



8113 W. GRANDRIDGE BLVD., KENNEWICK, WASHINGTON 99336-7166
TELEPHONE 509-734-4500 FACSIMILE 509-737-9803
www.cngc.com

September 16, 2013

Mr. Steven V. King
Acting Executive Director and Secretary
Washington Utilities & Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

Re: Replacement application in Docket UG-131547. Service Area Expansion – Badger Mountain South Expansion

Dear Mr. King,

Cascade Natural Gas Corporation, herein referred to as Cascade, is submitting a full replacement of its current application in Docket UG-131547, an application to amend its Certificate of Public Convenience and Necessity to Operate a Gas Plant for Hire, in the Badger Mountain South area, located in Benton County, Washington. This request expands the Company's service area in Benton County. In support of this request is additional information summarized below:

1. Application: Enclosed is a check in the amount of twenty-five dollars and a completed application form.
2. Applicants for Natural Gas Service: Cascade anticipates requests for service from residential and commercial customers within the requested expansion area.
3. Description of Project: Badger Mountain South is a 1,460 acre planned community which will include 5,000 homes, retail businesses and other commercial activity. A complete build-out on this property should be completed in 20 years. This project will consist of 12,300 feet of 4 inch steel future high pressure main, 4110 feet of 4" PE main, 13,400 feet of 2" PE main, and 350,000 of 1" service line south on Dallas Road to serve a development. There are 1,275,000 sq. ft. of retail space planned in the area along with a residential development which will be sold to developers who will insure that natural gas will be used in all of the future homes.
4. Economic Feasibility: Cascade plans to utilize its Rule 8 "Extension of Distribution Facilities" tariff to determine economic feasibility of expanding the distribution system into this area. The economic feasibility of the proposed main extension is shown on Exhibit A-1 and is based upon Cascade's design of a mature distribution system on Badger Mountain. As previously stated, Cascade anticipates that it will take 20 years before the actual system in the area will reach this level of maturity. Details for

In the Community to Serve®

estimated direct costs of the mature distribution system are shown on Exhibits A-2, A-3, and A-4.

5. Maps and Legal Descriptions: Enclosed as Exhibit B-1 to the Application is a map and B-2 the additional legal description. The proposed additional area is Sections 30, 31 & 32 of Township 9 North, Range 28 East and Sections 4 & 5 of Township 8 North, Range 28 East.

6. Distribution System Capacity: This line is expected to operate at 60 psig but will have a peak end of line capacity of 12,000 cfh based on the design model. More capacity from this line is possible if uprated to high pressure. The timing of this uprate will be driven by system/load growth. The 4" Badger Mountain South line is designed for 500 psig and will be pressure tested to 750 psig. To uprate the line to maximum potential, Cascade would need to uprate the 6" W Richland Future High Pressure Line downstream of R-85 and install a few regulator stations and HPSS to isolate existing taps. If the Badger Mountain South line was uprated to an MAOP of 250 psig, which is the current MAOP of the 6" & 8" Richland HP Line, the peak end of line capacity in the current design day model would be 20,000 cfh. Further capacity could also be achieved if the 6" & 8" Richland HP line is uprated to an MAOP of 500 psig which is the design pressure of the line; a MAOP of 500 psig would achieve the maximum flow for this line. At a MAOP of 500 psig the peak end of line capacity for the 4 in Badger Mountain South line is 90,000 cfh in the current design day model.

Cascade personnel are available to provide additional information regarding this application. If there are any additional questions or comments, please contact Michael Parvinen @ 509-734-4593.

Sincerely,



Michael Parvinen
Director, Regulatory Affairs

Enclosures

DCC WA v11.0 October 2011

Cascade Natural Gas Corporation Feasibility Worksheet - Developer

Developer: **Nor Am Investments LLC**

Contact Individual (Include Title): **Lawrance White**

Billing Address: **12513 Ave Dubois**

City State and Zip: **Lakewood Wa. 98498**

Business Telephone Number: **253-961-1860**

Development Name (Incl. lot No.): **Badger Mountain South**

Section - Township - Range: **S-32, T-9N, R-28E**

City Location: **Richland**

County Location: **Benton**

Main Ext. Distance (Feet): **16900**

Main Cost Estimate: **\$1,731,098**

Total Margin: **\$866,909**

Feasibility Margin: **\$1,978,538**

Pre-Tax:

Amount Due:

MARGIN CALCULATION - Residential

Western Washington Eastern Washington

	Year 1	Year 2	Year 3	Year 4	Year 5 - 20
Average Square Footage	2,400				
Number of Residential Units	40	40	40	40	4840
Use Per Square Foot	0.23	0.23	0.23	0.23	0.23
	<i>Therms</i>	<i>Therms</i>	<i>Therms</i>	<i>Therms</i>	<i>Therms</i>
Space Heating	552	552	552	552	552
<input type="checkbox"/> Water Heat		-	-	-	-
Total Therms	552	552	552	552	552
\$/Therm	\$ 0.26248	\$ 0.26248	\$ 0.26248	\$ 0.26248	\$ 0.26248
Margin/Dwelling Unit	\$ 144.89	\$ 144.89	\$ 144.89	\$ 144.89	\$ 144.89
Total Margin - Residential	\$ 5,795.56	\$ 5,795.56	\$ 5,795.56	\$ 5,795.56	\$ 701,262.57

MARGIN CALCULATION - Commercial & Industrial (CP 165)

Use Annual Hours of Operation Tab for Hours of Operation

Commercial (RS 504) Industrial (RS 505)

	Year 1	Year 2	Year 3	Year 4	Year 5 - 20
Number of Cmcl. / Ind. Units	1	1	1	1	1
Heating Load (MBTUH)					
Hours of Operation	-	-	-	-	-
Therms	55,875	111,750	111,750	111,750	223,500
Other (MBTUH)					
Hours of Operation					
Therms	-	-	-	-	-
Total Therms	55,875	111,750	111,750	111,750	223,500
\$/Therm	0.23179	0.23179	0.23179	0.23179	0.23179
Total Margin - Cmcl. / Ind.	\$ 12,951.27	\$ 25,902.53	\$ 25,902.53	\$ 25,902.53	\$ 51,805.07
Total Combined Margin	\$ 18,746.82	\$ 31,698.09	\$ 31,698.09	\$ 31,698.09	\$ 753,067.63
	3.3	3.0	2.7	2.5	2.2
Feasibility Margin	\$ 61,864.52	\$ 95,094.27	\$ 85,584.85	\$ 79,245.23	\$ 1,656,748.79

DCC Feasibility Worksheet prepared by: **Bruce Yamauchi**

Title of CNG employee: **Engineer Associate**

CASCADE NATURAL GAS CORPORATION

Central Region 1" MAIN ESTIMATE

CITY: _____ DISTRICT: _____ DATE: _____

DESCRIPTION: _____

MATERIALS

Item	Units	Quantity	Unit Cost	Total
1" PE	ft	350000	\$0.33	\$ 115,500
1 1/4" STEEL	ft		\$0.85	\$ -
3/4" STEEL	ft		\$2.28	\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
Total Materials				\$ 115,500

CONTRACTOR LABOR

Item	Quantity	Unit Cost	Total
Mobilization OT		\$300.00	\$ -
Mobilization Dig		\$300.00	\$ -
1" Stub, 10' or less (each)		\$112.00	\$ -
1" PE Install OT (ft)	350000	\$2.80	\$ 980,000.00
1" PE Install Dig (ft)		\$8.00	\$ -
1" PE Missle/Hog shot (ft)		\$18.00	\$ -
1" & Smaller PE Directional Bore (ft)		\$18.00	\$ -
1 - 1/4" & 3/4" Steel Missle/Hog shot (ft)		\$18.00	\$ -
1- 1/4" & Smaller Steel Directional Bore (ft)		\$18.00	\$ -
Casing - Open Cut (ft) Diam.: 4		\$16.50	\$ -
Casing - Bore (ft) Diam.: 4		\$33.00	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in): 3		\$1.35	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in): 4		\$1.80	\$ -
Blacktop Remove (sq ft) Depth (in): 3		\$1.75	\$ -
Blacktop Remove (sq ft) Depth (in): 4		\$2.00	\$ -
Blacktop Place (sq ft) Depth (in): 3		\$4.48	\$ -
Blacktop Place (sq ft) Depth (in): 4		\$5.17	\$ -
Concrete Saw/Cut (lin. ft) Depth (in): 4		\$3.00	\$ -
Concrete Remove (sq ft) Depth (in): 4		\$2.45	\$ -
Concrete Place (sq ft) Depth (in): 4		\$1.05	\$ -
Blacktop/Concrete Disposal (ton)		\$10.75	\$ -
Cold Mix (sq ft)		\$4.00	\$ -
Crushed Rock (cu yard)		\$31.80	\$ -
Sand (cu yard)		\$31.80	\$ -
Hauloff (cu yard)		\$13.75	\$ -
Topsoil (cu yard)		\$22.40	\$ -
Beauty Bark (cu yard)		\$22.50	\$ -
Sod Remove/Replace (sq ft)		\$2.50	\$ -
Flagging (man hr)		\$42.00	\$ -
Miscellaneous			\$ -
T&M (crew hour)		\$265.00	\$ -
Trench Shoring (per job)		\$250.00	\$ -
Additional 2" Tie-in, top tap		\$110.00	\$ -
Additional 2" Tie-in, wrap around		\$350.00	\$ -
Additional Bell Hole		\$237.00	\$ -
Tie in exist stub to main		\$75.00	\$ -

Trenching over 3' deep (ft)	Depth (ft):	10				\$10.50	\$ -
Other Contractor Labor							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
Sales Tax						8.60%	\$84,280
Total Contractor Labor							\$ 1,064,280.00
CASCADE LABOR							
Item	Units			Unit Cost		Total	
Crew Labor (per hour)					\$265.00		\$ -
Control Equip Mech + Tap Truck (per hour)					\$130.00		\$ -
Inspection (per hour)					\$70.00		\$ -
							\$ -
							\$ -
							\$ -
							\$ -
Total CNG Labor							\$ -
Contingency	Use 10% for OT, 20% for non OT					20%	\$ 212,856.00
							\$ -
TOTAL PROJECT COST							\$ 1,392,636.00

For frost, rock removal/saw, jackhammer, hard pan see blanket rate sheet and discuss with supervisor.

A-3

CASCADE NATURAL GAS CORPORATION**Central Region 2" MAIN ESTIMATE**CITY: **Richland** DISTRICT: **Tri Cities** DATE: **11/01/12****DESCRIPTION:**

3400' of 2" PE main for BMS Commercial

MATERIALS

Item	Units	Quantity	Unit Cost	Total
2" PE	ft	13400	\$0.80	\$ 10,720
2" STEEL	ft		\$7.35	\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
Total Materials				\$ 10,720

CONTRACTOR LABOR

Item	Quantity	Unit Cost	Total
Mobilization OT		\$300.00	\$ -
Mobilization Dig		\$500.00	\$ -
2" PE Install OT (ft)	13400	\$3.40	\$ 45,560.00
2" PE Install Dig (ft)		\$9.10	\$ -
2" Steel Install OT (ft)		\$7.50	\$ -
2" Steel Install Dig (ft)		\$11.20	\$ -
2" PE/Steel Missle/Hog shot (ft)		\$18.00	\$ -
2" PE Directional Bore (ft)		\$18.00	\$ -
2" Steel Directional Bore (ft)		\$18.00	\$ -
Casing - Open Cut (ft) Diam.:	4	\$16.50	\$ -
Casing - Bore (ft) Diam.:	4	\$33.00	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in):	3	\$1.35	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in):	4	\$1.80	\$ -
Blacktop Remove (sq ft) Depth (in):	3	\$1.75	\$ -
Blacktop Remove (sq ft) Depth (in):	4	\$2.00	\$ -
Blacktop Place (sq ft) Depth (in):	3	\$4.48	\$ -
Blacktop Place (sq ft) Depth (in):	3	\$5.17	\$ -
Concrete Saw/Cut (lin. ft) Depth (in):	4	\$3.00	\$ -
Concrete Remove (sq ft) Depth (in):	4	\$2.45	\$ -
Concrete Place (sq ft) Depth (in):	4	\$1.08	\$ -
Blacktop/Concrete Disposal (ton)		\$10.75	\$ -
Cold Mix (sq ft)		\$4.00	\$ -
Crushed Rock (cu yard)		\$31.80	\$ -
Sand (cu yard)		\$31.80	\$ -
Hauloff (cu yard)		\$13.75	\$ -
Topsoil (cu yard)		\$22.40	\$ -
Beauty Bark (cu yard)		\$22.50	\$ -
Sod Remove/Replace (sq ft)		\$2.50	\$ -
Flagging (man hr)		\$42.00	\$ -
Miscellaneous			\$ -
T&M (crew hour)		\$265.00	\$ -
Trench Shoring (per job)		\$250.00	\$ -
Additional 2" Tie-in, top tap		\$110.00	\$ -
Additional 2" Tie-in, wrap around		\$350.00	\$ -
Additional Bell Hole		\$237.00	\$ -
Tie in exist stub to main		\$75.00	\$ -

Trenching over 3' deep (ft)	Depth (ft):	10				\$10.50	\$	-
Other Contractor Labor								
							\$	-
							\$	-
							\$	-
							\$	-
							\$	-
							\$	-
							\$	-
Sales Tax						8.60%		\$3,918
Total Contractor Labor								\$ 49,478.16
CASCADE LABOR								
Item		Units		Unit Cost		Total		
Crew Labor (per hour)				\$265.00		\$ -		
Control Equip Mech + Tap Truck (per hour)				\$130.00		\$ -		
Inspection (per hour)				\$70.00		\$ -		
							\$	-
							\$	-
							\$	-
							\$	-
Total CNG Labor								\$ -
Contingency		Use 10% for OT, 20% for non OT				15%		\$ 7,421.72
								\$ -
TOTAL PROJECT COST								\$ 67,619.88

For frost, rock removal/saw, jackhammer, hard pan see blanket rate sheet and discuss with supervisor.

A-4

CASCADE NATURAL GAS CORPORATION

Central Region 4" Main Estimate

CITY: _____ DISTRICT: _____ DATE: _____

DESCRIPTION: _____

Item	Units	Quantity	Unit Cost	Total
4" PE	ft	4,110	\$2.77	\$ 11,385
4" STEEL	ft	12300	\$5.06	\$ 62,238
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
Total Materials				\$ 73,623

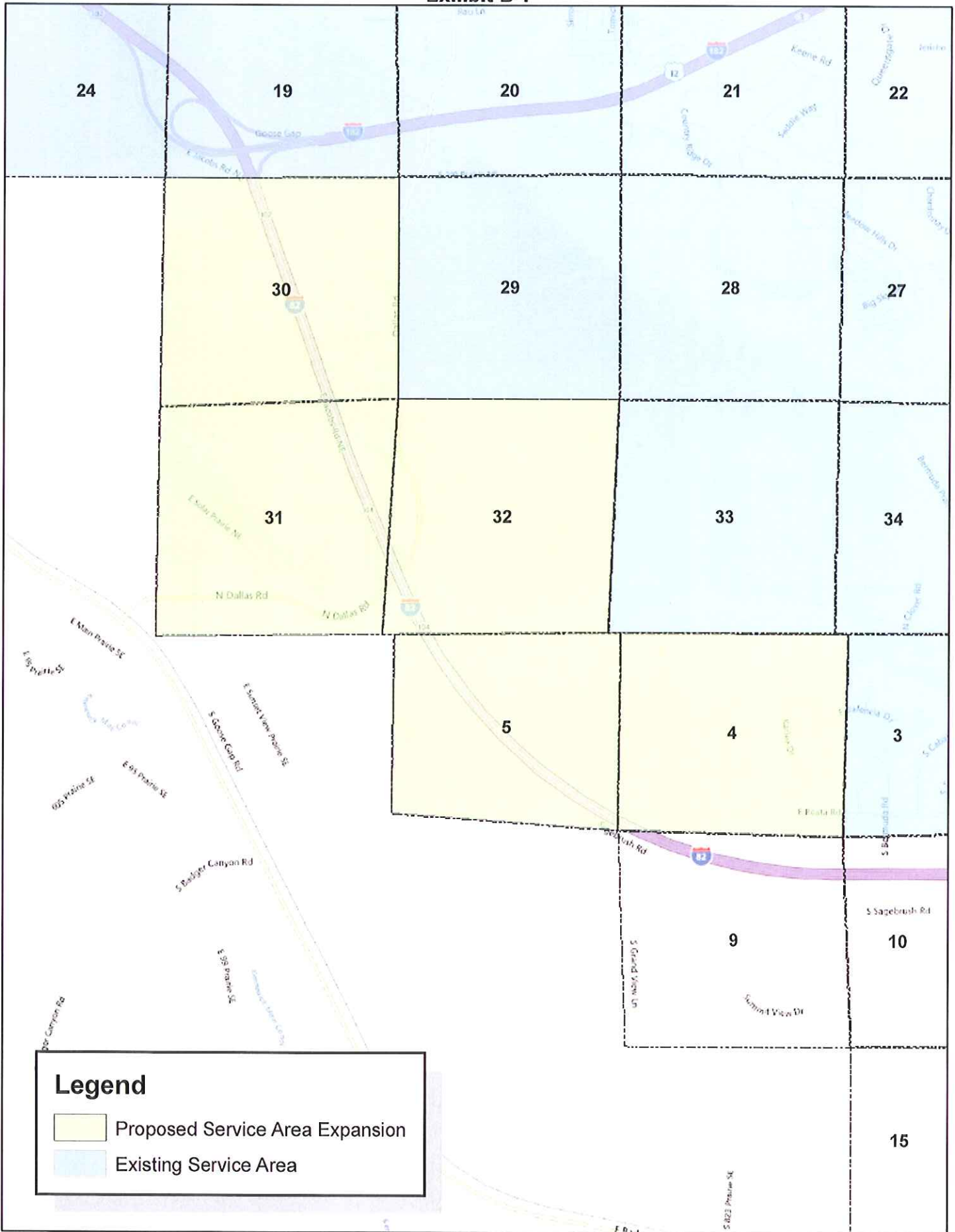
CONTRACTOR LABOR

Item	Quantity	Unit Cost	Total
Mobilization OT		\$400.00	\$ -
Mobilization Dig		\$500.00	\$ -
4" PE Install OT (ft)	4110	\$4.50	\$ 18,495.00
4" PE Install Dig (ft)		\$10.40	\$ -
4" Steel Install OT (ft)	12300	\$10.80	\$ 132,840.00
4" Steel Install Dig (ft)		\$17.45	\$ -
4" PE/Steel Missle/Hog shot (ft)		\$24.00	\$ -
4" PE Directional Bore (ft)		\$27.00	\$ -
4" Steel Directional Bore (ft)		\$30.00	\$ -
Casing - Open Cut (ft) Diam.: 8		\$34.00	\$ -
Casing - Bore (ft) Diam.: 8		\$68.00	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in): 3		\$1.35	\$ -
Blacktop Saw/Cut (lin. ft) Depth (in): 4		\$1.80	\$ -
Blacktop Remove (sq ft) Depth (in): 3		\$1.75	\$ -
Blacktop Remove (sq ft) Depth (in): 4		\$2.00	\$ -
Blacktop Place (sq ft) Depth (in): 3		\$4.48	\$ -
Blacktop Place (sq ft) Depth (in): 4		\$5.17	\$ -
Concrete Saw/Cut (lin. ft) Depth (in): 4		\$3.00	\$ -
Concrete Remove (sq ft) Depth (in): 4		\$2.45	\$ -
Concrete Place (sq ft) Depth (in): 4		\$1.08	\$ -
Blacktop/Concrete Disposal (ton)		\$10.75	\$ -
Cold Mix (sq ft)		\$4.00	\$ -
Crushed Rock (cu yard)		\$31.80	\$ -
Sand (cu yard)		\$31.80	\$ -
Hauloff (cu yard)		\$13.75	\$ -
Topsoil (cu yard)		\$22.40	\$ -
Beauty Bark (cu yard)		\$22.50	\$ -
Sod Remove/Replace (sq ft)		\$2.50	\$ -
Flagging (man hr)		\$42.00	\$ -
Miscellaneous			\$ -
T&M (crew hour)		\$265.00	\$ -
Trench Shoring (per job)		\$250.00	\$ -
Additional 2" Tie-in, top tap		\$110.00	\$ -
Additional 2" Tie-in, wrap around		\$350.00	\$ -
Additional Bell Hole		\$237.00	\$ -
Tie in exist stub to main		\$75.00	\$ -

Trenching over 3' deep (ft)	Depth (ft):	10				\$10.50	\$ -
Other Contractor Labor							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
							\$ -
Sales Tax						8.60%	\$13,015
Total Contractor Labor							\$ 164,349.81
CASCADE LABOR							
Item	Units			Unit Cost		Total	
Crew Labor (per hour)					\$265.00		\$ -
Control Equip Mech + Tap Truck (per hour)					\$130.00		\$ -
Inspection (per hour)					\$70.00		\$ -
							\$ -
							\$ -
							\$ -
							\$ -
Total CNG Labor							\$ -
Contingency	Use 10% for OT, 20% for non OT				20%		\$ 32,869.96
							\$ -
TOTAL PROJECT COST							\$ 270,842.47

For frost, rock removal/saw, jackhammer, hard pan see blanket rate sheet and discuss with supervisor.

Exhibit B-1



Service Area Boundary Expansion

B-2

Legal Description Addition:

Beginning at the northwest corner of Sec. 30, T. 9N., R. 28 E., and the True Point of Beginning: thence east along the north line of Sec. 30, T. 9N., R. 28 E., to the northeast corner of Sec. 30, T. 9N., R. 28 E., thence south along the east line of Sec. 30, T. 9N., R. 28 E., to the southeast corner of Sec. 30, T. 9N., R. 28 E., thence east along the north line of Sec. 32, T. 9N., R. 28 E., to the northeast corner of Sec. 32, T. 9N., R. 28 E., thence south along the east line of Sec. 32, T. 9N., R. 28 E., to the southeast corner of Sec. 32, T. 9N., R. 28 E., thence east along the north line of Secs. 05 and 04, T. 8N., R. 28 E., to the northeast corner of Sec. 4, T. 8N., R. 28 E., thence south along the east line of Sec. 04, T. 8N., R. 28 E., to the southeast corner of Sec. 4, T. 8N., R. 28 E., thence west along the south line of Secs. 04 and 05, T. 8N., R. 28 E., to the southwest corner of Sec. 5, T. 8N., R. 28 E., thence north along the west line of Sec. 05, T. 8N., R. 28 E., to the northwest corner of Sec. 5, T. 8N., R. 28 E., thence west along the south line of Secs. 32 and 31, T. 9N., R. 28 E., to the southwest corner of Sec. 31, T. 9N., R. 28 E., thence north along the west line of Secs. 31 and 30, T. 09N., R. 28 E. to the True Point of Beginning.