

KNOX COUNTY COURTHOUSE

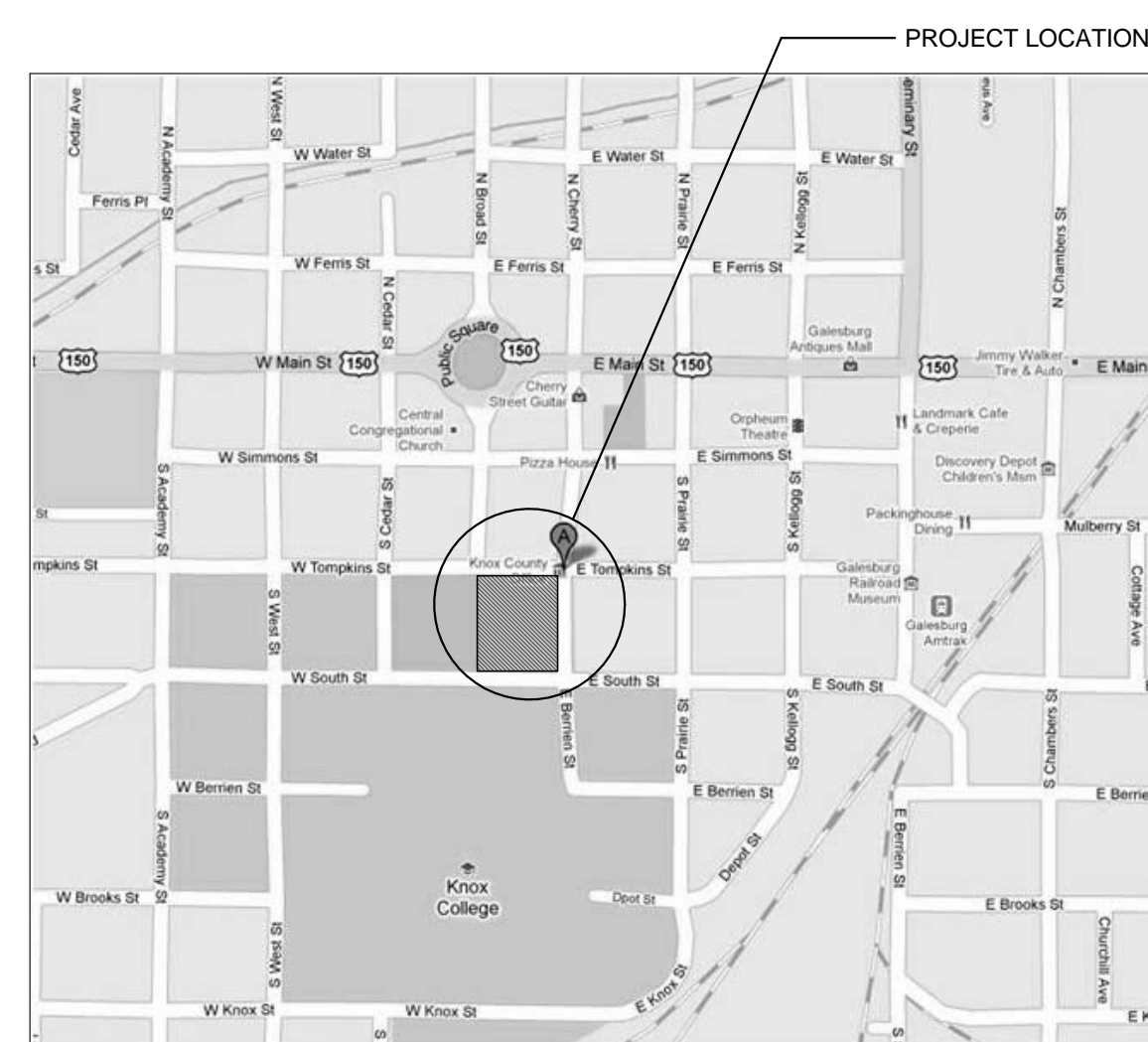
BOILER REPLACEMENT PROJECT

200 SOUTH CHERRY STREET
GALESBURG, ILLINOIS

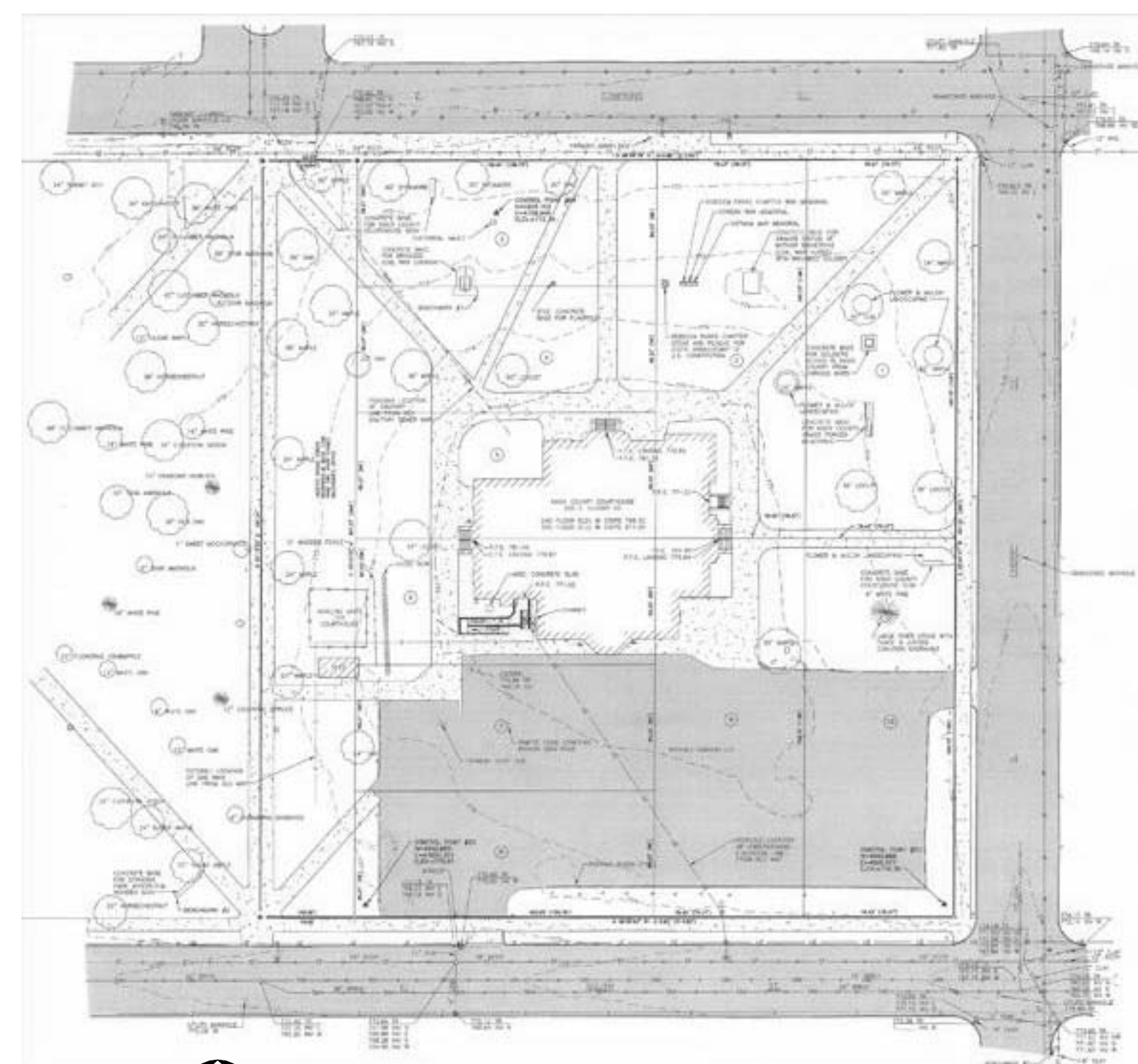
IN ASSOCIATION WITH THE WESTERN ILLINOIS REGIONAL COUNCIL

KNOX COUNTY COURTHOUSE
 BOILER REPLACEMENT PROJECT
 200 SOUTH CHERRY STREET
 GALESBURG, ILLINOIS

LOCATION MAP



VICINITY MAP
N.T.S.



SITE PLAN
1" = 100'-0"

PROJECT DIRECTORY:

ARCHITECT:

DURRANT
510 EAST LOCUST STREET, SUITE 200
DES MOINES, IOWA 50309
VOICE: (515) 309-0945
FAX: (515) 309-0944
CONTACT PERSON: PHIL PARROTT
EMAIL: pparrott@durrant.com

MECHANICAL & ELECTRICAL ENGINEERS:

DURRANT
400 ICE HARBOR DRIVE
DUBUQUE, IA, 52001
VOICE: (563) 583-9131
FAX: (563) 557-9078
CONTACT PERSON: DIETER MUHLACK
EMAIL: dmuhlack@durrant.com

STRUCTURAL ENGINEER:

DURRANT
400 ICE HARBOR DRIVE
DUBUQUE, IA, 52001
VOICE: (563) 583-9131
FAX: (563) 557-9078
CONTACT PERSON: ERIC NEUHARTH
EMAIL: eneuarth@durrant.com

CONSTRUCTION MANAGER:

JOHNSON BUILDING SYSTEMS, INC.
2188 MCMASTERS AVENUE, P.O. BOX 66
GALESBURG, IL, 61401
VOICE: (309) 343-3148
FAX: (309) 343-0451
CONTACT PERSON: STEVE MCKELVIE
EMAIL: steve@johnsonbuilding.biz

ASSOCIATED PARTY:

WESTERN ILLINOIS REGIONAL COUNCIL
223 S. RANDOLPH STREET
MACOMB, IL, 61425
VOICE: (309) 837-3941
FAX: (309) 826-3640
CONTACT PERSON: SHANNON DUNCAN
EMAIL: shannon@wirpc.org

CERTIFICATIONS:

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF ILLINOIS.

MIKE LEWIS REG. NO. 001.021268 Signing Date _____

My license renewal date is November 30, 2012

B-A0.00 THRU B-A1.00

SHEETS COVERED BY THIS SEAL: (B-A - SERIES)

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.

CHARLES R. MARSDEN REG. NO. 062-039067 Signing Date _____

My license renewal date is November 30, 2011

B-HD1.00 THRU B-H1.00

SHEETS COVERED BY THIS SEAL: (B-H - SERIES)

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ILLINOIS.

THOM FLICKINGER REG. NO. 062.051538 Signing Date _____

My license renewal date is November 30, 2011

B-H1.00

SHEETS COVERED BY THIS SEAL: (B-H1.00 - ELECTRICAL PORTIONS)

SHEET INDEX:

GENERAL B-A0.00	BOILER REPLACEMENT - COVER SHEET
ARCHITECTURAL B-A1.00	BOILER REPLACEMENT - BASEMENT LEVEL FLOOR PLAN
HVAC DEMOLITION B-HD1.00	BOILER REPLACEMENT - BASEMENT LEVEL FLOOR PLAN - DEMOLITION
HVAC B-H1.00	BOILER REPLACEMENT - BASEMENT LEVEL FLOOR PLAN - MECHANICAL / ELECTRICAL

JOHNSON
Building Systems, Inc.
Construction Managers



DURRANT

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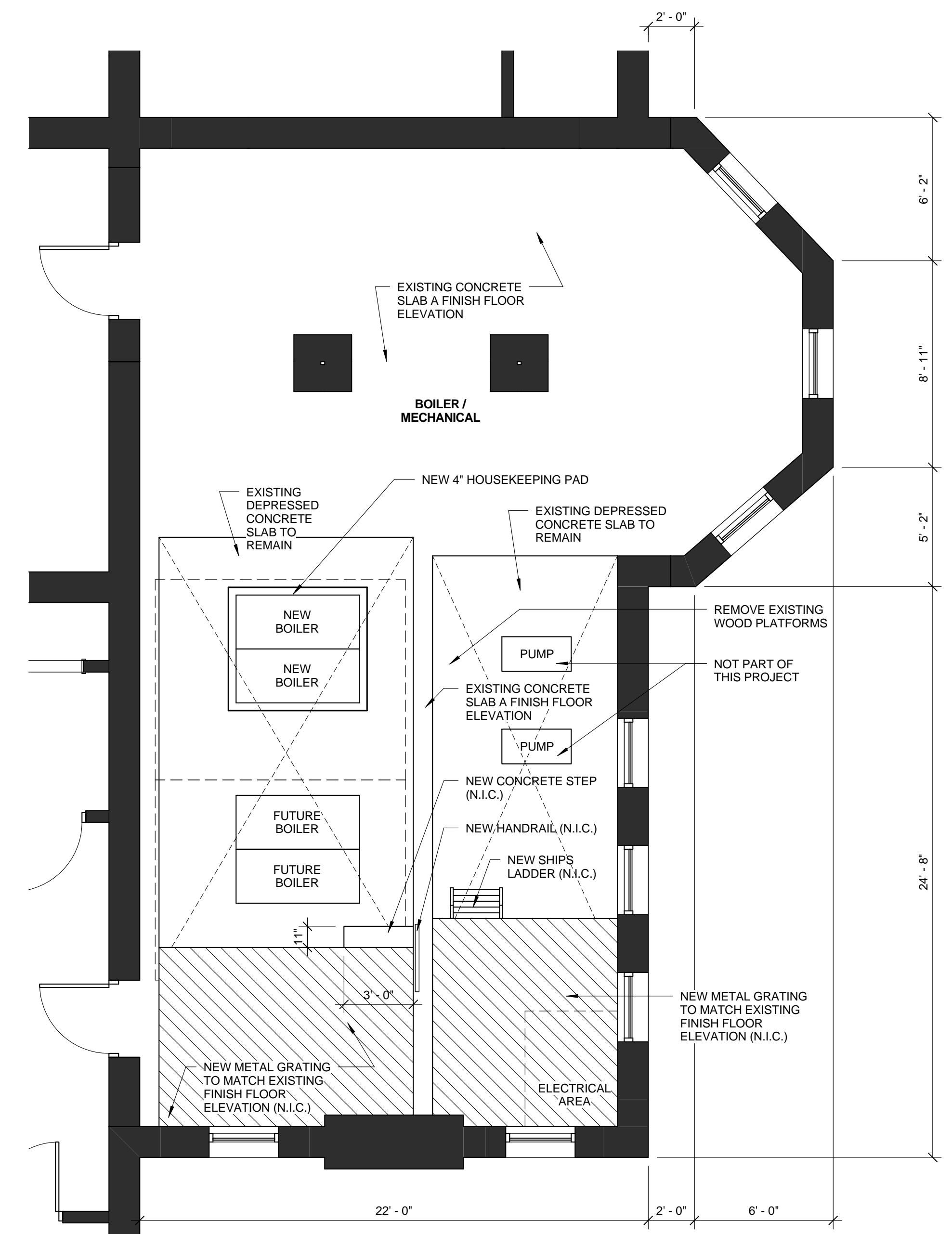
REVISIONS

PROJECT NO. 10063.00
DATE MARCH 25, 2011
DRAWN BY DP / KMH
CHECKED BY PJP

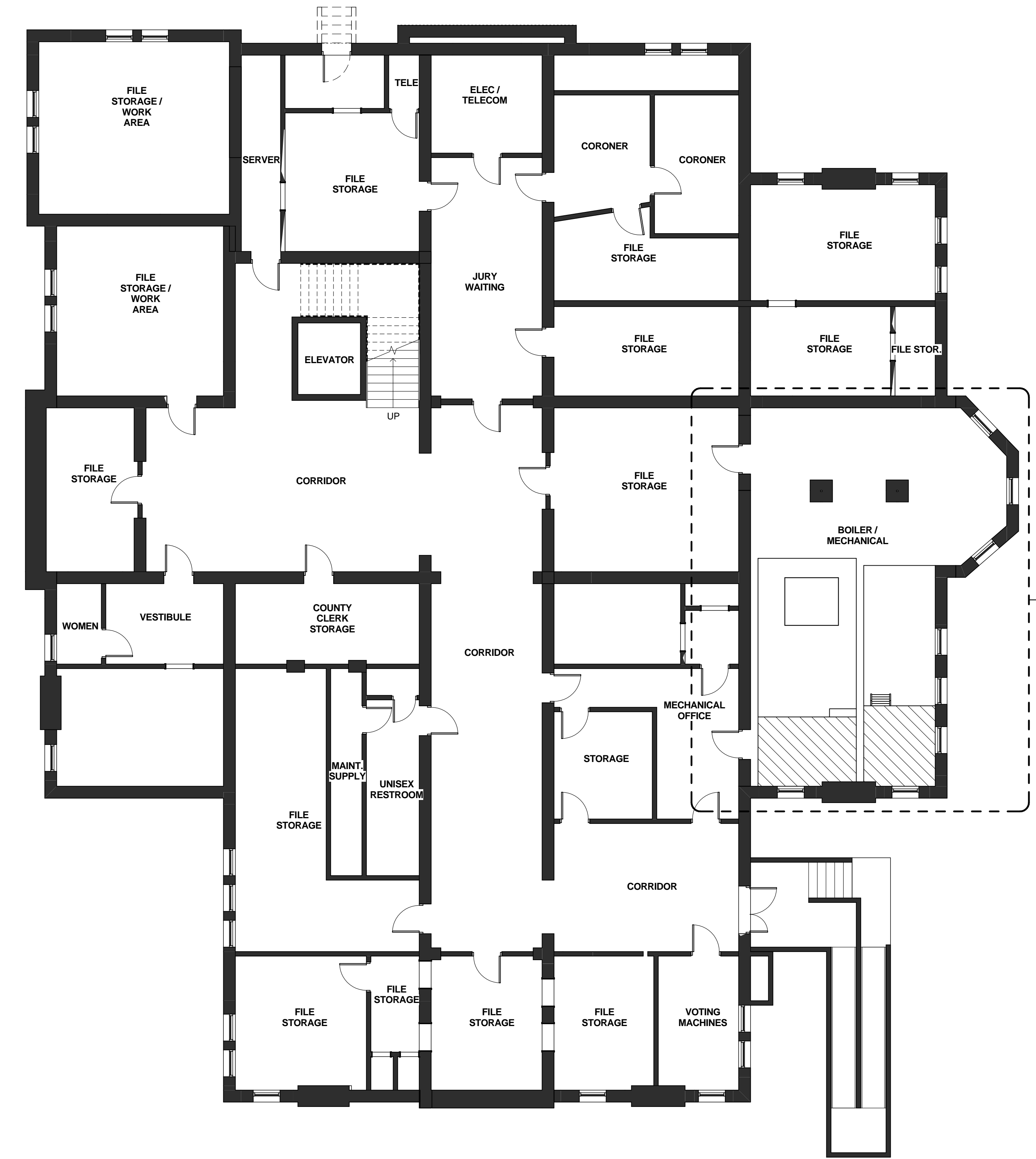
SHEET CONTENTS
BOILER REPLACEMENT -
COVER SHEET

SHEET

B-A0.00



2 ENLARGED PARTIAL BASEMENT LEVEL FLOOR PLAN - BOILER LAYOUT
 1/4" = 1'-0"



1 EXISTING BASEMENT LEVEL FLOOR PLAN
 1/8" = 1'-0"

THIS SHEET FOR REFERENCE AND COORDINATION ONLY.

PUMPS

MANUFACTURER: BELL & GOSSETT

REF NUMBER	MODEL	FLOW (GPM)	PRES. (FT)	IMPELLER SIZE	HP	EFF %	RPM	ELECTRIC V/PH/Hz	SERVICE	REMARKS
BP-1	SERIES 60 2XB-1/4	115	25	6.125	1.5	65	1750	460/3/60	HOT WATER LOOP	PRIMARY CYCLED BY BOILER
BP-2	SERIES 60 2XB-1/4	115	25	6.125	1.5	65	1750	460/3/60	HOT WATER LOOP	PRIMARY CYCLED BY BOILER
BP-3	SERIES 60 2XB-1/4	115	25	6.125	1.5	65	1750	460/3/60	HOT WATER LOOP	FUTURE BOILER PUMP
BP-4	SERIES 60 2XB-1/4	115	25	6.125	1.5	65	1750	460/3/60	HOT WATER LOOP	FUTURE BOILER PUMP

PUMP CONTROLLED BY BOILER.

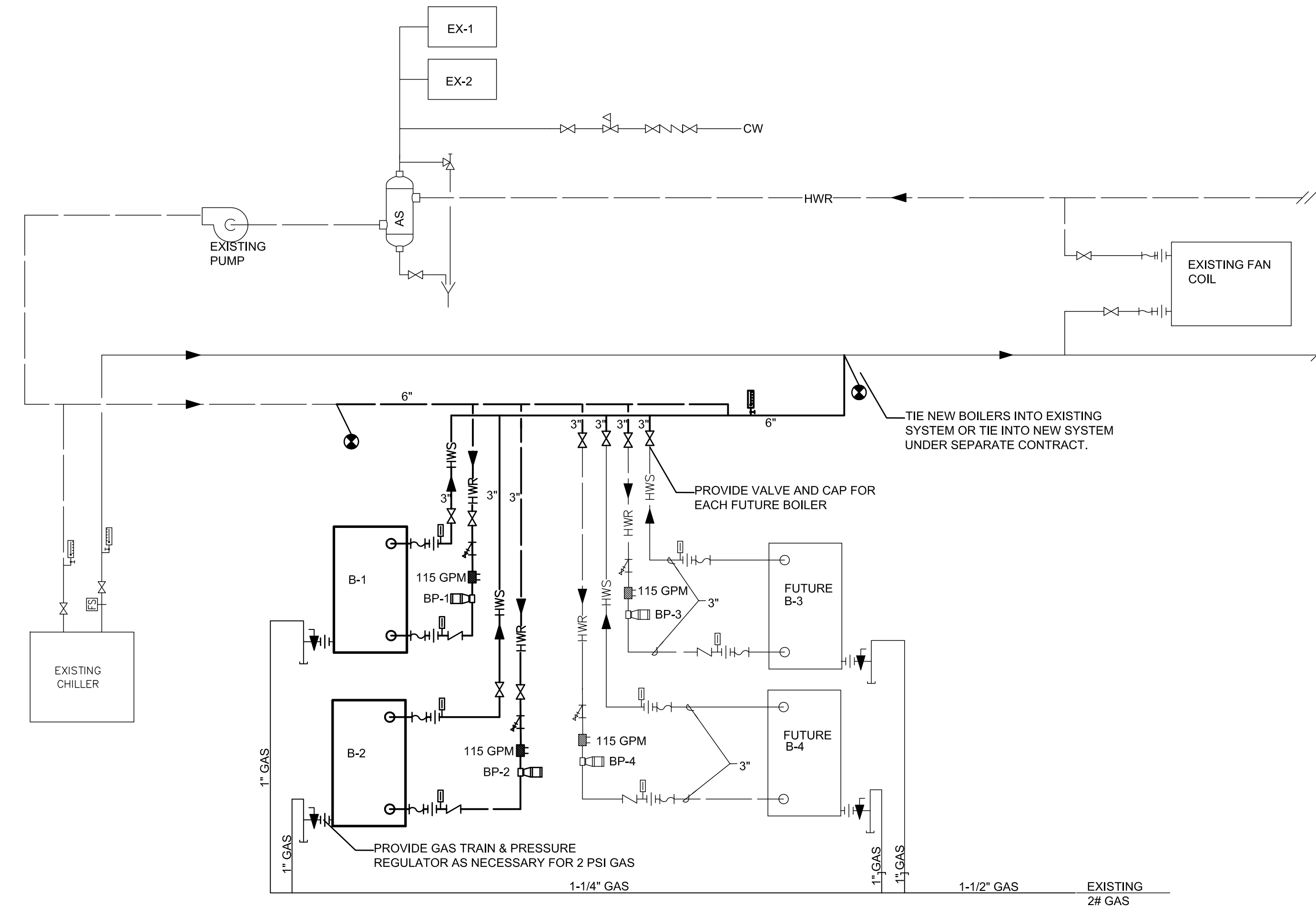
BOILERS

MANUFACTURER: AERCO

REF NUMBER	MODEL	INPUT (MBH)	OUTPUT (MBH)	INPUT WATER TEMP	OUTPUT WATER TEMP	FLOW (GPM)	PD AT 130 GPM (PSIG)	MIN GAS PRES. (IN WC)	ELECTRIC V/PH/Hz	ELECTRIC FLA	WEIGHT (LB)	REMARKS
B-1	BMK-1.5 LN	1500	1425	35	60	115	4.0	4.2	120/1/60	13	1757	
B-2	BMK-1.5 LN	1500	1425	35	60	115	4.0	4.2	120/1/60	13	1757	
B-3	BMK-1.5 LN	1500	1425	35	60	115	4.0	4.2	120/1/60	13	1757	FUTURE BOILER
B-4	BMK-1.5 LN	1500	1425	35	60	115	4.0	4.2	120/1/60	13	1757	FUTURE BOILER

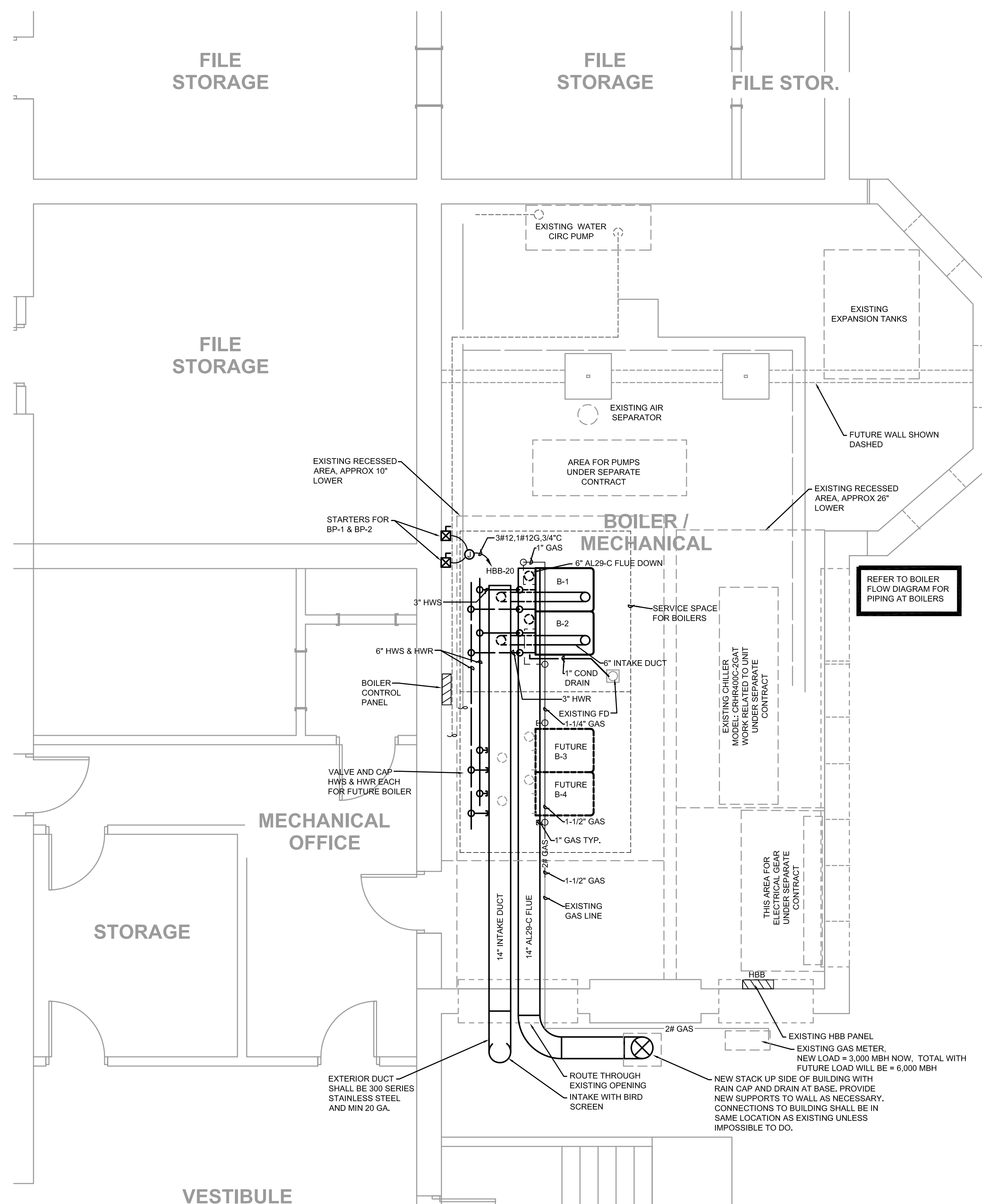
NOTES:

PROVIDE GAS PRESSURE REGULATORS INCOMING PRESSURE IS 2 PSI. CONTRACTOR TO VERIFY.
 BOILER SHALL CONTROL START/STOP OF ITS ASSOCIATED PUMP. PROVIDE NECESSARY CONTROL WIRING.
 BOILER TEMPERATURES ARE SCHEDULED FOR FUTURE DESIGN. WHEN OPERATING WITH EXISTING SYSTEM WATER TEMPERATURE ENTERING WILL BE 160 DEGREES.
 BOILER MUST BE CAPABLE OF HAVING AN ENTERING WATER TEMPERATURE OF 35 DEGREES.
 BOILER SHALL BE CAPABLE OF 20 TO 1 MODULATION.
 PROVIDE BOILER CONTROL SYSTEM CAPABLE OF OPERATING 4 BOILERS.



BOILER SYSTEM FLOW DIAGRAM

NO SCALE



ELECTRICAL NOTES:

- CONNECT STARTERS TO BOILER PUMPS LOCATED BEHIND EACH BOILER.
- CONNECT EACH BOILER TO NEAREST 120V 20A BREAKER IN BASEMENT. PROVIDE NEW BREAKER IF NO SPARES EXIST.
- PROVIDE 1/2" CONDUIT FROM BOILER TO STARTERS FOR PUMP CONTROL.
- CONNECT BOILER CONTROL PANEL TO NEAREST 120V 20A BREAKER AND PROVIDE CONDUIT TO BOILERS FOR CONTROL WIRING.
- IF PANELS DO NOT HAVE SPARE BREAKERS PROVIDE NEW. FIELD VERIFY.

HVAC NOTES:

- LOCATE BOILERS TO MEET MANUFACTURER REQUIREMENTS FOR CLEARANCES.
- INSTALL INLINE PUMPS IN RETURN PIPING TO BOILER AND WIRE BOILERS TO START PUMPS.
- REFER TO FLOW DIAGRAM FOR VALVING, THERMOMETERS, ETC.
- ROUTE 1" CONDENSATE DRAINS FROM BOILERS TO EXISTING FLOOR DRAIN. PROVIDE SLOPED STEEL COVER OVER DRAIN IN WALKING PATH.
- INSTALL 4" HOUSE KEEPING PAD FOR BOILERS THAT IS 4" LARGER ON ALL SIDES THAN BOILERS.
- FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
- COORDINATE WORK OF THIS PROJECT WITH WORK ON OTHERS UNDER SEPARATE CONTRACTS.

REFER TO SPECIFICATIONS FOR ALLOWABLE WORKING HOURS AND NOISE CONSTRAINTS.



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 CONSULTANT

REVISIONS

PROJECT NO. 10063.00
 DATE MARCH 25, 2011
 DRAWN BY RPO
 CHECKED BY DM

SHEET CONTENTS
 BASEMENT LEVEL FLOOR PLAN - MECHANICAL/ELECTRICAL

SHEET

B-H1.00

