CROWLEY | FLECK PLLP
ATTORNEYS

Brian R. Bjella
100 West Broadway, Suite 250
P.O. Box 2798
Bismarck, ND 58502-2798
701.223.6585
bbjella@crowleyfleck.com

September 28, 2015

via hand delivery

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

In re: Enbridge Pipelines (North Dakota) LLC
Stanley Station Injection Upgrade Project
Mountrail County, North Dakota
Docket No. PU-08-812
Our File No. 31-411-001

Dear Mr. Nitschke:

Enclosed for filing in the above captioned matter please find two copies of responses to Mr. Patrick Fahn's request dated August 19, 2015, regarding Final Construction Inspection Reports.

Please call should you have any questions.

Very truly yours,

Brian R. Bjella

bw
Enc.

88 PU-08-812 Filed: 9/28/2015 Pages: 11
Response to Aug. 19, 2015 letter regarding post construction inspection
Enbridge Pipelines (North Dakota) LLC
Brian Bjella, Crowley Fleck, PLLP

ENBRIDGE

September 22, 2015

North Dakota Pipeline Company LLC, dba NDPL LLC (formerly known as Enbridge Pipelines (North Dakota) LLC provides the enclosed information in response to the request from Mr. Patrick Fahn dated August 18, 2015 regarding Final Construction Inspection Reports. Regarding Docket PU-08-812, Mr. Fahn requested the following information:

PU-08-812

On June 30, 2011, the final inspection report was issued for the Stanley Station Injection Upgrade Project in Mountrail County (Case No. PU-08-812, Enbridge Pipelines (North Dakota) LLC, Stanley Pump Station Upgrades, Siting Application). In the report, it was noted that the Company had not yet complied with a number of Order Points. In order to demonstrate its compliance with these order points, the Commission requests the Company provide the following information:

- Enbridge should provide a written record of each pressure test to establish maximum operating pressure at the Penn Station to complete Order Points 8, 14 and 18.
- Enbridge should provide written verification that no trees or shrubs were affected by the project or comply with the Tree and Shrub Mitigation Specification to comply with Order Point 19.
- Drawing 609-P-05013, drawing 609-P-05012 and a Bill of Material-piping material drawing should also be provided by Enbridge to complete Order # 20.

Please find attached the following items:

Attachment A – Summary detailing station pressure tests to establish maximum operating pressure at the Stanley Station, completing Order Points 8, 14 and 18.

Attachment B – Explanation of status of tree and shrub mitigation, completing Order Point 19.

Attachment C – Drawing 609-P-05013, Drawing 609-P-05012, and A bill of Material - piping material drawing, completing Order Point 20.

North Dakota Pipeline Company LLC

Docket No. PU-08-812

Attachment A

Docket No. PU-08-812
Attachment A

Pressure Test Summary
Stanley Station

1. Test: Suction Manifold
   Date: 02/17/09
   Length of Time Tested: 4 hours, 15 minutes

2. Test: New Meter Piping Spools
   Date: 02/25/09
   Length of Time Tested: 4 hours, 15 minutes

3. Test: Booster Pumps and Pipe Spools
   Date: 02/03/09
   Length of Time Tested: 4 hours, 15 minutes

4. Test: Fill Manifold
   Date: 01/29/09
   Length of Time Tested: 4 hours, 15 minutes

5. Test: Sump Pump Discharge Line
   Date: 08/02/2009
   Length of Time Tested: 4 hours, 15 minutes

6. Test: Pre-fabricated Pipe and fittings for booster pump discharge piping, piping for meter connections
   Date: 06/05/09
   Length of Time Tested: 4 hours, 15 minutes

7. Test: Pipe and fittings for the Stanley Station 150# ANSI tie-in
   Date: 05/14/09
   Length of Time Tested: 4 hours, 15 minutes

8. Test: Tank Suction lines
   Date: 05/01/09
   Length of Time Tested: 4 hours, 15 minutes

9. Test: New Installed below ground pipe and fittings
   Date: 05/06/09
   Length of Time Tested: 4 hours, 15 minutes

10. Test: Tank fill and Suction lines
    Date: 02/23/09
    Length of Time Tested: 4 hours, 15 minutes

All new materials and equipment were tested and had the proper ratings.

North Dakota Pipeline Company LLC

Docket No. PU-08-812

Attachment B

Docket No. PU-08-812
Attachment B

Based on the scope of the Project (see below for Section A.3.b from the Corridor Certificate Application) and the fact that no new land was acquired, no trees or shrubs were removed for Stanley Station Upgrade Project.

From the Certificate of Need Application:

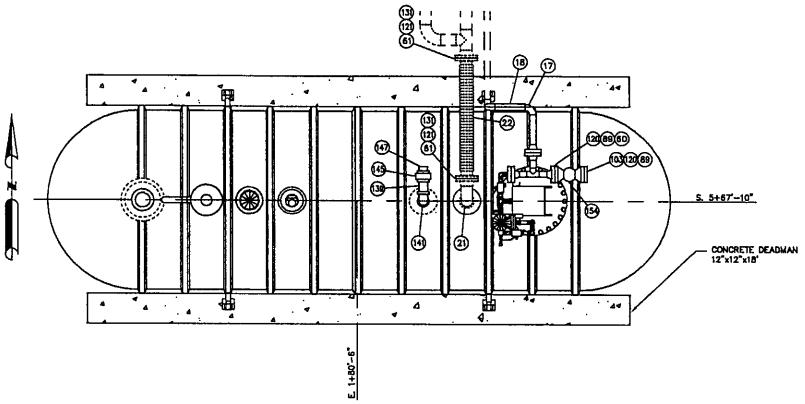
A.3.b Description of size and design of pipeline facility

As stated in Section A.1, no new pipeline is being proposed as part of the Stanley Station Injection Upgrade Project. EPND proposes to maximize the injection capacity of its Stanley Pump Station through the construction of new pumping units and the reconfiguration and replacement of certain station piping all within the existing station site, as described in more detail below in Section A.3.b.(7). All upgrades to the station site will be constructed on land already owned by EPND and no new land will be required.

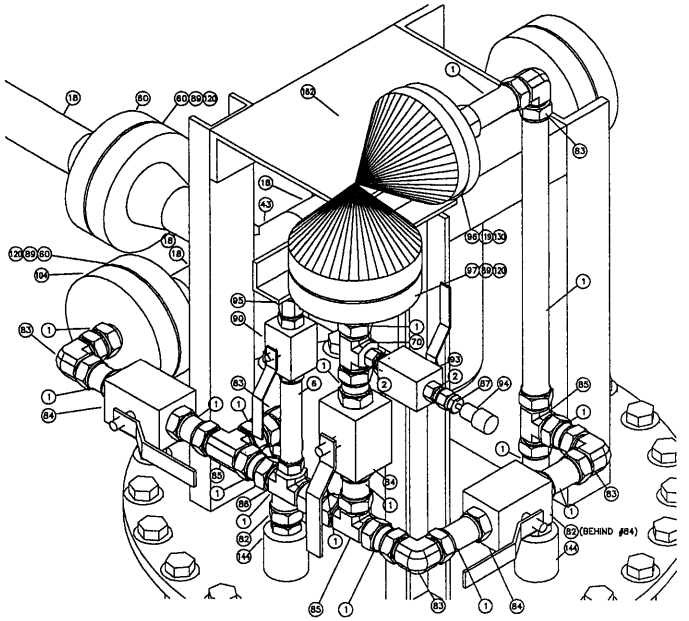
North Dakota Pipeline Company LLC

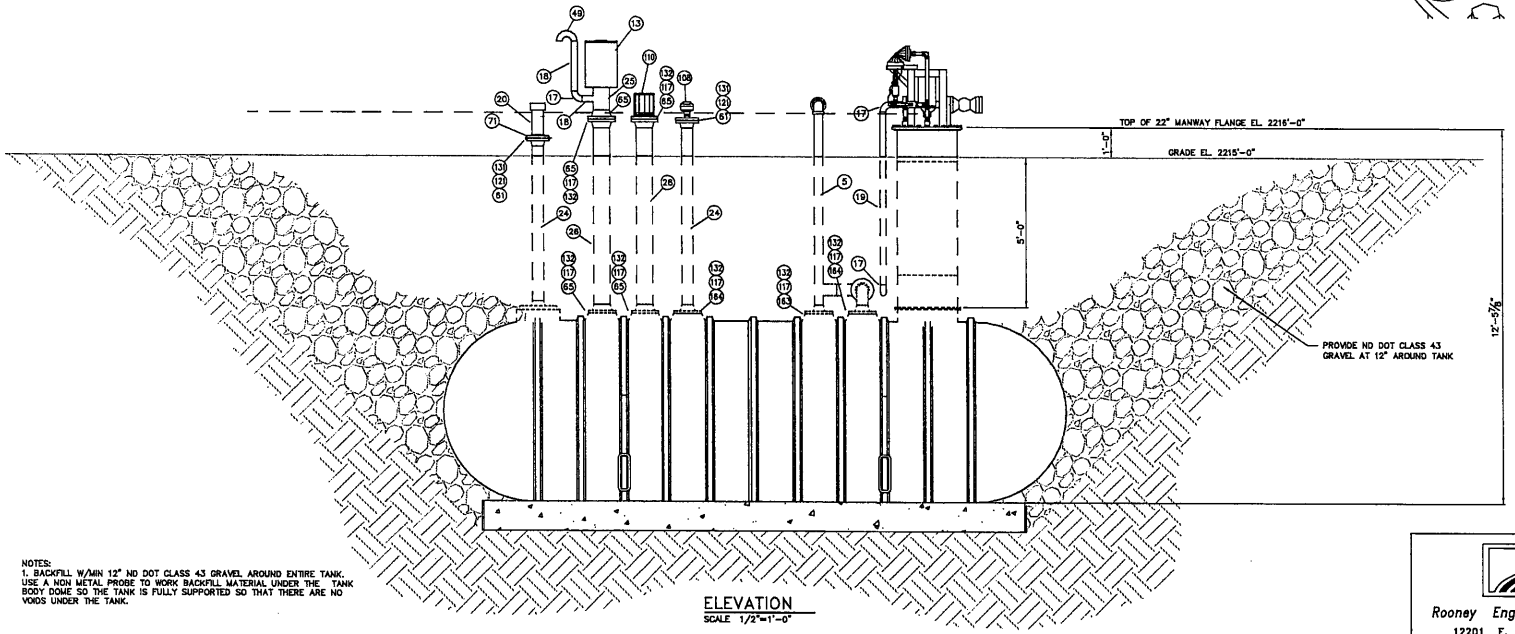
Docket No. PU-08-812

Attachment C



PLAN
SCALE 1/2"=1'-0"





ELEVATION
SCALE 1/2"=1'-0"

NOTES:
1. BACKFILL W/MIN 12" ND DOT CLASS 43 GRAVEL AROUND ENTIRE TANK. USE A NON METAL PROBE TO WORK BACKFILL MATERIAL UNDER THE TANK BODY DOME SO THE TANK IS FULLY SUPPORTED SO THAT THERE ARE NO VOIDS UNDER THE TANK.

NO	REVISION	DATE	APPR	BY
1	ISSUED FOR AS-BUILT	10/24/09		ADJ

Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911

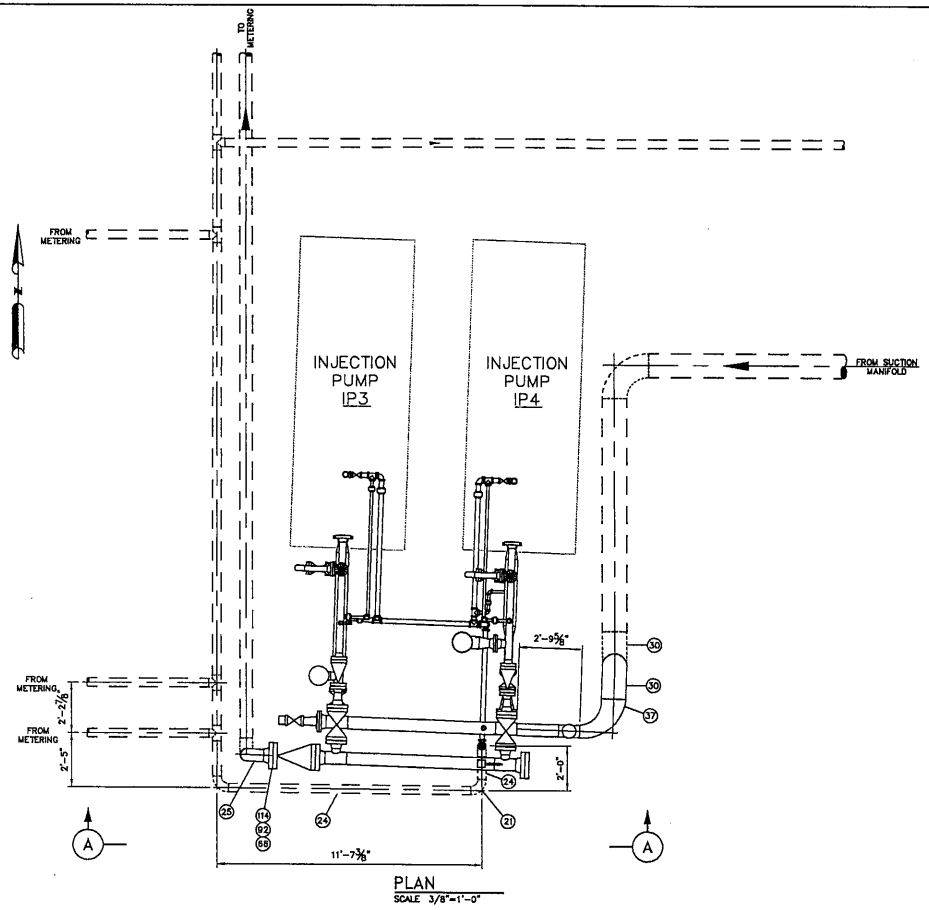
ENBRIDGE PIPELINES (NORTH DAKOTA) LLC

STANLEY (ND) STATION

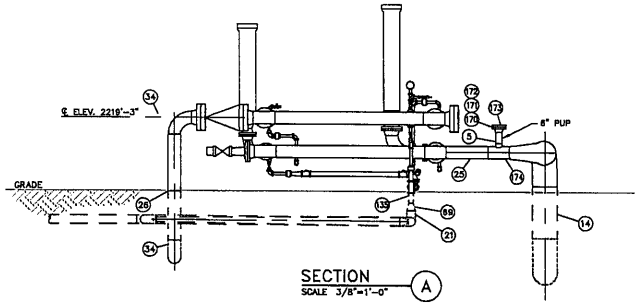
PIPING DETAILS & SECTIONS
SUMP TANK

PROJECT: ENBRIDGE – 2609-05		
SCALE: AS NOTED	DATE: 7/7/08	DRAWN:
CHECK:	APPR:	DATE:

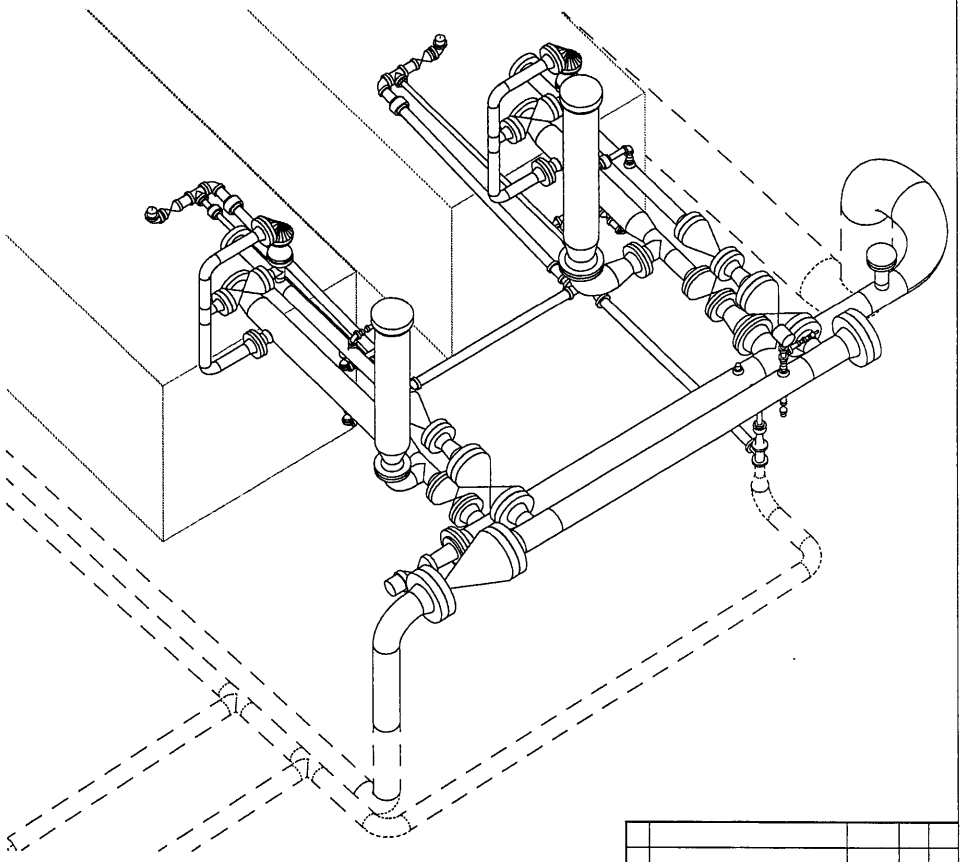
DWG. NO. 609-P-05012



PLAN
SCALE 3/8"=1'-0"



SECTION A
SCALE 3/8"=1'-0"



NO	REVISION	DATE	APPR	BY
1	ISSUED FOR AS-BUILT	10/24/09		ADJ

ENBRIDGE PIPELINES (NORTH DAKOTA) LLC

STANLEY (ND) STATION

PIPING DETAIL & SECTIONS
INJECTION PUMP DRAIN PIPING

PROJECT: ENBRIDGE – 2609-05		
SCALE: AS NOTED	DATE: 7/7/08	DRAWN:
CHECK:	APPR:	DATE:

DWG. NO. 609-P-05013

Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
1	1	1"	STAINLESS STEEL TUBING, 1.000 O.D. X 0.065 W.T.,316/316L, SWAGELOK OR EQUIVALENT	5'-0 1/4"
2	1	1/2"	STAINLESS STEEL TUBING, 0.500 O.D. X 0.035 W.T.,316/316L, SWAGELOK OR EQUIVALENT	4"
5	1	3"	PIPE, 3.500 O.D. x 0.3 W.T., API-5L, SMLS, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	6'-5 3/8"
6	1	3/4"	STAINLESS STEEL TUBING, 0.750 O.D. X 0.065 W.T.,316/316L, SWAGELOK OR EQUIVALENT	6 1/8"
11	1	10"	PIPE, 10.75 O.D. x 0.365 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE	89'-0"
12	1	10"	PIPE, 10.75 O.D. x 0.365 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	217'-0"
13	1	12"	PIPE, 12.75 O.D. x 0.375 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE	49'-0"
14	1	12"	PIPE, 12.75 O.D. x 0.375 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	1440'-0"
15	1	16"	PIPE, 16.0 O.D. x 0.375 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE	69'-0"
16	1	16"	PIPE, 16.0 O.D. x 0.375 W.T., API-5L, ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	1422'-0"
17	10	2"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
18	1	2"	PIPE, 2.375 O.D. x 0.218 W.T., API-5L, SMLS, GRADE B, DRL, BFW, PE	5'-0"
19	1	2"	PIPE, 2.375 O.D. x 0.218 W.T., API-5L, SMLS, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	219'-0"
20	1	4"	CLEAR PVC SIGHT GAUGE	1'-0"
21	29	4"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
22	1	4"	FLEX HOSE, SS BRAIDED ASSEMBLY OMEGAFLEX SERIES 300 ANNULAS STANDARD PITCH HOSE, 2 BRAIDED LAYER, CS ANSI 150 RFFE	4'-0"
23	1	4"	PIPE, 4.500 O.D. x 0.337 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE	4'-0"
24	1	4"	PIPE, 4.500 O.D. x 0.337 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	773'-0"
25	1	6"	PIPE, 6.625 O.D. x 0.28 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE	14'-0"
26	1	6"	PIPE, 6.625 O.D. x 0.28 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	72'-0"
27	1	8"	PIPE, 8.625 O.D. x 0.322 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE	29'-0"
28	1	8"	PIPE, 8.625 O.D. x 0.322 W.T., API-5L, SMLS OR ERW, GRADE B, DRL, BFW, PE, FBE COATED 14-16 MILS	128'-0"
29	21	10"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
30	14	12"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
31	2	12"	ELL, 90° SEGMENTABLE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
32	22	16"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
33	1	16"	ELL, 90° SEGMENTABLE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
34	8	8"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
35	13	8"	ELL, 90° LR., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
36	3	10"x8"	ELL, 90°, RED, L.R., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
37	2	12"x6"	ELL, 90°, RED, L.R., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
38	1	12"x8"	ELL, 90°, RED, L.R., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
39	2	16"x10"	ELL, 90°, RED, L.R., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
40	3	18"x12"	TEE, BARRED REDUCING, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
41	1	10"x8"	REDUCER, CONC., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
42	6	10"	TEE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
43	3	2"	TEE, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
44	23	4"	TEE, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
45	2	10"x4"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
46	1	10"x6"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
47	1	10"	CORIOLIS METER, CMFHC3	

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
48	2	16"x12"	REDUCER, CONC., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
49	1	2"	180° RETURN, L.R., C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
50	2	8"x6"	REDUCER, CONC., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
51	3	12"	TEE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
51A	2	12"	TEE, BARRED C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
52	4	16"	TEE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
52A	5	16"	TEE, BARRED C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
53	4	8"	TEE, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
54	5	10"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
55	17	10"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.9	
56	15	12"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
57	10	12"x8"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
58	19	18"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
59	5	16"x8"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
60	5	2"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (SCH. 80 BORE), WPB, ANSI B16.5	
61	4	4"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
62	2	4"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (SCH. 80 BORE), WPB, ANSI B16.5	
63	4	4"x2"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
65	10	6"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
66	1	6"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
67	26	8"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
69	1	4"x2"	REDUCER, CONC., C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
70	1	1"X1/2"	SWAGELOK, TEE REDUCING UNION, SS-1610-3-16-8	
71	1	4"	FLG, RF, FNPT, 150LB	
73	1	10"	CAP, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
74	1	2"	CAP, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
75	1	3"	CAP, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
76	1	3/4"	(8) STUD BOLTS FOR 6" 150LB FLANGES WITH SPECTACLE BLIND, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 5/8" LONGER THAN B16.5 PLUS THICKNESS OF SPEC BLIND	4 5/8"
77	2	3/4"	(8) STUD BOLTS FOR 8" 150LB FLANGES WITH SPECTACLE BLIND, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 5/8" LONGER THAN B16.5 PLUS THICKNESS OF SPEC BLIND	4 7/8"
78	3	4"	CAP, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
79	4	6"	CAP, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
80	1	7/8"	(12) STUD BOLTS FOR 10" 150LB FLANGES WITH SPECTACLE BLIND, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 5/8" LONGER THAN B16.5 PLUS THICKNESS OF SPEC BLIND	5 1/8"
81	2	8"	CAP, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
82	2	1"	FITTING, SWAGELOK FEMALE CONNECTOR BY MALE NPT SS-1810-1-16	
83	5	1"	SWAGELOK, 90° ELL, SS-1610-9	
84	3	1"	SWAGELOK, BALL VALVE, SS-L6STS16	
85	3	1"	SWAGELOK, TEE STR. UNION, SS-1610-3	
86	1	1"x3/4"	SWAGELOK, TEE REDUCING UNION, SS-1610-3-16-12	
87	1	1/2"X1/4"	SWAGELOK, REDUCING UNION, SS-810-8-4	
88	17	10"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
89	6	2"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
90	1	3/4"	SWAGELOK, BALL VALVE, SS-L63TS12	
91	5	4"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
92	2	6"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
93	1	1/2"	SWAGELOK, BALL VALVE, SS-L62TS8	
94	1	1/4"	SWAGELOK, QUICK CONNECT, SS-QF4-S400	
95	1	3/4"x1/2"	FITTING, SWAGELOK MALE CONNECTOR BY FNPT, SS-12-TA-7-8	

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
96	1	2"x1"	ADAPTER, SWAGELOK X FLANGE ANSI 150, SWAGELOK PN/SS-3200-F18-150	
97	1	2"x1"	ADAPTER, SWAGELOK X FLANGE ANSI 600, SWAGELOK PN/SS-3200-F18-600	
98	2	10"	FLG, ANSI 300, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
99	2	12"	FLG, ANSI 300, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
100	5	12"	FLG, BLIND, ANSI 150, RFFE, C.S., ASTM A-105, WPB, ANSI B16.5	
101	2	12" x 10"	BOOSTER PUMP	
102	7	16"	FLG, BLIND, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
103	1	2"	FLG, RF BLIND 600LB, ASTM A-105	
104	1	2"x1"	FLG, RF 600LB x FEMALE TUBE SWAGELOK, SS-3210-S32-600	
107	3	4"	FLG, BLIND, ANSI 600, RFFE, C.S., ASTM A-105, WPB, ANSI B16.5	
108	1	4"	SIMTRANS LR 250 RADAR LEVEL TRANSMITTER WITH A 4"ANSI 150 FLANGE CONNECTION, P/N: 7ML5431-1BC00-0DD1	
109	1	6"	FLG, BLIND, ANSI 600, FE, C.S., ASTM A-105, WPB, ANSI B16.5	
110	1	6"	HIGH SUMP SHUT DOWN SWITCH	
111	6	8"	FLG, BLIND, ANSI 150, RFFE, C.S., ASTM A-105, WPB, ANSI B16.5	
112	17	1 1/4"	(16) STUD BOLTS FOR 10" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	9"
113	2	1 1/8"	(16) STUD BOLTS FOR 12" 300LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	7 1/4"
114	2	1"	(12) STUD BOLTS FOR 6" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	7 1/4"
115	2	1"	(16) STUD BOLTS FOR 10" 300LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	6 3/4"
116	19	1"	(16) STUD BOLTS FOR 16" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	5 3/4"
117	11	3/4"	(8) STUD BOLTS FOR 6" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	4 1/2"
118	24	3/4"	(8) STUD BOLTS FOR 8" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	4 3/4"
119	1	5/8"	(4) STUD BOLTS FOR 2" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	3 3/4"
120	6	5/8"	(8) STUD BOLTS FOR 2" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	4 3/4"
121	4	5/8"	(8) STUD BOLTS FOR 4" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	4"
122	4	7/8"	(12) STUD BOLTS FOR 10" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	5"
123	15	7/8"	(12) STUD BOLTS FOR 12" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	5 1/4"
124	5	7/8"	(8) STUD BOLTS FOR 4" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	6 1/4"
125	6	10"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
126	2	10"	GASKET, ANSI 300, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
127	15	12"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
128	2	12"	GASKET, ANSI 300, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
129	19	16"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
130	1	2"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
131	4	4"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
132	13	6"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
133	28	8"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
135	1	2"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B BOE-TOE	6"
139	1	3"	NIPPLE, S/XXS SMLS, ASTM A-106 GR B TBE	6"
141	1	3"	90° ELL, THRD 3000LB, ASTM A-105	
144	2	1"	CPLG, THRD 3000# FNPT, ASTM A-105	
145	1	3"	UNION, THRD 3000LB, ASTM A-105	
147	1	3"	PLUG, ASTM A-106, MNPT, SCH. 160, GRADE B	
148	2	10"	DBL B&B PLUG VALVE, 150LB FLG, REGULAR PATTERN (EST WGT)	
149	3	10"	DBL B&B PLUG VALVE, 600LB FLG	2'-7"
150	3	12"	DBL B&B PLUG VALVE, 150LB FLG, REGULAR PATTERN (EST WGT)	1'-2"
151	5	16"	DBL B&B PLUG VALVE, 150LB FLG, REGULAR PATTERN (EST WGT)	1'-4"
152	2	4"	DBL B&B PLUG VALVE, 600LB FLG	1'-5"
153	9	8"	DBL B&B PLUG VALVE, 150LB FLG, REGULAR PATTERN (EST WGT)	11 1/2"
154	1	2"	BALL VALVE, ANSI 600, RFFE , FULL PORT, CARBON STEEL, 316 SS BALL, NACE TRIM, TWO PIECE, FLOATING BALL, API 6D	11 1/2" 1'-1"
155	2	10"	CHECK VALVE, SWING TYPE, ANSI 600, RFFE, CARBON STEEL, 316 TRIM, BOLTED BONNET,NACE TRIM, API 6D	2'-7"
156	2	12"	CHECK VALVE, ANSI 150, RFFE , FULL CONDUIT W/BONNET COVER, API 6D, 13 CR TRIM, SWING TYPE, HF SEAT	2'-3 1/2"
162	1	2"x2"	RELIEF VALVE, 600LB X 150LB FLG., ANDERSON GREENWOOD, PN/81PS1S16C16A-8	
163	1	6"x3"	FLANGE, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
164	2	6"x4"	FLANGE, ANSI 150, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.5	
165	1	10"	BLIND, SPECTACLE, 150LB, ASTM A-105	5/8"
167	1	6"	BLIND, SPECTACLE, 150LB, ASTM A-105	3/8"
168	2	8"	BLIND, SPECTACLE, 150LB, ASTM A-105	1/2"
169	2	16"	CAP, C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
170	1	3"	FLG, ANSI 150, RFFE, C.S., ASTM A-105, (SCH 80), WPB, ANSI B16.5	
171	1	3"	GASKET, ANSI 150, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
172	1	5/8"	(4) STUD BOLTS FOR 3" 150LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	3 1/2"
173	1	3"	FLG, BLIND, ANSI 150, RFFE, C.S., ASTM A-105, (SCH 80), WPB, ANSI B16.5	
174	1	6"X3"	TEE, REDUCING, C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	
175	2	–	LIMITORQUE MOTOR OPERATOR RETROFIT FOR EXISTING 10" MANUAL VALVE (FIELD TO DETERMINE)	
176	1	16"	CHECK VALVE, ANSI 150, RFFE , FULL CONDUIT W/BONNET COVER, API 6D, 13 CR TRIM, SWING TYPE, HF SEAT	
178	1	10"	FLG, BLIND, ANSI 600, FE, C.S., ASTM A-105, F-42, MSS SP-44	
179	1	10"x2"	WELD-O-LET, ASTM A-105, BUTT WELD, 3000#, GRADE B	
180	1	12"	PIPE, 12.75 O.D. x 0.312 W.T., API-5L, ERW, X-42, DRL, BFW, PE, FBE COATED 14-16 MILS	7'-8"
181	1	12"	TEE (BARRED), C.S., ASTM A-234, BUTT WELD, (STD WALL), Y-42, MSS SP-75	

NO	REVISION	DATE	APPR	BY
1	ISSUED FOR AS-BUILT	10/24/09		ADJ

Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911

ENBRIDGE PIPELINES (NORTH DAKOTA) LLC

STANLEY (ND) STATION

MATERIALS
SHEET 1 OF 2

PROJECT: ENBRIDGE – 2608-05		
SCALE: AS NOTED	DATE: 9/23/08	DRAWN:
CHECK:	APPR:	DATE:

DWG. NO. 609-P-05018

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
200	1	1"	PIPE, COPPER	19'-10"
201	8	1"	ELL, 90°, COPPER, SWEAT FITTING	
202	2	1"	ELL, 45°, COPPER, SWEAT FITTING	
203	2	1 1/2"	1 1/2" NPT TO 1" SWEAT	
204	3	3/4"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B TBE	CLOSE
205	10	3/4"	NIPPLE, ASTM A-106, MNPT, SCH. 160, GRADE B TBE	3"
206	1	3/4"	90 STREET ELL, ASTM A-105, MNPT, SHC. 160, 3000#	
207	2	3/4"	TEE, ASTM A-106, FNPT, 3000#, GRADE B	
208	2	1"	UNION, COPPER, SWEAT FITTING	
209	3	3/4"	UNION, FNPT, 3000#, ASTM A-105, GRADE B	
210	7	3/4"	ELL, 90°, FNPT, 3000#, ASTM A-105, GRADE B	
211	3	3/4"	BALL VALVE, SERIES 800 WOG 3000# , FNPT , REDUCED PORT, 316 SS BALL AND TRIM, SS BODY, PTFE SEATS, API 6D OR ASME B16.34, FIRE SAFE DESIGN	1 5/8"
212	1	3/4"	PIPE, API 5L, XH, GRADE B, SMLS, DRL, PE	6'-11"
213	1	3/4"	3/4" X 18" SS HOSE & BRAID W/ 3/4" MALE UNION X 3/4" x 2" REDUCER W/ 2" 150# CARBON STEEL RAISED FACE	
214	2	3/4"	FLG, RF, FNPT, 150LB	
215	1	4"x2"	ELL, 90°, RED, L.R., C.S., ASTM A-234, BUTT WELD, (SCH. 80), WPB, ANSI B16.9	

BILL OF MATERIAL

MARK	QTY	SIZE	DESCRIPTION	LENGTH
182	11	12"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (STD WALL BORE), WPB, ANSI B16.9	
183	11	1 1/4"	(20) STUD BOLTS FOR 12" 600LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	9 1/4"
184	2	1 1/4"	(20) STUD BOLTS FOR 12" 600LB FLANGES WITH SPECTACLE BLIND, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 5/8" LONGER THAN B16.5 PLUS THICKNESS OF SPEC BLIND	11"
185	15	12"	GASKET, ANSI 600, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
186	2	12"	BLIND, SPECTACLE, 600LB, ASTM A-105	1 5/8"
187	2	12"	GATE VALVE, ANSI 600, RFFE	2'-9"
188	1	12"x10"	ELL, 90° RED, L.R., C.S., ASTM A-234, BUTT WELD, STD WALL, WPB, ANSI B16.9	
189	1	10"	FLG, ANSI 900, RFFE, C.S., ASTM A-105, (STD WALL BORE), F-42, MSS SP-44	
190	2	12"	FLG, ANSI 900, RFFE, C.S., ASTM A-105, (STD WALL BORE), F-42, MSS SP-44	
191	1	1 3/8"	(16) STUD BOLTS FOR 10" 900LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	10"
192	2	1 3/8"	(20) STUD BOLTS FOR 12" 900LB FLANGES, ASTM A-193, GR. B7 W/TWO (2) ASTM A-194, GR. 2H, HEAVY HEX NUTS EACH, 1/2" LONGER THAN B16.5	10 1/2"
193	1	10"	GASKET, ANSI 900, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
194	1	12"	GASKET, ANSI 900, FLEXITALLIC SPIRAL WOUND, TYPE "CGI", 316 SS WINDINGS, ASME B16.20	
195	1	12"x10"	REDUCER, CONC., C.S., ASTM A-234, BUTT WELD, (STD WALL), WPB, ANSI B16.9	
196	3	12"	CHECK VALVE, SWNG TYPE, ANSI 600, RFFE, CARBON STEEL, 316 TRIM, BOLTED BONNET,NACE TRIM, API 6D	2'-9"
197	3	12"	FLG, ANSI 600, RFFE, C.S., ASTM A-105, (STD WALL BORE), Y-42, MSS SP-44	
198	4	12"	ELL, 90° L.R., C.S., ASTM A-234, BUTT WELD, (STD WALL), Y-42, MSS SP-75	
199	1	12"	PIPE, 12.750 O.D. x 0.375 W.T., API-5L, ERW, X-42, DRL, BFW, PE	42'-5"

NO	REVISION	DATE	APPR	BY
1	ISSUED FOR AS-BUILT	10/24/09		ADJ

Rooney Engineering, Inc.
12201 E. Arapahoe Rd.
Centennial, CO 80112
(303) 792-5911

ENBRIDGE PIPELINES (NORTH DAKOTA) LLC

STANLEY (ND) STATION

MATERIALS
SHEET 2 OF 2

PROJECT: ENBRIDGE - 2534		
SCALE: 3/8"=1'-0"	DATE: 2/28/08	DRAWN:
CHECK:	APPR:	DATE:

DWG. NO. 609-P-05019