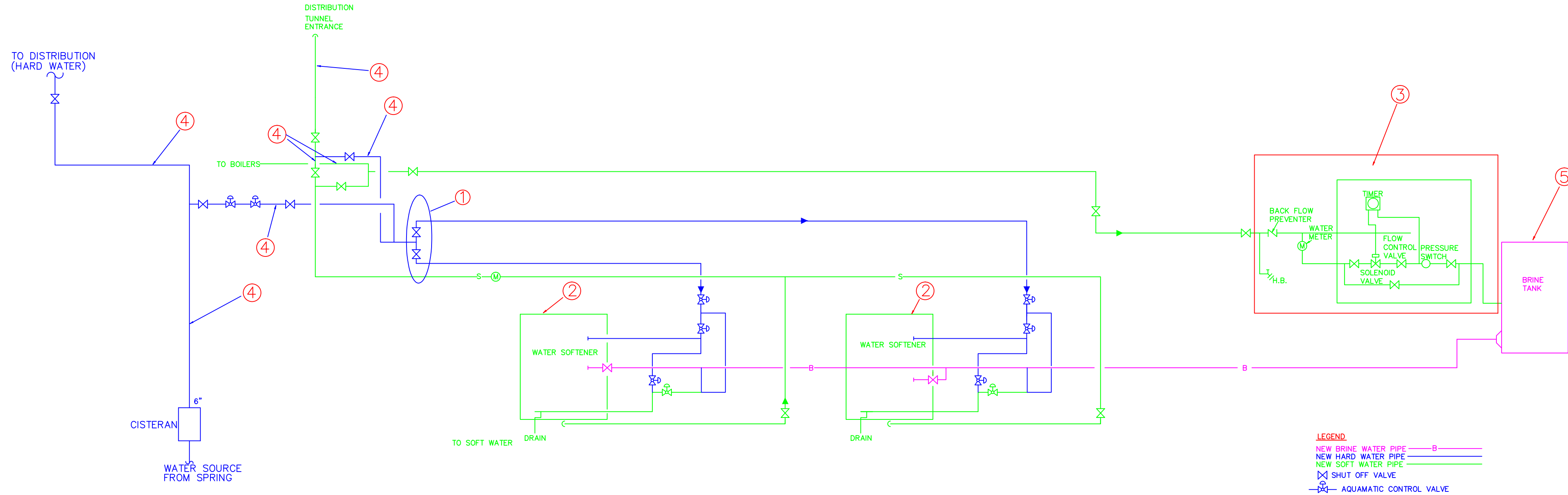
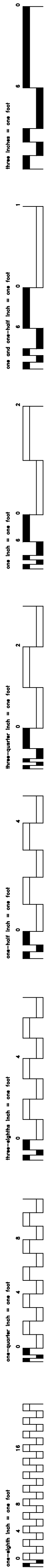
Building Number  
18

DRAWING NO.  
C 1

C-1

Office of  
Facilities  
Management

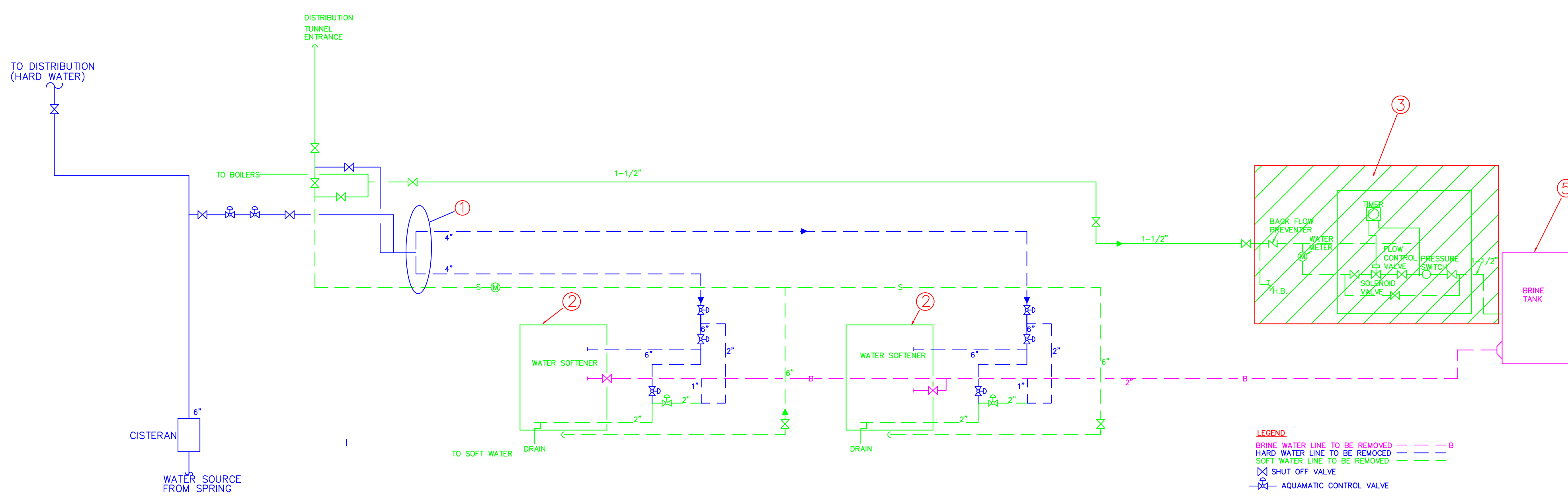




WATER SOFTENER ONE-LINE WATER DIAGRAM  
NEW INSTALLATION PLAN - NTS

LEGEND:  
NEW BRINE WATER PIPE — B —  
NEW HARD WATER PIPE — —  
NEW SOFT WATER PIPE — —  
SHUT OFF VALVE  
AQUAMATIC CONTROL VALVE




GENERAL NOTE:  
1. NEW PIPING SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.  
CONTRACTOR TO VERIFY QUANTITIES OF NEW PIPING REQUIREMENTS.  
NOTES:  
1. NEW ISOLATION VALVES FOR NEW WATER SOFTENER TANKS.  
2. NEW WATER SOFTENER TANK.  
3. NEW PIPING, VALVES, BACKFLOW PREVENTER AND CONTROLS  
FOR EXISTING BRINE TANK.  
4. EXISTING PIPING TO REMAIN.  
5. EXISTING BRINE TANK TO REMAIN.



WATER SOFTENER ONE-LINE WATER DIAGRAM  
DEMOLITION PLAN - NTS

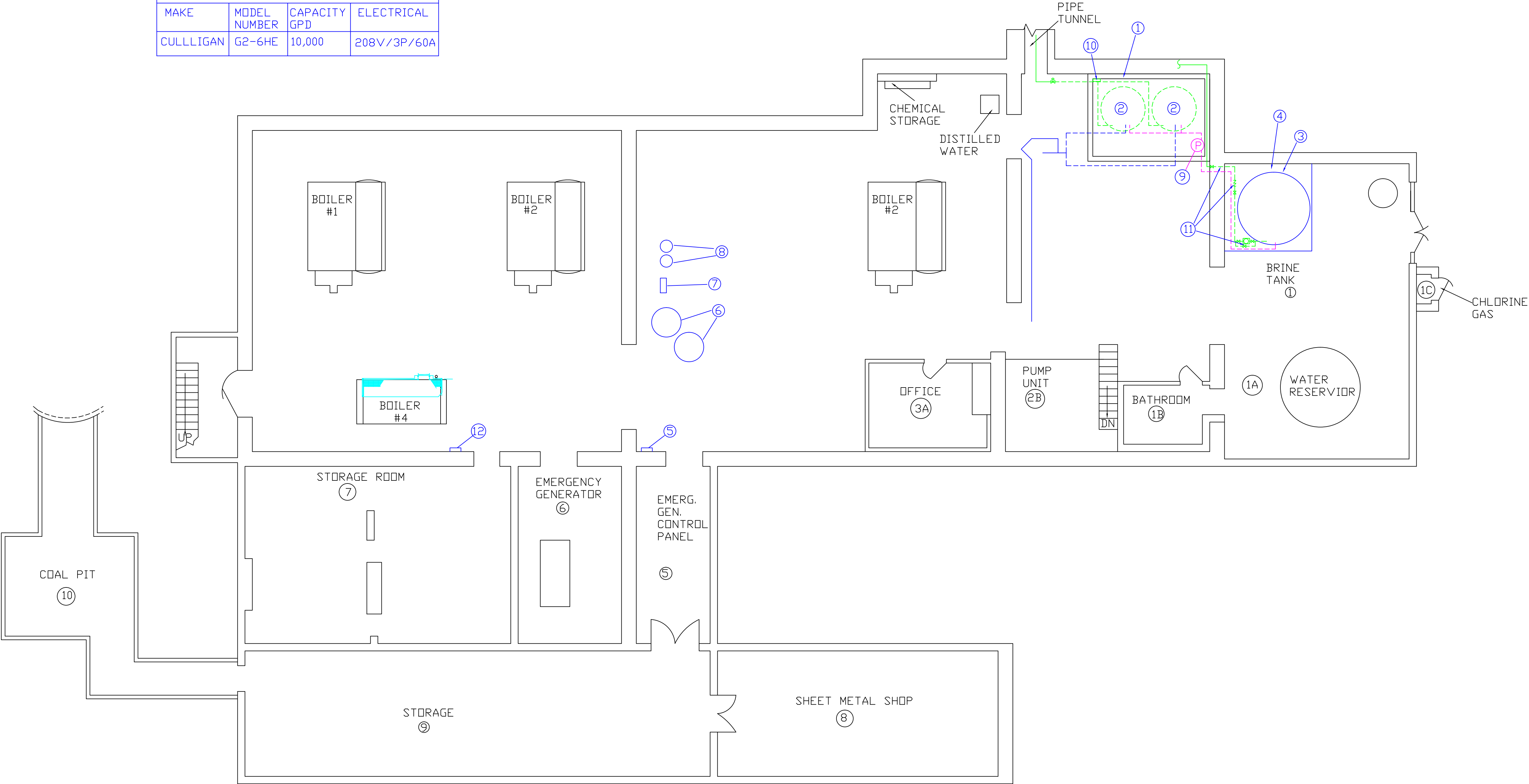
LEGEND:  
BRINE WATER LINE TO BE REMOVED - - - B -  
HARD WATER LINE TO BE REMOVED - - -  
SOFT WATER LINE TO BE REMOVED - - -  
SHUT OFF VALVE  
AQUAMATIC CONTROL VALVE

NOTES:  
1. INSTALL TWO SHUT OFF VALVES IN THIS LOCATION  
AFTER REMOVAL OF THIS SECTION OF PIPE. THIS WORK  
SHALL BE ACCOMPLISHED PRIOR TO ANY OTHER DEMOLITION  
IN ORDER TO ISOLATE PIPING ASSOCIATED WITH WATER SOFTENER  
TANKS. THIS WORK SHALL BE DONE ON A SUNDAY.  
2. REMOVE EXISTING WATER SOFTENER TANK.  
3. REMOVE EXISTING PIPING, VALVES, BACKFLOW PREVENTER AND  
CONTROLS INDICATED IN HATCHED AREA TO BRINE TANK, REPLACE WITH NEW.

		<div>GENERAL NOTES:</div> <div>GENERAL CONTRACTOR AND/OR ALL SUBCONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL BE RESPONSIBLE FOR VARIATIONS BETWEEN PLAN DIMENSIONS AND ACTUAL FIELD DIMENSIONS. WHERE VARIATIONS ARE FOUND TO OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION; NO ADJUSTMENT TO THE WORK WILL BE MADE WITHOUT THE PRIOR APPROVAL OF THE PROJECT ENGINEER.</div> <div>GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL DEMOLITION INCLUDING REMOVAL OF WALLS, PARTITIONS, DOORS &amp; CEILING &amp; FLOORS. ANY AND ALL CUTTING OF CONCRETE FLOORS, WALLS OR STRUCTURE SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. CORE DRILLING THROUGH CONCRETE WALLS, FLOORS OR STRUCTURE FOR PIPING OR CONDUIT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR BY TRADE. FIRESTOPPING OF THESE OPENINGS SHALL BE DONE BY THE RESPECTIVE SUBCONTRACTOR. REMOVAL OF DEBRIS RESULTING FROM DEMOLITION, CUTTING, AND/OR DRILLING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. PATCHING AND REPAIR OF CONCRETE WALLS, FLOOR, OR STRUCTURE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR; THIS WILL BE ACCOMPLISHED UPON COMPLETION OF THE INSTALLATION OF ANY AND ALL UTILITIES INSTALLED BY THE VARIOUS SUBCONTRACTORS.</div>	<div> TRUE NORTH</div> <div> PLAN NORTH</div>	<div>Drawing Title</div> <div>ONE-LINE DIAGRAMS</div>		<div>Project Title</div> <div>REPLACE RO/WATER SOFTENER SYSTEM BOILER PLANT</div>		<div>Project No.</div> <div>568-12-202</div>	<div>Office of Facilities Management</div> <div> Department of Veterans Affairs</div>	
				<div>Approved: Division Chief</div>		<div>Location</div> <div>V.A. MEDICAL CENTER HOT SPRINGS, SD</div>		<div>Building Number</div> <div>18</div>		
				<div>Approved: Service Director</div>		<div>Date</div> <div>5/14/2012</div>	<div>Checked</div> <div>DRS</div>	<div>Drawn</div> <div>DRS</div>		<div>DRAWING NO.</div> <div>ME-1</div>
<div>REVISIONS</div>				<div>DATE</div>						<div>Dwg. 2 Of 3</div>

WATER SOFTENER SCHEDULE				
MAKE	MODEL NUMBER	DESIGN FLOW RATE GPM	RESIN QUANTITY	UNIT CAPACITY, kgr
CULLLIGAN	HS-2806	550 @ 11.6 PSI	113 CU.FT.	2,825.8 @ 1130 lbs Salt

RD SYSTEM SCHEDULE			
MAKE	MODEL NUMBER	CAPACITY GPD	ELECTRICAL
CULLLIGAN	G2-6HE	10,000	208V/3P/60A



**LEGEND**  
BRINE WATER LINE TO BE REMOVED AND REPLACED -----  
HARD WATER LINE TO BE REMOVED AND REPLACED -----  
SOFT WATER LINE TO BE REMOVED AND REPLACED -----  
VALVE X  
BACKFLOW PREVENTER NN  
**GENERAL NOTES**  
1. THE SCOPE OF THIS PROJECT IS TO REMOVE AND REPLACE EXISTING WATER SOFTENER SYSTEM AND RD SYSTEM. REMOVE ALL EXISTING PIPING AND INSTALL NEW PIPING AS REQUIRED TO REPLACE EXISTING EQUIPMENT. NOT ALL PIPING REQUIRED FOR REMOVAL OF EXISTING EQUIPMENT IS INDICATED ON THIS SHEET. NEW PIPING SHALL BE PAINTED COORDINATE COLOR SELECTION WITH CONTR.

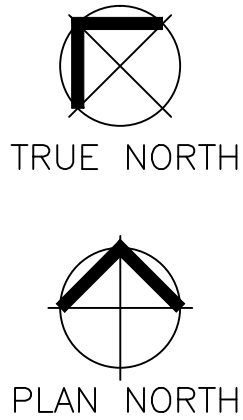
**SPECIFIC NOTES**  
① EXISTING 8" CURB TO REMAIN.  
② REMOVE EXISTING WATER SOFTENER TANK AND REPLACE WITH NEW. REMOVE AND REPLACE CONDUCTORS FROM PANEL PB6, REUSE EXISTING CONDUIT.  
③ EXISTING BRINE TANK TO REMAIN.  
④ EXISTING PAD TO REMAIN.  
⑤ EXISTING ELECTRICAL PANEL PB6.  
⑥ EXISTING RD TANKS TO REMAIN.  
⑦ EXISTING RD MACHINE TO BE REMOVED AND REPLACED. REMOVE ALL PIPING CONNECTIONS TO RD TANK AND INSTALL NEW PIPING PER MANUFACTURER'S RECOMMENDATIONS. RD MACHINE IS FED FROM ELECTRICAL PANEL PB6. REMOVE EXISTING CONDUIT AND CONDUCTORS.  
⑧ EXISTING RD FILTERS TO BE REMOVED AND REPLACED. REMOVE AND REPLACE ALL PIPING TO RD MACHINE.  
⑨ REMOVE AND REPLACE EXISTING BRINE PUMP. REPLACE EXISTING 120V CIRCUIT FROM PANEL PB6, REUSE EXISTING CONDUIT.  
⑩ REMOVE AND REPLACE EXISTING WATER HARDNESS MONITOR.  
⑪ REMOVE AND REPLACE EXISTING PIPING, VALVES, BACKFLOW PREVENTER, AND CONTROLS ON SECTION OF SOFT WATER PIPE TO BRINE TANK. IT WILL BE NECESSARY TO DRAIN BRINE TANK TO REPLACE THESE ITEMS. THIS SHALL BE ACCOMPLISHED BY THE CONTRACTOR. CONTRACTOR SHALL PROVIDE PIPING, PUMPS AND TEMPORARY STORAGE TANK AS NEEDED TO STORE ALL BRINE IN BRINE TANK AND RETURN BRINE TO BRINE TANK AFTER COMPLETION OF THIS WORK.  
⑫ EXISTING PANEL 18-PB4. PROVIDE AND INSTALL NEW 208/60A, BREAKER TO SERVE NEW RD SYSTEM. PROVIDE NEW CONDUIT AND AS REQUIRED THE NEC TO SERVE NEW RD SYSTEM.

EQUIPMENT REPLACEMENT PLAN

GENERAL NOTES:

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Drawing Scale  
1/8"=1'

Plot Scale

Drawing Title  
**EQUIPMENT REPLACEMENT PLAN**

Approved: Division Chief

Approved: Service Director

Project Title  
**REPLACE RO/WATER SOFTENER SYSTEM BOILER PLANT**

Location  
V.A. MEDICAL CENTER  
HOT SPRINGS, SD

Date  
5/14/2012

Checked  
DRS

Drawn  
DRS

Project No.  
568-12-202

Building Number  
18

DRAWING NO.  
**ME-2**  
Dwg. 3 Of 3

Office of  
Facilities  
Management

Department of  
Veterans Affairs