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INSTRUMENTATION DESCRIPTION TABLE

	FIRST LETTER		SUCCEEDING LETTER		
	MEASURED OR INITIATED VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM	ALARM/AUTOMATIC	
B	BURNER FLAME		USER'S CHOICE	USER'S CHOICE	BY-PASS
C	CONDUCTIVITY			CONTROL	CLOSED
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			FULL
G	GAUGING (DIMENSIONAL)		GLASS, VIEWING DEVICE		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE, HUMIDITY	MOMENTARY			MIDDLE OR INTERMEDIATE
N	CONSISTENCY		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)		OPEN
P	PRESSURE OR VACUUM		POINT (TEST) CONNECTION		
Q	QUALITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		RESET
S	SPEED OR SOLENOID FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY OR VIBRATION			VALVE, DAMPER, OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	USER'S CHOICE			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE, OR UNCLASSIFIED FINAL CONTROL ELEMENT	

CONTROL INSTRUMENTATION LEGEND

SYMBOL	DESCRIPTION
XXX / XXX	INSTRUMENTATION DESCRIPTION (SEE INSTRUMENTATION DESCRIPTION TABLE)
	INSTRUMENT LOOP NUMBER
XXX / XXX	BASIC INSTRUMENTATION SYMBOL LOCAL MOUNTED
XXX / XXX	FRONT PANEL MOUNTED AND/OR DATA COLLECTION SYSTEM (DCS)
	GENERAL EQUIPMENT INTERLOCK
	ELECTRIC TO PNEUMATIC CONVERTER

GENERAL NOTES

1. ALL PIPING, DUCTWORK, EQUIPMENT, AND MATERIALS SHOWN "LIGHT" ARE EXISTING TO REMAIN. ALL PIPING, DUCTWORK, EQUIPMENT, AND MATERIALS SHOWN "HEAVY AND SOLID" ON DEMOLITION DRAWINGS IS EXISTING AND SHALL BE DEMOLISHED. ALL PIPING, DUCTWORK, EQUIPMENT, AND MATERIALS SHOWN "HEAVY AND SOLID" ON NEW WORK DRAWINGS IS NEW AND SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
2. EXISTING CONDITIONS, I.E., PRESENCE AND LOCATION OF DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE OR CORRECT. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.
3. EXISTING DUCT, PIPE, AND EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD.
4. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. DO NOT SCALE THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
5. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURES AND MECHANICAL AND ELECTRICAL SERVICES WHICH WILL REMAIN. REPAIR, REPLACE, OR RESTORE TO THE SATISFACTION OF THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER, ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF THE DEMOLITION AND/OR NEW WORK.
6. ALL EXISTING PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS NOT REQUIRED FOR RE-USE OR RE-INSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND ARE DESIRED BY MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER , OR ARE INDICATED TO REMAIN THE PROPERTY OF MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER SHALL BE DELIVERED BY THE CONTRACTOR WHERE DIRECTED BY THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.
7. EXISTING PIPING NO LONGER REQUIRED TO REMAIN IN SERVICE (SHOWN OR OTHERWISE) SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS UNLESS OTHERWISE INDICATED OR NOTED ON PLANS. REMOVE EXISTING PIPE HANGERS, SUPPORTS, VALVES, ETC. UNDERGROUND PIPING TO BE REMOVED SHALL BE LIMITED TO PIPING IN THE AREAS OCCUPIED BY THE NEW CONSTRUCTION AND 5 FEET BEYOND THE NEW CONSTRUCTION. EXISTING PIPING INDICATED OR REQUIRED TO REMAIN IN SERVICE OR IN PLACE SHALL BE CAPPED, PLUGGED, OF OTHERWISE SEALED. NO EXISTING PIPING SHALL BE LEFT OPEN-ENDED.
8. EXISTING MECHANICAL EQUIPMENT, PIPING, DUCTWORK, AND MATERIALS AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE RE-INSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH THE NEW WORK SPECIFICATIONS. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER AND AT NO ADDITIONAL CONTRACT COST.
9. WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED. ALL PIPES, VALVES, DUCTS, AND MATERIALS SHALL BE REMOVED TO A POINT BELOW THE FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF NEW FINISHED MATERIAL.
10. PATCH TO MATCH EXISTING ALL NEW AND EXISTING OPENINGS AND WALLS, CEILINGS, ROOF, AND FLOOR SURFACES DAMAGED OR CREATED BY DEMOLITION WORK. PATCHING WHERE POSSIBLE SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURE MATERIALS, AND COLOR. ALL PATCHING SHALL BE PERFORMED TO THE SATISFACTION OF THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER AND AT NO ADDITIONAL CONTRACT COST. ALL EXISTING INSULATION DAMAGE BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER.
11. ALL NEW PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH 3 HOUR FIREPROOFING MATERIAL AND PATCHED TO MATCH ADJACENT SURFACES.
12. ALL FLOOR AND WALL PENETRATIONS SHOWN PER NEW WORK DRAWINGS SHALL BE NEW FIRE RATED PENETRATIONS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND MECHANICAL FIRE RATED DETAILS. IN SOME INSTANCES EXISTING PENETRATIONS MAY BE ENLARGED AND REUSED UPON WRITTEN APPROVAL FROM THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER.
13. THE CONTRACTOR SHALL REMOVE ALL ASSOCIATED ACCESSORIES, CONTROLS, ENCLOSURES, SUPPORTS, HANGERS, PADS, ETC. WITH ALL EQUIPMENT SHOWN TO BE DEMOLISHED. CONTRACTOR SHALL REPAIR AND PAINT DAMAGED SURFACES AND ALL SURFACES BEHIND ALL EQUIPMENT SHOWN TO BE DEMOLISHED TO MATCH EXISTING ADJACENT SURFACES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL FLUIDS CONTAINED WITHIN ALL PIPING, EQUIPMENT, AND TANKS. NO FLUIDS SHALL BE ALLOWED TO BE DISCHARGED TO SANITARY OR STORM LINES WITHOUT WRITTEN APPROVAL FROM THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING, HAULING, AND PROPERLY AND LEGALLY DISPOSING OF ALL REMOVED FLUIDS FROM THE SITE.
15. THE CONTRACTOR SHALL PROVIDE LOW POINT DRAINS AS REQUIRED TO COMPLETELY DRAIN ALL NEW WORK SYSTEMS. THE CONTRACTOR SHALL ALSO PROVIDE HIGH POINT MANUAL AIR VENTS IN NEW WORK SYSTEMS.
16. ALL 2" AND SMALLER PIPING TO BE FIELD ROUTED. ROUTE OF PIPE INCLUDING CLEARANCE IS THE RESPONSIBILITY OF THE CONTRACTOR, TO THE SATISFACTION OF THE MALCOM RANDALL VETERANS AFFAIRS MEDICAL CENTER CONSTRUCTION MANAGER.
17. ALL CONTROL VALVES AND IN-LINE INSTRUMENTATION SHALL BE INSTALLED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL FITTINGS REQUIRED FOR INSTRUMENTATION POINTS.
18. ALL PIPING AND VALVES SHALL BE THOROUGHLY FLUSHED CLEAN AND BLOWN OUT WITH WATER, AIR, OR STEAM.
19. UNIONS, BUSHINGS, AND/OR REDUCING INSERTS, ETC., NOT SHOWN ON THE DRAWINGS BUT ARE REQUIRED FOR INSTALLATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
20. BRANCH CONNECTIONS:
    A. BRANCH CONNECTIONS 2" AND SMALLER ON PIPING 2 ½" AND LARGER ARE TO BE MADE USING THREADOLETS OR SOCKOLETS.
    B. HALF COUPLINGS (3000# MINIMUM) MAY BE SUBSTITUTED FOR THE ABOVE WHEN INSTALLED IN THE SHOP.
21. SEISMIC PROVISIONS SHALL BE REQUIRED, REFER TO SPECIFICATIONS.
22. SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE DISCREPANCIES OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS.

FINAL DESIGN
APPROVED FOR CONSTRUCTION

Revisions: | Date

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This item has been electronically signed and sealed by Jack S Neale, PE. On 3/9/2018 using a Digital Signature.
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Drawing Title: MECHANICAL GENERAL NOTES AND INSTRUMENTATION LEGEND

Approved: Project Director

Project Title: REPLACE BOILERS - FCA D, ENERGY AT THE MALCOM RANDALL VAMC

Location: GAINESVILLE, FLORIDA

Date: MARCH 9, 2018 | Checked: JSN | Drawn: RWD

Project Number: 573-14-600

Building Number:

Drawing Number: MP002

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