

FILE: R:\PROJECTS\8143 - OGS ORANBEBURG-CHILLER REPLACEMENT- CAD\8143 - G-002.DWG  
SAVED: 12/12/2023 3:41:34 PM  
USER: CHRISTOPHER STROM  
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PROJECT PHASING PLAN

1. CHILLED WATER-COOLING SYSTEM MUST BE FULLY OPERATIONAL MAY 1ST THRU OCTOBER 15TH (COOLING SEASON).
2. PHASE 1 WORK IN MECHANICAL ROOM B-14: THE WORK SHALL START OCTOBER 15, 2024 AND SHALL BE FINISHED, COMMISSIONED, AND FULLY OPERATIONAL BY MAY 1, 2025, AT ANY PRE-ARRANGED TIME APPROVED BY THE DIRECTOR'S REPRESENTATIVE.

2.1. DRAIN AND SITE STORE (SALVAGE) EXISTING CHILLED WATER SYSTEM GLYCOL SOLUTION (30% PROPYLENE).

2.2. DE-ENERGIZE CHILLED WATER PUMPS P-1, P-2, AND GLYCOL FEED PUMP.

2.3. REMOVE POWER WIRING ASSOCIATED WITH HVAC EQUIPMENT PER DRAWING ED-101.

2.4. REMOVE PIPING COVERED WITH LEAD-BASED PAINT IN MECHANICAL ROOM B-14 (APPROXIMATELY 68 LINEAR FEET) PER DRAWING H-100.

2.5. REMOVE EXISTING CHILLED WATER PUMPS P-1 AND P-2, GLYCOL FEED TANK, GLYCOL FEED PUMP, EXPANSION TANK, CHEMICAL BY-PASS FEEDER AND ASSOCIATED VALVES AND PIPING PER DRAWINGS MD-101, MD-301, AND M-501.

2.6. PROVIDE CHILLED WATER PUMPS P-1 AND P-2, PACKAGED GLYCOL FEED UNIT, EXPANSION TANK, CHEMICAL BY-PASS FEEDER AND ASSOCIATED VALVES AND PIPING PER DRAWINGS M-101, M-301, AND M-501. INSULATE PIPING PROVIDED IN THIS PROJECT.

2.7. PROVIDE POWER WIRING ASSOCIATED WITH HVAC EQUIPMENT PER DRAWING E-101.

2.8. ENERGIZED CHILLED WATER PUMPS P-1, P-2, AND GLYCOL FEED PACKAGE.

2.9. PROVIDE CONTROLS ASSOCIATED WITH MECHANICAL ROOM EQUIPMENT.

2.10. RE-FILL THE CHILLED WATER SYSTEM WITH THE STORED GLYCOL SOLUTION AND PROVIDE ADDITIONAL 30% PROPYLENE GLYCOL SOLUTION AS REQUIRED TO COMPLETELY FILL CHILLED WATER SYSTEM.
3. PHASE 1 WORK CHILLED WATER ISOLATION VALVES AT CHILLERS LOCATED OUTSIDE: THE WORK SHALL START OCTOBER 15, 2024 AND SHALL BE FINISHED, COMMISSIONED, AND FULLY OPERATIONAL BY MAY 1, 2025, AT ANY PRE-ARRANGED TIME APPROVED BY THE DIRECTOR'S REPRESENTATIVE.

3.1. REMOVE EXISTING ISOLATION AND CONTROL VALVES PER DRAWING MD-301.

3.2. PROVIDE ISOLATION VALVES PER DRAWING M-301.

3.3. PROVIDE PIPE SPOOL PIECES AS REQUIRED TO RE-CONNECT CHILLED WATER VALVES AND PIPING.
4. PHASE 2 WORK - CHILLER REPLACEMENT: THIS WORK SHALL START AFTER PHASE 1 WORK IS COMPLETE. THIS WORK CAN BEGIN PRIOR TO PHASE 1 WORK BEING COMPLETED, IF STARTED AFTER OCTOBER 15, 2024 AND COMPLETED BY MAY 1, 2025, AND APPROVED BY THE DIRECTOR'S REPRESENTATIVE.

4.1. THE EXISTING CHILLERS SHALL NOT BE DISCONNECTED OR REMOVED UNTIL REPLACEMENT CHILLERS ARE DELIVERED ON THE SITE, READY TO BE INSTALLED.

4.2. PERFORM ASBESTOS ABATEMENT, DRAIN AND SITE STORE (SALVAGE) EXISTING CHILLERS GLYCOL SOLUTION (30% PROPYLENE), REMOVE EXISTING CHILLERS AND PROVIDE REPLACEMENT CHILLERS, INCLUDING POWER WIRING AND CONTROL WIRING. ONE CHILLER SHALL BE REPLACED AT A TIME SUCH THAT ONE CHILLER IS ALWAYS OPERATIONAL DURING THE COOLING SEASON.

4.3. RE-FILL STORED GLYCOL SOLUTION AND PROVIDE ADDITIONAL 30% PROPYLENE GLYCOL SOLUTION AS REQUIRED TO OPERATE CHILLERS.
5. ALL OTHER WORK NOT NOTED IN THIS PHASING PLAN SHALL BE PERFORMED DURING ITS ASSOCIATED PHASE 1 AND/OR PHASE 2 WORK.

CONSTRUCTION SAFEGUARDS:

1. SCOPE: THE SAFETY OF THE CONSTRUCTION AREA AND ADJACENT PUBLIC AND PRIVATE PROPERTIES SHALL BE PROTECTED DURING CONSTRUCTION AND REMOVALS AS FOLLOWS, IN ACCORDANCE WITH THE 2020 EXISTING BUILDING CODE OF NEW YORK STATE (EBCNYS) CHAPTER 15 AND THE 2020 FIRE CODE OF NEW YORK STATE (FCNYS) CHAPTER 33. COMPLIANCE WITH NFPA 241 IS REQUIRED FOR ITEMS NOT SPECIFICALLY ADDRESSED. THIS SPECIFICATION PRESCRIBES MINIMUM SAFEGUARDS FOR CONSTRUCTION TO PROVIDE REASONABLE SAFETY TO LIFE AND PROPERTY FROM FIRE DURING SUCH OPERATIONS.
2. CONSTRUCTION INCLUDES CONSTRUCTION, REMOVALS, REMODELING, ALTERATIONS, REPAIRS OR ADDITIONS TO BUILDING OR STRUCTURE.
3. MAINTENANCE OF SAFE CONDITIONS. REQUIRED SAFETY ELEMENTS SUCH AS EXITS, EXISTING STRUCTURAL MEMBERS, FIRE PROTECTION DEVICES AND SANITARY SAFEGUARDS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT, EXCEPT WHERE THE BUILDING IS NOT OCCUPIED OR WHERE SUCH REQUIRED ELEMENTS ARE BEING ALTERED OR REPAIRED AND ADEQUATE SUBSTITUTE PROVISIONS ARE MADE.
4. MEANS OF EGRESS. AN APPROVED PERMANENT OR TEMPORARY MEANS OF EGRESS SHALL BE MAINTAINED. AN EGRESS COMPONENT SHALL NOT BE DESTROYED UNLESS AND UNTIL A SUBSTITUTE MEANS OF EGRESS HAS BEEN PROVIDED.
5. FIRE SAFETY DURING CONSTRUCTION AND REMOVALS. FIRE SAFETY SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE UNIFORM CODE, INCLUDING EBCNYS CHAPTER 15 AND FCNYS CHAPTER 33.

A) PROVIDE PORTABLE FIRE EXTINGUISHERS FOR PROTECTION DURING CONSTRUCTION AND REMOVALS AT EACH STAIRWAY ON EACH FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED AND IN EVERY STORAGE AND CONSTRUCTION SHED. EXTINGUISHERS SHALL COMPLY WITH FCNYS SECTION 906, SIZED FOR ORDINARY HAZARD UNLESS GREATER HAZARD IS SPECIFIED. ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST, SUCH AS THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

B) ANY BURNING, CUTTING OR WELDING SHALL REQUIRE PERMIT AND APPROVAL. ANY BURNING, CUTTING OR WELDING SHALL REQUIRE PERMIT AND APPROVAL.

C) TEMPORARY ELECTRICAL INSTALLATIONS SHALL COMPLY WITH NFPA 70.
6. MATERIAL HANDLING, EQUIPMENT AND MATERIALS SHALL BE STORED AND PLACED, AND WASTE SHALL BE REMOVED, SO AS NOT TO ENDANGER THE PERSONS OR PROPERTY OR TO IMPEDE A MEANS OF EGRESS. PLACE MATERIAL AND WASTE SO AS NOT TO OBSTRUCT ACCESS TO FIRE HYDRANTS, STANDPIPES, FIRE EXTINGUISHERS, FIRE OR POLICE ALARM BOXES, CATCH BASINS, MANHOLES, RELEVANT UTILITY STRUCTURES, TRAFFIC OR OBSERVATION OF TRAFFIC SIGNALS. COMBUSTIBLE DEBRIS SHALL NOT BE ACCUMULATED ON SITE, AND SHALL BE REMOVED AT THE END OF EACH WORK SHIFT. RUBBISH CONTAINERS WITH A CAPACITY EXCEEDING 5.33 CUBIC FEET (40 GALLONS OR 0.15 CUBIC METERS) SHALL HAVE TIGHT-FITTING OR SELF CLOSING LIDS, AND SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL OR MATERIAL THAT MEETS IFC SECTION 3304.2.3 (2). MATERIAL SUSCEPTIBLE TO SPONTANEOUS IGNITION SHALL BE STORED IN A LISTED DISPOSAL CONTAINER.

GENERAL NOTES

1. WORK LOCATED IN THE BASEMENT MAY BE PERFORMED AT ANY PRE-ARRANGED TIME APPROVED BY DIRECTOR'S REPRESENTATIVE.
2. PRIOR TO STARTING CONTRACT WORK, VERIFY EXISTING CONDITIONS AT JOB SITE THAT EFFECT CONTRACT WORK. THE CONTRACTOR IS FULLY RESPONSIBLE TO REPAIR AT OWN EXPENSE BUILDING SYSTEM COMPONENTS, DAMAGED DURING CONTRACT WORK AT NO COST TO STATE.
3. PRIOR TO DRILLING WALLS AS REQUIRED TO INSTALL ELECTRICAL AND CONTROLS CONDUIT, LOCATE AND MARK EXISTING IN-CONCRETE SLAB ELECTRICAL CONDUIT AND STEEL BARS USING ELECTRONIC DEVICE SUCH AS SCANER. THE CONTRACTOR IS FULLY RESPONSIBLE TO REPAIR AT OWN EXPENSE ELECTRICAL CIRCUIT (CONDUIT AND WIRES) DAMAGED DURING THE CONTRACT WORK AT NO COST TO THE STATE.
4. EXISTING CONDITIONS NOTED ARE AS OF A SITE OBSERVATION. VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK. NOTIFY THE DIRECTOR'S REPRESENTATIVE OF CONDITIONS THAT VARY FROM THE PLANS PRIOR TO BEGINNING WORK. DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL CONDITIONS ARE TO BE COORDINATED AND RESOLVED WITH THE DIRECTOR'S REPRESENTATIVE.
5. KEEP OPEN WALKWAYS FREE OF CONSTRUCTION DEBRIS, TYPICAL.
6. CLEAN-UP THE WORKSITE AT THE END OF EACH DAY TO ENSURE THAT ALL CONSTRUCTION DEBRIS IS PROPERLY DISPOSED OF IN DUMP TRUCKS. FULL DUMP TRUCKS ARE TO BE REMOVED THAT DAY AND DISPOSED OF PROPERLY. COORDINATE WITH DIRECTOR'S REPRESENTATIVE THE LOCATION OF DUMP TRUCKS ONSITE INCLUDING SITE ACCESS REQUIREMENTS.
7. CONSTRUCTION TO COMPLY WITH APPLICABLE BUILDING CODES LISTED ON THIS SHEET, AS WELL AS APPLICABLE LAWS, STATUTES AND LOCAL RULES AND REGULATIONS.
8. COMPLY WITH LAWS, RULES, ORDINANCES AND ORDERS OF PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK.
9. PRIOR TO STARTING WORK, SUBMIT FOR DIRECTOR'S REPRESENTATIVE APPROVAL A DETAILED SCHEDULE INDICATING WORK THAT MIGHT AFFECT THE ADJACENT USE OF THE BUILDING/FACILITY.
10. DO NOT INTERRUPT EXISTING UTILITY SERVICES WITHOUT AUTHORIZATION FROM THE DIRECTOR'S REPRESENTATIVE.
11. STORE MATERIALS IN ENVIRONMENTALLY CONTROLLED BOXES AND AREAS DESIGNATED BY THE DIRECTOR'S REPRESENTATIVE. DELIVERY OF MATERIALS ARE TO BE AS DIRECTED BY THE DIRECTOR'S REPRESENTATIVE.
12. TESTS AND INSPECTIONS REQUIRED BY LOCAL, STATE AND GOVERNING AGENCIES ARE TO BE CONDUCTED AND THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE GOVERNING AGENCY AND THE DIRECTOR'S REPRESENTATIVE A MINIMUM OF 48 HOURS PRIOR TO CONDUCTING THE TEST AND/OR INSPECTION.
13. TEMPORARY INTERRUPTIONS OF THE EXISTING BUILDING CHILLED WATER SYSTEM DURING COOLING SEASON (MAY 1ST -OCTOBER 15TH) SHALL BE SCHEDULED AND PERFORMED DURING THE PREARRANGED WEEKDAY AND WEEKEND SHUT DOWN TIMES OF THE COOK CHILL FOOD PRODUCTION, MONDAY THROUGH THURSDAY FROM 4:30PM TO 5:00AM EACH DAY AND FRIDAY 4:30PM, 24 HOURS PER DAY UNTIL MONDAY AT 5:00AM. INTERRUPTIONS OF THE EXISTING BUILDING CHILLED WATER SYSTEM SHALL BE SCHEDULED AT LEAST 72 HOURS IN ADVANCE WITH THE DIRECTOR'S REPRESENTATIVE.
14. TEMPORARY INTERRUPTIONS OF THE ELECTRICAL SYSTEM SHALL BE SCHEDULED AND PERFORMED DURING THE PREARRANGED WEEKDAY AND WEEKEND SHUT DOWN TIMES OF THE COOK CHILL FOOD PRODUCTION, MONDAY THROUGH THURSDAY FROM 4:30PM TO 5:00AM EACH DAY AND FRIDAY 4:30PM, 24 HOURS PER DAY UNTIL MONDAY AT 5:00AM. INTERRUPTIONS OF THE ELECTRICAL SYSTEM SHALL BE SCHEDULED AT LEAST 72 HOURS IN ADVANCE WITH THE DIRECTOR'S REPRESENTATIVE.

WORK RESTRICTION NOTES

1. FACILITY OPERATION SHALL NOT BE INTERRUPTED, THE FACILITY OPERATES MONDAY THROUGH FRIDAY 5:00AM TO 4:30PM. WORK PERFORMED UNDER THIS PROJECT THAT WILL INTERRUPT THE FACILITY OPERATION SHALL BE PERFORMED DURING THE PREARRANGED WEEKDAY AND WEEKEND SHUT DOWN TIMES OF THE COOK CHILL FOOD PRODUCTION, MONDAY THROUGH THURSDAY FROM 4:30PM TO 5:00AM EACH DAY AND FRIDAY 4:30PM, 24 HOURS PER DAY UNTIL MONDAY AT 5:00AM. WORK PERFORMED DURING THE PREARRANGED SHUT DOWN TIMES OF THE COOK CHILL FOOD PRODUCTION SHALL BE SCHEDULED AT LEAST 72 HOURS IN ADVANCE WITH THE DIRECTOR'S REPRESENTATIVE.
2. THE BUILDING CHILLED WATER SYSTEM SHALL BE OPERATIONAL, DURING THE COOLING SEASON (MAY 1ST - OCTOBER 15TH). THE EXISTING CHILLERS SHALL REMAIN OPERATIONAL AND SHALL NOT BE DISCONNECTED OR REMOVED UNTIL THE REPLACEMENT CHILLERS (INCLUDING VALVING/ACCESSORIES/APURTENANCES/ETC.) ARE DELIVERED ON SITE, READY TO BE INSTALLED. IN THE EVENT THAT CHILLER DELIVERY IS SCHEDULED DURING THE COOLING SEASON, PROVIDE ISOLATION VALVES ON THE EXISTING CHILLED GLYCOL/WATER PIPING OUTSIDE OF THE COOLING SEASON AND REPLACE THE CHILLERS ONE AT A TIME SUCH THAT ONE CHILLER IS ALWAYS OPERATIONAL DURING THE COOLING SEASON.

2020 EXISTING BUILDING CODE OF NEW YORK STATE SUMMARY			
ITEM	CODE SECTION	REQUIRED	PROVIDED
CHAPTER 6 - CLASSIFICATION OF WORK	EBC 301.3.2 & 601.1	CHAPTERS 6 THRU 12	DESIGN IN COMPLIANCE
CHAPTER 8 - ALTERATIONS LEVEL 2	EBC 801	CHAPTER 8	DESIGN IN COMPLIANCE
COMPLIANCE METHOD: WORK AREA COMPLIANCE METHOD			

2020 BUILDING CODE OF NEW YORK STATE SUMMARY			
ITEM	CODE SECTION	REQUIRED	PROVIDED
2020 FIRE CODE OF NEW YORK STATE (FC)			
FIRE APPARATUS ACCESS ROAD	FC503.1	NA	NOT ALTERED
2020 BUILDING CODE OF NEW YORK STATE (BC)			
CONTROL AREAS	BC414.2	NA	NOT ALTERED
GENERAL BUILDING HEIGHTS & AREAS	BC501 / 503, TABLE 506.2	NA	NOT ALTERED
MIXED OCCUPANCIES	BC508.1	NA	NOT ALTERED
EXTERIOR WALL: ALLOWABLE AREA OF OPENING	BC705.8.1	NA	NOT ALTERED
FIRE ALARM & DETECTION SYSTEMS	BC907		
SMOKE CONTROL	BC909	NA	NOT ALTERED
SMOKEPROOF ENCLOSURES	BC909.20	NA	NOT ALTERED
MEANS OF EGRESS	BC1001.1	NA	NOT ALTERED
ACCESSIBILITY	BC1101 EBC301.5 / 305	NA	NOT ALTERED
ENERGY CONSERVATION	BC1301 / ECC EBC707 / 810 / 907	150 TON AIR-COOLED CHILLER REQUIRED TO HAVE MIN. FULL LOAD EFF (FL): 10.1 PART LOAD EFF (IPLV): 14.0	150 TON AIR-COOLED CHILLER FULL LOAD EFF (FL): 10.14 PART LOAD EFF (IPLV): 16.55
STRUCTURAL / CONSTRUCTION DOCUMENTS	BC1603 EBC405 / 706 / 806 / 906	REQUIRED	PROVIDED
FOUNDATIONS	BC1808 / 1809 / 1810	NA	NOT ALTERED
ELECTRICAL	EBC406 / 807	ELECT. EQUIP AND WIRING TO COMPLY WITH NFPA 70	COMPLIES
2020 MECHANICAL CODE OF NEW YORK STATE (MC)			
DUCTS AND AIR TRANSFER OPENINGS	BC717 / 717.5	NA	NOT ALTERED
COMBUSTION AIR	MC701 & FGC304.1	NA	NOT ALTERED
CHIMNEYS, FLUES AND GAS VENTS	MC801.2 & BC2113.1	NA	NOT ALTERED
2020 PLUMBING CODE OF NEW YORK STATE (PC)			
FIXTURE COUNT	BC2902.1 & PC403	NA	NOT ALTERED
AVAILABLE STREET WATER PRESSURE	PC604.6 / 604.7 / 604.8	NA	NOT ALTERED
NYS DOH APPROVALS / WATER SUPPLY	NYCRR TITLE 10, CHAP. 1, PART 5, SUBPART 5.1 "10 STATE" STANDARDS	NA	NOT ALTERED
2020 BUILDING CODE OF NEW YORK STATE (BC)			
ELEVATOR EMERGENCY OPERATION	BC3003.2	NA	NOT ALTERED
IDENTIFICATION AS TRUSS TYPE CONSTRUCTION	19NYCRR, PART 1264	NA	NOT ALTERED
OCCUPANCY CLASSIFICATION: F-1			
CONSTRUCTION CLASSIFICATION: IIB			

CODE COMPLIANCE STATEMENT:

TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS BEARING MY SEAL AND SIGNATURE FOR THE PROJECT COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CODES AND REFERENCED STANDARDS:

THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE (UNIFORM CODE) TO INCLUDE:  
2020 BUILDING CODE OF NEW YORK STATE  
2020 EXISTING BUILDING CODE OF NEW YORK STATE  
2020 FIRE CODE OF NEW YORK STATE  
2020 PLUMBING CODE OF NEW YORK STATE  
2020 MECHANICAL CODE OF NEW YORK STATE  
2020 FUEL GAS CODE OF NEW YORK STATE  
2020 ENERGY CONSERVATION CONSTRUCTION CODE  
2017 NFPA 70 NATIONAL ELECTRICAL CODE  
2016 NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE

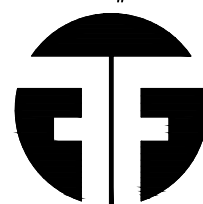
ENERGY CODE COMPLIANCE WRITTEN STATEMENT (2020 ECCCNY'S SECTION C105.2.2):

TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS BEARING MY SEAL AND SIGNATURE FOR THE PROJECT COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE 2020 NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE.



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 AND ELECTRICAL

TITLE:  
REPLACE BUILDING CHILLERS, BUILDING 144

LOCATION:  
COOK CHILL PRODUCTION CENTER  
145 OLD ORANBEBURG ROAD  
ORANBEBURG, NY

CLIENT:  
OFFICE OF  
MENTAL HEALTH


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

CODE SUMMARY AND NOTES

DRAWING NUMBER:

G-002