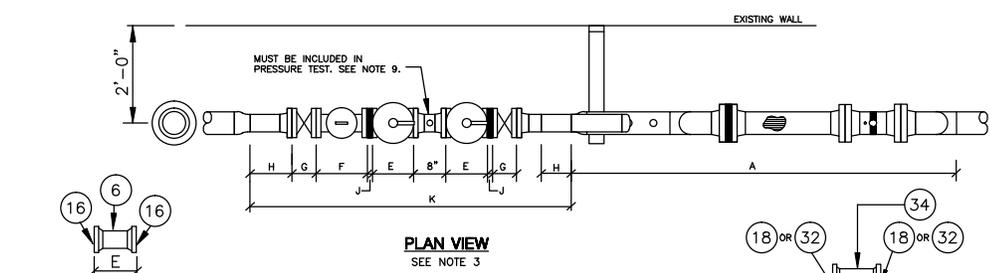
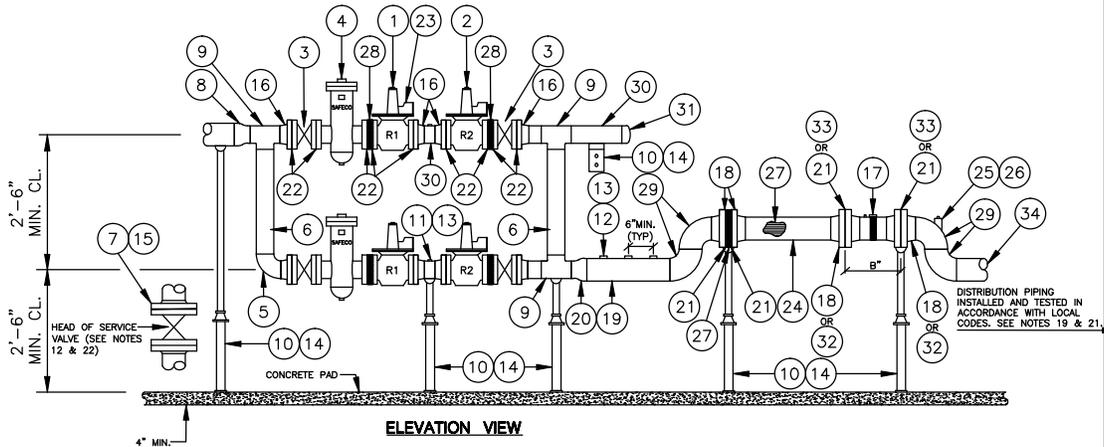


REVISIONS

G. LUDWIG	12/16/16	0
NEW DRAWING		
D.T.	11/22/16	



**REGULATOR SPOOL PIECE FOR PRESSURE TEST (4 REQUIRED)**

**TABLE 1 - DIMENSION "V", "R", "E", "M", "B" (SEE NOTES 6 & 7)**

SIZE OF HEAD OF SERVICE VALVE FLANGE & PIPING	V
SIZE OF REGULATOR FLANGE & PIPING	R
SIZE OF REGULATOR FLANGE TO FLANGE	E
SIZE OF METER FLANGE & PIPING	M
SIZE OF METER FLANGE TO FLANGE	B

**TURBINE METER SPOOL PIECE FOR PRESSURE TEST (SEE NOTE 25 FOR 12" METER)**

**TABLE 2 - METERING DIMENSIONS "M", "A", "B"**

METER	AAT-18 175#	AAT-35 175# 6GTS 175#	AAT-60 175# 8GTS 175#	AAT-140 175#
M	4"	6"	8"	12"
A	74"	94"	116"	160"
B	14"	16"	21"	30"

**TABLE 3 - REGULATOR DIMENSIONS "R", "E", "F", "G", "H", "J", "K"**

REGULATORS	R1	R2	R1	R2	R1	R2
	2" EZR 2" 133HP 2" 133HP	2" 1098 2" 133HP 2" 99	3"EZR	3" 1098	4" EZR	4" 1098
R	2"	3"	3"	4"		
E	10.0"	11.75"	13.88"			
F	11"	16"	18"			
G	7"	8"	9"			
H	7"	9"	15.125"			
J	1.5"	1.5"	1.5"			
K	65"	79"	90"			

**BILL OF MATERIALS**

ITEM	DESCRIPTION	SPEC. OR STD.	QUANTITY
1	R" REGULATOR (R1), 150LB., R.F. SUPPLIED BY CON ED (TABLE 3)		2
2	R" REGULATOR (R2), 150LB., R.F. SUPPLIED BY CON ED (TABLE 3)		2
3	R" 150 LB. BALL VALVE, R.F. (SEE TABLE 2, YELLOW BOOK)		4
4	R" GAS FILTER, R.F. SUPPLIED BY CON ED		2
5	R" SHORT RADIUS 90° ELBOW, SCH. 40, BUTT WELD	ASME B16.28	2
6	R" STEEL PIPE, SCH. 40	ASTM - A106 GRADE "B"	AS REQ'D.
7	V" STEEL FLANGE, 150 LB., FLAT OR RAISED FACE (TO MATCH VALVE FLANGE) (SEE NOTE 6), BUTT WELD	ASME B16.5	1
8	V" x R" CONCENTRIC STD. STEEL REDUCER, IF REQUIRED, B.W.	ASME B16.9	1
9	R" x R" x R" STEEL TEE, SCH. 40, BUTT WELD	ASME B16.9	2
10	BAKELITE, NEOPRENE OR EQUIV. INSULATING MAT'L (SEE NOTE 8)		AS REQ'D.
11	R" x 1/2" THREADOLET (SEE NOTE 5)		1
12	M" x 1/2" THREADOLET (SEE NOTE 5)		3
13	1/2" STEEL SQUARE HEAD PLUG	ASME B16.4	5
14	PIPE SUPPORT (SEE NOTE 11)	G-695	6
15	FLANGE INSULATING KIT V" (SEE NOTE 6)		1
16	R" STEEL FLANGE, RAISED FACE, 150 LB., BUTT WELD		10
17	M" TURBINE METER, 4", 6" OR 12" SUPPLIED BY (TABLE 2). SEE NOTE 25.		1
18	M" STEEL FLANGE, FLAT FACE 150 LB., BUTT WELD	ASME B16.5	4
19	M" STEEL PIPE, SCH. 40, 18" LG	ASTM - A106 GRADE "B"	1
20	M" x R" STEEL REDUCER, BUTT WELD	ASME B16.9	1
21	M" x 1/16" 150 LB. FULL FACE GASKET (SEE NOTE 4)		1
22	R" x 1/16" 150 LB. RING GASKET (SEE NOTE 4)		18
23	2" VENT CAP 90° ELBOW WITH SCREEN-UPSCO (SEE NOTE 16 & 17)		4
24	M" STEEL PIPE, SCH. 40, M" x 4" LG.	ASTM - A106 GRADE "B"	AS REQ'D.
25	M" x 1" THREADOLET (SEE NOTE 5)		1
26	1" STEEL SQUARE HEAD PLUG	ASME B16.4	1
27	M" STRAIGHTENING VANES, FLANGED, SUPPLIED BY CONED. SEE NOTE 24.	G-8220	1
28	R" BLEED RING, 150 LB., RAISED FACE		4
29	M" SHORT RADIUS, 90° ELBOW, SCH. 40, BUTT WELD	ASME B16.28	2
30	R" STEEL PIPE, SCH. 40, 6" LG	ASTM - A106 GRADE "B"	1
31	R" STEEL ENDCAP, SCH. 40, BUTT WELD	ASME B16.9	1
32	12" STEEL FLANGE, RAISED FACE, 150LB., BUTT WELD	ASME B16.5	4
33	12" x 1/16", 150LB., RING GASKET (SEE NOTES 4 & 25)	ASME B16.28	2
34	M" STEEL PIPE, SCH. 40	ASTM-A106 GRADE "B"	AS REQ'D.

**NOTES:**

- ALL MATERIAL SHALL BE FURNISHED AND INSTALLED BY THE CUSTOMER EXCEPT FOR THE FILTERS AND REGULATORS WHICH ARE FURNISHED BY THE COMPANY AND INSTALLED BY THE CUSTOMER, AND THE METER WHICH IS FURNISHED AND INSTALLED BY THE COMPANY.
- DO NOT INCLUDE REGULATORS OR METER IN PRESSURE TEST. USE SPOOL PIECES SHOWN ON DRAWING.
- IF THE INSTALLATION CANNOT BE MADE AS SHOWN, CONTACT GAS MEASUREMENT.
- GASKET MATERIAL SHALL BE GARLOCK 3000 (1/16" THICK).
- ALL THREADOLETS MUST BE FULL BORE, FILLET WELDED AND PLUGGED. DO NOT WELD WITH METERS INSTALLED.
- THE LETTER V REPRESENTS THE SERVICE HEAD VALVE FLANGE SIZE, THE LETTER R REPRESENTS THE REGULATOR FLANGE SIZE, THE LETTER E REPRESENTS THE REGULATOR FLANGE TO FLANGE, THE LETTER M REPRESENTS THE METER FLANGE SIZE, AND THE LETTER B REPRESENTS THE METER FLANGE TO FLANGE DIMENSION. SEE TABLE 1 FOR EXACT SIZES. IF TABLE 1 IS NOT COMPLETED, CONTACT THE ASSIGNED ENERGY SERVICE REPRESENTATIVE.
- TABLE 1 MUST BE COMPLETED BY ASSIGNED ENERGY SERVICE REPRESENTATIVE BEFORE PROVIDING TO CONTRACTOR.
- INSULATING MATERIAL MUST BE INSTALLED BETWEEN THE PIPE SUPPORTS AND THE PIPE, SO THAT THE PIPE NEVER MAKES CONTACT WITH THE PIPE SUPPORT.
- A PRESSURE TEST MUST BE CONDUCTED AT 200 PSIG.
- EXCEPT FOR WHERE FLANGED COMPONENTS ARE CALLED FOR, ALL METER PIPING (PIPING FROM THE HEAD OF SERVICE VALVE TO METER OUTLET) SHALL BE BUTT WELDED. ALL BUTT WELDS FROM THE HEAD OF SERVICE VALVE TO THE REGULATOR CLOSEST TO THE METER SHALL BE RADIOGRAPHED. FOR CUSTOMER DELIVERY PRESSURES EXCEEDING 5 PSIG, ALL BUTT WELDS ON METER PIPING SHALL BE RADIOGRAPHED.
- PIPE SUPPORT OR ANY BRACING SHALL NOT BE WELDED TO METER/DISTRIBUTION PIPING AND SHALL BE INSTALLED PER G-695.
- IF A DOMESTIC REGULATOR METER SET IS REQUIRED, IT SHALL BE INSTALLED IMMEDIATELY AFTER THE SERVICE HEAD VALVE WITH AN ISOLATION VALVE.
- REFER TO YELLOW BOOK FOR FURTHER INFORMATION.
- (BLANK)
- ALL OUTDOOR PIPING SHALL BE PAINTED WITH SUITABLE NON-LEAD OUTDOOR PAINT FOR USE ON METAL SURFACES.
- REFER TO ED-17118 - "REGULATOR VENT INSTALLATION" FOR VENT PIPE INSTALLATION, CAPS AND TERMINUS LOCATION REQUIREMENTS. SINCE THESE REGULATORS DO NOT UTILIZE FULL CAPACITY RELIEF, VENT PIPING SHALL BE 2" IN DIAMETER.
- EACH REGULATOR SHALL BE SEPARATELY VENTED.
- (BLANK)
- FOR ANY DOWNSTREAM PIPING BELOW GRADE REFER TO SPEC G-8205.
- OUTDOOR METER SETS SHALL BE LOCATED, INSTALLED, SECURED AND PROTECTED FROM DAMAGE IN ACCORDANCE WITH G-704. THIS INDUSTRIAL METER SET INSTALLATION REQUIRES LOCKED 6 FOOT HIGH MINIMUM CYCLONE FENCING, 4 INCH THICK (MIN.) CONCRETE PAD AND METER PROTECTION MEETING REQUIREMENTS IN REFERENCED SPECIFICATION.
- DISTRIBUTION PIPING EXCLUDING METER PIPING MUST MEET ALL WELDING, SPECIAL INSPECTION, AND RADIOGRAPHY REQUIREMENTS OF THE NYC FUEL GAS CODE OR OTHER AUTHORITY HAVING JURISDICTION.
- FOR INSTALLATIONS HAVING BRANCH LINES THAT ARE SEPARATELY METERED AND/OR SEPARATELY REGULATED, REFER TO SPEC. G-703 FOR PIPE SIZING REQUIREMENTS.
- ALL STUDS, BOLTS AND NUTS USED ON THIS METER/REGULATOR INSTALLATION SHALL BE CORROSION RESISTANT.
- STRAIGHTENING VANE INSTALLATION INSTRUCTIONS TO BE PROVIDED BY CONED.
- 12" TURBINE METERS HAVE RAISED FACED FLANGES. WHEN INSTALLING A 12" TURBINE METER, USE 12" 150 LB. RAISED FACE STEEL FLANGES (ITEM 32) AND 12" x 1/16" 150 LB. RING GASKETS (ITEM 33).

**INSTALLATION OF PARALLEL REGULATORS WITH TURBINE METER OUTDOORS 10,000 CFH AND LARGER**

CONSOLIDATED EDISON COMPANY OF N.Y., INC.  
GAS ENGINEERING DEPT.