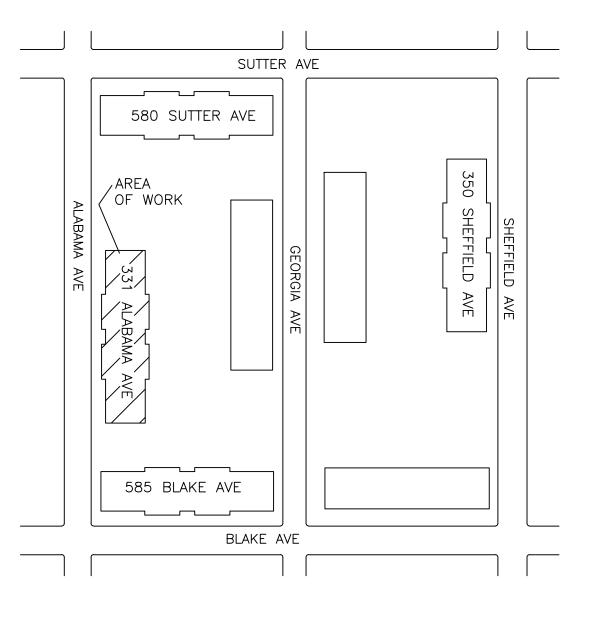
# REMEEDER HOUSE 331 ALABAMA AVE COGENERATION SYSTEM

# DRAWING INDEX: SHEET NO. TITLE OF DRAWING

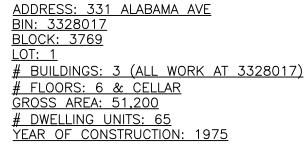
- T-101.00 TITLE SHEET, GENERAL NOTES & MECHANICAL SYMBOL LIST
- G-101.00 ENERGY ANALYSIS
- MECHANICAL/HVAC SCHEDULES & FLOW DIAGRAM M - 101.00M - 201.00CELLAR MECHANICAL PLAN M - 301.00MECHANICAL/HVAC DETAILS
- PLUMBING/GAS PIPING PLAN P-101.00 PLUMBING DETAIL & GAS RISER DIAGRAM P - 201.00

E-101.00	ELECTRICAL	CELLAR	PLAN
E-102.00	ELECTRICAL	CELLAR	PLAN
E-201.00	ELECTRICAL	DETAILS	



# REVIEWER NOTE:

THE SCOPE OF WORK FOR THIS PROJECT INCLUDES THE INSTALLATION OF ONE (1) 35KW MODULAR COGENERATION MODULES TO GENERATE HEAT AND ELECTRICITY FOR REMEEDER HOUSE, 331 ALABAMA AVE, NEW YORK, NEW YORK, 11207



# NOIE:

- DRAWINGS ARE TO BE READ, NOT SCALED. ALL WORK SHALL CONFORM TO THE 2014 NEW YORK CITY BUILDING CODE. TO THE BEST OF OUR KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, SUCH PLANS AND
- SPECIFICATIONS ARE IN CONFORMANCE WITH THE 2014 NYC ENERGY CONSERVATION CONSTRUCTION CODE. PIPING HAVE BEEN SPECIFIED TO BE INSULATED WITH R-3 INSULATION, DOMESTIC HOT WATER STORAGE TANKS HAVE R-13 INSULATION AND COGENERATION
- MODULE MEETS EFFICIENCY REQUIREMENTS. SEE ENERGY ANALYSIS ON SHEET G-1. ALL CONDITIONS ARE EXISTING EXCEPT AS NOTED. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION
- SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED EITHER APPROVED OR IN ACCORDANCE WITH APPLICABLE CODE. NO CHANGE IN USE, EGRESS OR OCCUPANCY.

SPECIAL/PROGRESS INSPECTION THE FOLLOWING ITEMS OF WORK SHALL BE SUBJEC INSPECTION, MADE AND WITNESSED BY OR UNDER 1 ARCHITECT OR ENGINEER RETAINED BY THE CONTRAC PERFORM SUCH INSPECTIONS. A TEST REPORT AND FILED WITH THE BUILDING DEPARTMENT. MECHANICAL SYSTEMS \_

HEATING SYSTEMS FIRESTOP, DRAFTSTOP & FIREBLOCK \_

\_

(BLOCK 3769, LOT 1)

# GENERAL NOTES:

- CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION, AND REPORT TO ENGINEER ALL ERRORS, DISCREPANCIES, OMISSIONS, DEFECTS, OR UNUSUAL WORK CONDITIONS BEFORE COMMENCING CONSTRUCTION
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE RULES AND REGULATIONS OF ALL GOVERNING AGENCIES INCLUDING BUT NOT LIMITED TO THE CODES AND REGULATIONS AS SET FORTH BY THE CITY OF NEW YORK AND STATE OF NEW YORK.
- 3. CONTRACTOR TO SECURE ALL NECESSARY PERMITS REQUIRED FOR THE STIPULATED WORK PRIOR TO COMMENCING WITH CONSTRUCTION OR DEMOLITION.
- 4. ALL ASBESTOS REMOVAL, PLUMBING, ELECTRICAL, WELDING WORK, ETC. TO BE PERFORMED BY LICENSED CONTRACTORS SUBCONTRACTED BY AEGIS ENERGY SERVICES.
- ALL CONTRACTORS, WORKMEN, AND AGENTS WORKING AT OR VISITING THE SITE SHALL BE COVERED BY ALL NECESSARY STATUTORY INSURANCE INCLUDING LIABILITY, WORKMEN'S COMPENSATION, DISABILITY, ETC.
- 6. ALL WORK SHALL BE PERFORMED IN A NEAT, CLEAN, ORDERLY MANNER AND THE SITE KEPT CLEAN FROM DUST AND DEBRIS AT ALL TIMES.
- 7. CONTRACTORS TO PROVIDE ALL NECESSARY TEMPORARY LIGHTING, POWER, WATER, WATERPROOFING, ETC. NEEDED TO ENSURE PROJECT SAFETY AT ALL TIMES.
- CONTRACTORS TO PROVIDE ALL NECESSARY SHORING, BRIDGING, BARRICADES, SIGNS, ETC. NEEDED TO ENSURE PROJECT SAFETY AT ALL TIMES.
- 9. ALL WORK, INCLUDING TESTING AND TEMPORARY SHUT DOWN OF SERVICES IS TO BE COORDINATED WITH OWNER'S SCHEDULE FOR DELIVERIES, WORKDAYS, TIMES, ETC.
- 10. ALL NEW WORK TO BE THOROUGHLY TIED AND BONDED TO EXISTING WORK ALL PATCHING AND JOINING SHALL BE NEAT, CLEAN, AND SQUARE, MATCHING ADJACENT SURFACES IN FINISH AND 11.
- TEXTURE. 12. ALL FIRE RETARDANT MATERIALS SHALL BEAR STAMPS, SEALS, AND/OR PERMANENT LABELS AS REQUIRED. AFFIDAVITS
- SHALL BE PROVIDED WHEN REQUESTED. 13. ALL WORK TO BE PLUMB, LEVEL, AND TO THE BEST OF WORKMANSHIP
- 14. CONTRACTOR TO FULLY COORDINATE HIS WORK AND EFFORTS WITH OTHER TRADES TO ENSURE A NEAT, PROPER, DIMENSIONALLY ACCURATE JOB IN ALL RESPECTS TO RELATED WORK.
- 15. THE JOB SHALL BE ADEQUATELY STAFFED AT ALL TIMES TO ENSURE CONTINUITY AND PROGRESS, WITH ALL PHASES/SEGMENTS OF WORK PROPERLY COORDINATED.
- 16. ALL DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REMOVED AND REPLACED, INCLUDING ANY SURROUNDING AFFECTED AREAS, AT NO ADDITIONAL COST TO THE OWNER.
- 17. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND SAMPLES FOR ENGINEER'S APPROVAL WHERE REQUIRED BY DOCUMENTS PRIOR TO PROCEEDING WITH WORK
- ALL WORK, UNLESS OTHERWISE SPECIFIED, TO BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM FINAL 18. ACCEPTANCE.
- 19. ANY MATERIAL COMPOSITION WHICH IS QUESTIONABLE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE DETERMINATION OF THE ACCEPTABILITY OF ALL MATERIALS SHALL BE AT THE SOLE DISCRETION OF THE ENGINEER.
- 20. ANY CONFLICT BETWEEN THE SPECIFICATIONS AND DRAWINGS IS TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO WORK.
- 21. ALL PIPES TO BE INSULATED WITH 1" HEAVY DENSITY FIBERGLASS INSULATION WITH ALL SURFACE JACKET.
- 22. ALL PIPING TO BE HARD COPPER "L" GRADE UNLESS OTHERWISE SPECIFIED.

# TENANT PROTECTION PLAN:

- 1. THE BUILDING CONTAINS SPACES WHICH WILL BE OCCUPIED DURING CONSTRUCTION.
- EGRESS: DURING THE COURSE OF CONSTRUCTION EGRESS FROM ALL FLOORS SHALL BE MAINTAINED AT ALL TIMES.
- FIRE SAFETY: ALL REQUIRED PRECAUTIONS WILL BE TAKEN TO PROVIDE FIRE SAFETY DURING CONSTRUCTION. .3 HEALTH REQUIREMENTS: DUST SHALL BE KEPT AT A MINIMUM AND SHALL BE REMOVED AT THE END OF EACH 4 WORKING DAY. CONSTRUCTION DEBRIS SHALL BE DISPOSED IN A SAFE MANNER. CONSTRUCTION NOISE WILL BE
- CEASED AFTER NORMAL WORKING HOURS. NOISE SHALL BE LIMITED TO ACCEPTABLE LIMITS. SANITARY FACILITIES SHALL BE PROVIDED AT ALL TIMES. PEST CONTROL SHALL BE PROVIDED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY WITH APPLICABLE LAWS RELATING TO LEAD AND ASBESTOS. IN CASE LEAD OR ASBESTOS ARE FOUND THE OWNER OR ENGINEER SHALL BE INFORMED IMMEDIATELY.
- ELECTRICAL, GAS OR OTHER UTILITIES SHALL NOT BE INTERRUPTED DURING CONSTRUCTION. CONTRACTOR OR OWNER SHALL NOTIFY THE TENANT IN WRITING BEFORE ANY INTERRUPTION OF SERVICES IS PERFORMED.
- 7. BUILDING SECURITY SHALL BE MAINTAINED TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE BUILDING.
- FLOORS SHALL NOT BE OVERLOADED BEYOND PERMISSIBLE LIMITS.
- NO STRUCTURAL WORK SHALL BE PERFORMED WHICH MAY ENDANGER THE OCCUPANTS. 9
- CONSTRUCTION OPERATION SHALL BE CONFINED TO NORMAL WORKING HOURS: 8:00 A.M. THROUGH 5:00 P.M. MONDAY 10. THROUGH FRIDAY, EXCEPT LEGAL HOLIDAYS, UNLESS AUTHORIZED IN WRITING BY OWNERS.

ON REQUIREMENTS:	SPECIAL INSPECTIONS/PROGRESS (TR-1)		ENE	RGY CODE COMPLIANCE INSPECTIONS (TR-8)
CT TO SPECIAL AND/OR PROGRESS THE DIRECT SUPERVISION OF AN ACTOR WHO SHALL BE QUALIFIED TO	,	BC 1704.16		HVAC & SERVICE WATER HEATING EQUIPMENT
ID CERTIFICATE OF INSPECTION SHALL BE	HEATING SYSTEMS	BC 1704.25	$\square$	HVAC & SERVICE WATER HEATING CONTROLS
BC 1704.16	FIRE-RESISTANT PENETRATIONS AND JOINTS	BC 1704.27	$\checkmark$	DUCT PLENUM AND PIPING INSULATION & SEALING
BC 1704.25 BC 1704.27	ENERGY CODE COMPLIANCE INSPECTION	BC 110.3.5	$\checkmark$	MAINTENANCE INFORMATION
		·		

		NO.	DATE	REVISION DESCRIPTION
			AREA OF WORK	GEORGIA AVE
			TRUE	- LOCATION MAP
	NICAL SYMBOLS LIST:		S ENERGY	SERVICES, INC
	METER CIRCULATION PUMP TEMPERATURE SENSOR	HOL` TEL.: FAX:	JACKSON S YOKE, MA 413-536 413-536 N: KEVIN M	01040 1156 1104
Г б	BALL VALVE BUTTERFLY VALVE	AL		WINGS ARE TO
ļ	UNION	BI	e read	NOT SCALED.
Г Ф	THERMOMETER PRESSURE RELIEF VALVE	IT IS		OF THE LAW FOR ANY PERSON, DER THE DIRECTION OF A
	AQUASTAT	LICEN WAY.	SED ENGINEER	R/ARCHITECT, TO ALTER IN ANY THESE DRAWINGS. IF AN ITEM OF AN ENGINEER/ARCHITECT LTERING ENGINEER/ARCHITECT
MAVA	STRAINER – Y TYPE MANUAL AIR VENT	IS AL SHALI NOTA SIGNA	iered, the a _ affix to th fion "altered ture and th	LTERING ENGINEER/ARCHITECT HIS ITEM THEIR SEAL AND THE BY", FOLLOWED BY HIS/HER E DATE OF SUCH ALTERATION, ICIFIC DESCRIPTION OF THE
- <del>~</del>	FLOW DIRECTION	ALTER	G WITH A SPE RATION ON TH RIETARY STATE	E DRAWING.
B	COGEN TEMPERATURE SENSOR	THE F INTEN AS A	PLANS AND SF DED FOR THE RESULT OF (	PECIFICATIONS HEREIN ARE SUBJECT PROJECT ONLY AND CONTRACTUAL NEGOTIATIONS
	GATE VALVE CHECK VALVE	BETWI AND COPY	EEN BECKER SPECIFICATION RIGHT PETITIOI	ENGINEERING, PC, THESE PLANS S WILL BE THE SUBJECT OF A N AND MAY NOT BE REVISED OR
	FLOW CHECK	REUS AUTH	ED BY ANYON ORITY OF BEC	E WITHOUT THE WRITTEN KER ENGINEERING, PC.
	FAN/COIL UNIT		RED BY:	
	HEAT EXCHANGER	77 LYN PHI FAX	7 SUNRISE NBROOK, N ONE: (51 K: (516) 82	6) 561-5922 23-0219 EMAIL:
	3–WAY VALVE A: NORMALLY CLOSED B: NORMALLY OPEN		PPORT@BEF 3: WWW.BEF	
N.O.	AB: MIXED WATER			
N.O. N.C. C.W.	NORMALLY OPEN/ON NORMALLY CLOSED/OFF CLOSED WINTER	Ľ	٦Ľ	ビ
C.S.	CLOSED SUMMER POINT OF CONNECTION TO EXISTING			
-	- COLD WATER (DOMESTIC)	PROJE		
—CWF—	- COLD WATER FILL - BUILDING HEAT SUPPLY		REME	EDER HOUSE
	– BUILDING HEAT RETURN – BUILDING DHW RETURN			ATION PROJECT LABAMA AVE
	- BUILDING DHW CIRCULATION	DRAWI	BROOKL	YN, NY 11207
	- COGEN PROCESS LOOP PIPING - COGEN DHW SUPPLY			EET, GENERAL
	- GLYCOL SUPPLY			: MÉCHANICAL
	– GLYCOL RETURN – COGEN EXHAUST PIPE		SYM	BOL LIST
—G——	– COGEN GAS LINE	DESIGN DRN E		SP         DATE:         08/30/16           SP         DATE:         08/30/16
		CKD E FINAL	Y: CKD BY:	. DATE: . . DATE: .
		SCALE: DWG N		DATE: PAGE 1 OF 10
33 34			T—	101.00
35		PROJEC		)-338
D1		B-SCAI	_	リー ここの

							1
	INSPECTION/T	EST SCHEDULE		FREQUENCY (MINIMUM)	REFERENCE STANDARD ( CHAPTER 6)		NYCECC OR OTHER CITATION
IIB3	HVAC, SERVICE WATER HEATING PERFORMANCE: EQUIPMENT S PERFORMANCE FACTORS OF A DETERMINED BY THE APPLICANT 15% OF MINOR EQUIPMENT UNI INSPECTION AND, WHERE NECES DATA. POOL HEATERS AND COVE INSP	SIZING, EFFICIENCIES AN ALL MAJOR EQUIPMENT OF RECORD, AND NO TS, SHALL BE VERIFIED SSARY, REVIEW OF MAN	ND OTHER UNITS, AS LESS THAN D BY VISUAL JUFACTURE'S	PRIOR TO FINAL PLUMBING AND CONSTRUCTION I	AFTER INSTALLATION AND PRIOR TO CEILINGS AND WAL		C403.1, C404.2, C404.7
IIB4	VISUAL INSPECTION AND TESTED	LESS THAN 20% OF EA NOMIZERS SHALL BE N	ERVICE HOT SE ACH TYPE OF /ERIFIED BY	AFTER INSTALLATION AND PRIOR TO FINAL ELECT CONSTRUCTION INSPECTION, EXCEPT THAT FOR CON ASONALLY DEPENDENT FUNCTIONALITY, SUCH TEST APPROVED CONSTRUCTION DOCUMENTS, INCLUDING SYSTEM NARRATIVES; ASHRAE GUIDELINE 1: TH COMMISSIONING PROCESS WHERE APPLICABLE ( C403.2.5.1, C403.2.11, C403.2, C403.3.3, C403. C404.7 PERFORMED BEFORE SIGNOFF FOR ISSUR, FINAL CERTIFICATE OF OCCUPANCY	TROLS WITH NG SHALL BE CONTROL E HVAC 403.2.4, 5, C404.6,	RAE GUIDELINE 1:	C403.2.4, C403.2.5.1, C403.2.11, C403.2, C403.3.3, C403.3, C404. C404.7
IIB5	TRANSVERSE SEAMS AND CONN	LY INSPECTED TO VERIF ALUES. JOINS, LONGITU	FY PROPER JDINAL AND K SHALL BE	PERFORMED BEFORE SIGN OFF FOR ISSUANCE CERTIFICATE OF OCCUPANCY	OF FINAL APPROVED CONSTRUCTION DOCUME CONSTRUCTION STANDARDS. METAL 181A OR UL 181	AND FLEXIBLE: UL	C403.2.7, C403.2.8, C404.5
		ENERGY	ANALYSIS	FOR ALTERATION – 2014 NYCECC equipment	– CHAPTER C4, CLIMATE ZONE	4	
		ITEM TAG		COGENERATI	N MODULE		
	1	NYCECC CITATION		C404.3	C404.5		
		PROVISION		TEMPERATURE CONTROLS	PIPE INSULATION		
	-	TEM DESCRIPTION		TEMPERATURE CONTROLS	PIPE INSULATION		
	P	ROPOSED DESIGN VALUE	MIXE	D WATER TEMPERATURE SET FOR 110°F	2" INSULATION SHALL BE USED ON ALL HOT PIPING	WATER SERVICE	
	C	CODE PRECRIPTIVE VALUE	CONTROL	S SHALL ALLOW 110°F SET POINT FOR ALL	CONDUCTIVITY FOR INSULATION SHALL NOT BTU/INCH/HXFT^2XF	EXCEED 0.27	
		SUPPORTING DOCUMENTATION	SEE	PLUMBING DRAWINGS FOR REFERENCE	SEE PLUMBING DRAWINGS FOR REFER	RENCE	

ON/TEST SCHEDUL	E	FREQUENCY (MINIMUM)		REFERENCE STANDARD (SEE NYCECC CHAPTER 6)	NYCECC OR OTHER CITATION			
EATING AND POOL EQUIPMEN MENT SIZING, EFFICIENCIES S OF ALL MAJOR EQUIPMEN PLICANT OF RECORD, AND N INT UNITS, SHALL BE VERIFI INCOVERS SHALL BE VERIFI INSPECTION.	AND OTHER T UNITS, AS IO LESS THAN ED BY VISUAL ANUFACTURE'S	PRIOR TO FINAL PLUMBING AND CONSTRUCTION INS	PECTION	AFTER INSTALLATION AND PRIOR TO CLOSING SHAFTS CEILINGS AND WALLS	C403.1, C404.2, C404.7			
S AND ECONOMIZERS AND S S: NO LESS THAN 20% OF ND ECONOMIZERS SHALL BE TESTED FOR FUNCTIONALITY OPERATION	EACH TYPE OF VERIFIED BY	AFTER INSTALLATION AND PRIOR TO FINAL ELECTRIC CONSTRUCTION INSPECTION, EXCEPT THAT FOR CONT SEASONALLY DEPENDENT FUNCTIONALITY, SUCH TESTING APPROVED CONSTRUCTION DOCUMENTS, INCLUDING SYSTEM NARRATIVES; ASHRAE GUIDELINE 1: THE COMMISSIONING PROCESS WHERE APPLICABLE C40 C403.2.5.1, C403.2.11, C403.2, C403.3.3, C403.3, C404.7 PERFORMED BEFORE SIGNOFF FOR ISSURAN FINAL CERTIFICATE OF OCCUPANCY	ROLS WITH G SHALL BE CONTROL HVAC D3.2.4, C404.6,	APPROVED CONSTRUCTION DOCUMENTS INCLUDING CONTROL SYSTEM NARRATIVES ASHRAE GUIDELINE 1: THE HVAC COMMISSIONING PROCESS WHERE APPLICABLE	C403.2.4, C403.2.5.1, C403.2.11, C403.2, C403.3.3, C403.3, C404.6, C404.7			
VISUALLY INSPECTED TO VEF AND VALUES. JOINS, LONGI D CONNECTIONS IN DUCTWOI	EALING: INSTALLED DUCTS AND PIPING SUALLY INSPECTED TO VERIFY PROPER ND VALUES. JOINS, LONGITUDINAL AND CONNECTIONS IN DUCTWORK SHALL BE ECTED FOR PROPER SEALING.			APPROVED CONSTRUCTION DOCUMENTS: SMACNA DUCT CONSTRUCTION STANDARDS. METAL AND FLEXIBLE: UL 181A OR UL 181B	C403.2.7, C403.2.8, C404.5			
ENERGY	ANALYSIS	FOR ALTERATION – 2014 NYCECC Equipment	CHAP	TER C4, CLIMATE ZONE 4				
ITEM TAG		COGENERATION	MODULE					
NYCECC CITATION		C404.3		C404.5				
PROVISION		TEMPERATURE CONTROLS		PIPE INSULATION				
ITEM DESCRIPTION	ITEM DESCRIPTION TEMPERATURE CONTROLS			PIPE INSULATION				
PROPOSED DESIGN VALUE	IGN MIXED WATER TEMPERATURE SET FOR 110°F 2'		2" INSULA	TION SHALL BE USED ON ALL HOT WATER SERVICE PIPING				
CODE PRECRIPTIVE VALUE	CONTROLS SHALL ALLOW 110°E SET POINT FOR ALL		CONDUC	TIVITY FOR INSULATION SHALL NOT EXCEED 0.27 BTU/INCH/HXFT^2XF				
SUPPORTING DOCUMENTATION				SEE PLUMBING DRAWINGS FOR REFERENCE				
L	L							

					То	tal: 365	133	451,180	)\$5′	1,747 \$	48,41	2 \$	100,159		То	tal:	365		153	700,840 \$	68,665 \$	75,2	201 \$		143,860
		Fuell	Jsage W	ithout A	EGIS	AEGIS 3	85 kW Co	gen Plan	t Hours	Fuel Us	sage W/	AEGIS	N	/itho	ut AEGIS C	ost	s			Wit	h AEGIS Co	osts			
		Total	DHW	Sp. Ht.	Displ.	Cogen	Cogen	Cogen	Total	Suppl.	Cogen	Total	N-Grio	l k	Direct Energy			Ν	l-Grid	Direct Energy	N-Grid	N-(	Grid		
		Gas	Gas	Gas	Heat	Run	#1 Daily	Dump	Cogen	Gas	Gas	Gas	T3 Ga	s	Boiler Gas	•	Total	T	3 Gas	Boiler Gas	4-A Cogen	4-A (	Cogen	•	Total
Date	Days	Therms	Therms	Therms	Therms	Hours	Hours	Hours	Hours	Therms	Therms	Therms	Delive	ry	Supply	CI	harges	De	elivery	Supply	Gas Deliver	Gas	Supply	C	harges
1/5/15														-											
2/4/15	30	7,848	1,234	6,614	827	448	24	236	684	6,680	2,386	9,066	\$2,	130	\$ 4,264	\$	6,394	\$	1,831	\$ 3,629	\$ 653	\$	730	\$	6,84
3/7/15	31	7,219	1,275	5,943	854	463	24	244	707	6,011	2,466	8,477	\$ 1,9	973	\$ 3,922	\$	5,894	\$	1,664	\$ 3,266	\$ 674	\$	714	\$	6,31
4/5/15	29	5,917	1,193	4,725	799	433	24	229	661	4,788	2,307	7,095			\$ 3,215	\$	4,846	\$	1,343	\$ 2,601	\$ 631	\$	550	\$	5,12
5/5/15	30	3,015	1,234	1,781	827	448	24	236	684	1,847	2,386	4,233	,		\$ 1,638	\$	2,531	\$	594		\$ 653	\$	584	\$	2,83
6/4/15	30	1,782	1,234	548	827	448	24	236	684	614	2,386	3,000		577	•	\$	1,545	\$	248	· ·			434	· ·	1,66
7/6/15	32	1,481	1,316	165	882	477	24	252	730	235	2,545	2,780		508		\$	1,313	\$	124	· · · · · · · · · · · · · · · · · · ·	· ·	; \$	523		1,47
8/5/15	30	1,260	1,260	_	844	457	24	227	684	69	2,386	2,455	\$	444	\$ 685	\$	1,128	\$	65	\$ 37	\$ 653	\$	466	\$	1,22
9/4/15	30	1,202	1,202	-	805	437	24	247	684	62	2,386	2,448	\$	429		\$	1,082	\$	63	\$ 34			495	\$	1,24
0/5/15	31	1,281	1,281	-	858	465	24	242	707	69	2,466	2,534		453		\$	1,149	\$	67		\$ 674	-	555	\$	1,33
1/6/15	32	2,339	1,316	1,022	882	477	24	252	730	1,093	2,545	3,638	\$	728	\$ 1,271	\$	1,998	\$	409	\$ 594	\$ 696	5 \$	603	<u> </u>	2,30
2/6/15	30	2,851	1,234	1,617	827	448	24	236	684	1,683	2,386	4,069			\$ 1,549	\$	2,400	\$	552		\$ 653		629	<u> </u>	2,74
1/5/16	30	3,841	1,234	2,607	827	448	24	236	684	2,672	2,386	5,059			\$ 2,087	\$	3,191	\$	805		\$ 653	-	715		3,62
		,	,	,						, ,			,		,										,
Total:	365	40,036	15,014	25,022	10,059	5,446	II	2,876	8,322	25,823	29,032	54,855	<b>\$</b> 11, <sup>-</sup>	720	\$ 21,751	\$	33,471	\$	7,763	\$ 14,029	\$ 7,939	\$	6,998	\$	36,73

El	ectric	Usage ar	nd Costs	With	AEGIS	35k\	W Cogen	ΡΙ	lant	Elec	tric U	sage and
		kW		Со	nEd SC8		ESCO		Total Electric	Date	Days	kW Demand
Date	Days	Demand	kWh	D	elivery	;	Supply		Charges	12/22/2014	Days	
2/22/2014										1/21/2015	30	153
1/21/2015	30	133	55,120	\$	6,059	\$	5,914	\$	11,973		30	133
2/20/2015	30	127	51,920	\$	5,144	\$	5,571	\$	10,715	2/20/2015		
3/22/2015	30	97	37,320	\$	4,360	\$	4,004	\$	8,365	3/22/2015	30	117
4/22/2015	31	59	18,996	\$	2,374	\$	2,038	\$	4,412	4/22/2015	31	79
5/21/2015	29	68	22,324	\$	2,487	\$	2,395	\$	4,882	5/21/2015	29	88
6/22/2015	32	102	28,792	\$	4,277	\$	3,089	\$	7,366	6/22/2015	32	122
7/22/2015	30	131	53,720	\$	6,047	\$	5,764	\$	11,811	7/22/2015	30	151
8/22/2015	31	128	54,236	\$	6,166	\$	5,820	\$	11,985	8/22/2015	31	148
9/23/2015	32	118	50,632	\$	5,857	\$	5,433	\$	11,290	9/23/2015	32	138
0/22/2015	29	69	22,804	\$	2,572	\$	2,447	\$	5,019	10/22/2015	29	89
11/22/2015	31	61	20,036	\$	2,401	\$	2,150	\$	4,551	11/22/2015	31	81
12/22/2015	30	93	35,280	\$	4,004	\$	3,786	\$	7,790	12/22/2015	30	113
2,22,2010			00,200	<b>↓</b>	1,001	<b>•</b>	0,100	Ŷ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Total:	365	133	451,180	\$	51,747	\$	48,412	\$	100,159	Total:	365	153

	Remeed 331 Alab Brooklyn	ama A	ve							
Ene	rgy Expense			EGIS						
ESCO Ele N-Grid T-3	C8 Electric Deliv ectric Supply 3 Boiler Gas Del ergy Boiler Gas	livery	\$ \$ \$ \$	68,665 75,201 11,720 21,751 177,337	_					
Unit TypeCP35D# Of Units1										
Er	iergy Expen	ses Wi	ith AEC	SIS						
ESCO Ele N-Grid T-3 Direct Ene N-Grid 4-/ N-Grid 4-/ Gross Sa	C8 Electric Deliv ectric Supply 3 Boiler Gas Del ergy Boiler Gas A Cogen Gas De A Cogen Gas Su vings aintenance	livery Supply elivery	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	51,747 48,412 7,763 14,029 7,939 6,998 136,889 40,448 (6,242	_					
	avings:		\$	34,206	<u>)                                    </u>					
Costs Wi	thout AEGIS	6 35 kV	V Coge	en Plant To						
kWh	ConEd SC8 Delivery		CO oply	Elec						
75,640 72,440 57,840 40,200 42,160 50,680	\$ 7,588 \$ 6,439 \$ 5,933 \$ 3,848 \$ 3,718 \$ 5,722	\$ \$ \$ \$ \$ \$	8,116 7,773 6,206 4,313 4,524 5,438	\$ \$ \$ \$ \$	15,704 14,212 12,140 8,162 8,242 11,160					
74 240	\$ 7/12	\$	7 966	\$	15 378					

7,966 \$

8,095 \$

7,781 \$

4,575 \$

4,425 \$

5,987 \$

7,412 \$

7,594 \$

7,343 \$

3,775 \$

3,801 \$

15,378

15,688

15,125

8,350

8,226

11,479

74,240 \$

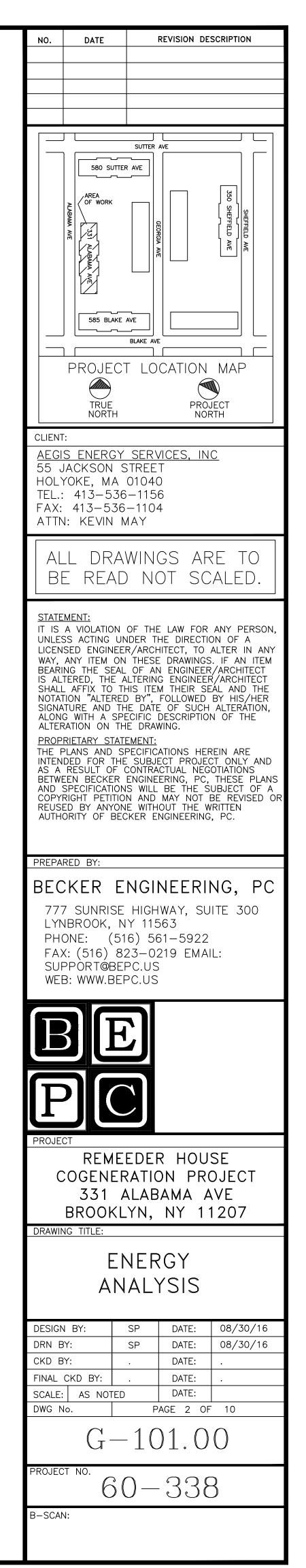
75,440 \$

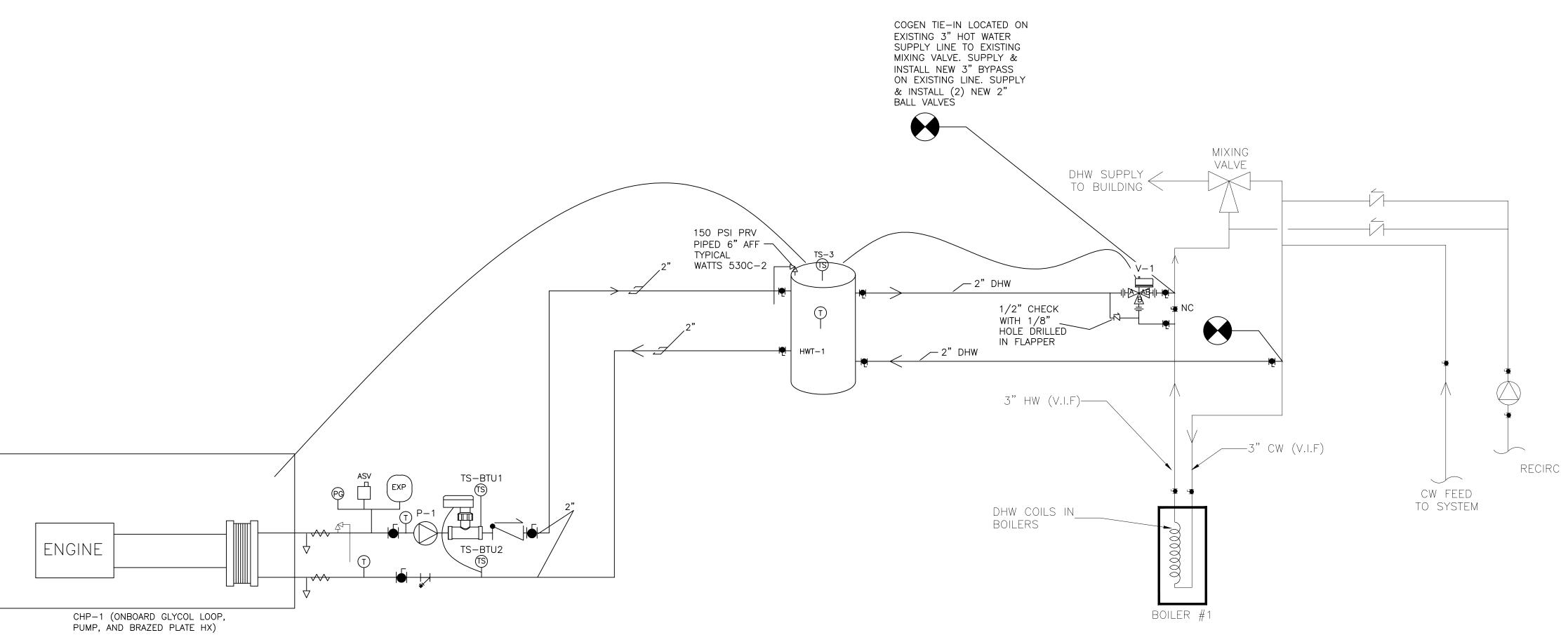
72,520 \$

42,640 \$

41,240 \$

55,800 \$ 5,491 \$





DHW STORAGE TAN	NK SCHEDULE HWT
MANUFACTURER	AO SMITH
WEIGHT	~800 LBS
CAPACITY	120 GAL
ORIENTATION	VERTICAL
LINING	GLASS
DIAMETER	28"
HEIGHT	62"
MODEL	TJV-120M
MANWAY	N/A
MAX PRESSURE	160 PSI
PRESSURE RELIEF VALVE	WATTS530C-2 SET AT 1

	PUMP SCHEDULE							
PUMP NC	). SERVICE	FL	ow	HEAD	PUMP H	.P. PHASE	PUMP MODEL	
P-1	COGEN LOOP	40	GPM	17 FT	1/2 H	P 1 PH	GRUNDFOS UPS 43-100	SF
CON	TROL VALVE SCHEDULE							
VALVE NO.	SERVICE	FLOW TYPE	SIZE	VOLT	TAGE V	ALVE MODEL		ACTUATOR
V-1	BUILDING DHW LOOP	NORMALLY B	2"	24	v B	ARBER COLMA	N VA2313-526-9-67	MA40-7043 ON/OFF

COGENERATION MECHANICAL FLOW DIAGRAM (M - 101)/ \_\_\_\_\_

1

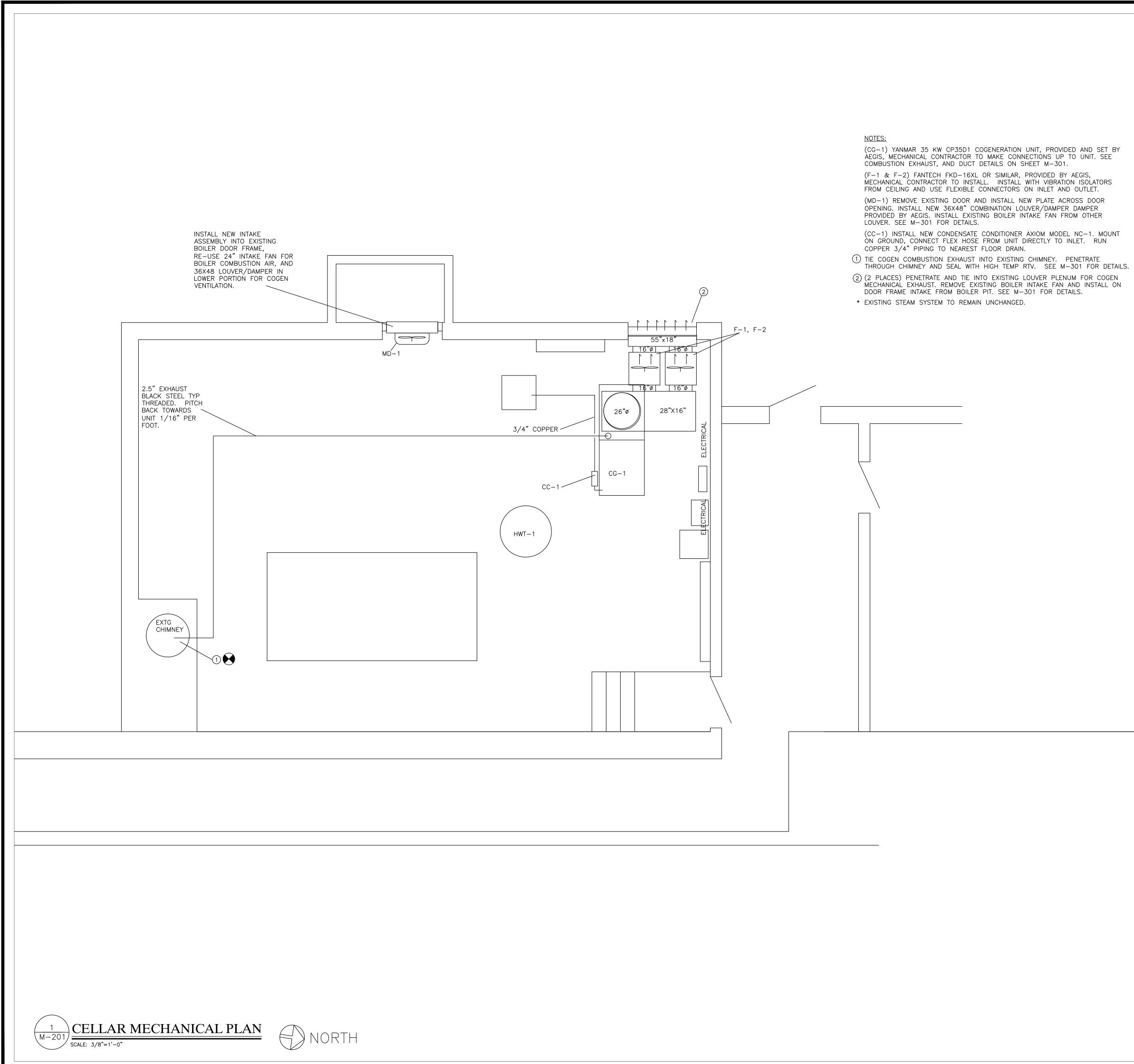
SCALE: NTS

′T—1	COGENERATION SC	HEDULE CHP-1
	DESIGN MANUFACTURER	YANMAR
	FUEL	NATURAL GAS
	FUEL INPUT	408 CFH
	THERMAL OUTPUT	202,000 BTU/H
	ELECTRICAL OUTPUT	35 KW, 208V
	POWER GENERATOR	DG GENERATOR – INVERTER
	ACOUSTIC LEVEL	64 dB (A)
	VIBRATION ISOLATION	YES
	CONTROLS	MICROPROCESSOR BASED
	UNIT WEIGHT	3,374 LBS
	MODEL	CP35D1
	NOMINAL INLET TEMP	167 F
150 PSI	NOMINAL OUTLET TEMP	176 F
	NOMINAL WATER FLOW RATE	39.6 GPM

TEMPER	RATURE SENSOR SCHEDULE		
TS NO.	SERVICE	SENSOR MODEL NO.	WELL TYPE
TS-BTU1	COGEN SUPPLY	MAMAC TE-703-C-5A	AT-225
TS-BTU2	COGEN LOOP LEAVING H.X1	MAMAC TE-703-C-5A	AT-225
TS-3	TANK TEMPERATURE	MAMAC TE-703-C-5A	AT-225

- NOTES:
  1. ALL PIPE TO BE COPPER "L" UNLESS OTHERWISE NOTED
  2. COGEN HEAT DISSIPATION LOOP TO BE 40% PROP. GLYCOL. ALL FILLING OF GLYCOL LOOP BY AEGIS.
  3. CONTRACTOR SHALL PROTECT FROM HARM AND MAINTAIN ALL EXISTING EQUIPMENT, PLANT, FACILITY, ETC. TO REMAIN.

NO.	DATE	REVISION DESCRIPTION						
	AREA OF WORK	SHEFFIELD AVE						
PROJECT LOCATION MAP								
CLIENT: <u>AEGIS ENERGY SERVICES, INC</u> 55 JACKSON STREET HOLYOKE, MA 01040 TEL.: 413–536–1156 FAX: 413–536–1104 ATTN: KEVIN MAY								
		WINGS ARE TO NOT SCALED.						
STATEMENT: IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER/ARCHITECT, TO ALTER IN ANY WAY, ANY ITEM ON THESE DRAWINGS. IF AN ITEM BEARING THE SEAL OF AN ENGINEER/ARCHITECT IS ALTERED, THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX TO THIS ITEM THEIR SEAL AND THE NOTATION "ALTERED BY", FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, ALONG WITH A SPECIFIC DESCRIPTION OF THE ALTERATION ON THE DRAWING. <u>PROPRIETARY STATEMENT:</u> THE PLANS AND SPECIFICATIONS HEREIN ARE INTENDED FOR THE SUBJECT PROJECT ONLY AND AS A RESULT OF CONTRACTUAL NEGOTIATIONS BETWEEN BECKER ENGINEERING, PC, THESE PLANS AND SPECIFICATIONS WILL BE THE SUBJECT OF A COPYRIGHT PETITION AND MAY NOT BE REVISED OR REUSED BY ANYONE WITHOUT THE WRITTEN AUTHORITY OF BECKER ENGINEERING, PC.								
BEC 777 LYN PHO FAX SUF	7 SUNRISE IBROOK, N DNE: (51	6) 561-5922 23-0219 EMAIL: PC.US						
F								
_	REME Cogener 331 /	EDER HOUSE RATION PROJECT ALABAMA AVE .YN, NY 11207						
	HEDU: D	NICAL/HVAC LES & FLOW IAGRAM						
DRN B CKD B FINAL	Y: Y: CKD BY: AS NOTED	SP         DATE:         08/30/16           .         DATE:         .           .         DATE:         .						
PROJEC	T NO.	-101.00						
B-SCAN	6(	338 )-338						



(CG-1) YANMAR 35 KW CP35D1 COGENERATION UNIT, PROVIDED AND SET BY AEGIS, MECHANICAL CONTRACTOR TO MAKE CONNECTIONS UP TO UNIT. SEE COMBUSTION EXHAUST, AND DUCT DETAILS ON SHEET M-301. (F-1 & F-2) FANTECH FKD-16XL OR SIMILAR, PROVIDED BY AEGIS, MECHANICAL CONTRACTOR TO INSTALL. INSTALL WITH VIBRATION ISOLATORS FROM CEILING AND USE FLEXIBLE CONNECTORS ON INLET AND OUTLET. (MD-1) REMOVE EXISTING DOOR AND INSTALL NEW PLATE ACROSS DOOR

PROVIDED BY AEGIS. INSTALL EXISTING BOILER INTAKÉ FAN FROM OTHER

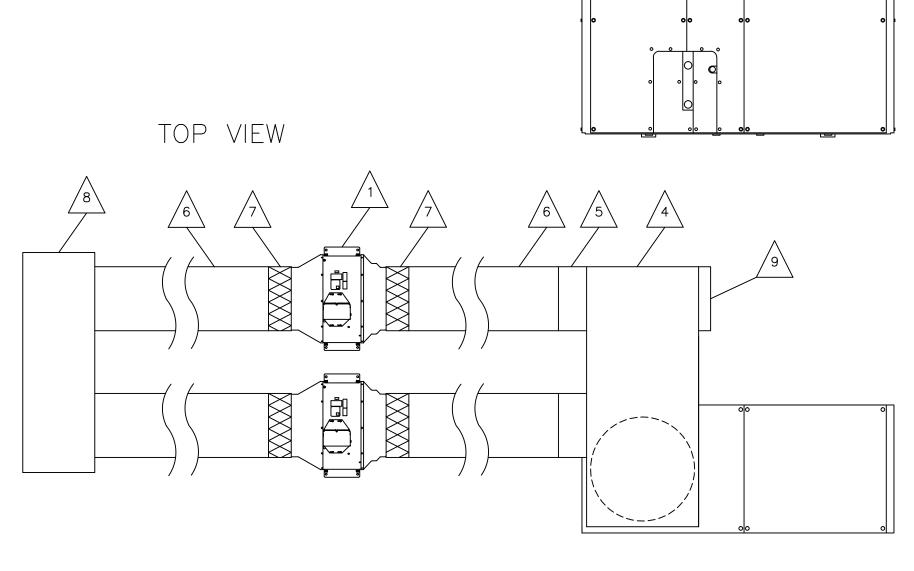
	AREA OF WORK	SUTTER AVE
	PROJEC	AVE BLAKE AVE T LOCATION MAP
	TRUE	PROJECT NORTH
55 HOL TEL. FAX		01040 6–1156 6–1104
		WINGS ARE TO ) NOT SCALED.
	EMENT:	
UNLE LICEN WAY, BEAR IS AL SHAL NOTA SIGN/ ALON ALTEI PROF THE INTEN AS A BETW AND COPY REUS	SS ACTING UN ISED ENGINEE ANY ITEM ON ING THE SEAL TERED, THE A L AFFIX TO T TION "ALTEREN ATURE AND TH G WITH A SP RATION ON TH PLANS AND S IDED FOR THE RESULT OF EEN BECKER SPECIFICATION RIGHT PETITIC ED BY ANYON	
BE( 77 LYI PH FA SU	7 SUNRISE NBROOK, N ONE: (51	16) 561-5922 23-0219 EMAIL: PC.US
	3] [E 7] [C	
	REME Cogener 331 /	EDER HOUSE RATION PROJECT ALABAMA AVE LYN, NY 11207
CE	ELLAR	MECHANICAL PLAN
	BY: BY: CKD BY:	SP         DATE:         08/30/16           SP         DATE:         08/30/16           .         DATE:         .           .         DATE:         .           .         DATE:         .
SCALE DWG 1	No.	DATE: PAGE 4 OF 10 -201.00
PROJE	ст NO. 6 (	85E-C

# <u>NOTES:</u>

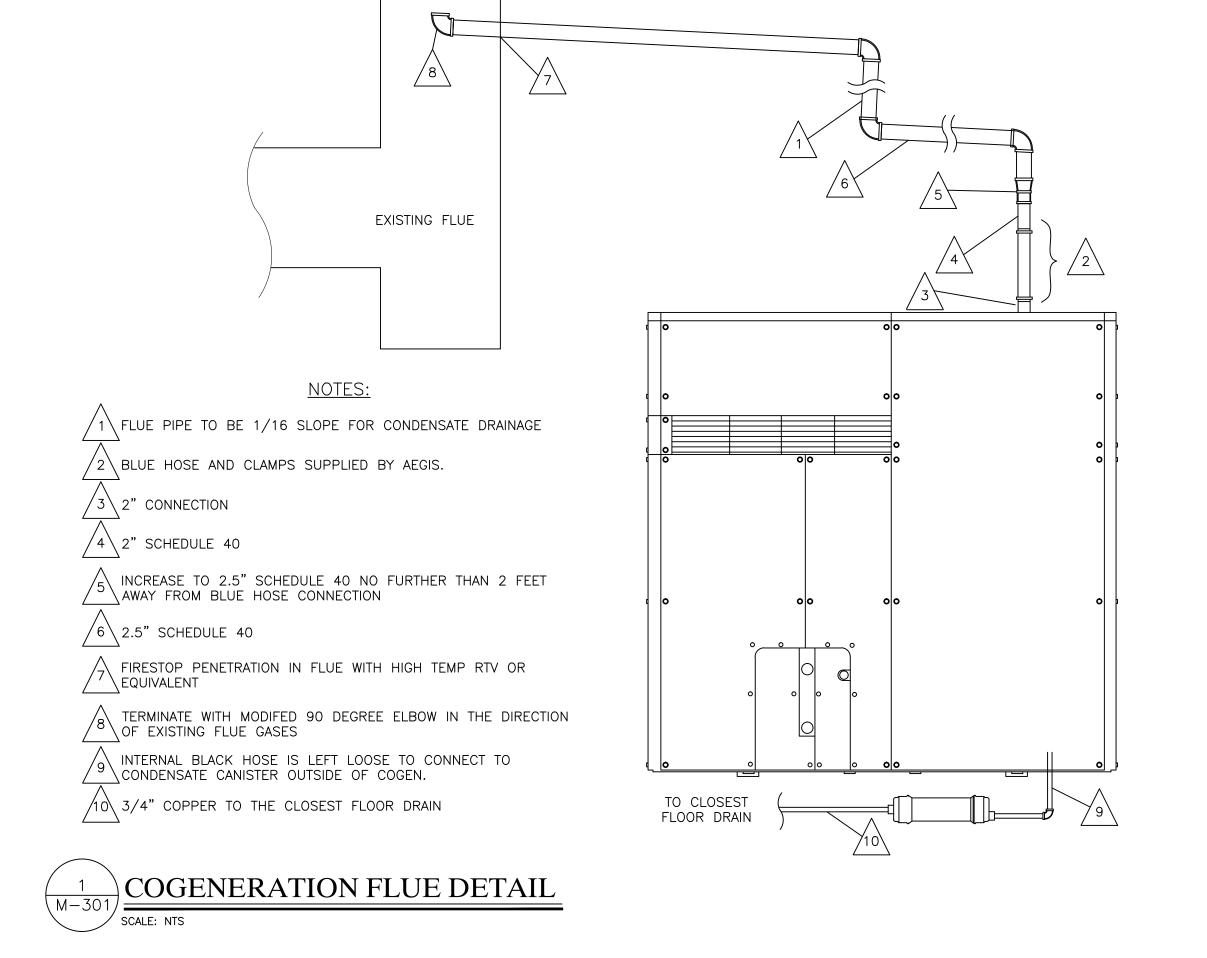
- 1 FANTECH 16XL FAN SUPPLIED BY AEGIS, INSTALLED BY DUCT WORK CONTRACTOR. 16" CONNECTIONS
- 2 VIBRATION HANGARS SUPPLIED & INSTALLED BY DUCTWORK CONTRACTOR.
- /3 26" ROUND CONNECTION
- /4 X"L X 28"W X 16"H. \*\*X DIMENSION TO BE DETERMINED IN FIELD
- /5 16" ROUND CONNECTION
- /6 16" ROUND DUCT
- $7 \setminus 16$ " FLEX CONNECTION TO FANTECH 16XL FAN
- /8∖55"L X 12"W X 18"H
- 9 16" RETURN GRILLE SUPPLIED & INSTALLED BY DUCTWORK
- \*\*\* ALL DUCTWORK IS TO BE 26 GAUGE SHEET METAL

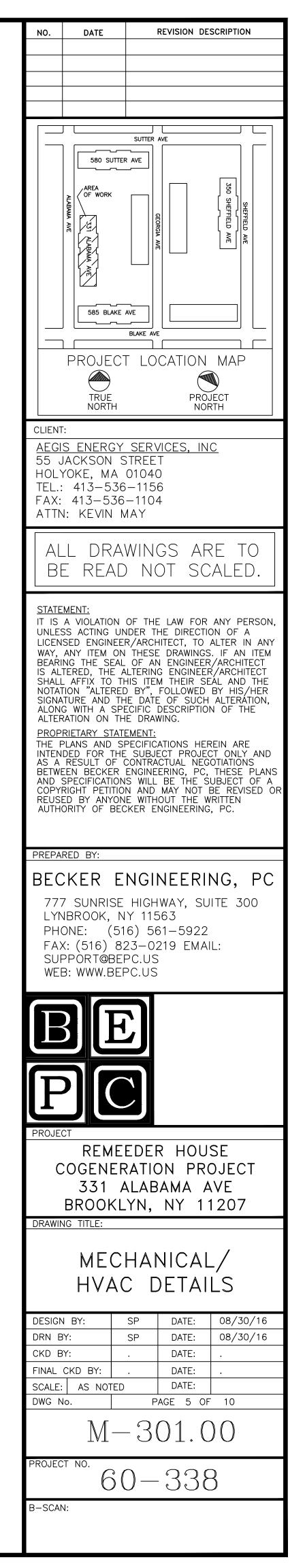


COGENERATION DUCT DETAIL



SIDE VIEW YANMAR 35KW COGEN





# NOTES:

GM-UTIL

M

M

M

M

(CG-1) PROVIDED AND SET BY AEGIS, PLUMBER TO MAKE CONNECTIONS UP TO UNIT. INSTALL FLEX CONNECTORS SUPPLIED BY AEGIS AT UNIT CONNECTIONS INSTALL PIPING TRAIN PER DETAILS ON P-201 IN CEILING. INSTALL GAS UNION AND SHUTOFF VALVE ON UNIT.

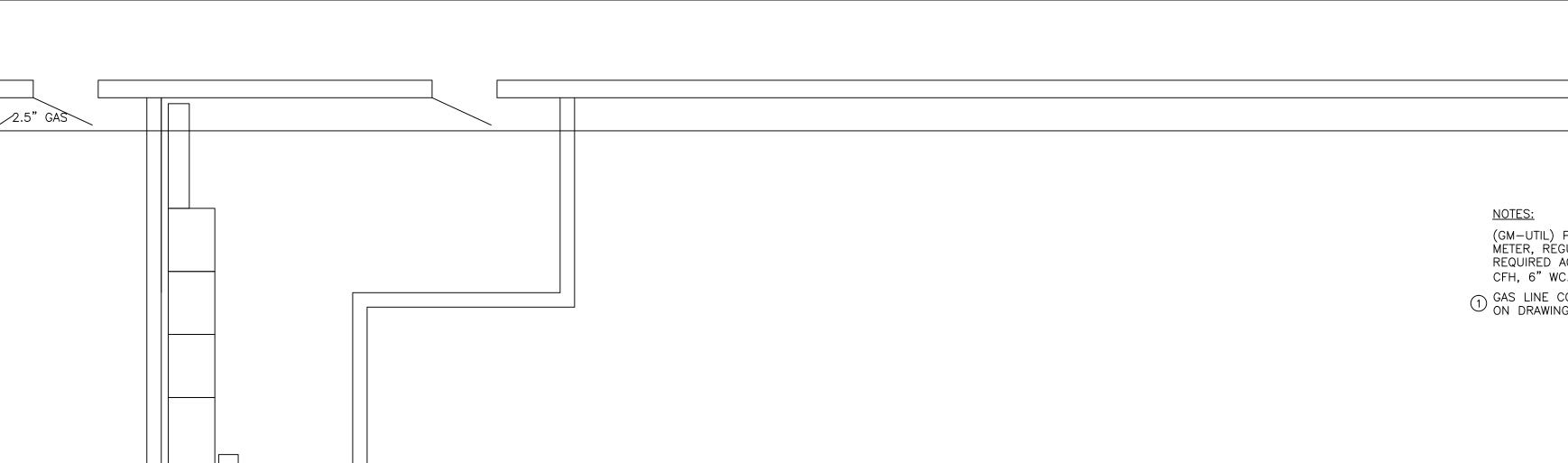
(HWT-1) PROVIDED AND SET BY AEGIS, PLUMBER TO MAKE CONNECTIONS UP TO TANKS. INSTALL VALVES AT TANK ON ALL LINES, INSTALL AEGIS SUPPLIED PRV TO TANK AND PIPE TO FLOOR. INSTALL SENSOR AND GAGE PROVIDED BY AEGIS ONTO TANK. INSTALL 1" DRAIN ON TANK. SEE M-101 & P-201 FOR DETAILS.

(V-1) VALVE AND UNIONS PROVIDED BY AEGIS, ALL OTHER COMPONENTS PROVIDED BY PLUMBER. TIE INTO EXISTING LINES AS SHOWN. INCREASE PIPING SIZE TO 2.5" AFTER 3-WAY VALVE

(GM-CG) NEW RM-2000 GAS METER PROVIDED BY AEGIS, INSTALLED BY PLUMBER. PLUMBER TO PROVIDE MATCHING FLANGES AND GASKETS. (1) GAS LINE CONTINUES BELOW <<NOTE SCALE CHANGE ON DRAWING BELOW>>

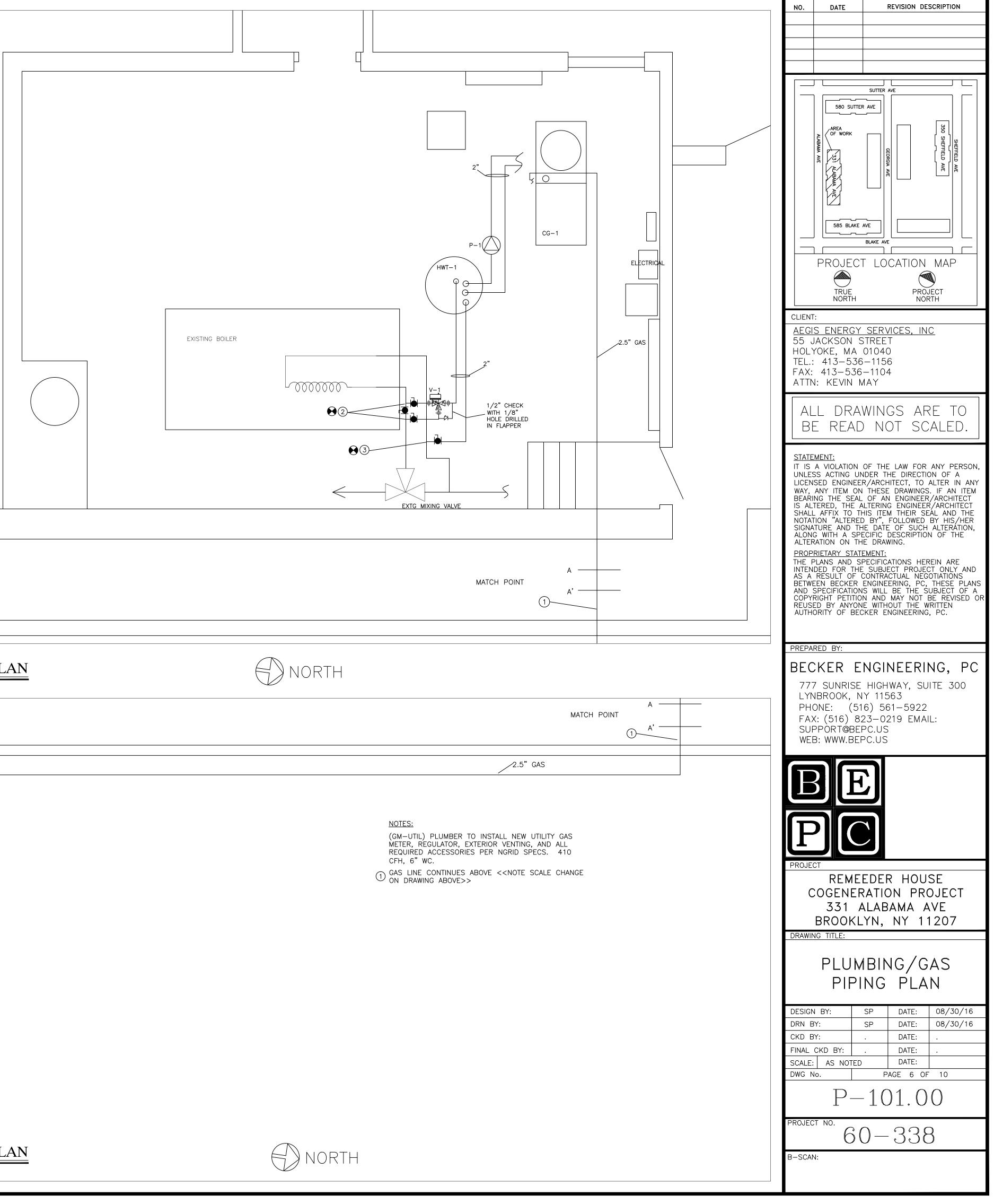
(2) TIE INTO EXISTING 3" HOT LINE OF DHW SYSTEM, 2 PLACES. USE 2" PIPING FOR TAPS AND INTO 3-WAY VALVE. SEE M-101 FOR DETAILS.

 $\bigcirc$  TIE INTO EXISTING 3" COLD LINE OF DHW SYSTEM. 2" LINE WITH VALVE. SEE M-201 FOR DETAILS



P - 10

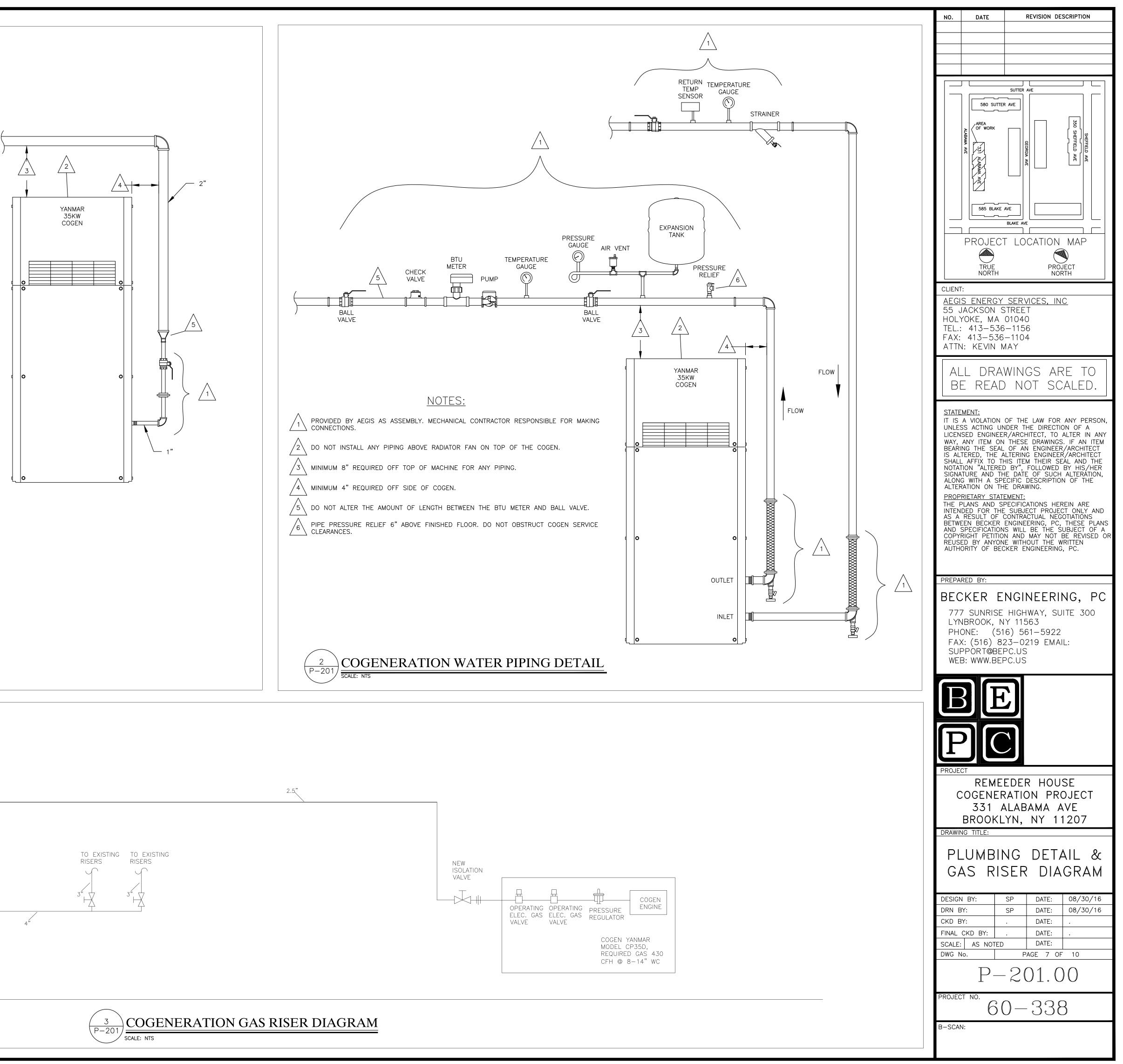
P-101



## CELLAR PLUMBING PLAN / \_\_\_\_\_ SCALE: 3/8"=1'-0"

CELLAR PLUMBING PLAN SCALE: 1/4"=1'-0"

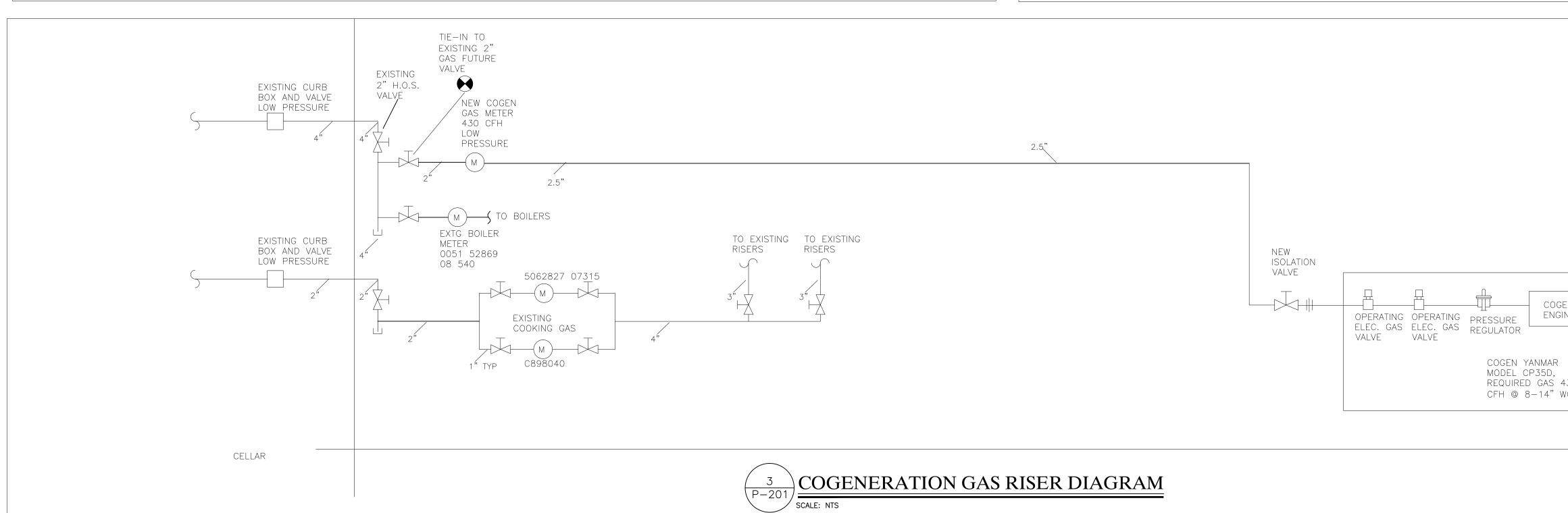




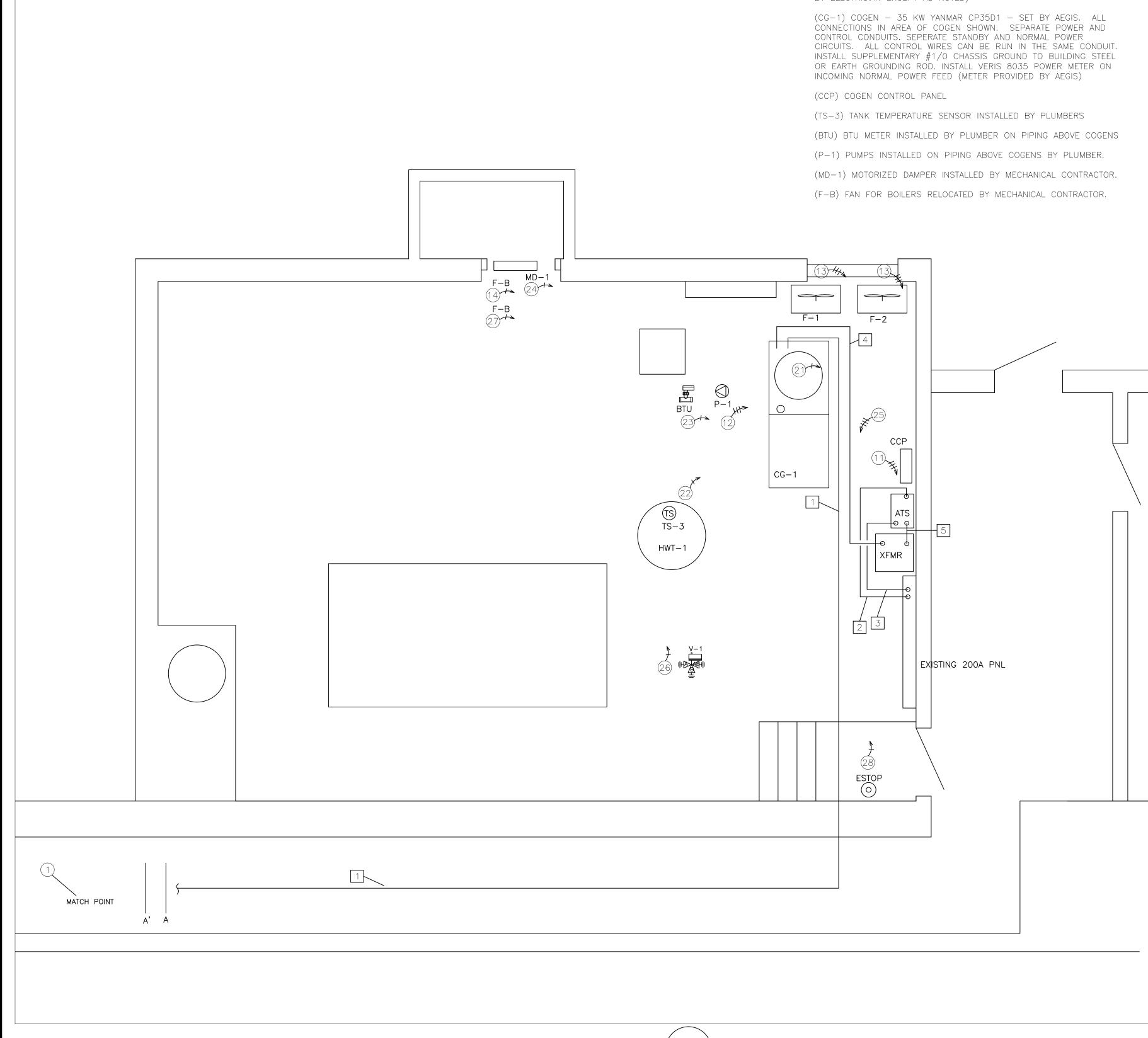
# <u>NOTES:</u>

I \ INSTALL UNION AND VALVE AT COGEN. DO NOT EXCEED MORE THAN 2' OF 1" PIPING DO NOT INSTALL ANY PIPING ABOVE RADIATOR FAN ON TOP OF THE COGEN. 3\ MINIMUM 8" REQUIRED OFF TOP OF MACHINE FOR ANY PIPING. /4 MINIMUM 2" REQUIRED OFF SIDE OF COGEN. /5 REDUCE FROM 2.5" TO 1"

# COGENERATION GAS CONNECTION DETAILS 1 P-201 SCALE: NTS



	FEEDER SCHEDULE								
KEY	DESCRIPTION	VOLTAGE	AMPS	# SETS	CONDUCTOR SIZE	NEUTRAL SIZE	GROUND SIZE	EMT SIZE	
1	COGEN TO 89L	208	150	1	#1/0	N/A	#6	3"	
2	EXISTING 200A PNL TO ATS	208	100	1	#3	#3	#8	2"	
3	ATS TO EXISTING 200A PNL	208	150	1	#1/O	#1/O	#6	2"	
4	COGEN TO XFMR	208	150	1	#1/0	N/A	#6	2"	
5	XFMR TO ATS	208	150	1	#1/0	#1/O	#6	2"	



EQUIPMENT PROVIDED BY AEGIS: (ALL MOUNTING, WIRING, SERVICE DISCONNECTS, AND TERMINATIONS BY ELECTRICIAN EXCEPT AS NOTED)

SUPPLIED, INSTALLED & TERMINATED BY ELECTRICIAN:

(XFMR) NEW 45 KVA, 208A TO 120/208Y TRANSFORMER. INSTAL GROUNDING ROD TO CHASSIS BUT DO NOT BOND TO NEUTRAL. INSTALL WITH DELTA CONNECTED TO THE GENERATOR AND WYE TOWARDS THE ATS. <u>DO NOT BOND NEUTRAL TO GROUND.</u>

(ATS) NEW 200A, 240VAC, 3 POLE ATS, ASCO 300 OR SIMILAR. (ESTOP) NEW BREAK GLASS STATION FOR COGENS, 2 SETS OF F

CONTACTS, ONE FOR EACH COGEN.

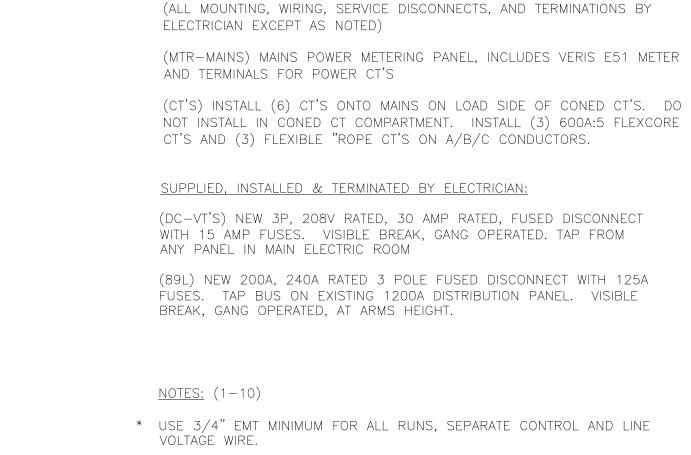
<u>NOTES:</u> (1–2)

1) MATCH POINT TO E-102.

- 2 CURRENT LOCATION FOR F-B. MECHANICAL CONTRACTOR TO RELOCATE TO BOILER PIT LOCATION SHOWN. ELECTRICIAN TO DISCONNECT AND REWIRE TO NEW LOCATION POWER FROM EXISTI CIRCUIT AND SAIL SWITCH. COORDINATE WITH MECHANICAL CONTRACTOR AND BUILDING
- \* USE 3/4" EMT MINIMUM FOR ALL RUNS, SEPARATE CONTROL AND line voltage wire. \*
- PROVIDED BY OWNER, 1) CAT5 COMMUNICATIONS LINE FOR CCP PANEL, WITH (1) DEDICATED STATIC IP. \*
- ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING PENETRATIONS. ALL FIRE STOPPING SHALL USE APPROVED SYSTE AND METHODS AND SHALL MEET OR EXCEED 2 HR RATING.

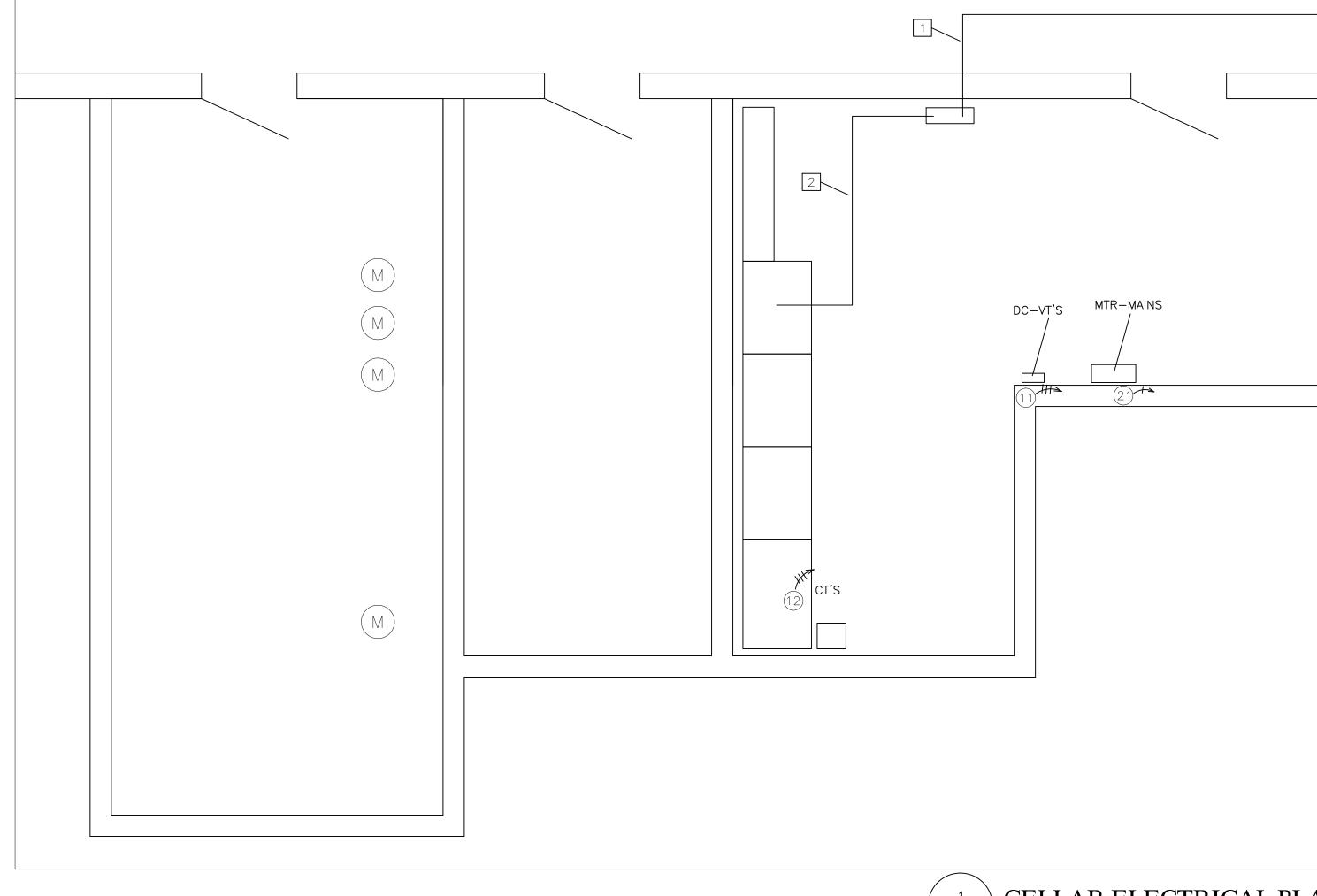
# (1) E-101) COGENERATION CELLAR ELECTRICAL POWER PLAN SCALE: 3/8"=1'-0"

		NO. DATE REVISION DESCRIPTION
TALL PILOT	$\frac{POWER RUNS:}{<11-14}$ (1) FROM CCP TO EXISTING 200A PNL (4) #12 W/ GND & SS (30A) (12) FROM P-1 TO CCP P-1 - (2) #12 W/GND (15A) (13) (2 PLACES) FROM F-1 TO CCP F-1 - (2) #12 W/GND & SS (15A) (14) FROM F-B TO NEW LOCATION F-B (2) # 12 W/ GND	SUTTER AVE SUTTER AVE ALBAMA AVE ALBAMA AVE S85 BLAKE AVE BLAKE AVE PROJECT LOCATION MAP
STING	CONTROLS: (21-28) (21) FROM CG-1 TO CCP (10) #18/2 SHIELDED, SEE WIRING NOTES ON E-002 (1) CAT5e SHIELDED	TRUE PROJECT NORTH NORTH
AND P	<ul> <li>(2) FROM TS-3 TO CCP <ul> <li>(1) #18/2 SHLD</li> </ul> </li> <li>(23) FROM BTU TO CCP <ul> <li>(1) #18/2 SHLD (24V POWER)</li> <li>(1) #18/3 TWISTED SHIELDED (MODBUS)</li> </ul> </li> <li>(24) FROM MD-1 TO CCP </li> </ul>	AEGIS ENERGY SERVICES, INC 55 JACKSON STREET HOLYOKE, MA 01040 TEL.: 413-536-1156 FAX: 413-536-1104 ATTN: KEVIN MAY
NG ALL STEMS	<ul> <li>(1) #18/2 SHLD (POWER) (1) #18/2 SHLD (STATUS)</li> <li>(25) FROM CCP TO 89L (1) 18/3 TWISTED SHIELDED (MODBUS)</li> </ul>	ALL DRAWINGS ARE TO BE READ NOT SCALED.
	<ul> <li>(26) FROM V-1 TO CCP</li> <li>(1) #18/2 SHLD</li> <li>(2) FROM F-B TO NEW LOCATION</li> <li>F-B STATUS (1) # 18/2 SHLD</li> <li>(28) FROM ESTOP TO CCP</li> <li>(2) #18/2 SHLD</li> </ul>	STATEMENT: IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ENGINEER/ARCHITECT, TO ALTER IN ANY WAY, ANY ITEM ON THESE DRAWINGS. IF AN ITEM BEARING THE SEAL OF AN ENGINEER/ARCHITECT IS ALTERED, THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX TO THIS ITEM THEIR SEAL AND THE NOTATION "ALTERED BY", FOLLOWED BY HIS/HER SIGNATURE AND THE DATE OF SUCH ALTERATION, ALONG WITH A SPECIFIC DESCRIPTION OF THE ALTERATION ON THE DRAWING. <u>PROPRIETARY STATEMENT:</u> THE PLANS AND SPECIFICATIONS HEREIN ARE INTENDED FOR THE SUBJECT PROJECT ONLY AND AS A RESULT OF CONTRACTUAL NEGOTIATIONS BETWEEN BECKER ENGINEERING, PC, THESE PLANS AND SPECIFICATIONS WILL BE THE SUBJECT OF A COPYRIGHT PETITION AND MAY NOT BE REVISED OR REUSED BY ANYONE WITHOUT THE WRITTEN AUTHORITY OF BECKER ENGINEERING, PC.
		PREPARED BY: BECKER ENGINEERING, PC 777 SUNRISE HIGHWAY, SUITE 300 LYNBROOK, NY 11563 PHONE: (516) 561–5922 FAX: (516) 823–0219 EMAIL: SUPPORT@BEPC.US WEB: WWW.BEPC.US
		BE PC
		PROJECT REMEEDER HOUSE COGENERATION PROJECT 331 ALABAMA AVE BROOKLYN, NY 11207 DRAWING TITLE:
		ELECTRICAL CELLAR PLAN
		DESIGN BY: SP DATE: 08/30/16 DRN BY: SP DATE: 08/30/16 CKD BY: . DATE: . FINAL CKD BY: . DATE: . SCALE: AS NOTED DATE: DWG No. PAGE 8 OF 10 E-101.00
		ркојест NO. 60-338 в-scan:



EQUIPMENT PROVIDED BY AEGIS:

- \* PROVIDED BY OWNER, 1) CAT5 COMMUNICATIONS LINE FOR CCP PANEL, WITH (1) DEDICATED STATIC IP.
- \* ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING ALL PENETRATIONS. ALL FIRE STOPPING SHALL USE APPROVED SYSTEMS AND METHODS AND SHALL MEET OR EXCEED 2 HR RATING.



	FEEDER SCHEDULE								
KEY	DESCRIPTION	VOLTAGE	AMPS	# SETS	CONDUCTOR SIZE	NEUTRAL SIZE	GROUND SIZE	EMT SIZE	
1	COGEN TO 89L	208	150	1	#1/0	N/A	#6	3"	
2	89L TO MAINS PANEL	208	150	1	#1/O	N/A	#1/O	2"	

<u>POWER RUNS:</u> (11–12) <100A

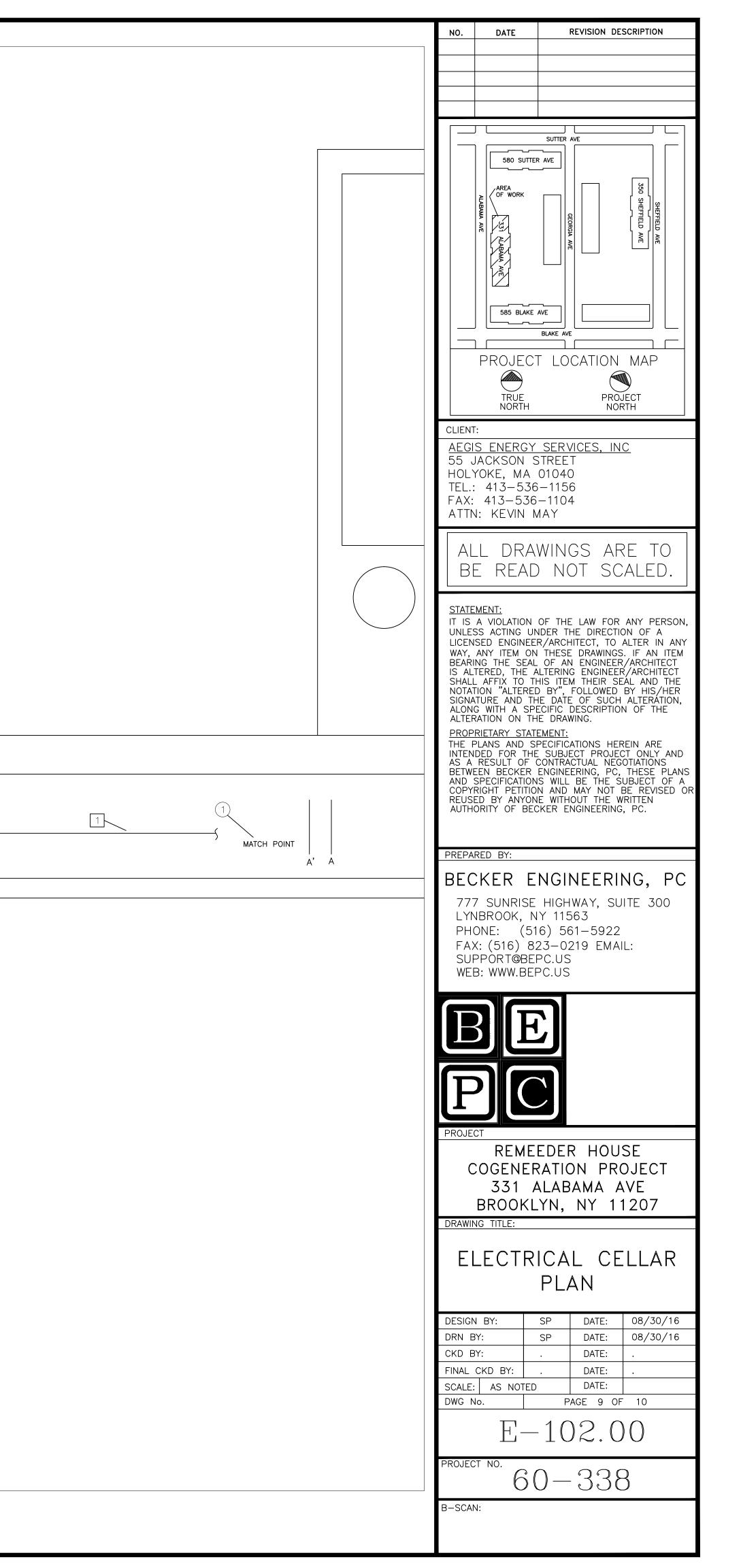
- (1) FROM DC-VT'S TO MTR-MAINS (4) #12 & GND (15A)
- (12) FROM CT'S TO MTR-MAINS
   (6) #12 W/GND (FLEXCORE CT'S)
   (3) #18/2 SHLD (ROPE CT'S)

<u>CONTROLS:</u> (21 ONLY) CONTROLS:

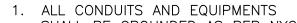
2) FROM MTR-MAINS TO CG-1 (1) #18/2 SHLD

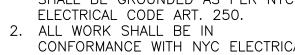


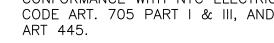


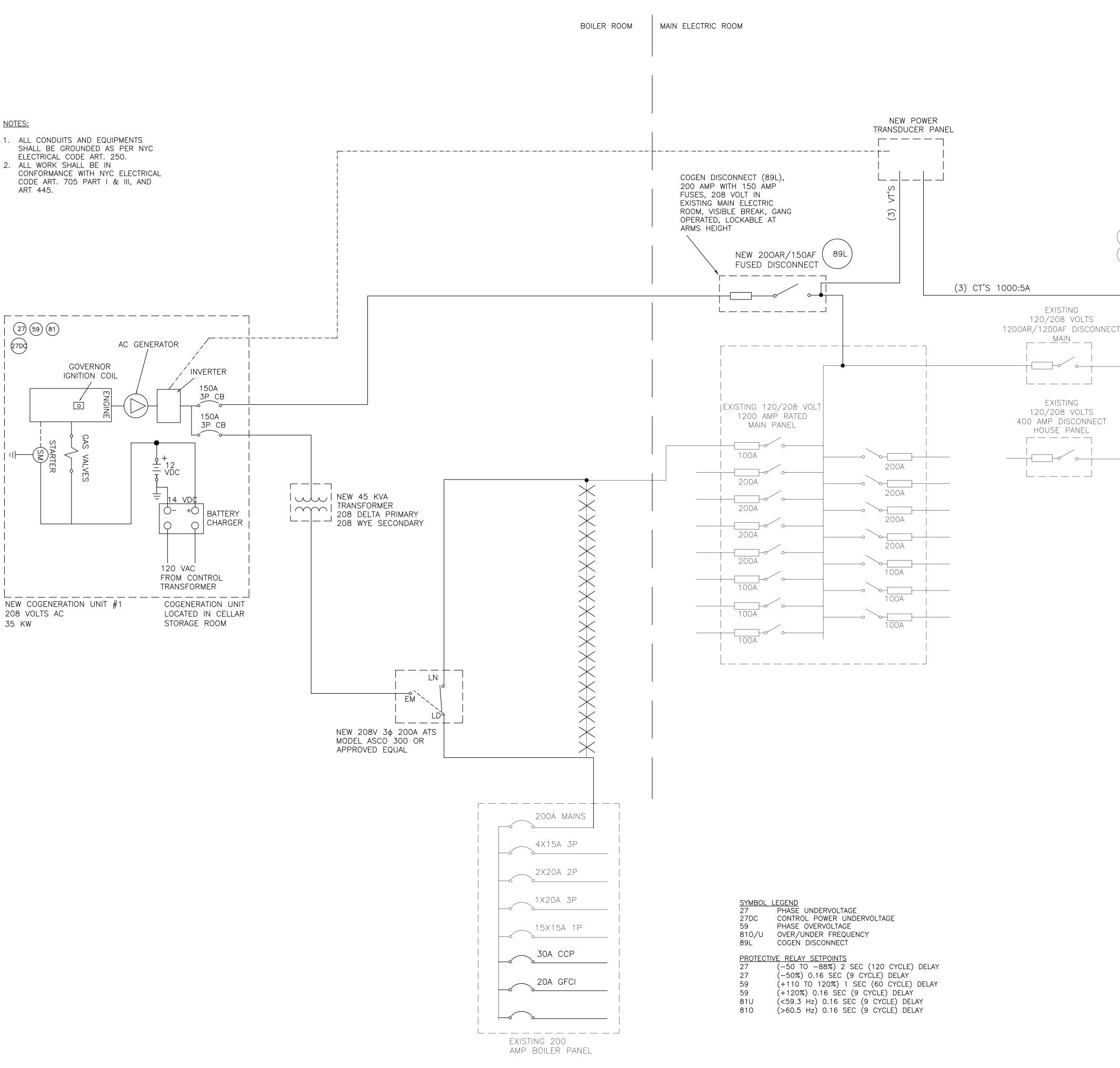


# <u>NOTES:</u>









1

SCALE: NTS

