

**ORIGINAL**  
**NEW APPLICATION**



0000120285

**BEFORE THE ARIZONA CORPORATION COMMISSION**  
**RECEIVED**

Arizona Corporation Commission

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**COMMISSIONERS**

KRISTIN K. MAYES, CHAIRMAN  
GARY PIERCE  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP

IN THE MATTER OF THE  
APPLICATION OF WICKENBURG  
RANCH WASTEWATER, AN ARIZONA  
LIMITED LIABILITY COMPANY, FOR A  
CERTIFICATE OF CONVENIENCE AND  
NECESSITY TO PROVIDE  
WASTEWATER SERVICE IN YAVAPAI  
COUNTY

Docket No. SW-20769A-10-0469

**APPLICATION FOR A  
CERTIFICATE OF CONVENIENCE  
AND NECESSITY**

Applicant Wickenburg Ranch Wastewater, LLC (Company) submits the following  
in support of this Application.

**PRELIMINARY STATEMENT**

Company is seeking to provide wastewater utility service to customers in Yavapai  
County, Arizona. Company currently serves no customers and has no operating plant.  
The proposed development to be served by Company is owned by Vanwick, LLC, Van  
Development Co., Inc., 5860 Development Inc., and JVT Investors, LLC (collectively  
referred to as Developer).<sup>1</sup> Developer is building a 2,162-acre master planned  
community consisting of 1,724 single-family home lots, 600 multi-family units (2,324  
housing units total), and commercial units known as Wickenburg Ranch. The Developer  
owns all of the land within the proposed Company service area and wants Company to  
provide wastewater service. Therefore, Company is seeking approval of this Application

<sup>1</sup> The exception is the parcel dedicated to Arizona Public Service Company for construction of a substation.

1 to enable it to provide wastewater service to Wickenburg Ranch within the area described  
2 in Exhibit 1 and mapped in Exhibit 2.

3 **APPLICATION DETAILS**

4 The Company is filing this Application, and consistent with the Commission's  
5 rules, is providing the following corporate and management details, development  
6 information, and financial projections:

7 A. The name, address and telephone number of the Applicant (Company) is:

8 **Wickenburg Ranch Wastewater, LLC**  
9 **Attention: The M3 Companies**  
10 **4222 E. Camelback Road**  
11 **Suite H100**  
12 **Phoenix, Arizona 85018**  
13 **602-386-1307**

14 B. If doing business (d.b.a.) under a name other than the Applicant (Company) name  
15 listed above, specify:

16 **N/A**

17 C. List the full name, address and telephone number of the management contact:

18 **William I. Brownlee**  
19 **Manager, The M3 Companies LLC**  
20 **4222 E. Camelback Road**  
21 **Suite H100**  
22 **Phoenix, Arizona 85018**  
23 **602-386-1307**

24 D. List the full name, address and telephone number of the attorney for the Applicant:

25 **Steve Wene**  
26 **Moyes Sellers & Sims Law Offices**  
27 **1850 North Central Avenue, Suite 1100**  
28 **Phoenix, Arizona 85004**  
**602-604-2189**

E. List the full name, address and telephone number of the operator certified by the  
Arizona Department of Environmental Quality:

1 **Peter Chan, PE – Certified Operator, No. 26138**  
 2 **Project Manager – GDH Inc.**  
 3 **7600 N. 16<sup>th</sup> Street, Suite 205**  
 4 **Phoenix, AZ 85020**  
 5 **(602) 216-7200**

6 **F:** List the full name, address and telephone number of the on-site manager of the utility:

7 **Peter Chan, PE – Certified Operator, No. 26138**  
 8 **Project Manager – GDH Inc.**  
 9 **7600 N. 16<sup>th</sup> Street, Suite 205**  
 10 **Phoenix, AZ 85020**  
 11 **(602) 216-7200**

12 **G:** The Applicant is a:

<input type="checkbox"/> Corporation: <input type="checkbox"/> "C", <input type="checkbox"/> "S", <input type="checkbox"/> Non-Profit <input type="checkbox"/> Arizona, <input type="checkbox"/> Foreign	<input type="checkbox"/> Partnership <input type="checkbox"/> Limited, <input type="checkbox"/> General <input type="checkbox"/> Arizona, <input type="checkbox"/> Foreign
<input type="checkbox"/> Sole Proprietorship	<input checked="" type="checkbox"/> Limited Liability Co, (LLC)
<input type="checkbox"/> Other (Specify)	

13 **H.** If Applicant is a corporation: **N/A**

14 1. List of names of Officers and Directors:

15 **Officers N/A Directors N/A**

16 2. Attach a copy of the corporation's "Certificate of Good Standing" issued by the Corporation's Division of the Arizona Corporation Commission. **N/A**

17 3. Attach a copy of the Articles of Incorporation. **N/A**

18 4. Attach a copy of the corporation's By-Laws. **N/A**

1 5. If a for-profit corporation, indicate the number of shares of stock authorized  
2 for issue: N/A

3 6. If stock has been issued, indicate the number of shares issued and date of  
4 issue: N/A

5 H. If the Applicant is a partnership: N/A

6 1. List the names of the general partners: N/A

7  
8 2. List the name, address and telephone number of the manager partners:  
N/A

9  
10 3. Attach a copy of the Partnership's Articles of Partnership. N/A

- 11 • If the Applicant is a foreign limited partnership, provide a copy of  
12 the Partnership's "Certificate of Registration" filed with the Arizona  
13 Secretary of State. N/A

14 I. If the Applicant is a Limited Liability Company:

15 1. List the full name and mailing address of all the Applicant's managers or, if  
16 management is reserved to the members, the Applicant's members:

17 **The Company is managed by VANWICK LLC. Larry Van Tuyl is the**  
18 **sole member of VANWICK LLC. The mailing address of 1550 East**  
**Missouri, Ste. 300, Phoenix, AZ 85014.**

19 2. Attach a copy of the Articles of Organization.

20 **See Exhibit 3.**

21  
22 J. List the legal name and mailing address of each other utility in which the applicant  
has an ownership interest:

23 **None.**

24  
25 K. Attach a description of the requested service area, expressed in terms of  
26 **CADASTRAL** (quarter section description) or **Metes and Bounds** survey.  
References to parcels and docket numbers will not be accepted.

27  
28 **See Exhibit 1.**

1 L. Attach a detailed map using the form provided as Attachment "B". Shade and  
2 outline the area requested. Also, indicate any other utility within the general area  
3 using different colors.

4 **See Exhibit 2.**

5 M. List the name of each county in which the requested service area is located and a  
6 description of the area's location in relation to the closest municipality, which  
7 shall be named:

8 **The requested service area is located within Yavapai County. The closest**  
9 **municipality is the Town of Wickenburg, which is approximately 5 miles**  
10 **south of the requested service area.**

11 N. Attach a complete description of the facilities proposed to be constructed,  
12 including a preliminary engineering report with specifications in sufficient detail  
13 to describe each water system and the principal components of each water system  
14 (e.g., source, storage, transmission lines, distribution lines, etc.) to allow  
15 verification of the estimated costs provided under subsection (B)(5)(o) and  
16 verification that the requirements of the Commission and the Arizona Department  
17 of Environmental Quality can be met.

18 **See Exhibit 4.**

19 O. Provide the estimated total construction cost of the proposed offsite and onsite  
20 facilities, including documentation to support the estimates, and an explanation of  
21 how the construction will be financed, such as through debt, equity, advances in  
22 aid of construction, contributions in aid of construction, or a combination thereof.

23 **The Company proposes the maintenance of a capital structure that includes a**  
24 **minimum of 70% equity and no more than 30% combined advances-in-aid-**  
25 **of-construction and contributions-in-aid-of-construction. The full build-out**  
26 **cost estimate is \$11,228,886. See Exhibit 5.**

27 P. Explain the method of financing utility facilities. Refer to the instructions, item  
28 no. 7. (Use additional sheets if necessary):

**The homebuilders and commercial developers purchasing the development**  
**lots will be required to construct the collection system within the subdivisions**  
**they are developing. The Company will utilize the capital structure in**  
**paragraph "O" above to build the treatment plant and backbone**  
**infrastructure, which includes main transmission lines, lift stations,**  
**manholes and other similar equipment.**

1 Q. Attach financial information in a format similar to Attachment "C". Include  
2 current assets and liabilities, an income statement, estimated revenue and expenses  
3 and the estimated value of the applicant's utility plant in service for the first five  
4 years following approval of the application.

5 **See Exhibit 6.**

6 R. Provide a detailed description of the proposed construction timeline for facilities  
7 with estimated starting and completion dates and, if construction is to be phased, a  
8 description of each separate phase of construction.

9 **The Company projects that construction of the wastewater treatment  
10 facility (WWTF) will consist of three phases, beginning with an initial phase  
11 of 100,000 gpd with expansion areas provided for two additional 315,000 gpd  
12 trains to serve the Wickenburg Ranch Development. The initial phase will  
13 consist of an extended aeration package plant with bar screen; influent pump  
14 station with pumping equipment; headworks to consist of flow metering and  
15 screening; toxic and aeration chambers; aeration supplied using positive  
16 displacement blowers; clarifier; filtration and UV disinfection; MCC and  
17 electrical system; and reuse system. The second and third phases will switch  
18 to a MBR process with fine screens, membrane bioreactor and chlorine  
19 disinfection. The sewer collection system will be phased in as the residential  
20 and commercial properties are constructed.**

21 **Consistent with improvements described above, the Company projects that  
22 construction of the first phase will commence in the third quarter of 2011 and  
23 will be completed in the second quarter of 2012. Further, it is anticipated  
24 that construction of the second phase will commence in the third quarter of  
25 2012 and will be completed in the second quarter of 2013. The Company also  
26 projects that the third phase will commence in the first quarter of 2019 and  
27 will be completed in the third quarter of 2019.**

28 S. Provide a copy of any requests for service from persons who own land within the  
proposed service area or extension area, which shall indentify the applicant by  
name.

**The Developer requesting service owns the entire area except the site  
dedicated to Arizona Public Service Company for a substation site.**

T. Provide maps of the proposed service area indentifying:

1. The boundaries of the area, with the total acreage noted;

- 1 2. The land ownership boundaries within the area, with the acreage of each  
2 separately owned parcel within the area noted;
- 3 3. The owner of each parcel within the area;
- 4 4. Any municipality corporate limits that overlap with or are within five miles of  
5 the area;
- 6 5. The service area of any public service corporation, municipality, or district  
7 currently providing water or wastewater service within one mile of the area, with  
8 identification of the entity providing service and each type of service being  
9 provided;
- 10 6. The location within the area of any known water service connections that are  
11 already being provided service by the applicant;
- 12 7. The location of all proposed developments within the area;
- 13 8. The proposed location of each water system and the principal; and
- 14 9. The location of all parcels for which a copy of a request for service has been  
15 submitted.

16 **See Exhibit 2.**

- 17 U. Provide a copy of each notice to be sent, as required, to a municipal manager or  
18 administrator.

19 **See Exhibit 7.**

- 20  
21 V. Provide copy of each notice sent, as required, to a landowner not requesting  
22 service.

23 **See Exhibit 8.**

- 24 W. For each landowner not requesting service, provide either the written response  
25 received from the landowner or, if no written response was received, a description  
26 of the actions by the applicant to obtain a written response.

27 **N/A**

1 X. Attach proposed Tariffs using either the water or sewer format of Attachment "D"  
2 unless the Utilities Division, prior to the filing of this application, approves  
3 another form.

4 **See Exhibit 9.**

5 Y. Attach the following permits:

6  
7 1. The franchise from either the City or County for the area requested.

8 **Yavapai County does not require a franchise for Wickenburg Ranch.**  
9 **See Exhibit 10.**

10 2. The Arizona Department of Environmental Quality (or its designee's)  
11 approval to construct facilities.

12 **See Exhibit 11 for Yavapai County Construction Authorization for sewer**  
13 **lines. Approval to Construct treatment facility will be filed upon receipt.**

14 3. The Arizona State Land Department approval. (If you are including any  
15 State Land in your requested area this approval is needed.)

16 N/A

17 4. Any U.S. Forest Service approval. (If you are including any U.S. Forest  
18 Service land in your requested area this approval is needed.)

19 N/A

20 Z. Indicate the estimated number of customers, by class, to be served in each of the  
21 first five years of operation. Include documentation to support the estimates.

22 **Residential:**

23  
24 First Year 190 Second Year 430 Third Year 720 Fourth Year 1,085 Fifth Year  
25 1,487 (includes RV Park estimates)

26 **Commercial:**

27 First Year 3 Second Year 4 Third Year 5 Fourth Year 6 Fifth Year 7

28 **Industrial:**

1  
2 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

3 **Irrigation: (effluent purchasers)**

4 First Year 2 Second Year 2 Third Year 2 Fourth Year 2 Fifth Year 2

5 AA. Indicate the projected annual water consumption or sewerage treatment, in gallons,  
6 for each of the customer classes for each of the first five years of operation:

7 **Residential:**

8 First Year 7,573,750 Second Year 25,002,500 Third Year 46,993,750

9 Fourth Year 74,688,125 Fifth Year 107,492,500

10 **Commercial:**

11 First Year 740,950 Second Year 9,865,950 Third Year 9,938,950

12 Fourth Year 12,128,950 Fifth Year 23,078,950

13 **Industrial:**

14 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

15 **Irrigation:**

16 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

17 BB. Indicate the total estimated annual operating revenue for each of the first five  
18 years of operation:

19 **Residential:**

20 First Year \$100,552 Second Year \$328,505 Third Year \$610,157

21 Fourth Year \$958,931 Fifth Year \$1,367,848

22 **Include RV:**

23 **Commercial:**

24 First Year \$4,758 Second Year \$11,103 Third Year \$14,275

1 Fourth Year \$17,448 Fifth Year \$20,620

2 **Industrial:**

3  
4 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

5 **Irrigation:**

6 First Year \$6,436 Second Year \$26,988 Third Year \$44,066  
7 Fourth Year \$67,196 Fifth Year \$101,062

8  
9 CC. Indicate the total estimated annual operating expenses for each of the first five  
10 years of operation:

11 **Combined:**

12 First Year \$168,397 Second Year \$428,483 Third Year \$642,036  
13 Fourth Year \$753,199 Fifth Year \$883,911

14 **Residential:**

15 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

16 **Commercial:**

17 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

18 **Industrial:**

19 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

20 **Irrigation:**

21 First Year \_\_\_ Second Year \_\_\_ Third Year \_\_\_ Fourth Year \_\_\_ Fifth Year \_\_\_

22  
23  
24  
25 DD. Attach an itemized list of the major components of the water or sewer system (see  
26 Attachment C-3).

27 **See Exhibit 5.**

28 EE. Indicate the total estimated cost to construct utility facilities.

1           **\$11,228,886.35.**

2  
3 FF.   Provide a description of how wastewater service is to be provided in the proposed  
4 service area or extension area and the name of each wastewater service provider  
5 for the area, if any.

6           **See Exhibit 4.**

7 GG.   Provide a letter from each wastewater service provider identified under subsection  
8 (B)(5)(aa), confirming the provision of wastewater service for the proposed  
9 service area or extension area.

10          N/A

11 HH.   Provide plans for or a description of water conservation measures to be  
12 implemented in the proposed service area or extension area:

13           **The Company will provide reclaimed water to irrigate turf-related facilities  
14 and landscaped common areas.**

15 II.    Provide a backflow prevention tariff that complies with Commission standards, if  
16 not already on file.

17          N/A

18 JJ.    Provide a curtailment tariff that complies with Commission standards, if not  
19 already on file.

20          N/A

21 KK.    Provide a copy of a Physical Availability Determination, Analysis of Adequate  
22 Water Supply, or Analysis of Assured Water Supply issued by the Arizona  
23 Department of Water Resources for the proposed service area or extension area or,  
24 if not yet obtained, the status of the application for such approval;

25           **See Exhibit 12.**

26           **REQUEST FOR APPROVAL**

27           As set forth in this Application, the Company requests that the Commission  
28 authorize it to provide wastewater service in the area described herein.

1 DATED this 16<sup>th</sup> day of November, 2010.

2  
3 **MOYES SELLERS & SIMS**

4 

5 Steve Wene  
6 1850 North Central Avenue, Suite. 1100  
7 Phoenix, AZ 80004  
8 (602) 604-2189

9 **Original and thirteen** copies filed this  
10 16<sup>th</sup> day of November, 2010, with:

11 Docket Control  
12 Arizona Corporation Commission  
13 1200 West Washington  
14 Phoenix, Arizona 85007

15 



# EXHIBIT 1

EXHIBIT 1

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No 1

All that portion of Sections 7, 8, 17 and 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Northeast Corner of said Section 7, point also being the Northwest corner of said Section 8;  
Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8;  
Thence South 17 degrees 27 minutes 50 seconds East, 913.00 feet;  
Thence South 20 degrees 28 minutes 12 seconds East, 802.26 feet;  
Thence South 39 degrees 20 minutes 49 seconds East, 1119.67 feet;  
Thence South 17 degrees 52 minutes 53 seconds East, 402.20 feet;  
Thence South 12 degrees 51 minutes 26 seconds West, 249.52 feet;  
Thence South 01 degrees 07 minutes 38 seconds West, 411.79 feet;  
Thence South 23 degrees 07 minutes 02 seconds East, 236.98 feet;  
Thence South 38 degrees 58 minutes 00 seconds East, 329.01 feet;  
Thence South 54 degrees 59 minutes 00 seconds East, 1101.16 feet;  
Thence South 13 degrees 43 minutes 16 seconds West, 1068.17 feet to a point from which the South Quarter corner of said Section 8 bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;  
Thence North 85 degrees 04 minutes 37 seconds West, 417.23 feet;  
Thence North 74 degrees 12 minutes 30 seconds West, 384.82 feet;  
Thence North 85 degrees 59 minutes 26 seconds West, 252.71 feet;  
Thence South 87 degrees 41 minutes 42 seconds West, 678.82 feet;  
Thence North 78 degrees 08 minutes 06 seconds West, 799.05 feet;  
Thence North 69 degrees 14 minutes 01 seconds West, 601.69 feet to a point from which the corner common to said Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;  
Thence South 06 degrees 07 minutes 06 seconds West, 642.74 feet;  
Thence South 23 degrees 44 minutes 04 seconds East, 565.53 feet;  
Thence South 05 degrees 31 minutes 57 seconds West, 817.18 feet;  
Thence South 11 degrees 54 minutes 27 seconds West, 1042.85 feet;  
Thence South 74 degrees 13 minutes 56 seconds West, 437.84 feet;  
Thence South 82 degrees 21 minutes 15 seconds West, 62.17 feet;  
Thence North 78 degrees 05 minutes 33 seconds West, 964.58 feet to a point on the East right-of way of United States Highway 89;  
Thence North 10 degrees 49 minutes 30 seconds West, 7191.87 feet along the said East right-of-way to a point on a tangent curve concave to the West and having a radius of 11,510.00 feet and a center point which bears South 79 degrees 06 minutes 51 seconds West;

Thence continuing along said curve through a central angle of 02 degrees 43 minutes 45 seconds and an arc length of 548.27 feet;

Thence North 13 degrees 31 minutes 56 seconds West, 496.30 feet along the East right-of-way to a point on the North line of said Section 7;

Thence South 89 degrees 59 minutes 56 seconds East, 925.02 feet along the said North line to the North Quarter corner of said Section 7;

Thence South 89 degrees 56 minutes 00 seconds East, 2368.78 feet to the Northeast corner of said Section 7 and the POINT OF BEGINNING.

EXCEPTING there from that portion of the Southeast quarter of the Northwest (SE ¼, NW ¼) of Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at an aluminum cap marking the West quarter corner of said Section 7 from which a rebar marking the East quarter corner of said Section 7 bears South 89 degrees 06 minutes 17 seconds East, 5288.84 feet;

Thence along the East-West mid section line of said Section 7, South 89 degrees 06 minutes 17 seconds East 2483.49 feet to the existing right of way centerline of State Route 89 (Wickenburg-Prescott Highway);

Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 144.20 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the said existing Easterly right of way line of said State Route 89 and the Point of Beginning;

Thence South 55 degrees 18 minutes 52 seconds East 29.70 feet;

Thence South 10 degrees 18 minutes 52 seconds East, 50.00 feet;

Thence South 33 degrees 21 minutes 12 seconds West 30.41 feet to said existing Easterly right of way line of said State Route 89;

Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 93.00 feet to the Point of Beginning.

AND EXCEPTING that portion of the Southwest quarter of the Southeast quarter (SW ¼, Se ¼) of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, described as follows;

COMMENCING at a rebar marking the South quarter corner of said Section 7 from which a marked stone marking the Southeast corner of said Section 7 bears South 89 degrees 32 minutes 23 seconds East 2643.46 feet;

Thence along the South line of said Section 7 South 89 degrees 32 minutes 23 seconds East 347.08 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 898.02 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the existing right of way line State Route 89 and the Point of Beginning;

Thence South 55 degrees 18 minutes 52 seconds East 7.07 feet;

Thence South 10 degrees 18 minutes 52 seconds East 76.00 feet;

Thence South 34 degrees 41 minutes 08 seconds West 7.07 feet to said existing Easterly right of way line of State Route 89;  
Thence along said existing Easterly right of way line of State Route 89 North 10 degrees 18 minutes 52 seconds West 86.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northwest quarter of the Northeast quarter (NW ¼, NE ¼) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a marked stone marking the Northeast corner of said Section 18 from which a rebar marking the North quarter corner of said Section 18 bears North 89 degrees 35 minutes 35 seconds West 2643.46 feet;  
Thence along the North line of said Section 18, North 89 degrees 35 minutes 33 seconds West, 2296.38 feet to said existing right of way centerline of State Route 89;  
Thence along said existing right of way centerline of said State Route 89, South 10 degrees 18 minutes 52 seconds East 616.98 feet;  
Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of said State Route 89 and the Point of beginning;  
Thence South 55 degrees 18 minutes 52 seconds East 24.04 feet;  
Thence South 10 degrees 18 minutes 52 seconds East 20.00 feet;  
Thence South 34 degrees 41 minutes 08 seconds West 24.04 feet to said existing right of way line of said State Route 89;  
Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 54.00 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(Reservoir Site 2008)

AND EXCEPT that portion of the Northwest quarter of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the North quarter corner of said Section 7;  
Thence North 89 degrees 59 minutes 56 seconds West along the North line of said Northwest quarter a distance of 476.65 feet to the TRUE POINT OF BEGINNING;  
Thence South 00 degrees 00 minutes 00 seconds East, leaving said North line a distance of 193.27 feet;  
Thence South 75 degrees 41 minutes 21 seconds East a distance of 318.69 feet to a point on a curve the radius of which bears South 45 degrees 19 minutes 13 seconds East a distance of 42.50 feet;

Thence Southerly along the arc of said curve through a central angle of 41 degrees 35 minutes 32 seconds a distance of 30.85 feet;

Thence North 75 degrees 18 minutes 54 seconds West, leaving said curve a distance of 308.93 feet;

Thence South 16 degrees 29 minutes 36 seconds West a distance of 65.66 feet;

Thence South 00 degrees 00 minutes 00 seconds East a distance of 21.39 feet to the TRUE POINT OF BEGINNING;

Thence continuing South 00 degrees 00 minutes 00 seconds East a distance of 224.22 feet;

Thence South 76 degrees 45 minutes 28 seconds West a distance of 141.74 feet;

Thence North 58 degrees 42 minutes 37 seconds West a distance of 98.50 feet;

Thence North 13 degrees 31 minutes 56 seconds West a distance of 211.40 feet;

Thence North 90 degrees 00 minutes 00 seconds East a distance of 271.61 feet, to the TRUE POINT OF BEGINNING.

(Well 4 site 2008)

AND EXCEPT That portion of the Southeast quarter of Section 7, of Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter Corner of said Section 7, from which the Southeast corner of said Section 7, bears South 00 degrees 00 minutes 08 seconds West a distance of 2641.48 feet;

Thence South 89 degrees 06 minutes 17 seconds East along the North line of said Southeast quarter a distance of 2468.03 feet;

Thence South 00 degrees 53 minutes 43 seconds West leaving said North line a distance of 663.59 feet to the TRUE POINT OF BEGINNING;

Thence North 83 degrees 04 minutes 35 seconds East a distance of 76.74 feet, to a point on a curve the radius of which bears South 83 degrees 04 minutes 35 seconds West a distance of 784.00 feet;

Thence Southerly along the arc of said curve through a central angle of 09 degrees 11 minutes 41 seconds a distance of 125.82 feet to a point of tangency;

Thence South 02 degrees 16 minutes 16 seconds West a distance of 28.78 feet;

Thence North 87 degrees 43 minutes 44 seconds West a distance of 52.84 feet;

Thence North 10 degrees 49 minutes 30 seconds West a distance of 145.58 feet to the TRUE POINT OF BEGINNING.

Parcel 1  
WR Wastewater, Service Area  
3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No 2

All that portion of Sections 7, 8, 17, 18, 19, 20 and 21, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

Commencing at the Northwest Corner of said Section 8, point also being the Northeast corner of said Section 7;

Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8 to the POINT OF BEGINNING;

Thence continuing North 89 degrees 58 minutes 15 seconds East, 4633.71 feet to the Northeast corner of said Section 8;

Thence South 00 degrees 05 minutes 03 seconds East, 2642.77 feet to the East quarter corner of said Section 8;

Thence South 00 degrees 01 minutes 00 seconds East, 2643.56 feet to the South east corner of said Section 8, point also being the northeast corner of said Section 17;

Thence South 00 degrees 00 minutes 39 seconds East, 3940.42 feet;

Thence North 63 degrees 02 minutes 31 seconds West, 1071.34 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 432.62 feet;

Thence North 42 degrees 25 minutes 18 seconds West, 173.13 feet;

Thence North 07 degrees 17 minutes 47 seconds West, 783.65 feet;

Thence North 05 degrees 50 minutes 06 seconds West, 1558.35 feet;

Thence North 86 degrees 37 minutes 10 seconds West, 2501.12 feet;

Thence South 10 degrees 26 minutes 30 seconds East, 1885.29 feet;

Thence South 12 degrees 35 minutes 38 seconds East, 1051.68 feet;

Thence South 61 degrees 23 minutes 09 seconds East, 972.18 feet;

Thence North 62 degrees 23 minutes 49 seconds East, 135.52 feet;

Thence South 49 degrees 22 minutes 53 seconds East, 66.84 feet;

Thence South 01 degrees 17 minutes 16 seconds East, 176.23 feet;

Thence South 23 degrees 00 minutes 31 seconds West, 142.25 feet;

Thence South 20 degrees 51 minutes 27 seconds West, 70.97 feet;

Thence South 15 degrees 04 minutes 21 seconds West, 231.46 feet;

Thence South 06 degrees 02 minutes 25 seconds West, 150.25 feet;

Thence South 03 degrees 24 minutes 22 seconds East, 175.23 feet;

Thence South 35 degrees 59 minutes 53 seconds East, 291.77 feet;

Thence South 61 degrees 34 minutes 03 seconds East, 135.59 feet;

Thence North 86 degrees 33 minutes 04 seconds East, 303.77 feet;

Thence North 64 degrees 28 minutes 47 seconds East, 159.98 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 540.85 feet;

Thence South 39 degrees 08 minutes 40 seconds East, 821.85 feet;

Thence South 29 degrees 01 minutes 10 seconds West, 1653.95 feet;

Thence South 29 degrees 47 minutes 42 seconds East, 3182.75 feet to a point on the line common to said Sections 20 and 21;

Thence South 89 degrees 58 minutes 04 seconds West, 1096.09 feet;

Thence South 51 degrees 09 minutes 49 seconds West, 1161.14 feet to a point on the East right-of-way of United States Highway 89 and a point on a non-tangent curve to the northeast and having a radius of 21,243.59 feet and a center point which bears North 38 degrees 50 minutes 07 seconds East;  
 Thence continuing along said curve through a central angle of 03 degrees 26 minutes 23 seconds and an arc length of 1275.14 feet;  
 Thence North 47 degrees 44 minutes 17 seconds West, 2961.13 feet along said right-of-way to a point from which the section corner common to Sections 17, 18, 19 and 20 bears North 03 degrees 37 minutes 04 seconds West, 1875.90 feet;  
 Thence North 38 degrees 48 minutes 50 seconds West, 1374.84 feet along said right-of-way to a point on a tangent curve to the Northeast and having a radius of 2810.00 feet and a center point which bears North 51 degrees 09 minutes 42 seconds East;  
 Thence continuing along said curve through a central angle of 28 degrees 02 minutes 55 seconds and an arc length of 1375.61 feet;  
 Thence North 10 degrees 49 minutes 30 seconds West, 2087.00 feet along said right-of-way;  
 Thence South 78 degrees 05 minutes 33 seconds East, 964.58 feet;  
 Thence North 82 degrees 21 minutes 15 seconds East, 62.17 feet;  
 Thence North 74 degrees 13 minutes 56 seconds East, 437.84 feet to a point from which the East Quarter corner of said Section 18, bears North 44 degrees 24 minutes 42 seconds East, 402.14 feet;  
 Thence North 11 degrees 54 minutes 27 seconds East, 1042.85 feet;  
 Thence North 05 degrees 31 minutes 57 seconds East, 817.18 feet;  
 Thence North 23 degrees 44 minutes 04 seconds West, 565.53 feet;  
 Thence North 06 degrees 07 minutes 06 seconds East, 642.74 feet to a point from which the Section corner common to Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;  
 Thence South 69 degrees 14 minutes 01 seconds East, 601.69 feet;  
 Thence South 78 degrees 08 minutes 06 minutes East, 799.05 feet;  
 Thence North 87 degrees 41 minutes 42 seconds East, 678.82 feet;  
 Thence South 85 degrees 59 minutes 26 seconds East, 252.71 feet;  
 Thence South 74 degrees 12 minutes 30 seconds East, 384.82 feet;  
 Thence South 85 degrees 04 minutes 37 seconds East, 417.23 feet to a point from which the South Quarter corner of said Section 8, bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;  
 Thence North 13 degrees 43 minutes 16 seconds East, 1068.17 feet;  
 Thence North 54 degrees 59 minutes 00 seconds West, 1101.16 feet;  
 Thence North 38 degrees 58 minutes 00 seconds West, 329.01 feet;  
 Thence North 23 degrees 07 minutes 02 seconds West, 236.98 feet;  
 Thence North 01 degrees 07 minutes 38 seconds East, 411.79 feet;  
 Thence North 12 degrees 51 minutes 26 seconds East, 249.52 feet;  
 Thence North 17 degrees 52 minutes 53 seconds West, 402.20 feet;  
 Thence North 39 degrees 20 minutes 49 seconds West, 1119.67 feet;  
 Thence North 20 degrees 28 minutes 12 seconds West, 802.26 feet;  
 Thence North 17 degrees 27 minutes 50 seconds West, 913.00 feet to the POINT OF BEGINNING.

EXCEPTING there from that portion of the West half of the Southeast quarter (W1/2 SE 1/4) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a rebar marking the West quarter corner of said Section 18 being North 89 degrees 29 minutes 14 seconds West 5285.91 feet from the unmonumented East quarter corner of said Section 18 said unmonumented corner being South 00 degrees 33 minutes 47 seconds West 65.85 feet from a stone marked "1/4 W.C." marking the witness monument to said East quarter corner;

Thence along the East-West mid section line of said Section 18 South 89 degrees 29 minutes 14 seconds East 3495.54 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89 South 10 degrees 18 minutes 52 seconds East 1324.17 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of State Route 89 and the Point of Beginning;

Thence North 34 degrees 41 minutes 08 seconds East 70.71 feet;

Thence North 10 degrees 18 minutes 52 seconds West 97.00 feet;

Thence South 79 degrees 41 minutes 08 seconds West 50.00 feet to said existing Easterly right of way line of State Route 89;

Thence along existing right of way line of State Route 89 South 10 degrees 18 minutes 52 seconds East 147.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northeast quarter of the Northeast quarter (NE 1/4 NE 1/4) of Section 19, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows;

COMMENCING at a 1/2 inch stainless steel rod with an aluminum cap marking the Northeast corner of said Section 19 from which a marked stone marking the North quarter corner of said Section 19 bears North 89 degrees 27 minutes 57 seconds West, 2641.50 feet;

Thence along the North line of said Section 19 North 89 degrees 27 minutes 57 seconds West 1249.77 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89, from a local tangent bearing of South 10 degrees 18 minutes 52 seconds East, along a curve to the left, having a radius of 2865.00 feet a length of 748.40 feet;

Thence North 55 degrees 53 minutes 23 seconds East 50.00 feet to said Easterly right of way line of said State Route 89 and the Point of Beginning;

Thence North 11 degrees 48 minutes 05 seconds East 37.76 feet;

Thence North 33 degrees 21 minutes 37 seconds West 20.44 feet;

Thence North 79 degrees 36 minutes 45 seconds West, 37.09 feet to said existing Easterly right of way line of State Route 89;

Thence along said existing Easterly right of way line of State Route 89 from a local tangent bearing of South 32 degrees 37 minutes 50 seconds East along a curve to the left having a radius of 2815.00 feet, length of 72.71 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(WWTP 2008)

AND EXCEPT That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.

(Lift Station Site 2008)

AND EXCEPT That portion of the Northeast quarter of Section 20, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter corner of said Section 20;  
Thence South 89 degrees 58 minutes 26 seconds West along the South line of said Northeast quarter, a distance of 2352.09 feet;  
Thence North 00 degrees 01 minutes 34 seconds West leaving said South line a distance of 680.23 feet to the TRUE POINT OF BEGINNING;  
Thence South 87 degrees 44 minutes 44 seconds West distance of 60.00 feet;  
Thence North 02 degrees 15 minutes 16 seconds West a distance of 85.00 feet;  
Thence North 87 degrees 44 minutes 44 seconds East a distance of 60.00 feet;  
Thence South 02 degrees 15 minutes 16 seconds East a distance of 85.00 feet to the TRUE POINT OF BEGINNING.

Parcel 2  
WR Wastewater, Service Area  
3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No. 3

All that portion of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Southwest corner of said Section 17, from which the Northwest corner bears North 00 degrees 02 minutes 17 seconds East a distance of 5281.72 feet; Thence North 33 degrees 08 minutes 10 seconds East a distance of 3560.09 feet to the TRUE POINT OF BEGINNING, said point being on the West boundary of "The Wickenburg Inn Tennis and Guest Ranch" recorded in Book 17 of Maps, Page 18, records of Yavapai County, Arizona;

Thence along said boundary, North 10 degrees 26 minutes 30 seconds West a distance of 1885.29 feet (record North 10 degrees 25 minutes 50 seconds West, 1885.15 feet); Thence South 86 degrees 37 minutes 10 seconds East a distance of 2501.12 feet (record South 86 degrees 37 minutes 21 seconds East a distance of 2501.02 feet); Thence South 05 degrees 50 minutes 06 seconds East a distance of 1558.35 feet (record South 05 degrees 50 minutes 05 seconds East a distance of 1558.42 feet); Thence South 07 degrees 17 minutes 47 seconds East a distance of 783.65 feet (record South 07 degrees 17 minutes 30 seconds East); Thence leaving said boundary, South 42 degrees 25 minutes 18 seconds East a distance of 173.13 feet;

Thence South 20 degrees 06 minutes 58 seconds West a distance of 1979.10 feet; Thence South 64 degrees 28 minutes 47 seconds West a distance of 159.98 feet; Thence South 86 degrees 33 minutes 04 seconds West a distance of 303.77 feet; Thence North 61 degrees 34 minutes 03 seconds West a distance of 135.59 feet; Thence North 35 degrees 59 minutes 53 seconds West a distance of 291.77 feet; Thence North 03 degrees 24 minutes 22 seconds West a distance of 175.23 feet; Thence North 06 degrees 02 minutes 25 seconds East a distance of 150.25 feet; Thence North 15 degrees 04 minutes 21 seconds East a distance of 231.46 feet; Thence North 20 degrees 51 minutes 27 seconds East a distance of 70.97 feet; Thence North 23 degrees 00 minutes 31 seconds East a distance of 142.25 feet; Thence North 01 degrees 17 minutes 17 seconds West a distance of 176.23 feet; Thence North 49 degrees 22 minutes 53 seconds West a distance of 66.84 feet to a point on the South boundary of said Wickenburg Inn Tennis and Guest Ranch;

Thence along said Boundary, South 62 degrees 23 minutes 49 seconds West a distance of 135.52 feet (record South 62 degrees 23 minutes 50 seconds West); Thence North 61 degrees 23 minutes 09 seconds West a distance of 972.18 feet (record North 61 degrees 23 minutes 10 seconds West a distance of 972.26 feet); Thence North 12 degrees 35 minutes 40 seconds West a distance of 1051.68 feet (record North 12 degrees 37 minutes 10 seconds West a distance of 1051.93 feet), to the TRUE POINT OF BEGINNING.

EXCEPT all minerals and all Uranium, Thorium, or any other Materials which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America.

(WWTP 2008 Site)

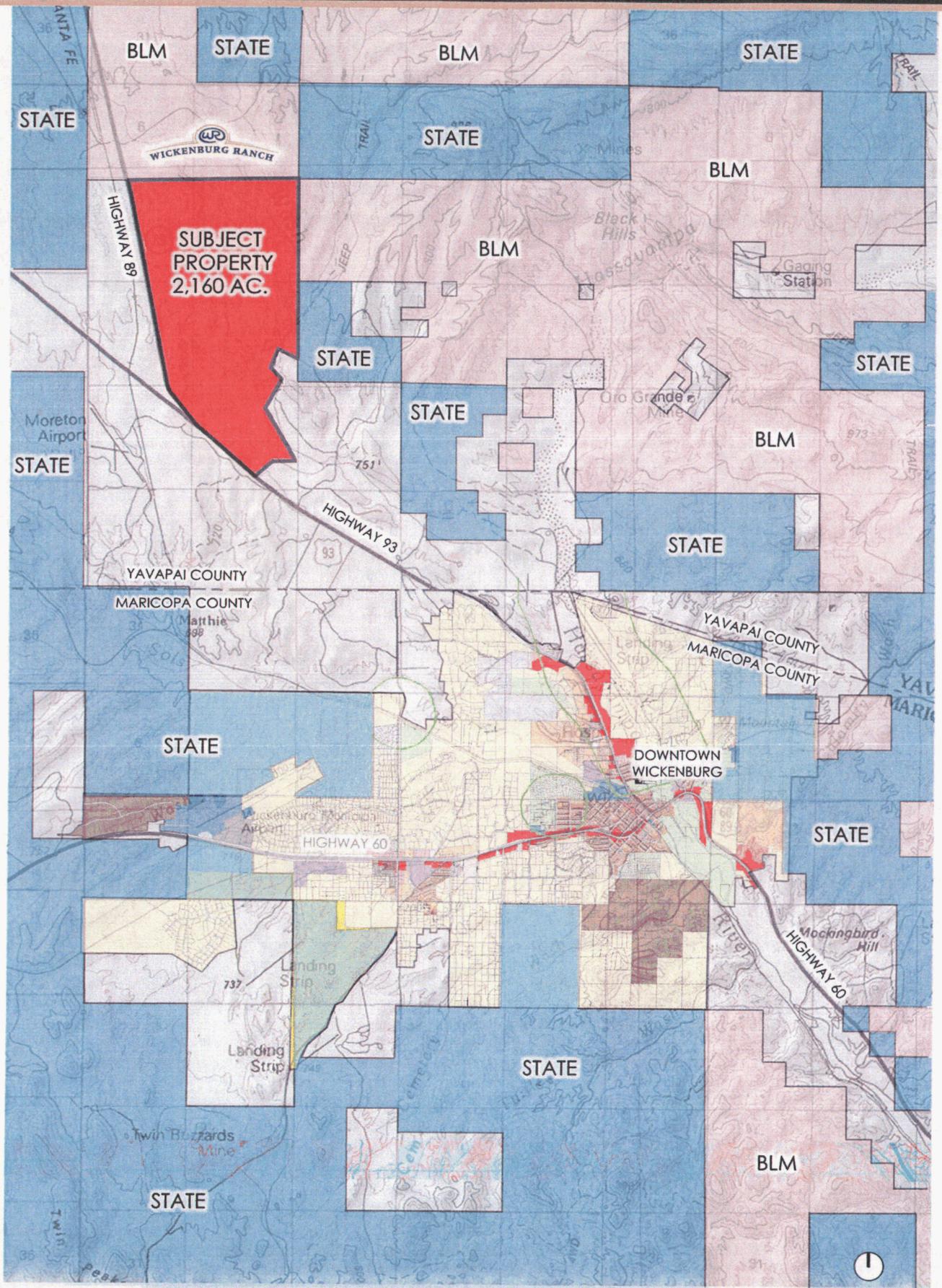
AND EXCEPTING That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.



Parcel 3  
WR Wastewater, Service Area  
3-17-09

# EXHIBIT 2



VICINITY MAP



EXHIBIT 2

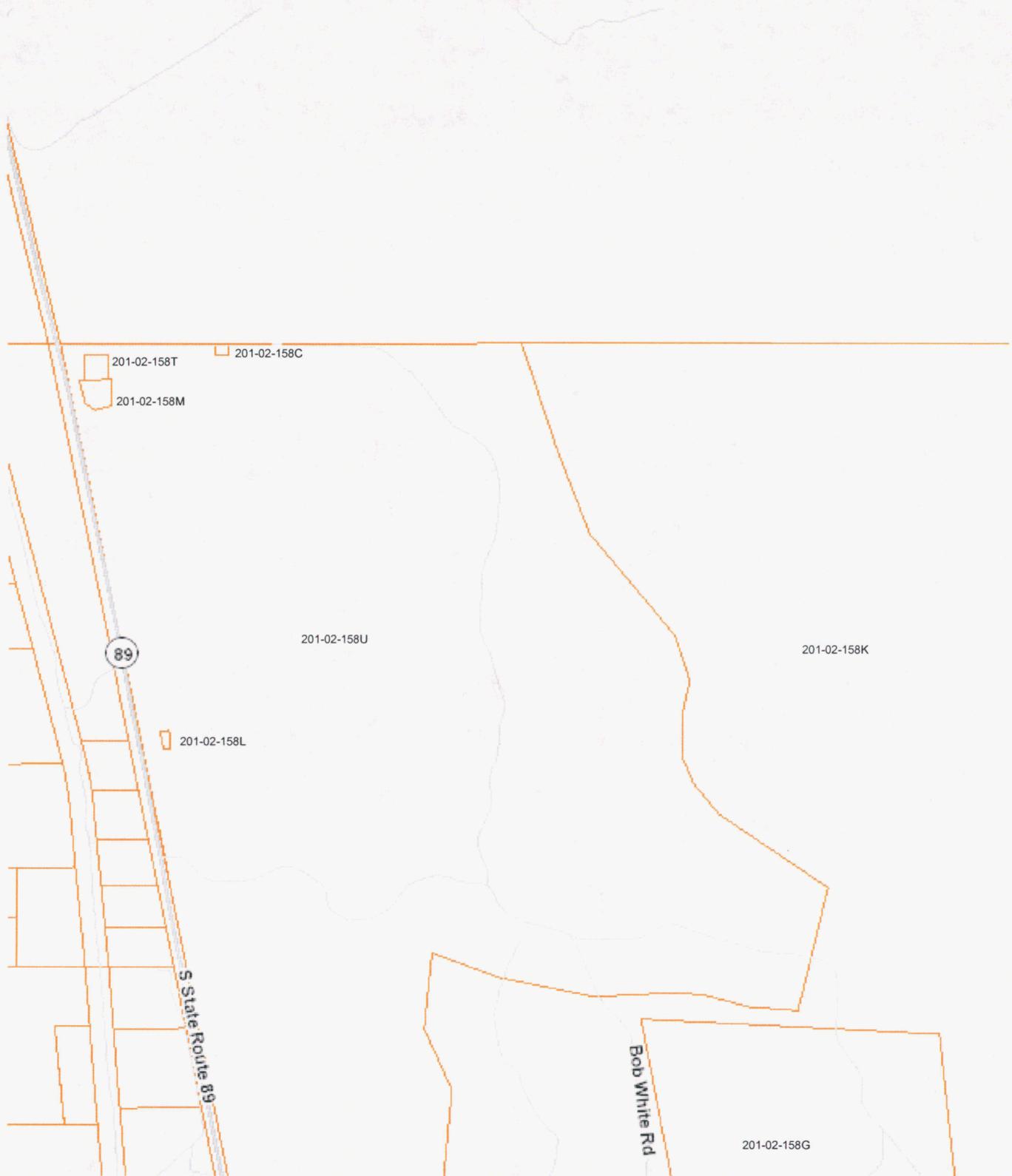
Yavapai	7, 8, 17, 19, 19, 20	8N	5W
COUNTY	SECTION	TOWNSHIP	RANGE

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Type or Print Description Here:

See attached. SEWER SERVICE AREA  
 WATER UTILITY, APS AND GUEST ALSO INCLUDED  
 IN SERVICE AREA

# Wickenburg Wastewater Boundary Area 1



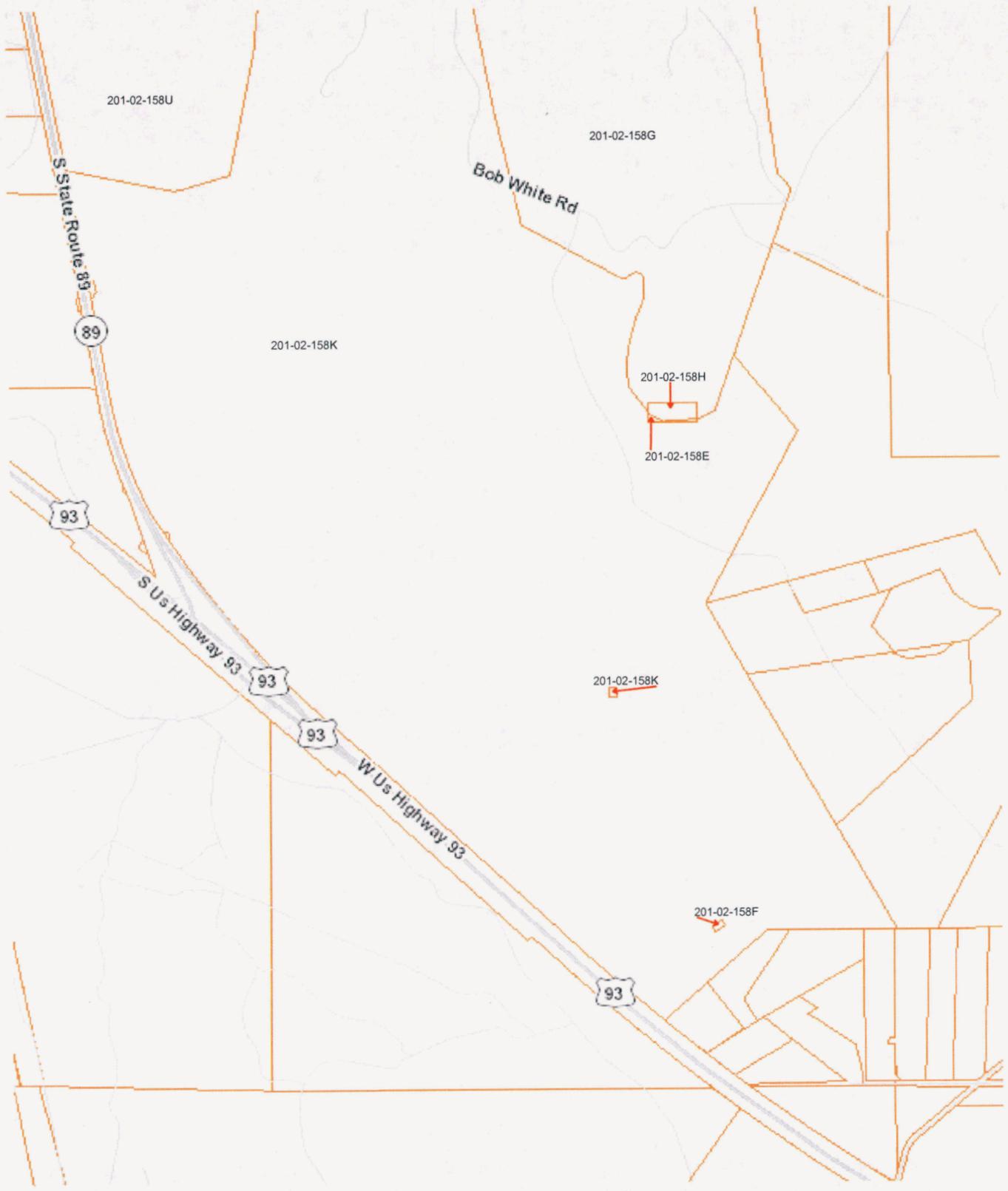
*Disclaimer: Map and parcel information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against Yavapai County that may arise from the use of this data.*

# Wickenburg Wastewater Boundary Area 2



*Disclaimer: Map and parcel information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against Yavapai County that may arise from the use of this data.*

# Wickenburg Wastewater Boundary Area 3



*Disclaimer: Map and parcel information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against Yavapai County that may arise from the use of this data.*

Wickenburg Wastewater Parcel Ownership

<u>Parcel Number</u>	<u>Size (AC)</u>	<u>Primary Owner</u>	<u>Secondary Owner</u>
201-02-158C	0.23	Van Development Company, Inc	5860 Development, Inc. & JVT Investors, LLC
201-02-158E	0.22	Vanwick, LLC	
201-02-158F	0.11	Van Development Company, Inc	5860 Development, Inc. & JVT Investors, LLC
201-02-158G	192.31	Van Development Company, Inc	5860 Development, Inc. & JVT Investors, LLC
201-02-158H	1.38	Vanwick, LLC	
201-02-158J	0.12	Vanwick, LLC	
201-02-158K	1276.08	Van Development Company, Inc	5860 Development, Inc. & JVT Investors, LLC
201-02-158L	0.23	Vanwick, LLC	
201-02-158M	1.32	Vanwick, LLC	
201-02-158T	1.0	Arizona Public Service (dedicated substation)	
201-02-158U	<u>688.52</u>	Van Development Company, Inc	5860 Development, Inc. & JVT Investors, LLC
	2161.52		

# **EXHIBIT 3**

**AZ CORPORATION COMMISSION  
FILED**

AZ Corp. Co



01913

**FEB 12 2007**

**FILE NO** L-1344511-2

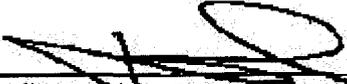
**ARTICLES OF ORGANIZATION  
OF  
VANWICK, LLC**

1. The name of the limited liability company is Vanwick, LLC.
2. The address of the registered office of the limited liability company is 1550 Missouri, Suite 300, Phoenix, Arizona 85014.
3. The name and address of the agent for service of process is Norling, Kolsrud, Sifferman & Davis, P.L.C., 16427 N. Scottsdale Road, Suite 210, Scottsdale, AZ 85254.
4. Management of the limited liability company is vested in a manager or managers. names and addresses of each person who is a manager and each member who own twenty percent (20%) or greater interest in the capital or profits of the limited liability company are:

**Manager:** **VIWICK, Inc.**  
1550 E. Missouri, Suite 300  
Phoenix, Arizona 85014

**Members:** **Larry Van Tuij**  
1550 E. Missouri, Suite 300  
Phoenix, Arizona 85014

**DATED:** February 9, 2007

  
\_\_\_\_\_  
P. Stanley Reed, Authorized Person

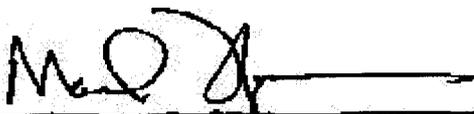
*7/05/07*  


L-1344511-2

**ACCEPTANCE OF APPOINTMENT BY STATUTORY AGENT**

Norling, Kolsrud, Sifferman & Davis, P.L.C., hereby acknowledges its appointment agent for service of process of Vanwick, LLC, and hereby accepts such appointment.

**NORLING, KOLSRUD, SIFFERMAN & DAVIS, PLC**

  
\_\_\_\_\_  
By: Marc Sifferman  
Its: Member

# **EXHIBIT 4**

# Wickenburg Ranch Estates

## WASTEWATER COLLECTION SYSTEM BASIS OF DESIGN REPORT

Prepared for:  
JVT Investors, LLC  
C/O M3 Companics, LLC  
4222 E. Camelback Rd., Ste H100  
Phoenix, AZ 85018

Prepared By:  
SKG Enterprises, Inc.  
9260 E. Rainree Dr, Suite 140  
Scottsdale, AZ 85260

SKG Project Number 154-1

June 2006  
October 2006  
October 2007  
January 2008  
February 1, 2008  
April 22, 2008  
May 15, 2008  
June 16, 2008



**Wickenburg Ranch Estates Waste Water Basis of Design Report**  
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<b>APPENDICES</b>	
Appendix I	On-site WRF Package Conceptual Design
Appendix II	Proposed Low Pressure system (L.P.S) Detail
Appendix III	Lift Station Conceptual Design Specification



Section 1

**INTRODUCTION**

Wickenburg Ranch Estates is a proposed 2,157-acre Master Planned Community with various residential land use designations consisting of a maximum of 2,324 residential units, 18-hole golf course, equestrian facilities, club house facility, trail system, and open space corridors. The Master Planned Community is located within portions of Sections 4, 5, 6, 7, 8, 17, 18, 19, and 20 of Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona. Wickenburg Ranch Estates development consists of the following tax parcel numbers:

201-02-100B	201-06-001H	201-02-156
201-02-149E	201-07-003C	201-07-002

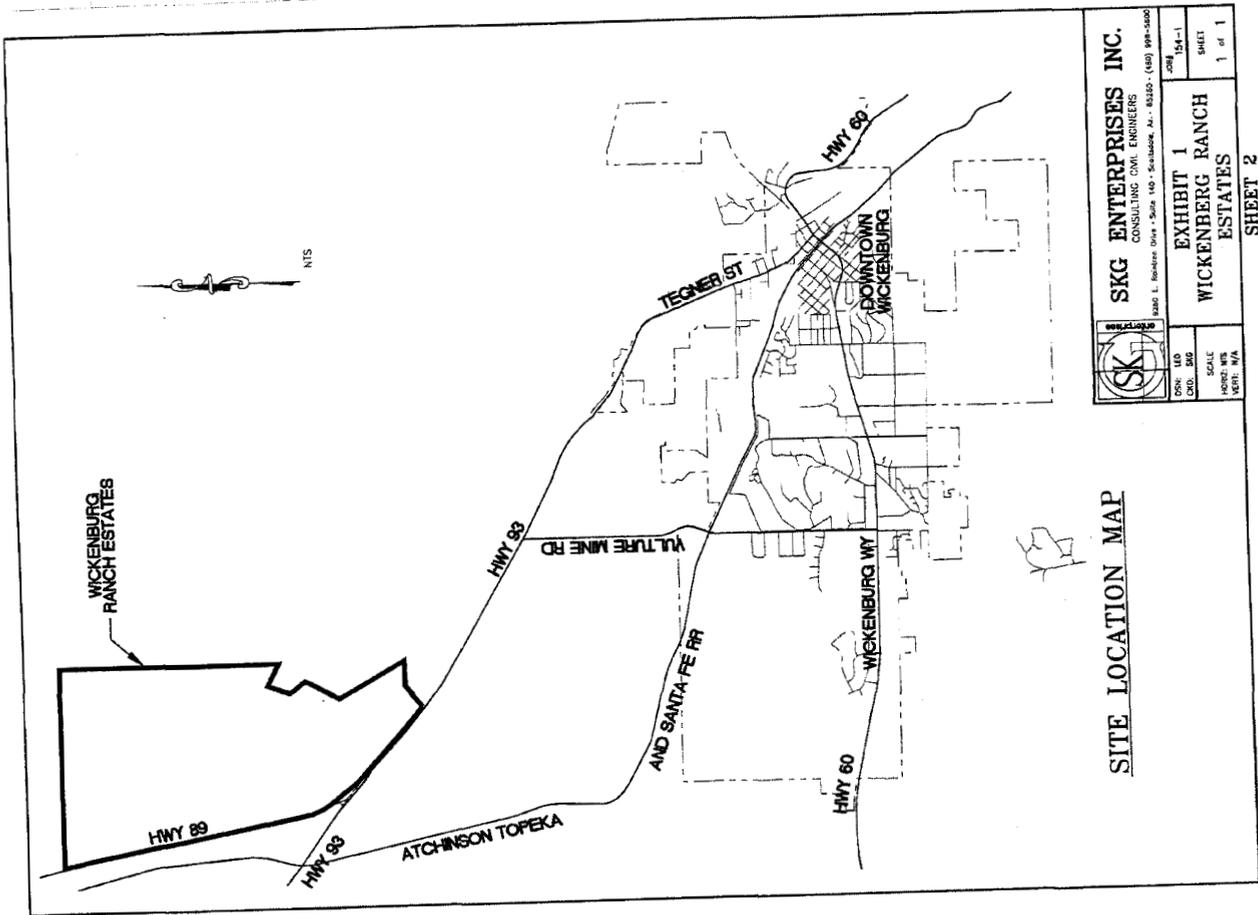
Wickenburg Ranch Estates was presented to and was approved by the Yavapai County Planning and Zoning Commission under Zoning Map Change APN: 201-02-100B, 201-02-149E, 201-02-156, 201-07-002, 201-07-003C, and 201-06-001H; HA# H5214.

A Site Location Map is shown on Exhibit 1 of this report. Exhibit 2 of this report presents the proposed Master Planned Community of Wickenburg Ranch Estates.

The Wickenburg Ranch Estates is bounded by vacant parcels of land from all directions. State Route Highway 89 bounds the proposed development along its westerly boundary and SR 93 bound the property along the southerly boundary. The land, within Wickenburg Ranch Estates slopes in a southerly to southeasterly direction at various slopes.

The name and address of the developer is:

JVT Investors, LLC  
Mr. William Brownlee  
C/O M3 Companies, LLC.  
4222 E. Camelback Rd., Ste H100  
Phoenix, AZ 85018

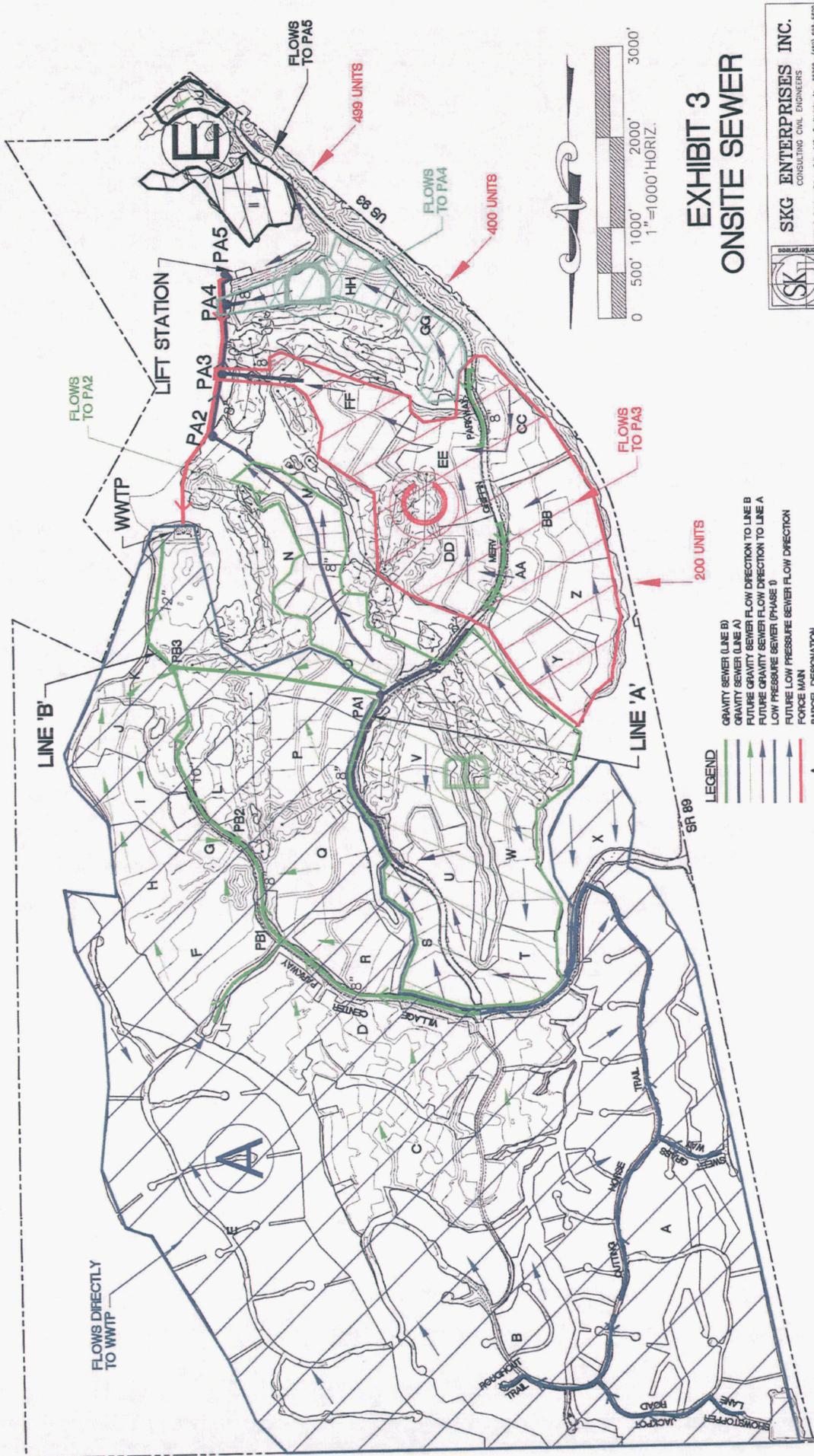


**SKG ENTERPRISES INC.**  
 CONSULTING CIVIL ENGINEERS  
 8200 E. Redstone Drive • Suite 100 • Scottsdale, Ar. • 85260 • (480) 998-0000

<table border="1"> <tr> <td>LOG</td> <td>DATE</td> </tr> <tr> <td>CHKD</td> <td>BY</td> </tr> <tr> <td>DATE</td> <td>BY</td> </tr> </table>	LOG	DATE	CHKD	BY	DATE	BY	<table border="1"> <tr> <td>SCALE</td> <td>SHEET</td> </tr> <tr> <td>VERT. N/A</td> <td>1 of 1</td> </tr> </table>	SCALE	SHEET	VERT. N/A	1 of 1
LOG	DATE										
CHKD	BY										
DATE	BY										
SCALE	SHEET										
VERT. N/A	1 of 1										
<b>EXHIBIT 1</b> <b>WICKENBURG RANCH</b> <b>ESTATES</b>											
<b>SHEET 2</b>											

**SITE LOCATION MAP**





# EXHIBIT 3 ONSITE SEWER

**SKG ENTERPRISES INC.**  
CONSULTING CIVIL ENGINEERS  
1260 E. Montrose Blvd. • Suite 110 • Scottsdale, AZ • 85260 • (480) 938-5800

SHEET 4

**LEGEND**

- SITE BOUNDARY
- ▨ PRIVATE LAND AS POSSIBLE OFF-SITE SEWER VIA FORCE MAIN (503± AREA WITH 4 A.C. D.U., 125± UNITS PER ZONING) FOR THIS STUDY USE 1099 D.U.
- ESTIMATED OFF-SITE SEWER CONTRIBUTION

WWTP  
LOCATION

WICKENBURG RANCH  
ESTATES

400 D.U.

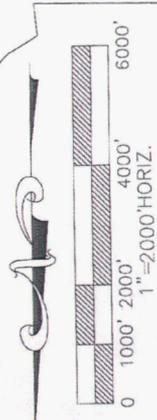
400 D.U.

200 D.U.

SR 89

US 92

YAVAPAI COUNTY  
MARICOPA COUNTY



**EXHIBIT 4  
OFFSITE SEWER**



**SKG ENTERPRISES INC.**  
CONSULTING CIVIL ENGINEERS  
1700 E. Rowles Drive • Suite 110 • Scottsdale, AZ • 85260 • (480) 988-5500

**SHEET 5**

## WASTEWATER SYSTEM

### 2.1 Objective

The objective of this wastewater report is to update and formalize the design criteria based on the preferred selected on-site WRF sewer analysis option and the updated Wickenburg Ranch Estates Master Plan, prepared by Greey-Pickett, August 17, 2007. This report will present the design parameters, density projections, proposed design flows, design capacities for the sewer main, sewer main horizontal alignments, lift station and the water reclamation facility. The density projections were based on the Land Use Plan by Greey-Pickett, which provided the parcel areas and estimated lot yield. Actual lot layouts for the development were not used for the analysis; therefore, actual alignments may be subject to changes, upon parcels developments.

### 2.2 Proposed Wastewater Collection System

SKG has previously evaluated five (5) other wastewater treatment alternatives as described in the October 2006 Water and Sewer Basis of Design Report. These alternatives were subject to the acceptance and jurisdiction with the Town of Wickenburg.

The preferred selected proposed alternative will provide a Water Reclamation Facility on site and remain in the jurisdiction of the State and Yavapai County.

This alternative will consider planning the wastewater collection system for the entire onsite generated flows for the proposed development of Wickenburg Ranch Estates and offsite flows for an equivalent of 1099 lots. The on-site system will consist of gravity systems, low pressure systems, and a pressure system.

Areas where gravity collection system is unattainable, an alternative method will be utilized. This alternative will be the utilization of "E-One" Low Pressure System (LPS) or approved equal. The onsite generated wastewater flow will be collected via a combination of gravity and a Low Pressure System throughout the development.

The site is divided into two segments relative to wastewater collection system. The vast majority of the northerly and easterly segments of the development area are proposed to flow directly into the proposed Water Reclamation Facility (WRF) location through a combination of gravity system and Low Pressure System. The remaining segment of the development area (mainly the westerly and southerly portions) together with the limited offsite generated flows are proposed to be collected at a low point, located at the vicinity of the southwesterly end of the development, where a lift station is proposed. Flow will then be lifted from this low point to the proposed Water Reclamation Facility location (see Exhibit 3). This alternative proposes the WRF be located within the Wickenburg Ranch Estates site directly south of the proposed golf-course driving range area. Plan preparation and design specification for the proposed onsite WRF will be prepared by a consulting design team that specializes in this field. All requirements and governmental guidelines are relative to the WRF design and construction will be adhered to by the selected consulting design team that specializes in this field. Detailed information of such will be provided during the final improvement plans phase of this project.

### 2.2.1 Wastewater Planning Parameters

This section outlines the parameters used in calculating the onsite anticipated wastewater flow generated by the proposed Master Plan of Wickenburg Ranch Estates and anticipated offsite wastewater flow. For the purpose of this report, all sewer line capacities were based on a minimum velocity of 2.0 fps and not actual design slopes. Table 1 below presents the parameters utilized for this section. The design parameters are based on the proposed Land Use Master Plan shown on in Exhibit 2 of this report. Average Daily Flow of 80 gallons per capita per day was derived from Arizona Administrative Code Title 18, Ch.9, Table 1, page 89.

**Table 1 - Wastewater Planning Parameters**

Land Use Type	Average Daily Flow (gpcd)	Persons Per D.U.	Average Daily Flow/Unit (gpd/unit)	Peaking Factor	
				Dry Weather	Wet Weather
RESIDENTIAL					
Low Density	80	2.5	200	2	3
Medium Density	80	2.5	200	2	3
High Density	80	2.5	200	2	3
Offsite	80	2.5	200	2	3
RESORT & TIMESHARE	80	2.5	200	2	3
CLUBHOUSE					
1,000 members @ 100gpcd			100,000	1	1
EQUESTRIAN (0.1 gal/sf)					
32-acres @ 4356 gal/ac			139,392	1	1
PUBLIC FACILITIES (0.1 gal/sf)					
6-acres @ 4356 gal/ac			26,136	1	1

### 2.2.2 Peaking Factor

The peaking factor was derived from ADEQ's administrative code Title 18, Chapter 9, page 62.

$$P.F. = (0.33 \times p^{0.231}) + 1.094$$

Where P.F. = Peaking Factor (dry weather)

p = Population from 1001 to 10,000

The population projections are based on the land use and density for each use;

S.F. Units	
Low & Medium Density	1952 units x 2.5 persons/DU = 4880
High Density	170 units x 2.5 persons/DU = 425
Resort & Timeshare	<u>202 units x 2.5 persons/DU = 505</u>
Totals	2324 units
	5810 persons

Therefore a dry weather peaking factor of 1.96 was derived from the ADEQ table and equation. The above dry weather peaking factor was rounded off to 2.0. Due to the possibility of wet weather infiltration, ADEQ recommends adding an amount to the peaking factor, for such wet weather infiltration. As such, this report will use a wet weather peaking factor of 3.0.

#### 2.2.3 Wastewater Flow Generation Calculation

The anticipated onsite flows were calculated using the number of units and respective unit flow shown in Table 1. Table 2 presents the summary of wastewater flow generated by the five proposed drainage areas in Wickenburg Ranch Estates, as shown on Exhibit 3. Table 4 simulates flow generation for the proposed Land Use parcels and the wastewater collection system capacity.

The anticipated wastewater flows are based on the Greey - Pickett Master Plan dated August 17, 2007, as shown on Exhibit 2, and the Wastewater Planning Parameters shown in Table 1. Table 2 on the next sheet will summarize the anticipated design flows for Sewer Line B, and 4 sub-areas conveying flow to Line A, including the estimated off-site flows. Through monitoring actual flows, subsequent phases of the water reclamation facility capacity can be adjusted accordingly.

Table 2 – Summary of Wastewater Design Flows

Residential	Phase 1			Phase 2			Total		
	# of units	Average Daily Flow (mgd)	Peak Flow (mgd)	# of Units	Average Daily Flow (mgd)	Peak Flow (mgd)	# of Units	Average Daily Flow (mgd)	Peak Flow (mgd)
Low Density				390	0.0780	0.2340	390	0.0780	0.2340
Medium Density	1562	0.3124	0.9372				1562	0.3124	0.9372
High Density	170	0.0340	0.1020				170	0.0340	0.1020
Resort & Time Share	202	0.0404	0.1212				202	0.0404	0.1212
<b>Residential Sub-total</b>	1934	0.3868	1.1604	390	0.0780	0.2340	2324	0.4648	1.3944
Club House	800	0.0800	0.0800	200	0.0200	0.0200	1000	0.1000	0.1000
Equestrian Center (0.1 gal/sqft)	32 acres	0.1394	0.1394					0.1394	0.1394
Public Facilities (0.1 gal/sqft)	6 acres	0.0261	0.0261					0.0261	0.0261
<b>Non-Residential Sub-total</b>		0.2455	0.2455		0.0200	0.0200		0.2655	0.2655
<b>Total Onsite Flows</b>		0.6323	1.4059		0.0980	0.2540		0.7303	1.6599
Offsite S.F. Units				1099	0.2197	0.6591	1099	0.2197	0.6591
<b>Total Flow</b>					0.3177	0.9131		0.9500	2.3190

### 2.2.4 Wastewater Main Capacity Analysis

Wastewater main capacity analysis flowing full was conducted using Manning equation on each reach between the identified nodes. The following parameters are used to determine the pipe capacity flowing full:

- o Size of pipe
- o Length of pipe
- o Slope of the pipe (assumed minimum)

The following equation is used to determine the Wastewater Main Capacity.

$$Q = 0.646,272 * \frac{1.486}{n} AR^{2/3} S^{1/2}$$

Where :

- Q = Discharge in Million Gallons per Day (MGD)
- A = Pipe Area in Square Feet
- R = Hydraulic Radius in Feet
- S = Pipe slope in Foot-per-Foot
- n = Manning's Roughness Coefficient (.013)
- 0.646272 Converts cubic feet per second to MGD

Since the wastewater full flow capacity can vary on each reach due to actual slope, maximum and minimum wastewater full flow capacities were calculated. Table 3 summarizes the maximum and minimum wastewater full flow capacity. This table is based on the minimum flow velocity of 2-fps and the maximum velocity of 10-fps. The table also includes capacities for actual minimum design slopes used on the project.

**Table 3 – Summary of Maximum and Minimum Pipe Size Capacity**

Pipe Size	Maximum slope	Minimum Slope	Minimum Design Slope Used	Capacity @ Maximum Slope (mgd)	Capacity @ Minimum Slope (mgd)	Capacity @ Minimum Design Slope used (mgd)
24"	0.0193	0.0008	0.0050	20.29	4.050	10.338
18"	0.0283	0.0011	0.0050	11.42	2.280	4.800
15"	0.0361	0.0014	0.0050	7.93	1.580	2.952
12"	0.0483	0.0020	0.0050	5.07	1.010	1.628
10"	0.0610	0.0025	0.0050	3.52	0.704	1.001
8"	0.0835	0.0033	0.0050	2.25	0.450	0.552

#### 2.2.5 Gravity Wastewater Collection System

The first step in this model is confirming the main backbone sewer line of the proposed sewer network. The interior sewer lines collect flows from each tributary area and convey collected wastewater into the main backbone sewer lines. The primary backbone sewer line A and secondary backbone sewer line B will collect flows from interior sewer lines by other gravity lines or a low pressure system. The proposed backbone sewer line A conveys collected wastewater into a low point, located at the vicinity of the southwesterly end of the development, where a lift station is proposed. A schematic of this routing is shown on Exhibit 3, where onsite backbone sewer lines, interior LPS sewer lines, and pressure lines are shown for the proposed Wickenburg Ranch Estates. Table 4 on the next 2 pages show the accumulated peak flows and the proposed pipe size, based on a minimum slope for 2fps for the conveyance capacity. The proposed backbone sewer line B conveys collected waste water directly into proposed onsite water reclamation facility. The water reclamation facility will be designed during improvement plans phase of this development to accommodate the entire Wickenburg Ranch Estates wastewater and limited offsite wastewater as shown in Table 5. Effluent from proposed water reclamation facility will primarily be used to irrigate the proposed 18-hole golf course and some landscape amenities. Solids from water reclamation facility are to be hauled away for treatment at other offsite facilities.

#### 2.2.6 Low Pressure Sewer System (L.P.S)

In addition to the above mentioned gravity system, some of the lots within the proposed site (due to topographic constraints) require Low Pressure System (LPS) relative to sewer services. This LPS is proposed to serve these lots due to the existing natural terrain that would not allow these parcels to be served with a gravity system. The proposed LPS for these lots are specified to utilize an E-One LPS system or approved equal. Such system shall comply with the manufacturer specification for both design and installation. LPS shall also contain terminal flushing connection at its terminus point as well as continuous flushing cleanouts to be located at certain intervals, as shown in the detail in Appendix II of this report. Furthermore, Appendix II presents other various details for the proposed LPS system. The maintenance of the main LPS line, within the tract line (roadway), shall be the responsibility of the Homeowners Association upon its establishment. Individual LPS pumps maintenance, within each lot, outside the tract line (roadway), shall be the responsibility of the individual homeowner.

TABLE 4 - SUMMARY OF BACK BONE SEWER MAIN CAPACITY LINE A

Pipe MH Nodes	Tributary Parcel	Area #Units U	Total Units $\Sigma U$	Unit Avg. Flow gpd	Parcel Peak Flow (mgd)	$\Sigma$ Peak Flow (mgd)	Pipe Diameter Inches #1	Pipe Capacity (mgd) #2
Sewer Line A								
	1/4 Y	19		200	0.0116			
	1/2 O	34		200	0.0201			
	N	26		200	0.0156			
	M	24		200	0.0144			
			103			0.0617	8"	0.5520
PA2	Offsite	200		200	0.1200			
	Z	48		200	0.0288			
	BB	79		200	0.0474			
	3/4 Y	58		200	0.0347			
	DD	80		200	0.0480			
	EE	144		200	0.0864			
	CC	96		200	0.0576			
	FF	72		200	0.0432			
PA3			777			0.4661	8"	0.5520
$\Sigma$ PA2 & PA3			880			0.5277	10"	1.0010
	Offsite	400		200	0.2400			
	GG	65		200	0.0390			
	HH	136		200	0.0816			
PA4			601			0.3606	8"	0.5520
$\Sigma$ PA2,PA3,PA4			1481			0.8883	12"	1.6280
	Offsite	499		200	0.2991			
	II	84		200	0.0504			
PA5			583			0.3495	8"	0.5520
$\Sigma$ PA2,PA3,PA4,PA5			2063			1.2378	15"	2.9520
$\Sigma$ to Lift Station	JJ	6 acres (1 gal/sf)				0.0261	8"	0.5520
			2063			1.2639	15"	2.9520

\*1 - Minimum pipe size flowing full at velocity of 2' / sec.

\*2 - Pipe capacity based on minimum design slope.

TABLE 4 - SUMMARY OF BACK BONE SEWER MAIN CAPACITY LINE B

Pipe MH Nodes	Tributary Parcel	Area #Units U	Total Units ΣU	Unit Avg. Flow gpd	Parcel Peak Flow (mgd)	Σ Peak Flow (mgd)	Pipe Diameter Inches *1	Pipe Capacity (mgd) *2
Sewer Line B	A	56		200	0.0336			
	B	111		200	0.0666			
	C	77		200	0.0462			
	D	90		200	0.0540			
	X	61		200	0.0366			
	E	56		200	0.0336			
	R	40		200	0.0240			
	PB1		491			0.2946	8"	0.5520
		Clubhouse	1,000 members @ 100gpcd			0.1000		
		F	32 acres (1 gal/sf)			0.1394		
	Q	69		200	0.0414			
	1/4 H	36		200	0.0216			
	2/3 I	114		200	0.0683			
	1/3 J	34		200	0.0202			
Σ PB1 & PB2			744			0.6855	10"	1.0010
	L	100		200	0.0600			
	3/4 H	108		200	0.0648			
	1/3 I	56		200	0.0337			
	2/3 J	68		200	0.0410			
	P	63		200	0.0378			
	1/2 O	34		200	0.0201			
	W	36		200	0.0216			
	T	35		200	0.0210			
	U	51		200	0.0306			
	V	35		200	0.0210			
	S	30		200	0.0180			
Σ PB1 & PB2 & PB3			1360			1.0551	12"	1.6280

\*1 - Minimum pipe size based on flowing full at a velocity of 2' / second.

\*2 - Pipe capacity based on minimum design slope.

2.2.7 Lift Station

One lift station is proposed for the Wickenburg Ranch Estates development to lift wastewater from the site collection point to the Proposed Water Reclamation Facility. The lift station will be designed, during final improvement plans phase of this development, to accommodate the flows from the backbone sewer line 'A' and force it upstream to the proposed on-site Water Reclamation Facility. Refer to Exhibit 3 for the location of proposed on-site wastewater collection system, lift station, and the proposed on-site water reclamation facility. Conceptual specification is presented in Appendix III of this report. Specific and final design and specification for the proposed Lift Station will be provided during the final improvement phases and associated development phases of this project.

2.2.8 Water Reclamation Facility (WRF)

The on-site Water Reclamation Facility (WRF), proposed for the Wickenburg Ranch Estates, will be designed during final improvement plans phase of this development to accommodate the entire Wickenburg Ranch Estates flows and limited offsite flows. The WRF design will be designed in accordance with the applicable ADEQ Engineering Bulletin No 11. Table 5 summarizes the required flow for the proposed Water Reclamation Facility. Grade variations for the WRF may necessitate its own lift station at the inlet of the WRF. This and other related requirements such as effluent delivery system will be determined at the initial design of the WRF.

Table 5 - Summary of Projected Water Reclamation Facility Capacity

Land Use Projected Average Wastewater Flow over 24 hrs	Projected Wastewater Flow MGD				Total
	Line A to Pump Station	Line B Direct Flow to WRF	# of Units	Flow mgd	
Low & Medium Density Residential	965	0.1929	988	0.1975	0.3904
Public Facility	6 acres	0.0261			0.0261
High Density Residential			170	0.0340	0.0340
Resort & Timeshare			202	0.0404	0.0404
Club House				0.1000	0.1000
Equestrian Center			32 acres	0.1394	0.1394
Total On-site		0.2190		0.5113	0.7303
Off-site Contribution					
LD Residential	1099	0.2197			0.2197
Total Average Daily Flow to WRF		0.4387		0.5113	0.9500

The proposed water reclamation facility has preliminarily proposed a system with three model HFE-250-sh complete mix activated sludge wastewater treatment system and three model SSF-78 strata-sand tertiary filtration system or equal. Appendix I presents the conceptual design of the on-site WRF Package. Effluent from proposed water reclamation facility will primarily be used to irrigate the golf course. Solids from the water reclamation facility are to be hauled-away for treatment at other offsite facilities. Detailed WRF design and specification shall be provided during the final design phase of this project by a consulting design team specializing in this field and shall comply with all applicable ADEQ and Yavapai County design procedures and guidelines.

### 2.3 CONCLUSION

This wastewater basis of design report will use 3 types of collection systems for the generated wastewater flow, utilizing a combination of a gravity sewer system, low pressure sewer system, and pump station (lift station) to route the flows to the site's Water Reclamation Facility. Generated effluent will be used to irrigate golf course. Generated Solids are to be hauled-away for treatment at other offsite facilities. Following is a summary of some important aspects of the wastewater system:

- The onsite wastewater collection system will consist of a gravity system, low pressure system, and a force main system.
- Considering only on-site sewer flows, 70% of the sewer will flow directly to the WRF (line B), and the remaining 30% will flow to the lift station. Considering the on-site sewer flows plus 1099 off-site units then 53% of the total will flow to the WRF, and 47% of the total will flow to the lift station.
- The main sewer line trunk "A" (see Exhibit 3) has been designed to accommodate onsite generated flow plus 1099 offsite units of flow (from the west side of State Route 89). This line upsized was designed to accommodate potential future development growth of up to 1099 off-site residential units. If elected to tie into this system, they will be able to do so provided that all hook-up and tie-in fees and agreements are met.
- For the purposes of this report all sewer gravity pipes were sized flowing full with minimum velocity of 2/second. In actual conditions no lines will be designed below a minimum grade, however, where there may be lines exceeding the minimum, they shall not exceed the slope where the sewer velocity exceeds 10/second.
- Due to terrain conditions and a Conceptual Site Plan without final street and lot configurations, this report may be subject to areas with steep slopes, drop manholes, manhole depths in excess of 20 feet, and possible realignment of gravity lines, low pressure lines, and pressure lines upon future final parcel development, street alignment, and lot configurations.
- Lift station and force main will be required to convey a portion of the on-site generated flow to the proposed on-site water reclamation facility. Lift station and

- force main shall be designed in accordance with all applicable governmental agencies' design procedures and guidelines, inclusive of permitting.
- On-site water reclamation facility will be designed to treat the anticipated flows and will be designed in accordance with the applicable ADEQ and Yavapai County design procedures and guidelines.
  - On-site treated effluent water system distribution will consist of adequate size, flow, and pressure to irrigate the golf course. Lakes on the golf course will be designed to store the gray water of irrigation.

The wastewater calculations were based on an average flows shown on Table 5. The Water Reclamation Facility (WRF) package will be designed to accommodate this calculated flow and will be constructed in phases. However, it should be noted that the calculated flow may not be the actual flow within this region of Wickenburg area. Therefore, it should be noted that after installation and operation of the first phase of the Water Reclamation Facility package, actual flow should be monitored to ascertain the validity of the design flow parameters. If the design flow has been confirmed as actual flow, then subsequent phases of the Water Reclamation Facility package shall be constructed in accordance with the calculations presented in this report. On the other hand if actual flows were proven to be different from design flow parameters used in this report, then the actual monitored flows should be used and the report calculation should be adjusted to the actual magnitude, and subsequent phases of the Water Reclamation Facility package should be constructed in accordance with the actual monitored flow magnitude. The potential for upgrading and continuing to use the existing facility WRF package may be an option but more than likely it will be appropriately removed.

**Section 3**

**REFERENCE**

- Arizona Department of Environmental Quality, "engineering bulletin no. 10 Guidelines For The Construction of Water Systems". May, 1978
- Arizona Department of Environmental Quality, "engineering bulletin no. 11 Minimum Requirements for Design, Submission of Plans and Specifications of Sewage Works". July, 1978
- Arizona Administrative Code R18-9-E301

**Appendix 1**  
**On-site WRF Package Conceptual Design**

The following pages present a conceptual Water Reclamation Facility Package design. It should be noted that this package may not be used for this development. Detailed Water Reclamation Facility design and specification will be provided during the final improvement plans and final plat phase of this project by a consulting design team specializing in this field and will adhere to all applicable government reviewing agencies' design guidelines and specification.



8501 NORTH 75TH AVENUE  
PEORIA, ARIZONA 85345  
WWW.MAR-WOOD.COM  
OFFICE: (623) 486-9445  
FAX: (623) 486-9448

July 3, 2008

Peter Chan  
CSA Engineering  
4535 East Broadway  
Phoenix, AZ 85040

RE: Wickenburg Ranch Wastewater Reclamation Facility

Dear Peter,

Enclosed is Quotation 2435-REV B dated July 3, 2008 which replaces all previous proposals. This quotation is for the system described in our June 9, 2008 letter however we now are including the fiberglass covers and flow equalization as you requested. Although the quotation is quite detailed as to what we are providing, we also have included a Scope of Work specific for this project to detail what is **not** included by MAR-WOOD, Inc. This list is somewhat general in nature at this point but can be made more specific when the design and drawings are finalized.

Our pricing can be summarized as follows:

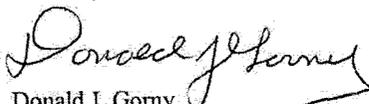
- |   |                    |
|---|--------------------|
| • All precast concrete structures and mechanical equipment as detailed on quotation 2435-REV B. | \$364,976.00       |
| • Add for installation by MAR-WOOD personnel.   | \$147,016.00       |
| • Add for six (6) day startup service.  | \$8,225.00         |
| • Add for crane to unload and erect.  | \$17,480.00        |
| • Delivery to job site.   | <u>\$13,082.00</u> |

Total delivered and erected price  
(plus applicable taxes) \$550,779.00

We have mailed three (3) copies of this proposal to m3Companies as well. Upon receipt of two (2) signed copies and 5% engineering fee we will continue with the drawings, specifications, etc. necessary for submittal to ADEQ and other regulatory agencies.

Thank you again for considering MAR-WOOD for this project.

Sincerely,

  
Donald J. Gomy  
Vice President

Enclosed

CC: m3Companies

WASTEWATER TREATMENT PLANTS • LIFT STATIONS • EQUIPMENT  
AZ CONTR. #082818 • NM CONTR. #055331 • NV CONTR. #0028805



m3Companies  
 4222 E. Camelback Road  
 Suite H100  
 Phoenix, AZ 85018

8501 NORTH 75TH AVENUE  
 PEORIA, ARIZONA 85345  
 WWW.MAR-WOOD.COM  
 OFFICE: (623) 486-9445  
 FAX: (623) 486-9448

FIRM PRICE [X] PLANNING PRICE [ ]

Project Wickenburg Ranch Quote Number 2435-REV B Date July 3, 2008  
 Size 100,000 GPD Dwg# 268-1 Model 1-8-100DN  
 Location Wickenburg County Yavapai State AZ

We are pleased to offer this Quotation for this project. This Quotation includes all precast structures, mechanical equipment, start-up and one (1) year warranty. These items are further detailed on page 3 and 4 attached. See separate pricing for delivery to job site, crane and assembly by **MAR-WOOD**.

We have not included permits, site work, excavation, base pad design or construction, backfill, dewatering, electrical wiring or service, emergency power, water supply, fencing or housing, access road, collection system nor effluent disposal system. Purchaser shall furnish and dispose of all water used for construction purposes and hydraulic testing, if required.

The payment terms are as follows: 5% with order. 5% upon submittal of drawings. Progress payments shall be made on or about the 20th of each month for work completed to date. **MAR-WOOD** to retain title to this equipment until paid for in full. These installments represent the fair and accurate valuation of the work done on each stage of manufacture and construction and shall constitute a liquidated sum immediately due and payable upon the completion of each stage. The payment terms are independent of, and are not contingent upon, the time or manner in which the Purchaser may receive payment from others.

The price quoted is F.O.B. Peoria, Arizona with freight allowed and is firm for thirty (30) days providing shipment may be made within six (6) months of acceptance. The Purchaser shall have the responsibility for the protection of the equipment and material after they are delivered to the job site, whether caused by the elements, theft, vandalism or any other cause.

The Purchaser has submitted, with this Quotation, property information on page 5 which Purchaser represents as true and correct, and the information submitted is made a part hereof. Purchaser agrees to secure written authorization before incurring any costs or back charges for **MAR-WOOD**.

Should you have any questions, please call our Sales Department at (623) 486-9445.

Thank you for considering **MAR-WOOD, INC.**

If Purchaser holds a valid Seller's permit, please provide the following:

State: \_\_\_\_\_

No. \_\_\_\_\_

Acceptance:

**MAR-WOOD, INC.**

By: \_\_\_\_\_

Date: \_\_\_\_\_

This Quotation must be referenced on your Purchase Order.

Price: \$ 364,976.00  
 (Plus applicable Taxes)

**MAR-WOOD, INC.**

Per Donald J. Gorny  
 (Donald J. Gorny, Vice President)

Purchaser's execution of Quotation constitutes an offer to purchase the above, subject to these terms. Terms and Conditions on the reverse side and attachments.

By: \_\_\_\_\_

For: \_\_\_\_\_

Date: \_\_\_\_\_

## TERMS &amp; CONDITIONS

All Quotations are made and all orders accepted are subject to the following conditions which are part of the Quotation made on the reverse side hereof.

1. Purchaser's execution of this Quotation constitutes an offer to **MAR-WOOD** which shall become a Contract only upon acceptance by an Executive Officer of **MAR-WOOD** at headquarters in Peoria, Arizona.
2. Credit references and financial statements are to be supplied to **MAR-WOOD** Credit Department upon request. Purchaser to furnish **MAR-WOOD** the names and addresses of Owner(s) of property upon which equipment is to be installed, together with a full and complete legal description thereof.
3. Contracts based upon this Quotation are not subject to cancellation unless mutually agreed to in writing by Purchaser and Seller.
4. Purchaser shall be invoiced for each payment when due. Payments must be made within 30 days from the date of the invoice. Failure of Purchaser to provide **MAR-WOOD** with written notice of objection to payment of invoice within the time prescribed for payment shall operate as a waiver to any objections to payment and said amount shall be conclusively presumed to be due. Payments not made within 30 days from the date of an invoice shall then bear interest at the rate of 18% per annum compounded until paid. In addition to all other remedies, Purchaser's non-payment within the time prescribed shall operate to make the entire balance of payment immediately due and owing. Unless the full balance of payment is immediately paid upon written demand, **MAR-WOOD** shall further have the right to discontinue any further work and recommence work only upon terms and payment adjustments to this agreement acceptable to **MAR-WOOD**. If delivery is delayed by Purchaser, payments due upon delivery shall be due when the item is ready for delivery and so invoiced. The payment terms are independent of, and are not contingent upon the time or manner in which the Purchaser may receive payment from others. Should it be necessary for either party to engage legal counsel to collect any indebtedness due hereunder, or enforce any provision hereof, the losing party shall be obligated to pay all reasonable attorney's fees and costs of collection incurred, including any fees and costs incurred upon an appeal.
5. Any clerical errors herein are subject to correction.
6. All taxes which may be levied on this material or apparatus are Purchaser's liability, unless stated otherwise on the reverse side hereof.
7. The issuance of this Quotation does not guarantee the quantities and specifications of any of the apparatus, material or labor herein to be in accord with any job plans or specifications, other than being in compliance with the **MAR-WOOD** plans and specifications approved for construction by the Purchaser or its representative.
8. The title and right of possession of any apparatus and material sold hereunder shall remain **MAR-WOOD's** personal property until all payments hereunder have been made in full in cash and the Purchaser agrees to do all acts necessary to perfect and maintain such right and title in **MAR-WOOD's** ownership.
9. **MAR-WOOD** shall not be held responsible for delays in delivery due to fire, acts of God, labor disturbances, accidents, car shortage, truck shortage, delays in transportation or other conditions or causes beyond their control.
10. All orders accepted for shipment by truck shall be to closest point to job site which truck can reach under its own power. In the event delivery by truck is prohibited, material shall be shipped by rail or motor freight to the nearest dock or siding to the project. No allowance will be made by **MAR-WOOD** for hauling material from dock or siding to project or job site.
11. Assembly, if included, begins at influent point, and ends at effluent point. Electrical service to the prewired control panel(s) **IS NOT** included.
12. State and County Health Department approval is mandatory to this project and installation, and is the responsibility of others.
13. No permits or fees are included as part of this Quotation.
14. No materials shall be returned for credit without prior written approval of **MAR-WOOD**.
15. This Quotation includes two (2) standard maintenance or service manuals. A charge of \$50.00 (subject to change without notice) will be made for each additional copy.
16. Operating instruction by **MAR-WOOD** personnel is not included in this Quotation, unless otherwise stated on reverse side hereof. A factory trained instructor is available on a per diem basis.
17. No waiver, alteration or modification of any of the provisions herein shall be binding unless in writing and signed by an Executive Officer of **MAR-WOOD** at its headquarters in Peoria, Arizona. This Contract constitutes the entire agreement between the parties hereto, and specifically supersedes any and all prior written or oral agreements in conjunction herewith.
18. This Quotation applies only to the apparatus, material and labor herein mentioned as included and none other is implied.
19. The Purchaser understands the amounts shown on this Contract shall be paid in full in cash as agreed with NO RETAINAGE ALLOWED.
20. **FACTORY-BUILT EQUIPMENT WARRANTY:** **MAR-WOOD** warrants all new **MAR-WOOD** factory-built equipment to be free from functional defects, material and workmanship, when used under normal conditions for a period of one (1) year from the date of shipment, provided the installation, operation and maintenance of the equipment is in accordance with the Company's instructions and written notice of said alleged defect is immediately given to **MAR-WOOD**. In the event any new **MAR-WOOD** factory-built equipment, or any part thereof, should prove to be functionally defective within a period of one (1) year from the date of shipment, acknowledged as such by **MAR-WOOD**, due to faulty materials or workmanship, **MAR-WOOD's** total obligation under this warranty shall be the repair of such items of material or workmanship, F.O.B. point of manufacture. This warranty is expressly in lieu of all other warranties and representations expressed or implied, and of all other obligations or liabilities on the part of **MAR-WOOD**. **MAR-WOOD** shall not be liable for consequential damages for any breach of warranty. This warranty expressly excludes items of equipment manufactured by others, and those items normally consumed in service, such as light bulbs, oil, grease, seals, packing, etc. This warranty shall be effective only when all sums due **MAR-WOOD** are paid in full, without deductions or set-off. This warranty is expressly contingent upon prompt start-up of unit, upon completion of installation, and continuous proper operation within factory specifications incorporated herein and made a part hereof by reference.
21. Responsibility for compliance with OSHA requirements for excavation, etc. rests with the Buyer.
22. Commencement of work shall be authorized by the date set forth on the reverse side hereof and work shall be allowed by Purchaser to continue without delay or interruption. Should **MAR-WOOD** not be allowed to commence work or continue with work as provided herein, **MAR-WOOD** shall have the right, in addition to all other remedies, to terminate this agreement, retain all monies paid, and receive full payments for costs and expenses incurred for work in progress remaining unpaid to the date of termination together with loss of profits in the sum of 25% of the total unpaid amount of this Agreement.

## WASTEWATER TREATMENT PLANT QUOTATION

Project Wickenburg Ranch Model 1-8-100DN Quote No. 2435-REV B**LIFT STATION: (N.I.C.)**

- Precast Concrete Wet Well
- Inlet Sewer Depth \_\_\_\_\_ Feet
- \_\_\_\_\_HP, \_\_\_\_\_ Grinder Pumps
- Pump Removal System, S. S. Rails
- Discharge Piping & Valves
- NEMA 4X Control Panel
- High Water Alarm Light & Horn
- Aluminum Tread Plate Covers

**HEADWORKS: ( 2 )**

- Aluminum Bar Screen & Drying Deck
- Grinder
- Flow Meter

**ANOXIC BASIN: ( 1 )**

- 21,000 Gallon Precast Anoxic Basin
- 4.3 HP Submersible Mixer
- Mixer Removal System
- Air Header & Diffusers
- Silt Removal Airlift Pump

**AERATION BASIN: ( 1 )**

- 65,000 Gallon Total Aeration Basin
- Air Header & Diffusers
- Scum Removal Airlift Pump

**AERATION BLOWER: ( 2 )**

- 2330 ASL 114° F Maximum Air
- 40 HP 673 ICFM 6.5 PSI
- Centrifugal  Positive Displacement
- Inlet Filter/Silencer
- Check Valve & Butterfly Valves
- Pressure Relief Valve
- Drive  V-Belt  Coupled
- Ammeter/CFM Gauge
- Flexible Pipe Connector
- Pressure Gauge
- Blower Auto Changeover
- Outdoor Sound Enclosure

**MLSS RECYCLE PUMP: ( 1 )**

- Air Lift

**CLARIFIER: ( 1 )**

- 26,000 Gallon Precast Clarifier
- Surface Loading Rate @ ADF 362 GPD/SF
- Weir Overflow Rate @ ADF 3,068 GPD/SF
- Gravity Type
- Mechanical Sludge Collector
- (2) 3" RAS Air Lift Pump
- RAS Piping

**AEROBIC SLUDGE DIGESTER: ( 1 )**

- 21,000 Gallon Basin
- WAS Valve
- Air Headers & Diffuser
- Air Lift Decant Pump
- Sludge Collection Pipe

**FLOW EQUALIZATION: ( 1 )**

- 21,000 Gallon Precast Basin
- Two (2) 90 GPM, 1.5 HP, Equalization Pumps
- Pump Removal System
- One (1) 3.0 HP Mixer
- Mixer Removal System
- Constant Head Flow Diversion Box
- Air Header & Diffusers
- Pump Piping
- Pump & Blower Controls

**EQUALIZATION BLOWER: ( 1 )**

- 2330 ASL 114° F Maximum Air
- 7.5 HP 83 ICFM 6.0 PSI
- Centrifugal  Positive Displacement
- Inlet Filter/Silencer
- Check Valve & Butterfly Valves
- Pressure Relief Valve
- Drive  V-Belt  Coupled
- Ammeter/CFM Gauge
- Flexible Pipe Connector
- Pressure Gauge
- Outdoor Sound Enclosure

## WASTEWATER TREATMENT PLANT QUOTATION

**Project** Wickenburg Ranch      **Model** 1-8-100DN      **Quote No.** 2435-REV B

### MOTOR CONTROL CENTER:

- NEMA 12     NEMA 4 X
- Motor Starters & Circuit Breakers
- Timers, Relays, Alarm Lights
- Isolated N.O. Alarm Contacts
- Remote Telemetry System
- \_\_\_\_\_ Amp Transfer Switch
  - Manual     Auto
- \_\_\_\_\_ KVA Generator

### MISCELLANEOUS:

- Fiberglass Covers all Basins
- Double Rail Handrail System on Outside Perimeter Walls
- Access Stairway

### INSTALLATION:

- Delivery to Job Site – Add \$13,082.00
- Excavation
- Leveling Bed     Base Slab-2,200 SF
- Crane to Unload & Erect -- Add \$13,800.00
- Concrete Pumper – Add \$3,680.00
- Assembly Labor on Site by MAR-WOOD – Add \$147,016.00
- Electrical Service
- On-Plant Wiring
- Six (6) Day Start Up Service – Add \$8,225.00
- Six (6) O & M Manuals

### DELIVERY:

- Drawings & Specifications for Approval  
Four (4) to Six (6) Weeks A.R.O.
- Delivery Six (6) to Eight (8) Weeks after Approval
- Completion Ten (10) to Twelve (12) Weeks  
After Delivery if Assembly labor is provided by MAR-WOOD personnel.

**ORDER TO MANUFACTURE**

Project Wickenburg Ranch

Model # 1-8-100DN

Date Delivery Wanted \_\_\_\_\_

Quote # 2435-REV B

Buyer: Name Address Phone	Owner(s): Full name(s) and address(s) of owner(s):   Owner(s) Phone
Confirm Delivery With: Name Address Phone	Type of Ownership Interest: Fee Simple Ownership.....Lease..... Other
Engineer: Name Address Phone	Full legal description of the property as set forth in the owner's deed or other evidence of title:      Full description of all encumbrances on the property including mortgages, liens, leases, and the amounts of any outstanding indebtedness pursuant to said encumbrances:
General Contractor: Name Address Phone	        
Electrical Contractor: Name Address Phone	Full description of all encumbrances on the property including mortgages, liens, leases, and the amounts of any outstanding indebtedness pursuant to said encumbrances:
This proposal will be a direct contract with which of the following: With the Owner..... With the General Contractor..... With a Sub-Contractor..... Other.....	Has notice of commencement been posted on the property? Yes Will be If yes, attach a copy of the notice of commencement.
Is the job bonded? Yes.....No.....If yes, attach a copy of bond.	Yes Will be If yes, attach a copy of the notice of commencement.
Special Instructions:	Electrical Required:    Volts    Phase    Cycle
Routing to Job Site:	
If this is a rush job, request in writing that Mar-Wood begin fabrication according to Drawing Number..... This form is made in conjunction with Mar-Wood Quotation Number:.....	
Submitted By:.....	Buyers Signature:.....



An ESOP Company  
.....  
PUMPING SOLUTIONS



August 10, 2006

Shakir Gushgari  
SKG Enterprises, Inc  
9260 E. Raintree Drive, Suite 140  
Scottsdale, Arizona 85260

RE: Wickenbug Ranch, AZ – Low Pressure Sewer

Mr. Gushgari,

Attached please find the Low Pressure Sewer (LPS) analysis using the Environment One (E-One) Grinder Pumps for the Pusch Ridge Subdivision Project. The sewer analysis was completed by E-One and it provides us with the number of sumps, clean out ports, length and size of piping required and other important information. Using this information, we are able to give you a budgetary material cost for this project.

In addition to the material costs that you can find in the attached spread sheet, we are providing you with the detailed analysis from E-One for the LPS, specifications and details for the sumps/pumps, detailed drawings for the piping system, installation instructions for the E-One sumps/pumps.

The design analysis provided by E-One examines the use of a low pressure sewer system utilizing Environment One Grinder Pumps. The low pressure sewer approach provides not only a technical solution, but also an economic advantage to be realized with low up front capital expenditure and overall operation and maintenance costs.

Using the data that was provided by you to the E-One team, the enclosed pressure sewer pipe sizing analysis was generated. This was run through their Low Pressure Sewer Design Software that employs their Flow Velocity and Friction Head Loss vs. Pumps in Simultaneous Operation spreadsheet.

Computations are based on the Hazen-Williams formula for friction loss, using calculations of cross-sectional area and flow rate to determine pipe sizes that create “self-cleaning” velocities of 2.0 fps or higher. A “C” factor of 140, SDR 11 HDPE pipe, and flows per unit per the ADEQ requirement of 200 gpd are also used in this analysis.

Page 2 of 2

The following hydraulic model is comprised of 71 zones, each representing a length of pipe of specific diameter and hydraulic characteristics, and includes a total of 191 GP 2000 Series grinder pump stations.

Configuration as such, the highest total Dynamic Head generated in the system is approximately in 127 ft. This is below our pump's continuous-run rating of 138 ft, and is well within its intermittent (i.e. normal) operating range. Flow velocity exceeds 2 fps throughout the project. These characteristics and short retention times indicate that this will be a reliable, low maintenance system.

General recommendations for valve placement are: Flushing valves at 1,000 to 1,500 ft intervals and at branch ends and junctions; isolation valves at branch junctions; and air release valves at peaks of 25 ft or more and/or at intervals of 2,000 to 2,500 ft.

Quantities of grinder pumps, pipe, and appurtenances are indicated on the budgetary pricing spreadsheet.

We appreciate this opportunity to provide this proposal and welcome any questions that you may have.

Best regards

A handwritten signature in cursive script that reads "Tracy Dillie". The signature is written in black ink and is positioned above the printed name and title.

Tracy Dillie  
Technical Sales



Environment One Corporation

**Pressure Sewer Preliminary  
Cost and Design Analysis  
For  
Wickenburg Ranch, AZ**

**Prepared For:**

**SKG Enterprises, Inc.**

**9260 E. Raintree Drive, Suite 140**

**Scottsdale AZ 85260**

**Tel: (480) 998-5600**

**Fax:**

**Prepared By: Keith Blond**

**July 28, 2006**



Environment One Corporation  
 2773 Balltown Rd.  
 Niskayuna, NY 12309  
 (518) 346-6161

**TRANSMITTAL**

<b>To:</b> Tracy Dillie Quadna 2803 E. Chambers St. Phoenix, AZ 85040	<b>(602) 323-2370</b>	<b>Date:</b> 7/28/06
<b>Re:</b> Wickenburg Ranch, AZ- Low Pressure Sewer		

- We are enclosing the following:
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Engineering Study | <input type="checkbox"/> Submittal Documents |
| <input type="checkbox"/> Project Manual               | <input checked="" type="checkbox"/> Drawings |

**Notes:**

Tracy,

Here is (2) copies of the preliminary design analysis for Wickenburg Ranch, AZ. Please let me know if you have any questions.

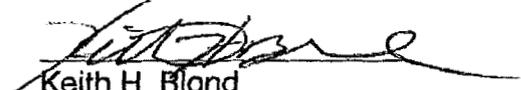
Regards,

Keith Blond

for:

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Your approval       | <input type="checkbox"/> Your corrections | <input type="checkbox"/> Your comments  |
| <input checked="" type="checkbox"/> Your use | <input type="checkbox"/> Your file        | <input type="checkbox"/> Your signature |

cc. Steve Kreitzmann (88-3430)

By:   
 Keith H. Blond  
 System Designer  
 (518) 579-3087  
 kblond@eone.com



PRELIMINARY PRESSURE SEWER SIZING AND BRANCH ANALYSIS  
Wickenburg Ranch, AZ

July 28, 2006

Prepared By:  
Keith Blond

Zone Number	Connects to Zone	Number of Pumps in Zone	Accum Pumps in Zone	Gall/Day per Core	Max Flow per Core	Max Sim Ops	Max Flow (GPM)	Pipe Size (Inches)	Max Velocity (FPS)	Length of Main (this Zone)	Friction Loss Factor (f/100ft)	Friction Loss this Zone	Accumulated Friction Loss (Feet)	Max Main Elevation	Minimum Pump Elevation	Static Head (Feet)	Total Dynamic Head (ft)
This spreadsheet was calculated using pipe diameters for: SDR11 HDPE																	
1.00	2.00	3	3	200.00	11.00	2	22.00	2.00	2.38	368.00	1.19	4.38	45.80	2,580.00	2,550.00	30.00	75.80
2.00	4.00	5	8	200.00	11.00	3	33.00	2.00	3.57	852.00	2.52	21.47	41.42	2,580.00	2,550.00	30.00	71.42
3.00	4.00	2	2	200.00	11.00	2	22.00	2.00	2.38	426.00	1.19	5.07	25.02	2,580.00	2,550.00	30.00	55.02
4.00	4.00	1	11	200.00	11.00	4	44.00	2.00	4.76	465.00	4.29	19.96	19.96	2,580.00	2,550.00	30.00	49.96
5.00	6.00	3	3	200.00	11.00	2	22.00	2.00	2.38	416.00	1.19	4.95	11.27	2,580.00	2,550.00	30.00	41.27
6.00	6.00	2	5	200.00	11.00	3	33.00	2.00	3.57	251.00	2.52	6.32	6.32	2,580.00	2,550.00	30.00	36.32
7.00	7.00	3	3	200.00	11.00	2	22.00	2.00	2.38	290.00	1.19	3.45	3.45	2,570.00	2,560.00	10.00	13.45
8.00	9.00	3	3	200.00	11.00	2	22.00	2.00	2.38	213.00	1.19	2.53	11.73	2,580.00	2,560.00	20.00	31.73
9.00	9.00	3	3	200.00	11.00	3	33.00	2.00	3.57	365.00	2.52	9.20	9.20	2,580.00	2,560.00	20.00	29.20
10.00	12.00	3	3	200.00	11.00	2	22.00	2.00	2.38	356.00	1.19	4.23	20.17	2,570.00	2,550.00	20.00	40.17
11.00	12.00	3	3	200.00	11.00	2	22.00	2.00	2.38	474.00	1.19	5.64	21.57	2,570.00	2,550.00	20.00	41.57
12.00	13.00	3	3	200.00	11.00	3	33.00	2.00	3.57	435.00	2.52	10.96	15.94	2,570.00	2,550.00	20.00	35.94
13.00	13.00	1	10	200.00	11.00	4	44.00	2.00	4.76	116.00	4.29	4.98	4.98	2,570.00	2,550.00	20.00	24.98
14.00	15.00	3	3	200.00	11.00	2	22.00	2.00	2.38	300.00	1.19	3.57	12.59	2,560.00	2,540.00	20.00	32.59
15.00	15.00	4	7	200.00	11.00	3	33.00	2.00	3.57	358.00	2.52	9.02	9.02	2,560.00	2,540.00	20.00	29.02
16.00	17.00	3	3	200.00	11.00	3	33.00	2.00	3.57	813.00	1.19	9.90	55.03	2,550.00	2,510.00	40.00	95.03
17.00	18.00	3	6	200.00	11.00	3	33.00	2.00	3.57	583.00	2.52	20.48	45.13	2,550.00	2,510.00	40.00	85.13
18.00	21.00	2	8	200.00	11.00	2	22.00	2.00	2.38	501.00	1.19	5.96	24.65	2,550.00	2,510.00	40.00	70.60
19.00	18.00	2	2	200.00	11.00	2	22.00	2.00	2.38	552.00	1.19	6.56	16.52	2,550.00	2,510.00	40.00	56.52
20.00	21.00	3	3	200.00	11.00	2	22.00	2.00	2.38	232.00	4.29	9.96	9.96	2,550.00	2,510.00	40.00	49.96
21.00	21.00	1	12	200.00	11.00	4	44.00	2.00	4.76	280.00	1.19	3.33	16.00	2,560.00	2,530.00	30.00	46.00
22.00	23.00	3	3	200.00	11.00	2	22.00	2.00	2.38	280.00	2.52	12.67	12.67	2,560.00	2,530.00	30.00	42.67
23.00	23.00	5	8	200.00	11.00	3	33.00	2.00	3.57	503.00	1.19	2.53	11.55	2,540.00	2,520.00	20.00	31.55
24.00	25.00	3	3	200.00	11.00	2	22.00	2.00	2.38	213.00	1.19	2.53	9.02	2,540.00	2,520.00	20.00	29.02
25.00	25.00	4	7	200.00	11.00	3	33.00	2.00	3.57	358.00	2.52	9.02	9.02	2,540.00	2,520.00	20.00	18.10
26.00	27.00	3	3	200.00	11.00	2	22.00	2.00	2.38	353.00	1.19	4.20	8.10	2,530.00	2,520.00	10.00	13.91
27.00	27.00	2	5	200.00	11.00	3	33.00	2.00	3.57	155.00	2.52	3.91	3.91	2,530.00	2,520.00	10.00	31.34
28.00	29.00	3	3	200.00	11.00	2	22.00	2.00	2.38	339.00	1.19	4.03	11.34	2,530.00	2,510.00	20.00	27.31
29.00	29.00	2	5	200.00	11.00	3	33.00	2.00	3.57	290.00	2.52	7.31	7.31	2,530.00	2,510.00	20.00	18.26
30.00	31.00	3	3	200.00	11.00	2	22.00	2.00	2.38	203.00	1.19	2.41	8.26	2,580.00	2,570.00	10.00	15.84
31.00	31.00	2	5	200.00	11.00	3	33.00	2.00	3.57	435.00	1.19	5.84	5.84	2,580.00	2,570.00	30.00	50.54
32.00	33.00	3	3	200.00	11.00	2	22.00	2.00	2.38	610.00	2.52	15.37	20.54	2,580.00	2,550.00	30.00	45.37
33.00	33.00	6	9	200.00	11.00	3	33.00	2.00	3.57	329.00	1.19	3.91	15.37	2,580.00	2,550.00	30.00	19.03
34.00	35.00	3	3	200.00	11.00	2	22.00	2.00	2.38	203.00	2.52	5.11	5.11	2,570.00	2,560.00	10.00	15.11
35.00	35.00	1	4	200.00	11.00	3	33.00	2.00	3.57	232.00	1.19	2.76	12.76	2,570.00	2,540.00	30.00	42.76
36.00	37.00	3	3	200.00	11.00	2	22.00	2.00	2.38	397.00	2.52	10.00	10.00	2,570.00	2,540.00	30.00	40.00
37.00	37.00	3	6	200.00	11.00	3	33.00	2.00	3.57	397.00	2.52	10.00	10.00	2,570.00	2,540.00	30.00	40.00

Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One.

Hi:Engineering Data\AENDesign. Assistant Files\Wickenburg Ranch, AZ.MDB

PRELIMINARY PRESSURE SEWER PIPE SIZING AND BRANCH ANALYSIS  
Wickenburg Ranch, AZ

Prepared By:  
Keith Blond

July 28, 2006

Zone Number	Connects to Zone	Number of Pumps in Zone	Accum Pumps in Zone	Gal/Day per Core	Max Flow per Core	Max Sim Ops	Pipe Size (inches)	Max Flow (GPM)	Max Velocity (FPS)	Length of Main this Zone	Friction Loss Factor (ft/100ft)	Friction Loss this Zone	Accumulated Friction Loss (Feet)	Max Main Elevation	Minimum Pump Elevation	Static Head (Feet)	Total Dynamic Head (ft)
This spreadsheet was calculated using pipe diameters for: SDR11 HDPE																	
38.00	39.00	3	3	200.00	11.00	2	2.00	22.00	2.38	445.00	1.19	5.29	13.83	2,580.00	2,550.00	30.00	43.83
39.00	39.00	3	6	200.00	11.00	3	2.00	33.00	3.57	339.00	2.52	8.54	8.54	2,580.00	2,550.00	30.00	38.54
40.00	40.00	2	2	200.00	11.00	2	2.00	22.00	2.38	348.00	1.19	4.14	4.14	2,580.00	2,560.00	20.00	24.14
41.00	42.00	3	3	200.00	11.00	2	2.00	22.00	2.38	232.00	1.19	2.76	9.59	2,580.00	2,570.00	10.00	19.59
42.00	42.00	1	4	200.00	11.00	3	2.00	33.00	3.57	271.00	2.52	6.83	6.83	2,580.00	2,570.00	10.00	16.83
43.00	45.00	3	3	200.00	11.00	2	2.00	22.00	2.38	445.00	1.19	5.29	20.16	2,570.00	2,530.00	40.00	60.16
44.00	45.00	2	2	200.00	11.00	2	2.00	22.00	2.38	339.00	1.19	4.03	18.89	2,570.00	2,530.00	40.00	58.89
45.00	45.00	2	7	200.00	11.00	3	2.00	33.00	3.57	590.00	2.52	14.86	14.86	2,570.00	2,530.00	40.00	54.86
46.00	48.00	3	3	200.00	11.00	2	2.00	22.00	2.38	416.00	1.19	4.95	17.95	2,570.00	2,530.00	40.00	57.95
47.00	48.00	3	3	200.00	11.00	2	2.00	22.00	2.38	387.00	1.19	4.60	17.61	2,570.00	2,530.00	40.00	57.61
48.00	49.00	3	9	200.00	11.00	3	2.00	33.00	3.57	368.00	2.52	9.27	13.01	2,570.00	2,530.00	40.00	53.01
49.00	49.00	1	10	200.00	11.00	4	2.00	44.00	4.76	87.00	4.29	3.73	3.73	2,570.00	2,530.00	40.00	43.73
50.00	51.00	3	3	200.00	11.00	2	2.00	22.00	2.38	280.00	1.19	3.33	12.30	2,520.00	2,500.00	20.00	32.30
51.00	51.00	4	7	200.00	11.00	3	2.00	33.00	3.57	356.00	2.52	8.97	8.97	2,520.00	2,500.00	20.00	28.97
52.00	53.00	3	3	200.00	11.00	2	2.00	22.00	2.38	445.00	1.19	5.29	65.56	2,500.00	2,440.00	60.00	125.56
53.00	55.00	1	4	200.00	11.00	3	2.00	33.00	3.57	280.00	2.52	7.05	60.26	2,500.00	2,440.00	60.00	120.26
54.00	55.00	3	3	200.00	11.00	2	2.00	22.00	2.38	571.00	1.19	6.79	60.00	2,500.00	2,440.00	60.00	120.00
55.00	58.00	1	8	200.00	11.00	3	2.00	33.00	3.57	620.00	2.52	15.62	53.21	2,500.00	2,440.00	60.00	113.21
56.00	57.00	3	3	200.00	11.00	2	2.00	22.00	2.38	406.00	1.19	4.83	57.06	2,500.00	2,440.00	60.00	117.06
57.00	58.00	3	6	200.00	11.00	3	2.00	33.00	3.57	581.00	2.52	14.64	52.23	2,500.00	2,440.00	60.00	112.23
58.00	62.00	3	17	200.00	11.00	4	2.00	44.00	4.76	765.00	4.29	32.84	37.59	2,500.00	2,440.00	60.00	97.59
59.00	60.00	3	3	200.00	11.00	2	2.00	22.00	2.38	687.00	1.19	8.17	63.96	2,520.00	2,500.00	20.00	83.96
60.00	61.00	6	9	200.00	11.00	3	2.00	33.00	3.57	1,317.00	2.52	33.18	55.79	2,520.00	2,500.00	20.00	75.79
61.00	62.00	1	10	200.00	11.00	4	2.00	44.00	4.76	416.00	4.29	17.86	22.61	2,500.00	2,500.00	0.00	22.61
62.00	62.00	2	29	200.00	11.00	5	3.00	55.00	2.74	484.00	0.98	4.76	4.76	2,500.00	2,480.00	20.00	24.76
63.00	64.00	3	3	200.00	11.00	2	2.00	22.00	2.38	523.00	1.19	6.22	69.35	2,440.00	2,390.00	50.00	119.35
64.00	66.00	3	6	200.00	11.00	3	2.00	33.00	3.57	590.00	2.52	14.86	63.13	2,440.00	2,390.00	50.00	113.13
65.00	66.00	3	3	200.00	11.00	2	2.00	22.00	2.38	639.00	1.19	7.60	55.86	2,440.00	2,390.00	50.00	105.86
66.00	69.00	3	3	200.00	11.00	2	2.00	22.00	2.38	823.00	4.29	35.32	48.26	2,440.00	2,390.00	50.00	98.26
67.00	68.00	3	3	200.00	11.00	2	2.00	22.00	2.38	590.00	1.19	7.01	34.74	2,440.00	2,390.00	50.00	84.74
68.00	69.00	3	6	200.00	11.00	3	2.00	33.00	3.57	587.00	2.52	14.79	27.73	2,440.00	2,390.00	50.00	77.73
69.00	71.00	1	19	200.00	11.00	5	3.00	55.00	2.74	484.00	0.98	4.76	12.94	2,440.00	2,390.00	50.00	62.94
70.00	71.00	3	3	200.00	11.00	2	2.00	22.00	1.50	1,966.00	3.53	69.31	77.50	2,440.00	2,390.00	50.00	127.50
71.00	71.00	1	23	200.00	11.00	5	3.00	55.00	2.74	833.00	0.98	8.18	8.18	2,440.00	2,390.00	50.00	58.18

Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One.

H:\Engineering Data\AE\Design Assistant Files\Wickenburg Ranch, AZ.MDB

**PRELIMINARY PRESSURE SEWER ACCUMULATED RETENTION TIME (HR)**  
**Wickenburg Ranch, AZ**

July 28, 2006

Prepared by:  
**Keith Blond**

Zone Number	Connects to Zone	Accumulated Total of Pumps this Zone	Existing Pipe Size	Gallons per 100 Linear Foot	Length of Zone	Capacity of Zone	Average Daily Flow	Average Fluid Changes per Day	Average Retention Time (Hr)	Accumulated Retention Time (Hr)
This spreadsheet was calculated using pipe diameters for SDR11 HDPE										
1.00	2.00	3	2.00	15.40	368.00	56.68	600	10.59	2.27	5.02
2.00	4.00	8	2.00	15.40	852.00	131.23	1,600	12.19	1.97	2.75
3.00	4.00	2	2.00	15.40	426.00	65.62	400	6.10	3.94	4.72
4.00	4.00	11	2.00	15.40	465.00	71.62	2,200	30.72	0.78	0.78
5.00	6.00	3	2.00	15.40	416.00	64.08	600	9.36	2.56	3.49
6.00	6.00	5	2.00	15.40	251.00	38.66	1,000	25.87	0.93	0.93
7.00	7.00	3	2.00	15.40	290.00	44.67	600	13.43	1.79	1.79
8.00	9.00	3	2.00	15.40	213.00	32.81	600	18.29	1.31	2.44
9.00	9.00	6	2.00	15.40	365.00	56.22	1,200	21.34	1.12	1.12
10.00	12.00	3	2.00	15.40	356.00	54.83	600	10.94	2.19	3.30
11.00	12.00	3	2.00	15.40	474.00	73.01	600	8.22	2.92	4.03
12.00	13.00	9	2.00	15.40	435.00	67.00	1,800	26.86	0.89	1.11
13.00	13.00	10	2.00	15.40	116.00	17.87	2,000	111.94	0.21	0.21
14.00	15.00	3	2.00	15.40	300.00	46.21	600	12.98	1.85	2.79
15.00	15.00	7	2.00	15.40	358.00	55.14	1,400	25.39	0.95	0.95
16.00	17.00	3	2.00	15.40	833.00	128.31	600	4.68	5.13	9.34
17.00	18.00	6	2.00	15.40	813.00	125.23	1,200	9.58	2.50	4.21
18.00	21.00	8	2.00	15.40	583.00	89.80	1,600	17.82	1.35	1.70
19.00	18.00	2	2.00	15.40	501.00	77.17	400	5.18	4.63	6.33
20.00	21.00	3	2.00	15.40	552.00	85.02	600	7.06	3.40	3.76
21.00	21.00	12	2.00	15.40	232.00	35.73	2,400	67.16	0.36	0.36
22.00	23.00	3	2.00	15.40	280.00	43.13	600	13.91	1.73	2.89
23.00	23.00	8	2.00	15.40	503.00	77.48	1,600	20.65	1.16	1.16
24.00	25.00	3	2.00	15.40	213.00	32.81	600	18.29	1.31	2.26
25.00	25.00	7	2.00	15.40	358.00	55.14	1,400	25.39	0.95	0.95
26.00	27.00	3	2.00	15.40	353.00	54.37	600	11.03	2.17	2.75
27.00	27.00	5	2.00	15.40	155.00	23.87	1,000	41.89	0.57	0.57
28.00	29.00	3	2.00	15.40	339.00	52.22	600	11.49	2.09	3.16
29.00	29.00	5	2.00	15.40	290.00	44.67	1,000	22.39	1.07	1.07
30.00	31.00	3	2.00	15.40	203.00	31.27	600	19.19	1.25	2.11
31.00	31.00	5	2.00	15.40	232.00	35.73	1,000	27.98	0.86	0.86
32.00	33.00	3	2.00	15.40	435.00	67.00	600	8.95	2.68	3.93
33.00	33.00	9	2.00	15.40	610.00	93.96	1,800	19.16	1.25	1.25
34.00	35.00	3	2.00	15.40	329.00	50.68	600	11.84	2.03	2.97
35.00	35.00	4	2.00	15.40	203.00	31.27	800	25.59	0.94	0.94
36.00	37.00	3	2.00	15.40	232.00	35.73	600	16.79	1.43	2.65
37.00	37.00	6	2.00	15.40	397.00	61.15	1,200	19.62	1.22	1.22
38.00	39.00	3	2.00	15.40	445.00	68.54	600	8.75	2.74	3.79

PRELIMINARY PRESSURE SEWER ACCUMULATED RETENTION TIME (HR)  
Wickenburg Ranch, AZ

July 28, 2006

Prepared by:  
Keith Blond

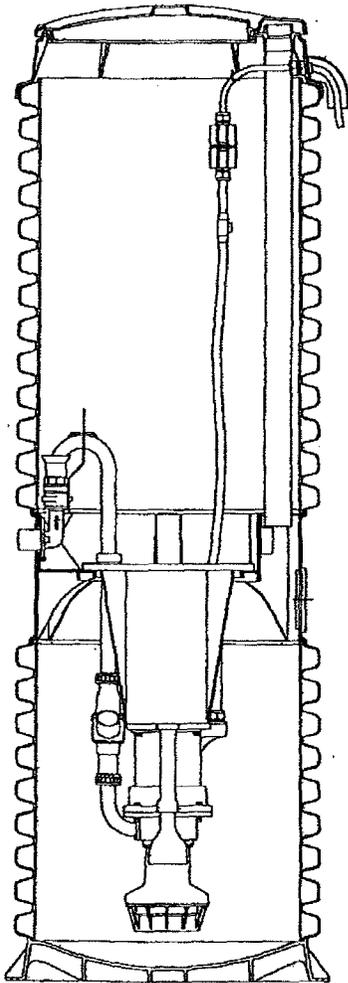
Zone Number	Connects to Zone	Accumulated Total of Pumps this Zone	Existing Pipe Size	Gallons per 100 Linear Feet	Length of Zone	Capacity of Zone	Average Daily Flow	Average Fluid Changes per Day	Average Retention Time (hr)	Accumulated Retention Time (hr)
This spreadsheet was calculated using pipe diameters for: SDR11HDPE										
39.00	39.00	6	2.00	15.40	339.00	52.22	1,200	22.98	1.04	1.04
40.00	40.00	2	2.00	15.40	348.00	53.60	400	7.46	3.22	3.22
41.00	42.00	3	2.00	15.40	232.00	35.73	600	16.79	1.43	2.68
42.00	42.00	4	2.00	15.40	271.00	41.74	800	19.17	1.25	1.25
43.00	42.00	3	2.00	15.40	445.00	68.54	600	8.75	2.74	4.30
44.00	45.00	2	2.00	15.40	339.00	52.22	400	7.66	3.13	4.69
45.00	45.00	7	2.00	15.40	590.00	90.88	1,400	15.41	1.56	1.56
46.00	48.00	3	2.00	15.40	416.00	64.08	600	9.36	2.56	3.48
47.00	48.00	3	2.00	15.40	387.00	59.61	600	10.07	2.38	3.30
48.00	49.00	9	2.00	15.40	368.00	56.68	1,800	31.76	0.76	0.92
49.00	49.00	10	2.00	15.40	87.00	13.40	2,000	149.25	0.16	0.16
50.00	51.00	3	2.00	15.40	280.00	43.13	600	13.91	1.73	2.67
51.00	51.00	7	2.00	15.40	356.00	54.83	1,400	25.53	0.94	0.94
52.00	53.00	3	2.00	15.40	445.00	68.54	600	8.75	2.74	6.97
53.00	55.00	4	2.00	15.40	280.00	43.13	800	18.55	1.29	4.23
54.00	55.00	3	2.00	15.40	571.00	87.95	600	6.82	3.52	6.45
55.00	58.00	8	2.00	15.40	620.00	95.50	1,600	16.75	1.43	2.93
56.00	57.00	3	2.00	15.40	406.00	62.54	600	9.59	2.50	5.79
57.00	58.00	6	2.00	15.40	581.00	89.49	1,200	13.41	1.79	3.29
58.00	62.00	17	2.00	15.40	765.00	117.83	3,400	28.85	0.83	1.50
59.00	60.00	3	2.00	15.40	687.00	105.82	600	5.67	4.23	8.38
60.00	61.00	9	2.00	15.40	1,317.00	202.86	1,800	8.87	2.70	4.14
61.00	62.00	10	2.00	15.40	416.00	64.08	2,000	31.21	0.77	1.44
62.00	62.00	29	3.00	33.47	484.00	161.98	5,800	35.81	0.67	0.67
63.00	64.00	3	2.00	15.40	523.00	80.56	600	7.45	3.22	8.78
64.00	66.00	6	2.00	15.40	590.00	90.88	1,200	13.20	1.82	5.56
65.00	66.00	3	2.00	15.40	639.00	98.43	600	6.10	3.94	7.68
66.00	69.00	12	2.00	15.40	823.00	126.77	2,400	18.93	1.27	3.75
67.00	68.00	3	2.00	15.40	590.00	90.88	600	6.60	3.64	7.92
68.00	69.00	6	2.00	15.40	587.00	90.42	1,200	13.27	1.81	4.29
69.00	71.00	19	3.00	33.47	484.00	161.98	3,800	23.46	1.02	2.48
70.00	71.00	3	1.50	9.85	1,966.00	193.71	600	3.10	7.75	9.20
71.00	71.00	23	3.00	33.47	833.00	278.77	4,600	16.50	1.45	1.45

Note: This analysis is valid only with the use of progressive cavity type grinder pumps as manufactured by Environment One  
H:\Engineering Data\AE\Design Assistant Files\Wickenburg Ranch, AZ.MDB





# GP2010



Patent Numbers: 5,752,315  
5,562,254 5,439,180

\* Discharge data includes loss through check valve, which is minimal.

PA1346P01 Rev. D, 1/02

## General Applications

The size, efficiency and operating economy of the GP 2010 make it your best choice for single dwellings, waterfront property, subdivision developments and marinas. The GP 2010 is ideally suited for both new and existing communities.

## General Features

The GP 2010 Grinder Pump is a complete unit that includes: the grinder pump, check valve, HDPE (high density polyethylene) tank and controls. The GP 2010 is packaged into a single complete unit, ready for installation.

All solids are ground into fine particles, allowing them to pass easily through the pump, check valve and small diameter pipelines. Even objects not normally found in sewage, such as plastic, rubber, fiber, wood, etc., are ground into fine particles.

The 1 1/4-inch discharge connection is adaptable to any piping materials, thereby allowing us to meet your local code requirements.

The tank is made of tough corrosion-resistant HDPE. The optimum tank capacity of 70 gallons is based on computer studies of water usage patterns. A single GP 2010 is ideal for one, average single-family home and can also be used for up to two average single-family homes where codes allow and with consent of the factory. This model can accommodate flows of 700 GPD.

The internal check valve assembly, located in the grinder pump, is custom-designed for non-clog, trouble-free operation.

The grinder pump is automatically activated and runs infrequently for very short periods. The annual energy consumption is typically that of a 40-watt light bulb.

Units are available for indoor and outdoor installations. Outdoor units are designed to accommodate a wide range of burial depths.

## Operational Information

### Motor

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

### Inlet Connections

4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

### Discharge Connections

Pump discharge terminates in 1 1/4-inch NPT female thread. Can easily be adapted to 1 1/4-inch PVC pipe or any other material required by local codes.

### Discharge\*

15 gpm at 0 psig

11 gpm at 40 psig

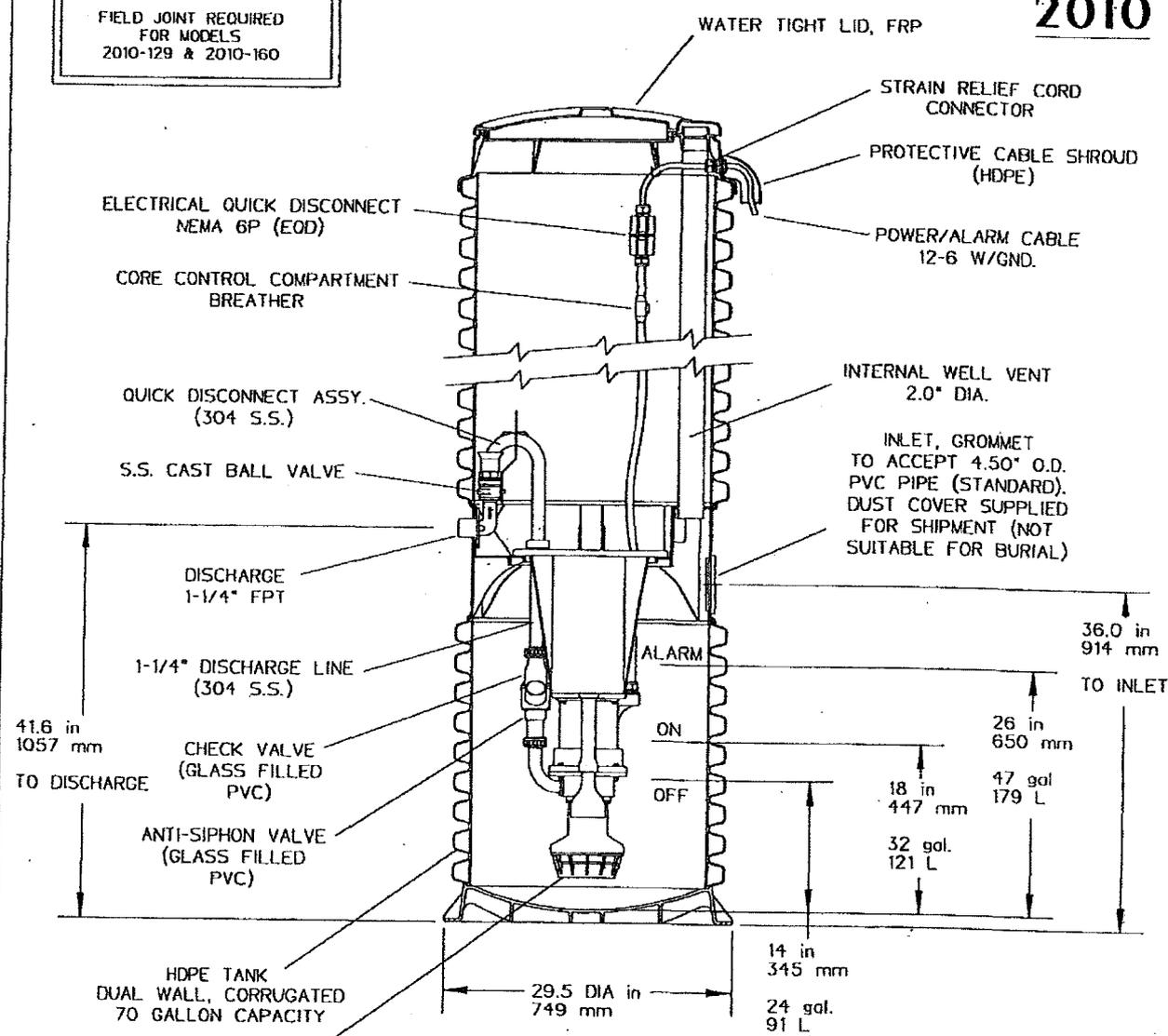
9 gpm at 60 psig

## Overload Capacity

The maximum pressure that the pump can generate is limited by the motor characteristics. The motor generates a pressure well below the rating of the piping and appurtenances. The automatic reset feature does not require manual operation following overload.

# 2010

FIELD JOINT REQUIRED  
FOR MODELS  
2010-129 & 2010-160



SEMI-POSITIVE DISPLACEMENT TYPE PUMP  
DIRECTLY DRIVEN BY A 1 HP MOTOR  
CAPABLE OF DELIVERING 9 gpm AT 138' T.D.H.  
(34 lpm AT 42m T.D.H.)



SGS	CAH	01/10/02	H	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE



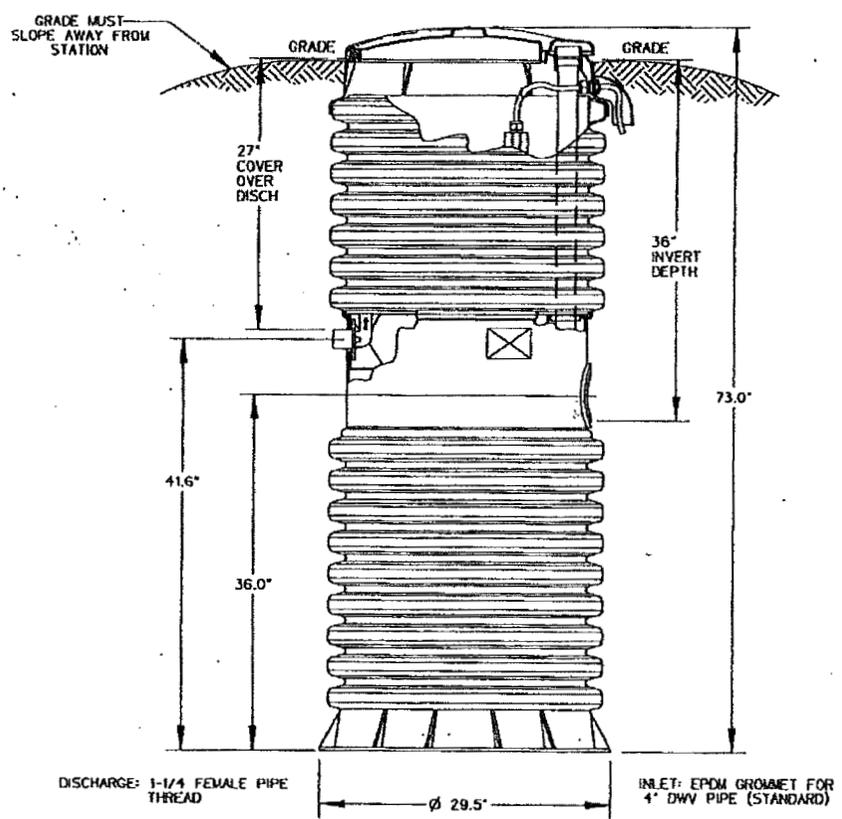
MODEL 2010, DETAIL SHEET

PA0908P01

### BALLAST REQUIREMENTS

A CONCRETE ANCHOR IS REQUIRED  
ON ALL OUTDOOR MODEL 2010 STATIONS  
SPECIFIC CONCRETE DIMENSIONS ARE REQUIRED  
TO ACHIEVE NECESSARY BALLAST EFFECT  
SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

# 2010-74



SGS	CAH	01/10/02	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

**BALLAST REQUIREMENTS**

A CONCRETE ANCHOR IS REQUIRED ON ALL MODEL 2010-74 STATIONS

SPECIFIC CONCRETE DIMENSIONS ARE REQUIRED TO ACHIEVE NECESSARY BALLAST EFFECT

SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

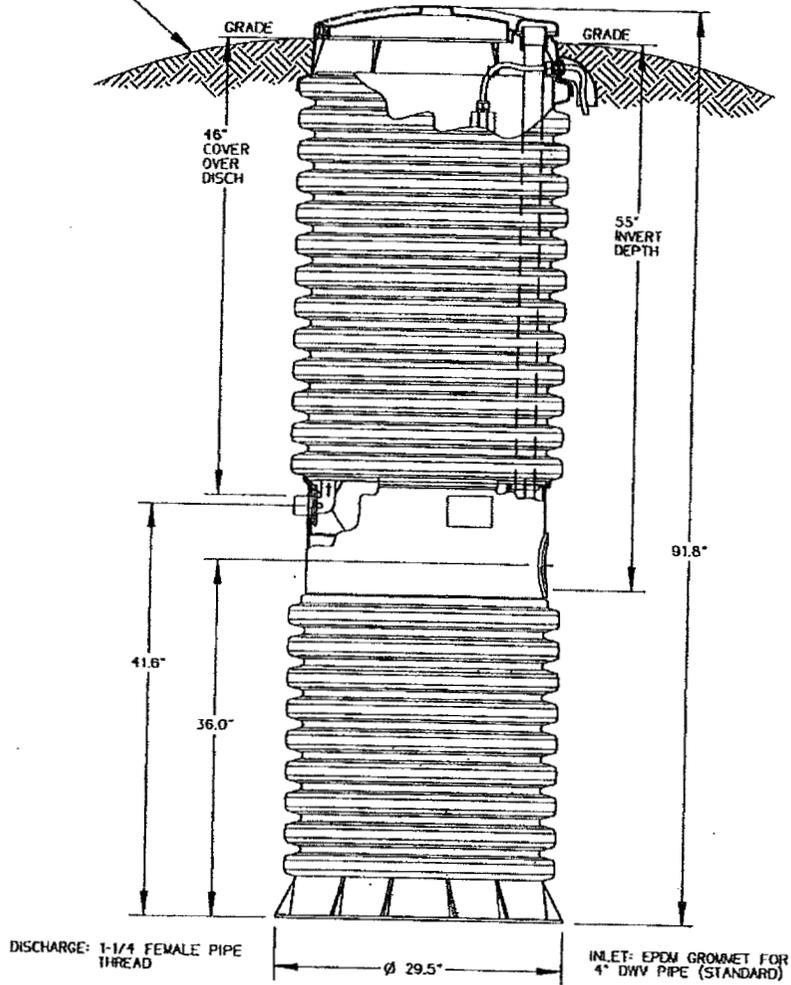


MODEL 2010-74

PA0856P03

2010-93

GRADE MUST SLOPE AWAY FROM STATION

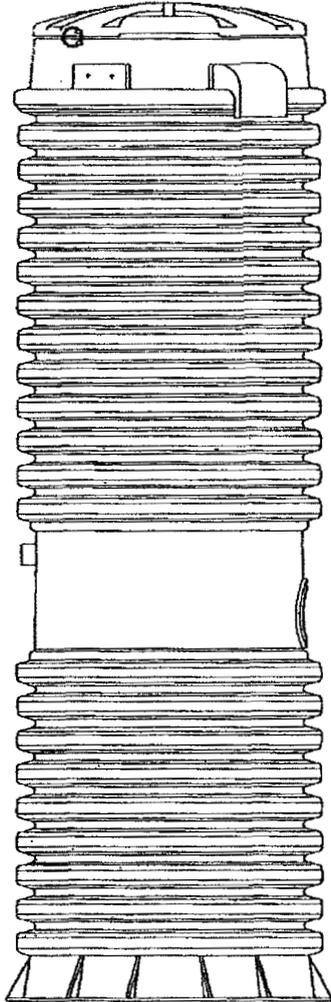


**BALLAST REQUIREMENTS**

A CONCRETE ANCHOR IS REQUIRED ON ALL MODEL 2010-93 STATIONS  
 SPECIFIC CONCRETE DIMENSIONS ARE REQUIRED TO ACHIEVE NECESSARY BALLAST EFFECT  
 SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

SGS	CAH	01/10/02	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE
 <b>SEWER SYSTEMS</b>				
MODEL 2010-93				
PA0856P04				

**E/One Sewers™**



## Limited Warranty

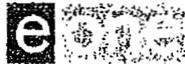
1000 Series, 2000 Series, AMGP

Environment One Corporation offers a limited warranty that guarantees its product to be free from defects in material and factory workmanship for a period of two years from the date of installation, or 27 months from the date of shipment, whichever occurs first, provided the product is properly installed, serviced and operated under normal conditions and according to manufacturer's instructions. Repair or parts replacement required as a result of such defect will be made free of charge during this period upon return of the defective parts or equipment to the manufacturer or its nearest authorized service center.

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Installation Date: \_\_\_\_\_

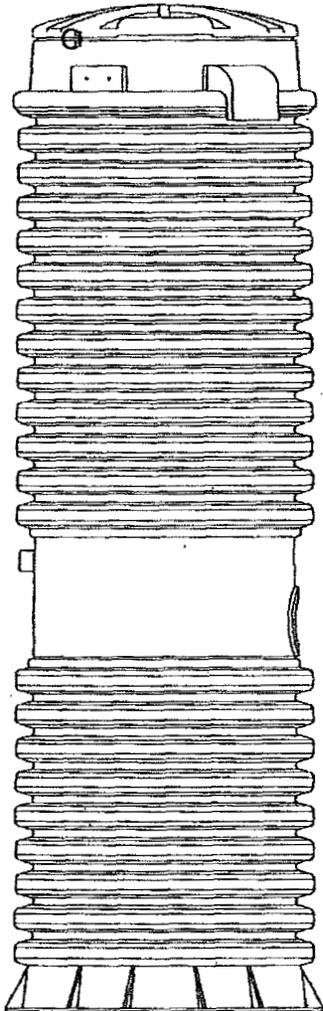


**SEWER SYSTEMS**

2773 Balltown Rd • Niskayuna NY USA 12309

(01) 518.348.6161 • [www.eone.com](http://www.eone.com)

# User Instructions for the Environment One Grinder Pump



## General Information

In order to provide you with suitable wastewater disposal, your home is served by a low pressure sewer system. The key element in this system is an Environment One grinder pump. The tank collects all solid materials and effluent from the house. The solid materials are then ground to a small size suitable for pumping as a slurry with the effluent water. The grinder pump generates sufficient pressure to pump this slurry from your home to the wastewater treatment receiving line and/or disposal plant.

Congratulations on your Environment One grinder pump investment. With proper care and by following a few guidelines, your grinder pump will give you years of dependable service.

## Care and Use of your Grinder Pump

The Environment One grinder pump is capable of accepting and pumping a wide range of materials. Regulatory agencies advise that the following items should not be introduced into any sewer, either directly or through a kitchen waste disposal unit:

Glass	Diapers, socks, rags or cloth
Metal	Plastic objects (toys, utensils, etc.)
Seafood shells	Sanitary napkins or tampons
Goldfish stone	Kitty litter

In addition, you must never introduce into any sewer:

Explosives	Strong chemicals
Flammable material	Gasoline
Lubricating oil and/or grease	

## Periods of Disuse

If your home or building is left unoccupied for longer than a couple of weeks, perform the following procedure:

**Purge the System.** Run clean water into the unit until the pump activates. Immediately turn off the water and allow the grinder pump to run until it shuts off automatically.

**Duplex Units.** Special attention must be taken to ensure that both pumps turn on when clean water is added to the tank.

**Caution:** Do not disconnect power to the unit

## Power Failure

Your grinder pump cannot dispose of wastewater without electrical power. If electrical power service is interrupted, keep water usage to a minimum.

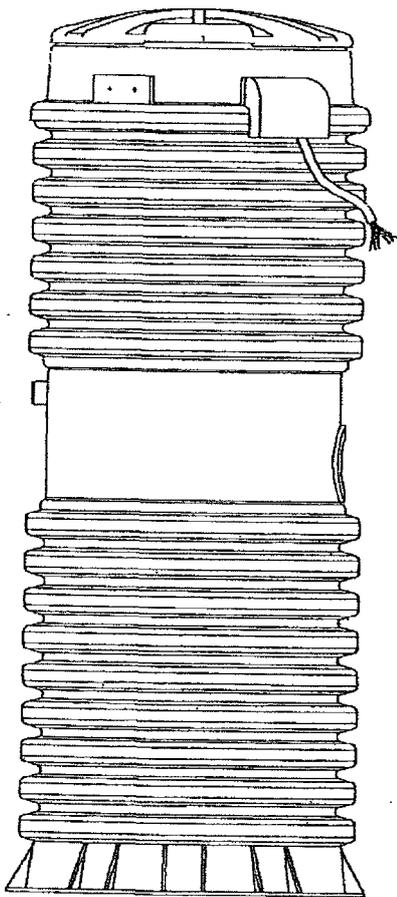
## Pump Failure Alarm

Your Environment One grinder pump has been manufactured to produce an alarm signal (120 volt) in the event of a high water level in the basin. The installer must see that the alarm signal provided is connected to an audible and/or visual alarm in such a manner as to provide adequate warning to the user that service is required. During the interim prior to the arrival of an authorized service technician, water usage must be limited to the reserve capacity of the tank.

For service, please call your local distributor:



E/One Sewers™



**GP 2010**

**TYPICAL  
INSTALLATION  
INSTRUCTIONS  
& WARRANTY  
INFORMATION**

# Environment One Grinder Pump Feature Identification

1. **GRINDER PUMP BASIN** – High density polyethylene (HDPE).
2. **ACCESSWAY COVER** – FRP
3. **ELECTRICAL QUICK DISCONNECT (EQD)** – Cable from pump core terminates here.
4. **POWER AND ALARM CABLE** – Circuits to be installed in accordance with local codes.
5. **ALARM PANEL** – NEMA 4X enclosure. Equipped with circuit breakers. Locate according to local codes.
6. **ALARM DEVICE** – Every installation is to have an alarm device to alert the homeowner of a potential malfunction. Visual devices should be placed in very conspicuous locations.
7. **INLET** – EPDM grommet (4.5" ID). For 4.5" OD DWV pipe.
8. **WET WELL VENT** – 2.0" tank vent, supplied by factory in units with accessways.
9. **GRAVITY SERVICE LINE** – 4" DWV, (4.5" OD). Supplied by others.
- 9a. **STUB-OUT** – 4" X 5' Long **watertight** stub-out, to be installed at time of burial unless the gravity service line is connected during installation. Supplied by others.
10. **DISCHARGE VALVE** – 1-1/4" Female pipe thread.
11. **DISCHARGE LINE** – 1-1/4" Nominal pipe size. Supplied by others.
12. **CONCRETE ANCHOR** – See Ballast Calculations for specific weight for station height. Supplied by others.
13. **BEDDING MATERIAL** – 6" minimum depth, round aggregate, (gravel). Supplied by others.
14. **FINISHED GRADE** – Grade line to be 1" to 4" below removable lid and slope away from the station.
15. **VENT** – Indoor installation. See section 6, Venting, on page 6.
16. **VALVE** – Full ported ball valve. Recommended option; for use during service operations. Supplied by others.
17. **CONDUIT** – 1" or 1-1/4", material and burial depth as required per national and local codes. Conduit must enter panel from bottom and be sealed per NEC section 300.5 & 300.7. Supplied by others.
18. **UNION** – 1-1/4" or compression type coupling. Supplied by others. (Do not use rubber sleeve and hose clamp type coupling.)
19. **VALVE** – Ball valve, must provide a full-ported 1-1/4" round passage when open. Supplied by others.
20. **REBAR** – Required to lift tank after ballast (concrete anchor) has been attached, 4 places, evenly spaced around tank.

Figure 1a

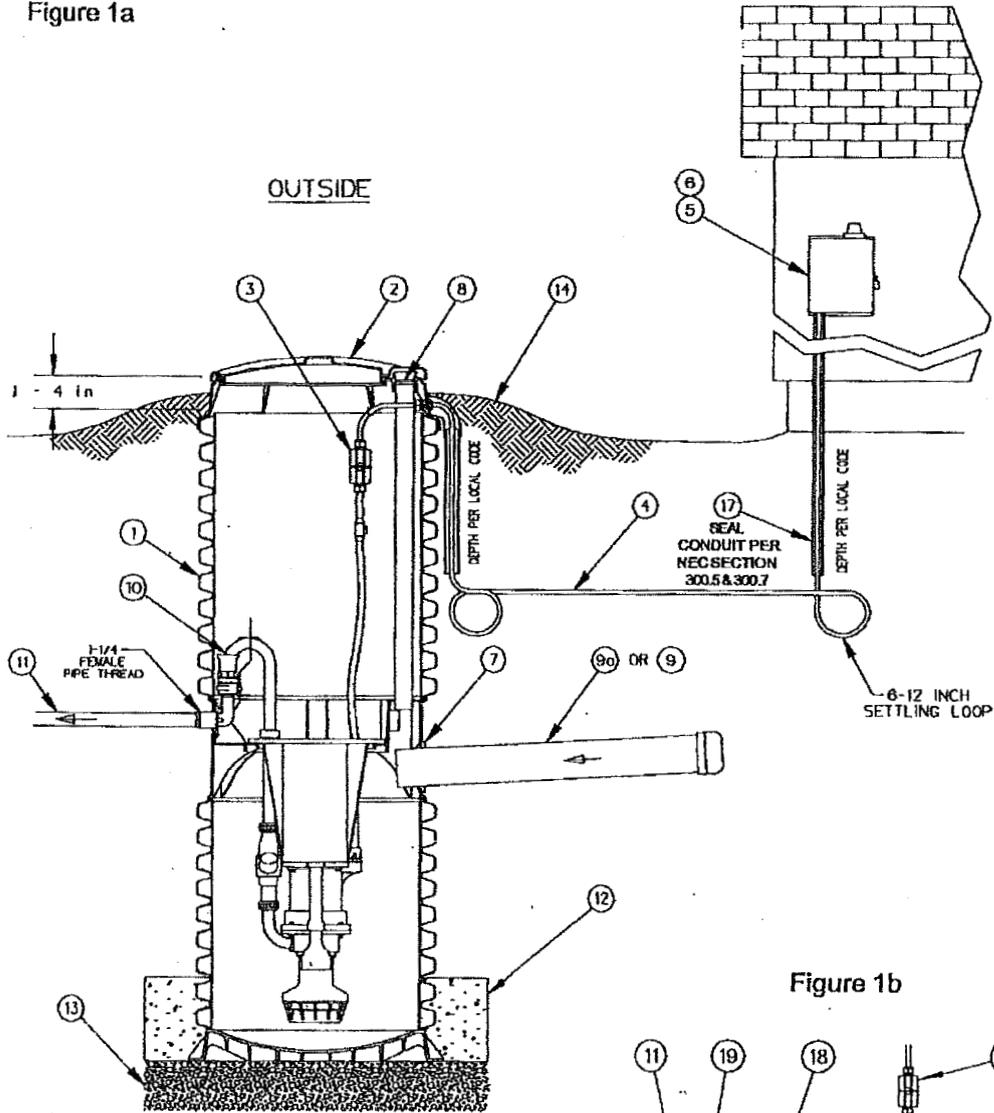
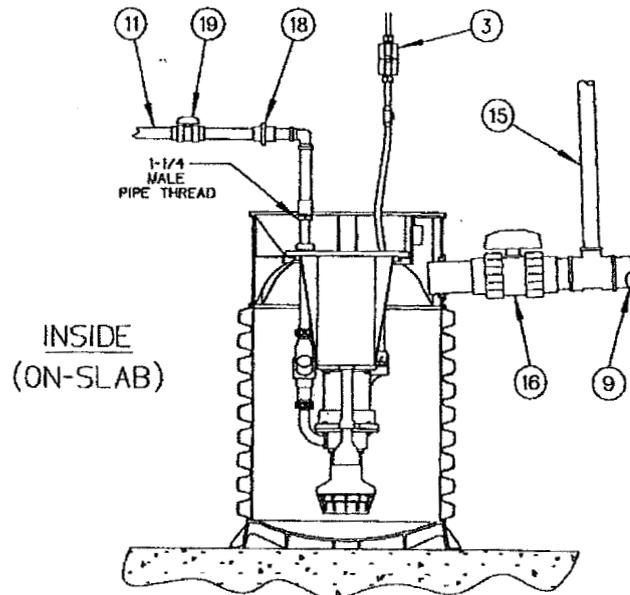


Figure 1b



**FAILURE TO COMPLY  
WITH INSTALLATION  
INSTRUCTIONS WILL  
VOID WARRANTY**

## Installation Instructions for Model 2010 Grinder Pump

The Environment One Grinder Pump is a well engineered, reliable and proven product: proper installation will assure years of trouble-free service. The following instructions define the recommended procedure for installing the Model 2010 Grinder Pump. These instructions cover the installation of units with and without accessways.

This is a sewage handling pump and must be vented in accordance with local plumbing codes. This pump is not to be installed in locations classified as hazardous in accordance with National Electric Code, ANSI / NFPA 70. All piping and electrical systems must be in compliance with applicable local and state codes.

### 1. REMOVE PACKING

**MATERIAL:** The User Instructions must be given to the home owner. Hardware supplied with the unit, if any, will be used at installation.

### 2. TANK INSTALLATION:

The tank is supplied with a standard grommet for connecting the 4" DWV (4.50" outside Dia.) incoming sewer drain. Other inlet types and sizes are optional (caution 4" DR-35 pipe is of smaller diameter and won't create a water tight joint with the standard grommet). Please confirm that you have the correct inlet before continuing. If a concrete ballast is attached to the tank lift only by the lifting eyes, (rebar) embedded in the concrete. **Do not drop, roll, or lay tank on its side. This will damage the unit and void the warranty.**

**If the tank has no accessway (Fig. 1b) (Indoor Installation):** The pump may be installed on or in the basement floor (see Fig. 1b). If the tank is to be set on the floor it must be a flat and level bearing surface. If the tank is to go into the basement floor, it must be anchored to prevent unit from floating due to high ground water (see Chart 1, page 12 for weight).

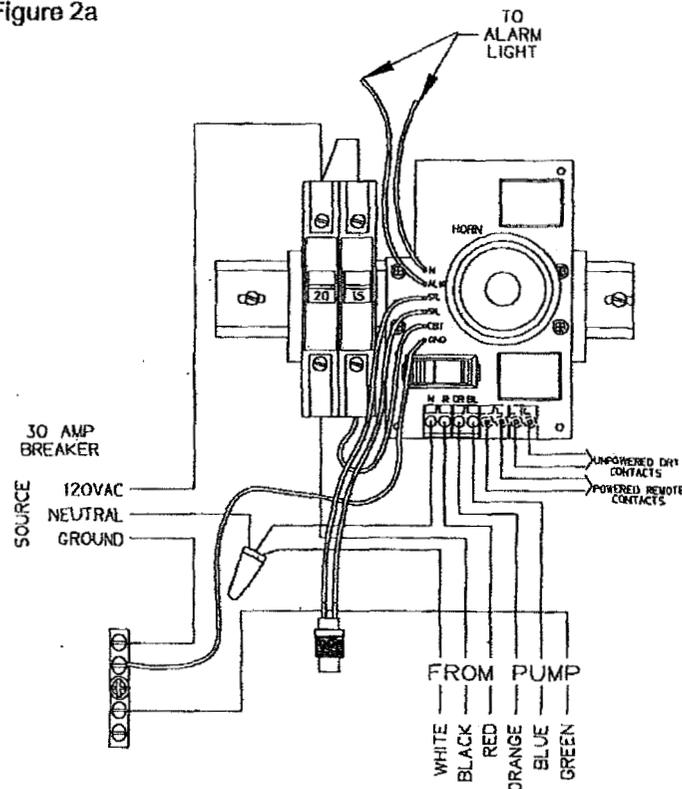
**If the tank is to go in the floor:** A hole of the correct width and depth should be excavated. The tank must be placed on a 6" bed of gravel made up of naturally rounded aggregate, clean and free flowing, with particle size not less than 1/8" or more than 3/4" in diameter.

The wet well should be leveled and filled with water prior to pouring the concrete to prevent the tank from shifting. If it's necessary to pour the concrete to a level above the inlet, the inlet must be sleeved with an 8" tube before pouring.

There must be a minimum clearance of three feet directly above the tank to allow for removal of the pump core.

**If the tank has an accessway (Fig. 1a):** Excavate a hole to a depth, so that the removable cover extends above the finished grade line. The grade should slope away from the unit. The diameter of the hole must be large enough to allow for a concrete anchor. Place the unit on a bed of

Figure 2a



## 120 VOLT WIRING

gravel, naturally rounded aggregate, clean and free flowing, with particles not less than 1/8" or more than 3/4" in diameter. The concrete anchor is not optional. (See Chart 1 on page 12 for specific requirements for your unit)

The unit should be leveled and the wet well filled with water to the bottom of the inlet to help prevent the unit from shifting while the concrete is being poured. The concrete must be vibrated to ensure there are no voids.

If it is necessary to pour the concrete to a higher level than the inlet, the inlet must be sleeved with an 8" tube before pouring.

If your unit is a model taller than 93" it may be shipped in

two sections, requiring field assembly. See Field Joint Assembly Instructions on page 8 for additional information.

### 3. INLET PIPE

**INSTALLATION:** Mark the inlet Pipe 3 1/2" from the end to be inserted. Inlet pipe should be chamfered and lubricated with a soap solution. Lubricate the inlet grommet with soap solution as well. Insert the pipe into the grommet up to the 3 1/2" mark. Inspect to ensure the grommet has remained intact and in place.

**4. DISCHARGE:** The use of 1-1/4" PVC pressure pipe Schedule 40 and polyethylene pipe SDR 11 or SDR 7 are recommended. If polyethylene is chosen use compression type fittings to provide a smooth

inner passage. It is recommended that a Redundant Check Valve Assembly (E/One part no. PC0051GXX) be installed between the pump discharge and the street main on all installations. Never use a ball type valve as a check valve. We recommend the valve be installed as close to the public right-of-way as possible. Check local codes for applicable requirements.

**CAUTION:** Redundant check valves on station laterals and anti-siphon/check valve assemblies on grinder pump cores should not be used as system isolation valves during line tests.

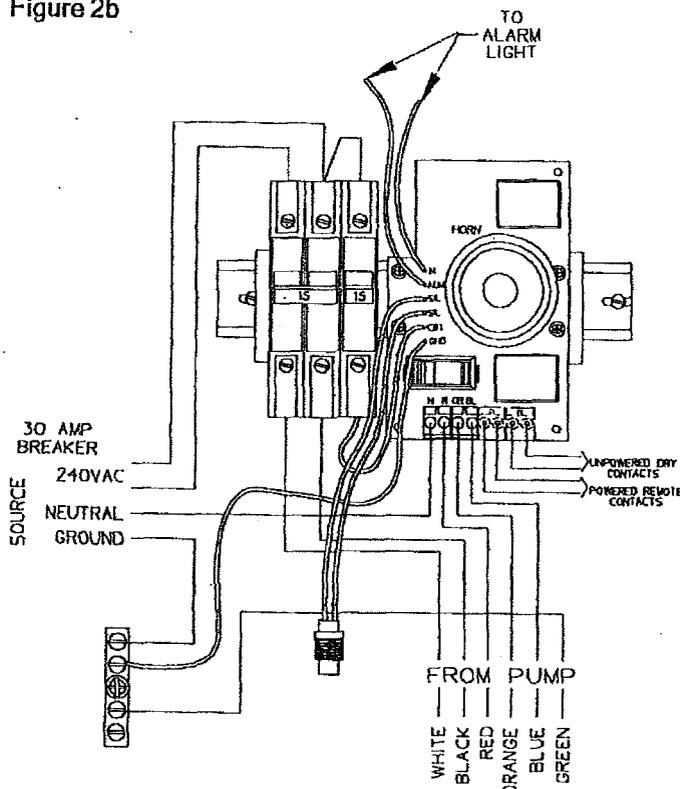
**If the tank has no accessway: (Indoor Installation)** The discharge connection is a 1-1/4" male NPT. The discharge piping must incorporate a shut-off valve and a union with a minimum pressure rating of 160 PSI, or a suitable piping disconnect to allow for removal of the pump core. The valve should be of the type that provides a full-ported passage (i.e. a ball or gate valve). A standard 1-1/4" union or a compression type coupling should be used as a disconnect joint.

**If the tank has an accessway:** There is a ball valve and a quick disconnect pre-installed in the accessway. There is a 1-1/4" female NPT discharge connection on the outside of the tank 41" above the bottom of the tank.

### 5. BACKFILL

**REQUIREMENTS:** Proper backfill is essential to the long term reliability of any underground structure. Several

Figure 2b



## 240 VOLT WIRING

methods of backfill are available to produce favorable results with different native soil conditions.

The most highly recommended method of backfilling is to surround the unit to grade using Class I or Class II backfill material as defined in ASTM 2321. Class 1A and Class 1B are recommended where frost heave is a concern, Class 1B is a better choice when the native soil is sand or if a high, fluctuating water table is expected. Class I, angular crushed stone offers an added benefit in that it needs minimal compaction. Class II, naturally rounded stone, may require more compactive effort, or tamping, to achieve the proper density.

If the native soil condition consist of clean compactible soil, with less than 12% fines, free of ice, rocks, roots, and organic material it may be an acceptable backfill. Such soil must be compacted in lifts not to exceed one foot to reach a final Proctor Density of between 85% and 90%. Non-compatible clays and silts are not suitable backfill for this or any underground structure such as inlet or discharge lines. If you are unsure of the consistency of the native soil it is recommended that a geotechnical evaluation of the material be obtained before specifying backfill.

Another option is the use of a flowable fill (i.e., low slump concrete). This is particularly attractive when installing grinder pump stations in augured holes where tight clearances make it difficult to assure proper backfilling and

compaction with dry materials. Flowable fills should not be dropped with more than four feet between the discharge nozzle and the bottom of the hole since this can cause separation of the constituent materials.

**6. VENTING:** The unit must be properly vented to assure correct operation of the pump. If you have an indoor unit it can be vented through the 2" port supplied at the top of the wet well or through the incoming sewer line with a 2" pipe (the vent must be within four feet of the grinder pump, and before the first change of direction fitting).

The outdoor units are supplied with a vent pipe from the wet well to the top of the accessway.

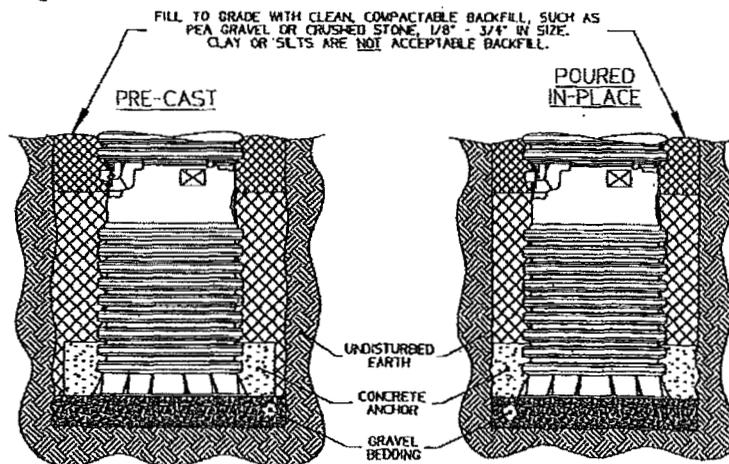
Failure to properly vent the tank will result in faulty operation and will void the warranty.

**7. ELECTRICAL CONNECTION: (Supply panel to E/One Alarm Panel)** Before proceeding verify that the service voltage is the same as the motor voltage shown on the name plate. An alarm device is to be installed in a conspicuous location where it can be readily seen by the home owner. An alarm device is required on every installation. There shall be no exceptions.

Wiring of supply panel and Environment One Alarm Panel shall be per figures 2a and 2b, Alarm Panel wiring diagrams and local codes.

**8. ELECTRICAL CONNECTION: (Pump to Panel) (Fig. 4)** The Environment One GP2000 grinder pump station is provided with a cable for connection between the station and the alarm panel, (The Supply Cable). The supply cable is shipped inside the station with a small portion fed

Figure 3



## TYPICAL IN-GROUND SECTION VIEW

through the cable connector mounted on the wall of the fiberglass shroud. The supply cable, a six conductor tray cable, meets NEC requirements for direct burial as long as a minimum of 24" burial depth is maintained. Those portions of the cable which have less than 24" of cover must be contained in suitable conduit. This includes the vertical portion dropping to a 24" depth at the station and the length rising out of the ground at the control panel. **NOTE: Wiring must be installed per national and local codes. Conduit must enter panel from bottom and be sealed per NEC section 300.5 & 300.7.**

**8a. Procedure for installing E/One supply cable:**

1) Open the lid of the station, Locate the cable and the feed-thru connector on the wall of the shroud. If the station has a field joint and was delivered in

two pieces be sure the 2 halves of the EQD are securely assembled together. Loosen the nut on the connector and pull the supply cable out through the connector until it hits the crimped on stop feature on the cable, approximately 24" from the EQD. **\*\*IMPORTANT: All but 24" of the cable must be pulled out of the station, and the portion of the cable between the EQD and the molded in cable breather should be secured in the hook provided to ensure that the pump functions properly. Do not leave the excess cable in the station.**

2) Retighten the nut. This connection must be tight or ground water will enter the station.

3) Feed the wire through the length of conduit (contractor provided) which will protect it until it is below the 24" burial depth.

4) Position the conduit vertically below the cable

connector along side of the station reaching down into the burial depth. Attach the small fiberglass guard (protective shroud) provided with the station to protect the exposed cable where it enters the station. Four self tapping screws are provided.

5) Run the cable underground, in a trench or tunnel, to the location of the E/One panel. Leave a 6-12 inch loop of cable at each end to allow for shifting and settling. Connections made at the panel are shown in the panel wiring diagram (Fig. 2a and 2b).

**9. DEBRIS REMOVAL:** Prior to start-up test procedure, the core must be removed and the incoming sewer line flushed to force all miscellaneous debris into the tank. Next, all liquid and debris must be removed. Once tank is clean, re-install the pump and proceed with the test.

**10. TEST PROCEDURE:** When the system is complete and ready for use, the following steps should be taken to verify proper installation and operation:

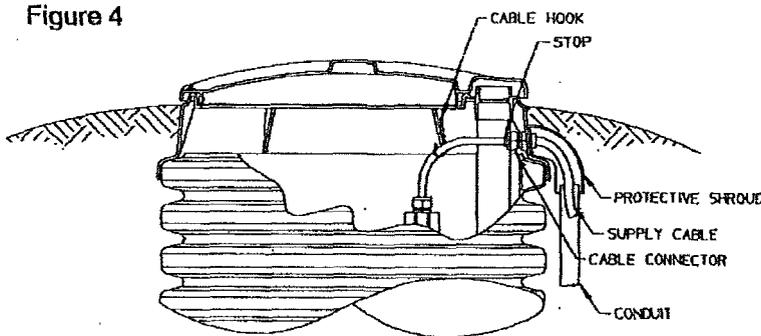
a) Make sure that the discharge shutoff valve is fully open. This valve must not be closed when the pump is operating. In some installations there may be a valve, or valves, at the street main that must also be open.

b) Turn ON the alarm power circuit breaker.

c) Fill tank with water until the alarm turns ON. Shut off water.

d) Turn ON pump power circuit breaker; the pump should turn on immediately. Within one minute the alarm will turn off. Within three minutes the pump will turn off.

Figure 4



**Supply Cable Voltage Drop:**

120 VAC Pump = .195 Volts per Foot of Cable  
 240 VAC Pump = .098 Volts per Foot of Cable  
 (Maximum Recommended Length = 100 Feet)

**TYPICAL SUPPLY CABLE CONFIGURATION**

## Field Joint Assembly Instructions

IT IS EXTREMELY IMPORTANT THAT THE JOINT IS SEALED PROPERLY BEFORE BACKFILLING. EXCAVATING A UNIT FOR REPAIR IS VERY EXPENSIVE AND CAN BE EASILY AVOIDED BY USING PROPER CAUTION DURING THE FOLLOWING PROCEDURE.

Parts included in Field Joint Kit: Identify all parts before proceeding with installation.

- (16) 3/8-16 X 1-1/2 long screws
- (16) 3/8-16 Elastic Stop Nuts
- (32) Flat Washers
- (1) Length Sealant (Sika) Tape
- (1) Hole Punch
- (1) Vent Pipe Extension

1) Carefully clean and dry both accessway flanges with solvent. **IMPORTANT: Sealing surfaces must be dry to ensure the sealant adheres correctly.**

2) Starting at one hole of tank flange, apply two layers of Sika Tape around the inside half of the flange. Align the outside edge of the tape with the bolt circle. Move to the adjacent hole and apply one layer of Sika Tape around the outside of the flange. Align inside of tape with the bolt circle. Remove the backing paper as you lay the adhesive on the flange. **Do not stretch Sika tape during application, it may result in a leak.** The tape should overlap at the end by approximately 1/2 inch, as shown in Fig. 5a. If a section of Sika Tape is misapplied, the bad section may be cut out and replaced. Cut away the poorly laid portion cleanly with a knife and be sure to overlap the tape at each end about 1/2 inch.

3) Using the tool provided, punch a hole through the tape at each of the 16 existing bolt holes in the flange. **Be careful to keep the exposed sealant**

**clean and dry.**

4) Insert three of the sixteen 3/8-16 x 1-1/2" long bolts, with a flat washer, into the flange attached to the upper part of the accessway. These will act as guides while aligning the bolt pattern of the two flanges.

5) Support the upper accessway section a few inches over the tank with the green stripes on each lined up. Once aligned, lower the upper section onto the mating flange using the three bolts to guide it to the proper position. See Fig. 5b.

6) Insert the remaining 13 bolts with flat washers into the flanges. Place a flat washer and elastic stop nut on the end of each bolt, turning the nut on just enough to hold the washer in place.

7) Tighten up the bolts until the sealant begins to squeeze out from between the flanges. To ensure a consistent, sturdy seal tighten them in the following sequence: 1, 9; 5, 13; 3, 11; 7, 15; 2, 10; 4, 12; 6, 14; 8, 16. Always be sure to tighten

one bolt and then the bolt at the position 180° from it, see figure 1 for position numbers.

8) Using the same sequence as in step 7 tighten each bolt to 60 in-lbs. Visually inspect the joint, each bolt and each nut should have a flat washer between it and the flange, and a uniform amount of sealant should be protruding from the seam along the entire perimeter.

**In the event that there are any voids in the sealant, the joint may leak. Take corrective actions if necessary and be sure that the joint is leak free before continuing.**

9) Install the vent pipe extension piece which was shipped inside the upper piece of the accessway. Push the extension pipe into the bell mouth fitting on the pipe installed in the wet well tank. Be sure the pipe is seated correctly. Slide the top end of the extension pipe into the receptacle on the bottom of the lid.

Figure 5a

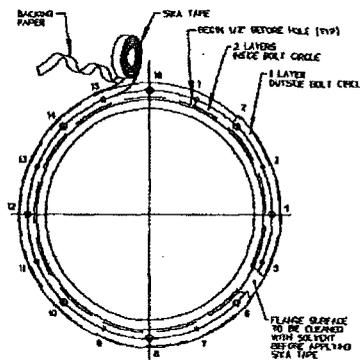
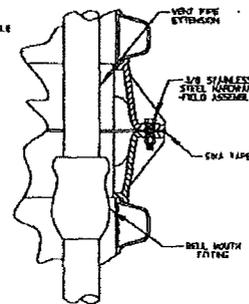


Figure 5b



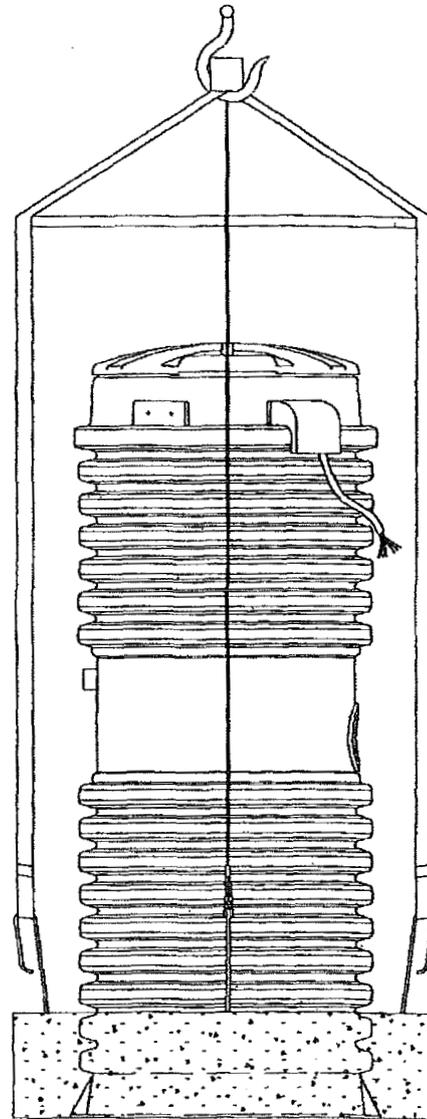
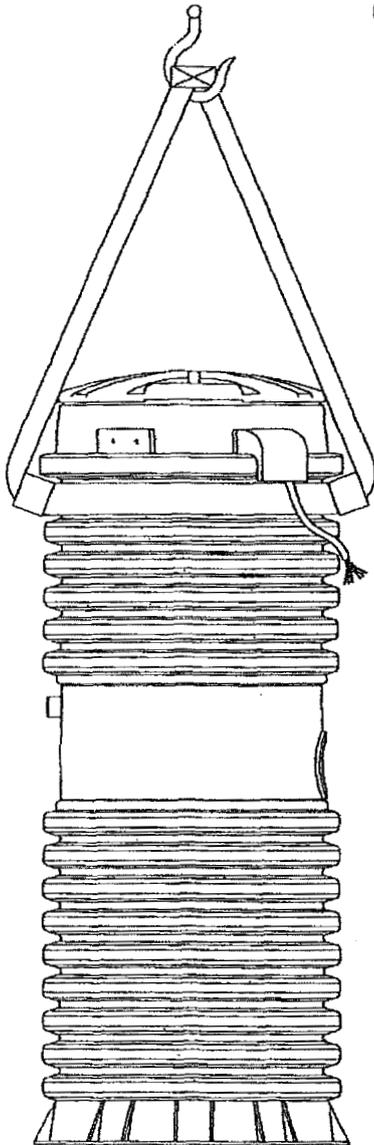
## Lifting Instructions

FAILURE TO FOLLOW THESE INSTRUCTIONS COMPLETELY WILL VOID THE WARRANTY.

1. **Transporting unit to installation site:** Always lift a unit from the bottom for the purpose of transportation. The station should be received attached to a pallet for this purpose. **Never roll a station or move it on its side.**

2. **No Ballast (to be poured in place):** If the concrete anchor is to be poured while the station is in place lift the unit using 2 nylon straps wrapped around the accessway making a sling, as shown below. Keep station oriented vertically to avoid any damage. Only lift from the accessway to put unit in hole, not for moving any distance.

3. **Precast Ballast:** Never lift a station that has a ballast attached by any means except the rebar. The weight of the concrete will damage the station if you attempt to lift it from any part of the station.



# E/One Series 2000 Grinder Pump Station Ballast Calculations

Any buried vessel that is submerged, or partially submerged, in water will be acted on by an upward buoyant force that attempts to return the vessel to a non-submerged state. The magnitude of this buoyant force is equal to the volume of the vessel that is submerged multiplied by the density of water. On most in-ground installations a ballast, or concrete anchor, of proper volume and weight is required to resist the buoyant force. The amount of ballast required for a given set of installation site conditions may be calculated as follows.

## Installation Site Assumptions

1. Low water table -- under worst case ground water or flood conditions only the wet well portions of the E/One grinder pump stations will be submerged.
2. Backfill materials are per E/One Installation Instructions (Models 2010, 2012, 2014, 2015 & 2016).
3. The consulting engineer should perform a soil test to determine if the assumptions that have been made are valid for the specific installation site. If the site conditions differ from these assumptions, then the consulting engineer must revise the calculations as shown in this document.

## Physical Constants

1. Density of Water = 62.4 lb/cu ft
2. Density of Concrete = 150 lb/cu ft (in air)
3. Density of Concrete = 87.6 lb/cu ft (in water)
4. Density of Dry Compacted Backfill = 110 lb/cu ft
5. Density of Saturated Backfill = 70 lb/cu ft

## Procedure

### A. Determine The Buoyant Force Exerted On The Station

1. Determine the buoyant force that acts on the grinder pump station when the wet well is submerged in water.
2. Subtract the weight of the station from the buoyant force due to the submerged wet well to determine the net buoyant force acting on the station.

### B. Determine The Ballast Force Exerted On The Station

1. Determine the ballast force applied to the station from the concrete, saturated soil and dry soil.

### C. Subtract The Ballast Force From the Buoyant Force.

1. Note -- if the installation site conditions are different from those listed above, the consulting engineer should recalculate the concrete ballast.

## Ballast Calculations

The following calculations are to outline the areas used to determine the volumes of the different materials for the ballast. All sections referred to in the calculations are marked on the accompanying drawing.

# E/One Series 2000 Grinder Pump Station Ballast Calculations

## Sample Calculation GP 2010-93 Station

Volume of Station Wet Well = 13.2 cu ft

Station Weight = 270 lb

Station Height = 91.8 in

### A. Buoyant Force

1. The buoyant force acting on the submerged GP 2010-93 is equal to the weight of the displaced water for the section of the tank that is submerged (wet well).

$$\begin{aligned}F_{\text{buoyant}} &= (\text{density of water})(\text{volume of 2010-93 wet well}) \\ &= (62.4 \text{ lb/cu. ft})(13.2 \text{ cu. ft}) \\ &= 823.7 \text{ lb}\end{aligned}$$

2. The net buoyant force acting on the station ( $F_{\text{net-buoyant}}$ ) is equal to the buoyant force ( $F_{\text{buoyant}}$ ) minus the weight of the grinder pump station.

$$\begin{aligned}F_{\text{net-buoyant}} &= 823.7 \text{ lb} - 270 \text{ lb} \\ &= 553.7 \text{ lb}\end{aligned}$$

### B. Ballast Force

1. Determine the volume of concrete (if applicable) & soil (saturated and dry)

#### Section I: Used To Determine The Volume Of Concrete

$$\begin{aligned}\text{Area} &= (\text{Height})(\text{Width}) \\ &= (10'')[(36'' - 26.4'')/2] \\ &= 48\text{in}^2\end{aligned}$$

$$\begin{aligned}\text{Volume} &= (\text{Area})(\text{Average Perimeter of the cylinder}) \\ &= (48\text{in}^2)(\pi)((36'' + 26.4'')/2) \\ &= (4704.8 \text{ in}^3)(1/1728 \text{ ft}^3/\text{in}^3) \\ &= 2.7 \text{ ft}^3\end{aligned}$$

#### Section II: Used To Determine The Volume Of Saturated Soil

$$\begin{aligned}\text{Area} &= (\text{Height})(\text{Width}) \\ &= (28.5'')[(36'' - 26.4'')/2] \\ &= 136.8\text{in}^2\end{aligned}$$

$$\begin{aligned}\text{Volume} &= (\text{Area})(\text{Average Perimeter of the cylinder}) \\ &= (136.8\text{in}^2)(\pi)((36'' + 26.4'')/2) \\ &= (13408.8\text{in}^3)(1/1728 \text{ ft}^3/\text{in}^3) \\ &= 7.8 \text{ ft}^3\end{aligned}$$

## E/One Series 2000 Grinder Pump Station Ballast Calculations

### Sample Calculation GP 2010-93 Station Continued

Section III: Used To Determine The Volume Of Dry Soil

$$\begin{aligned} \text{Area} &= (\text{Height})(\text{Width}) \\ &= (50.3\text{in})[(36\text{in} - 26.4\text{in})/2] \\ &= 241.4\text{in}^2 \end{aligned}$$

$$\begin{aligned} \text{Volume} &= (\text{Area})(\text{Average Perimeter of the cylinder}) \\ &= (241.4\text{in}^2)(\pi)((36" + 26.4")/2) \\ &= (23661.5 \text{ in}^3)(1/1728 \text{ ft}^3/\text{in}^3) \\ &= 13.7 \text{ ft}^3 \end{aligned}$$

2. Determine the combined ballast

$$\text{Ballast (total)} = \text{Ballast (concrete)} + \text{Ballast (saturated soil)} + \text{Ballast (dry soil)}$$

$$= (V_{\text{concrete}})(\text{density concrete in water}) + (V_{\text{soil}})(\text{density wet soil}) + (V_{\text{soil}})(\text{density dry soil})$$

$$= (2.7 \text{ cu ft})(87.6 \text{ lb/ft}^3) + (7.8 \text{ cu ft})(70 \text{ lb/ft}^3) + (13.7 \text{ cu ft})(110 \text{ lb/ft}^3)$$

$$= 236.5 \text{ lb} + 546.0 \text{ lb} + 1507.0 \text{ lb}$$

$$= 2289.5 \text{ lb}$$

C. Subtract the buoyant force from the ballast force to determine the final condition

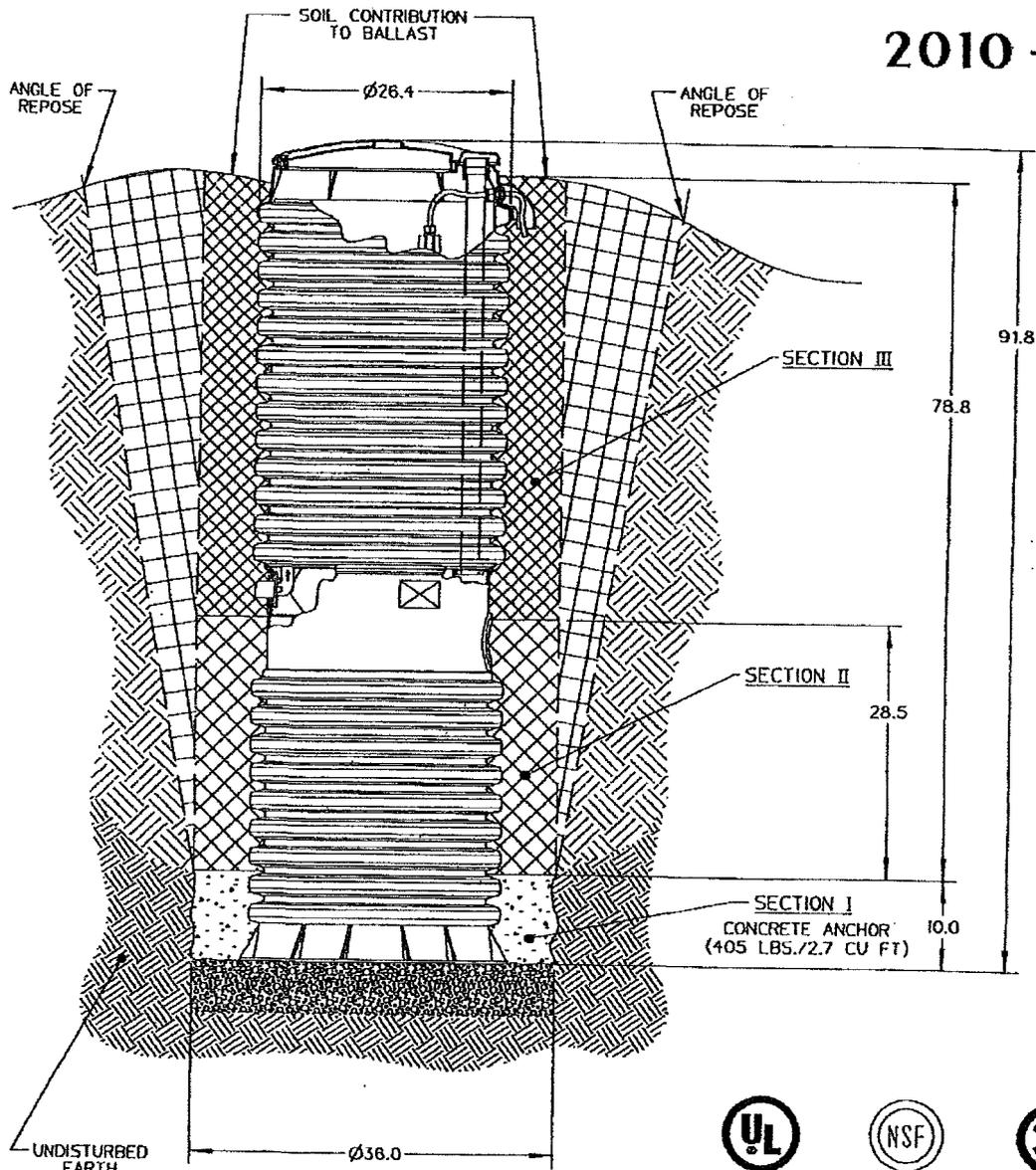
$$\begin{aligned} \text{Final Condition} &= \text{Ballast Force} - \text{Buoyant Force} \\ &= 2289.5 \text{ lb} - 553.7 \text{ lb} \\ &= 1735.8 \text{ lb} \end{aligned}$$

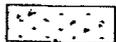
The approach outlined above may be used to calculate the ballast requirements listed below.

GP Model	Wet Well Volume (cu ft)	FNet-Buoyant (lb)	Station Weight (lb)	Fballast (lb)	Volume Concrete (cu ft)	Weight Concrete in Air (lb)
2010-61	13.2	582.7	241	1332.5	2.7	405
2010-74	13.2	569.7	254	1717.5	2.7	405
2010-93	13.2	553.7	270	2289.5	2.7	405
2010-124	13.2	543.7	280	3213.5	2.7	405
2010-129	13.2	523.7	300	3367.5	2.7	405
2010-158	13.2	498.7	325	4236.5	2.7	405
2010-160	13.2	494.7	329	4291.5	2.7	405

Chart 1

2010-93



-  SECTION III - DRY SOIL (ACCESS WAY)
-  SECTION II - SATURATED SOIL (WET WELL)
-  SECTION I - CONCRETE ANCHOR
-  ROUND AGGREGATE (GRAVEL)



DRN	-	10/22/01	-	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE
<b>eone</b> SEWER SYSTEMS				
BALLAST INFORMATION 2010 SERIES				

## Adjusting the Height of a 2000 Series Grinder Pump Station

### REMOVE EXISTING COVER ASSEMBLY (Fig. 6)

If your existing station has a welded-on cover shroud you will need the appropriate replacement cover kit (see Table 2, page 15).

1. Turn off all power to the grinder pump station.
2. Remove the tank lid and the electrical shroud.
3. Unplug the electrical quick disconnect (EQD) and remove the EQD from the supply cable. **Note: DO NOT CUT CABLE.** Loosen liquid tight cable connector and pull the supply cable out through the connector on the side of tank.

4. Tape the pump breather cable to the vent pipe in the tank.

5. Remove the soil around the tank, exposing three of the tank corrugations below grade. Use caution not to damage buried cable.

6. Remove existing cover shroud.

6a. Welded-on shroud (standard) - Using a hand saw, cut the tank in the valley between the two corrugations at grade, discard existing welded-on shroud and attached corrugations (*shroud is not to be reused*). **Caution: Be careful not to cut either the vent pipe or the pump breather cable.**

6b. Clamped-on shroud - Remove band clamp and cover shroud.

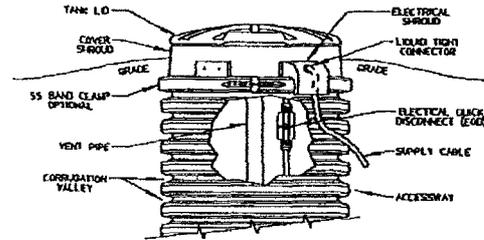


Figure 6

### REDUCING STATION HEIGHT (Fig. 7)

7. Using a hand saw, cut the tank in the valley between the two corrugations at grade.

8. Cut vent pipe 4 3/4" above the cut made on the tank.

Proceed to step 16.

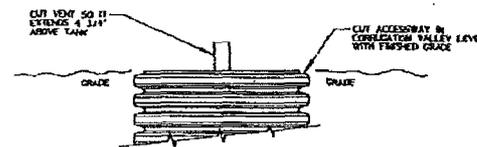


Figure 7

### INCREASING STATION HEIGHT (Fig. 8 and Fig. 9)

9. Remove the soil around the tank exposing it 18" deeper than the extension being installed. For example, if you have a 2' extension (not including the coupler) you must dig down 3'6" minimum from grade; if you have a 4' extension (not including the coupler) you must dig down 5'6" minimum from grade. Use caution not to damage buried cable.

10. Measure from grade down 2' (for a 2' extension) or 4' (for a 4' extension) and mark accessway. Using a hand saw, cut the tank in the valley between the two corrugations that are closest to your mark. **Note: Make sure the welded-on shroud of the extension will be at grade level. Be sure you are not cutting into the wet well and you must have two corrugations below your cut, if there are less than two corrugations, this extension kit can not be used.**

**Caution: Be careful not to cut either the vent pipe or the pump breather cable.**

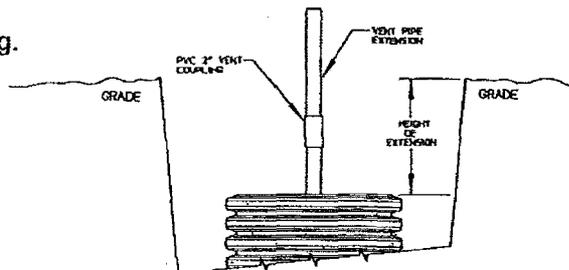


Figure 8

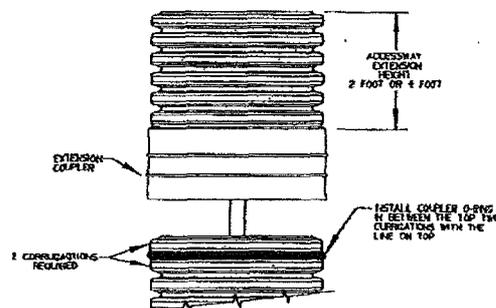


Figure 9

11. Attach the vent pipe extension with the 2" vent coupler, bringing the vent well above grade.
12. Clean all dirt and debris from top four corrugations on tank. Install the 24" coupler O-ring on the tank between the top two corrugations with the white or yellow line facing out and on top.
13. Lube extension coupler and coupler O-ring with pipe lube or dish soap.
14. Manually press coupling evenly over lubricated O-ring. If additional force is needed, place a plywood cover over the accessway and apply gentle mechanical pressure to the coupler. *Note: Care must be used when pushing down on the coupler. Excessive force or impact may result in damage and leakage.*
15. Frequent visual inspections during installation must be performed to determine when the tank has fully engage the coupler.

**INSTALL REPLACEMENT COVER ASSEMBLY (Fig. 10)**

16. Clean top corrugation on accessway extension and mating surface of replacement shroud with acetone.
17. Liberally apply the silicone sealer provided to the under side of the replacement shroud where it will come in contact with the accessway extension.
18. Lube wet well vent grommet and vent pipe extension with pipe lube, non-grit hand cleaner or dish soap and slide vent pipe through grommet until tank shroud seats to accessway.

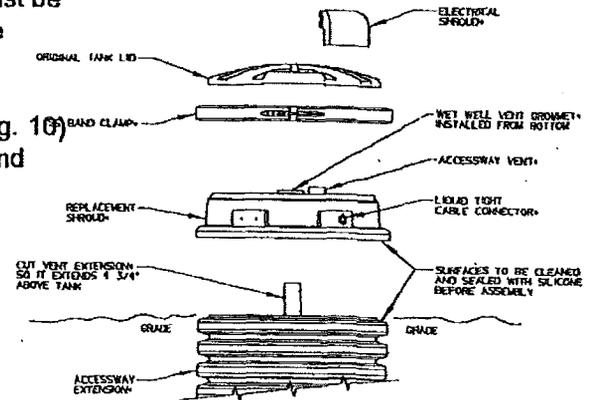


Figure 10

19. Place SS band clamp around top corrugation and the replacement shroud. Tap with a mallet around clamp to help seat the clamp. Torque stud assembly on band clamp to a maximum 125 inlb.
20. Reinstall the supply cable, EQD\*\*, tank lid and electrical shroud and tighten cable connector. (\*\*See "EQD wiring order," Table 1)
21. Follow start-up procedures to ensure proper pump operation (you will find the start-up instructions in our service manual or the station installation instruction guide).

**\*\*EQD wiring order**

PIN#	COLOR
1	Red
2	Black
3	White
4	Green
5	Orange
6	Blue

Table 1

Table 2

DESCRIPTION	PART NO.
Simplex station	PC0569G15
Simplex, flood plain config	PC0569G16
Duplex station	PC0569G17
Duplex, flood plain config	PC0569G18

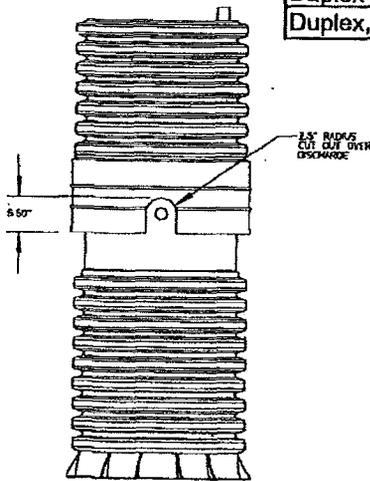


Figure 11

**NOTE: IF EXISTING ACCESSWAY HAS ONLY 2 CORRUGATIONS (Fig. 11)**

- If the coupler will not engage completely because the discharge piping is in the way, and it doesn't have a cut out, you will need to cut a slot in the coupler.
- Using a hand, reciprocating or hole saw, cut an arch in the coupler; the cut-out is not to exceed 5.50" tall or 5.00" wide.

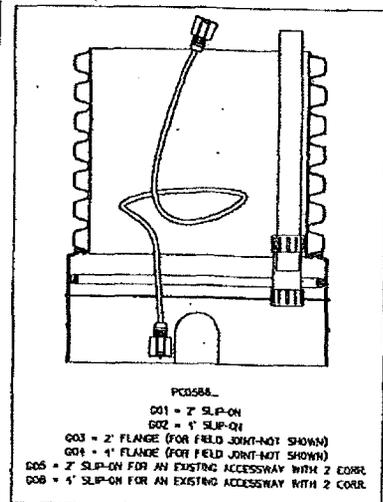
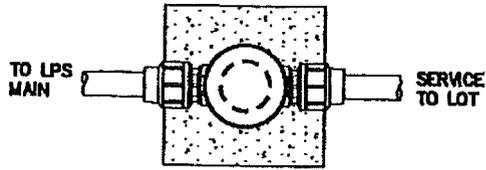
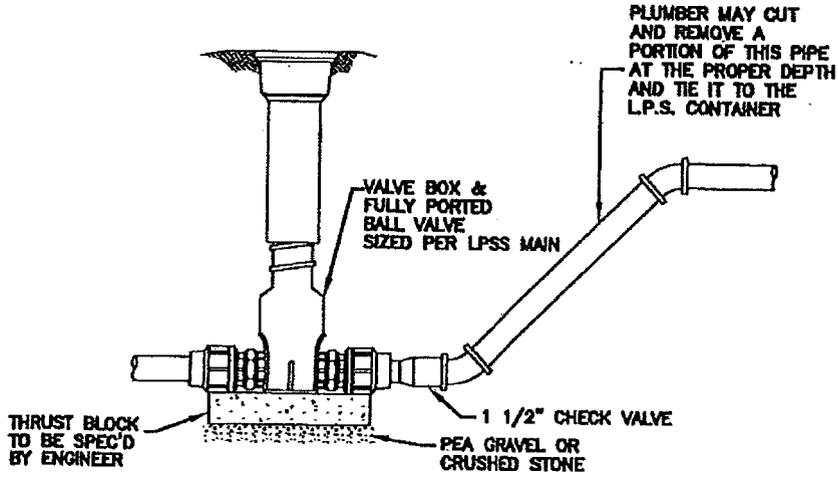


Figure 12

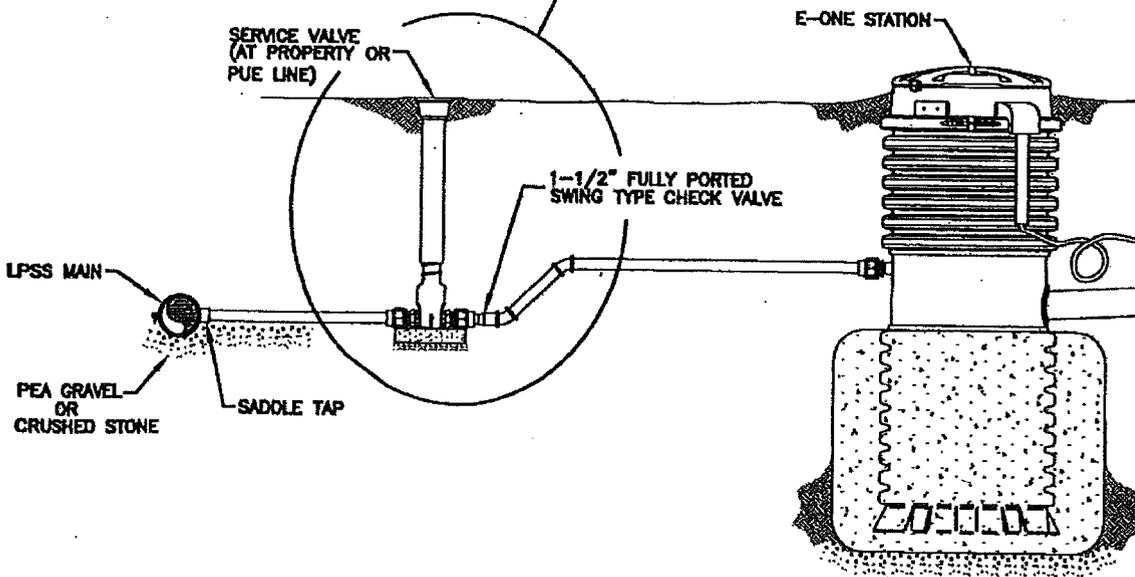
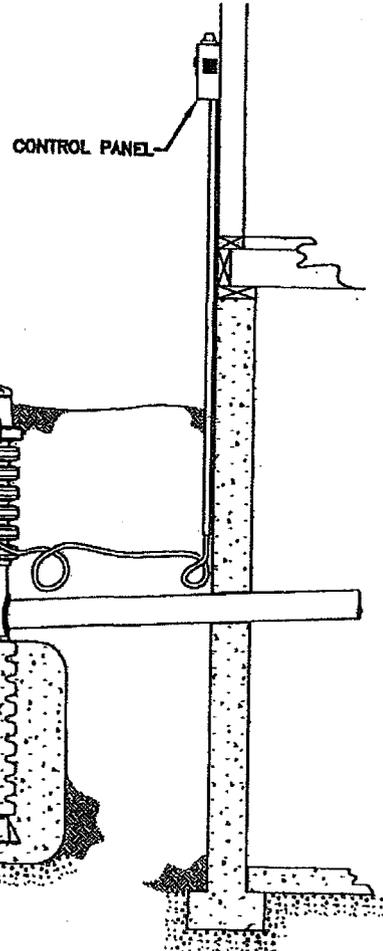


PLAN VIEW



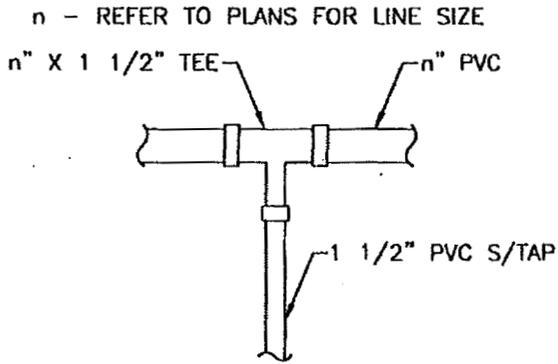
**TYPICAL L.P.S. SERVICE VALVE**

N.T.S.



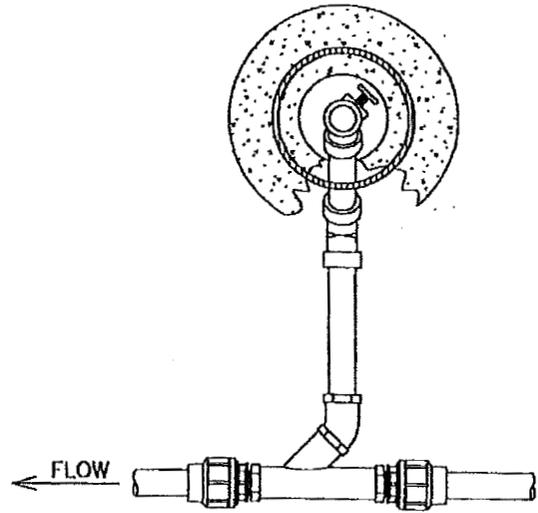
**L.P.S. SERVICE CONNECTION**

N.T.S.

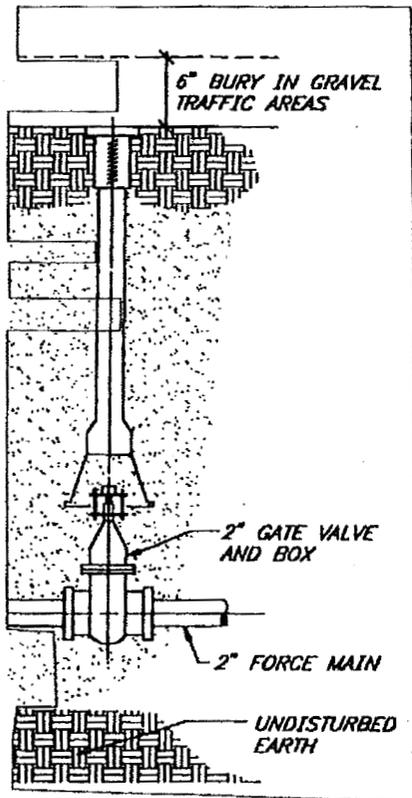


**LOW PRESSURE SEWER  
SYSTEM DETAIL SCHEMATIC**

N.T.S.

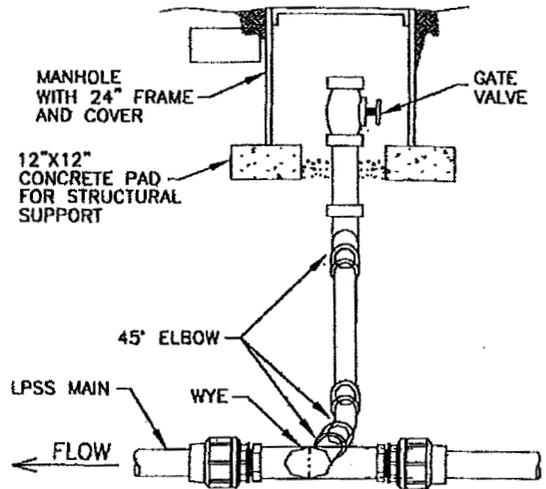


PLAN VIEW



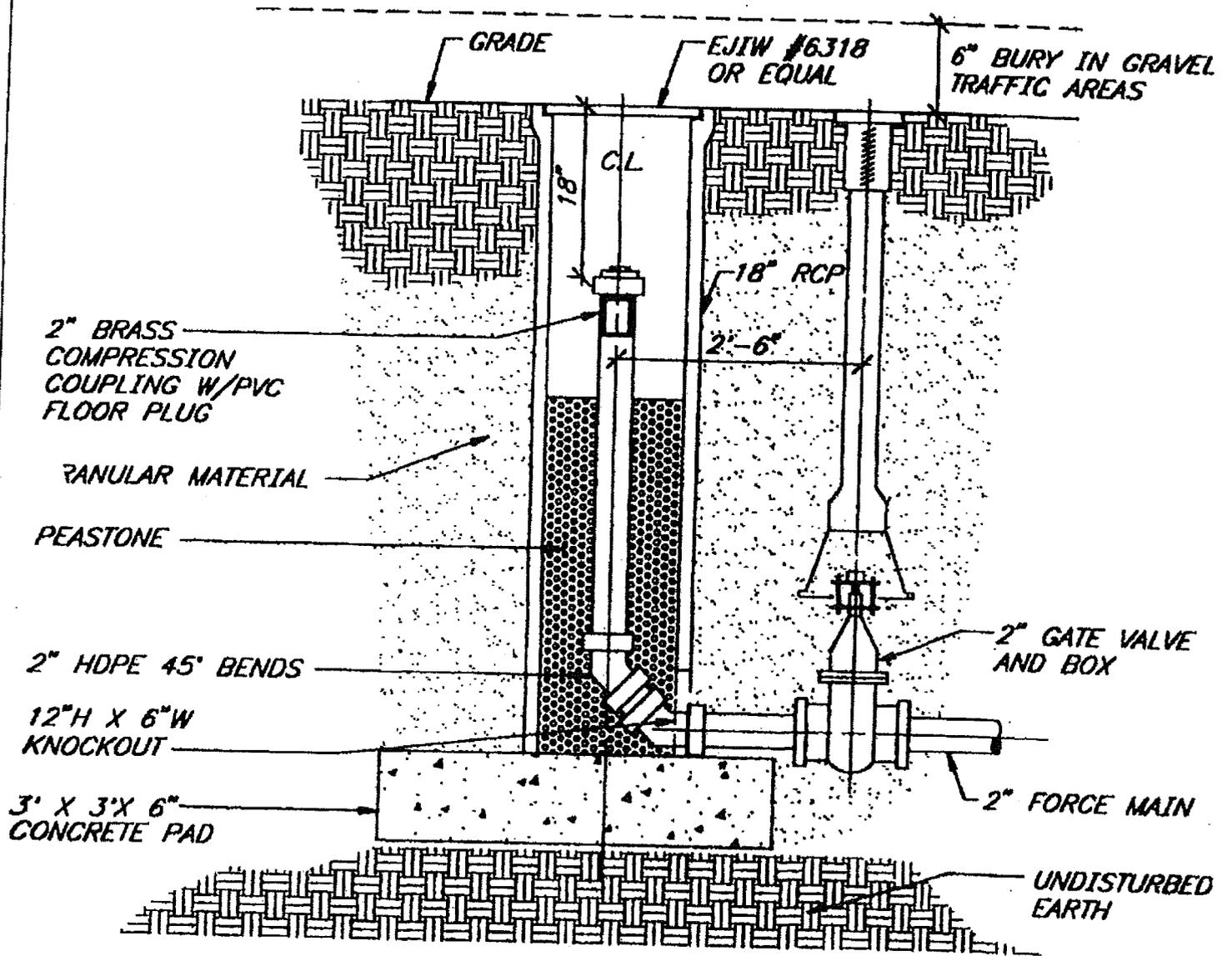
**ISOLATION VALVE DETAIL  
(SIZE PER PLAN)**

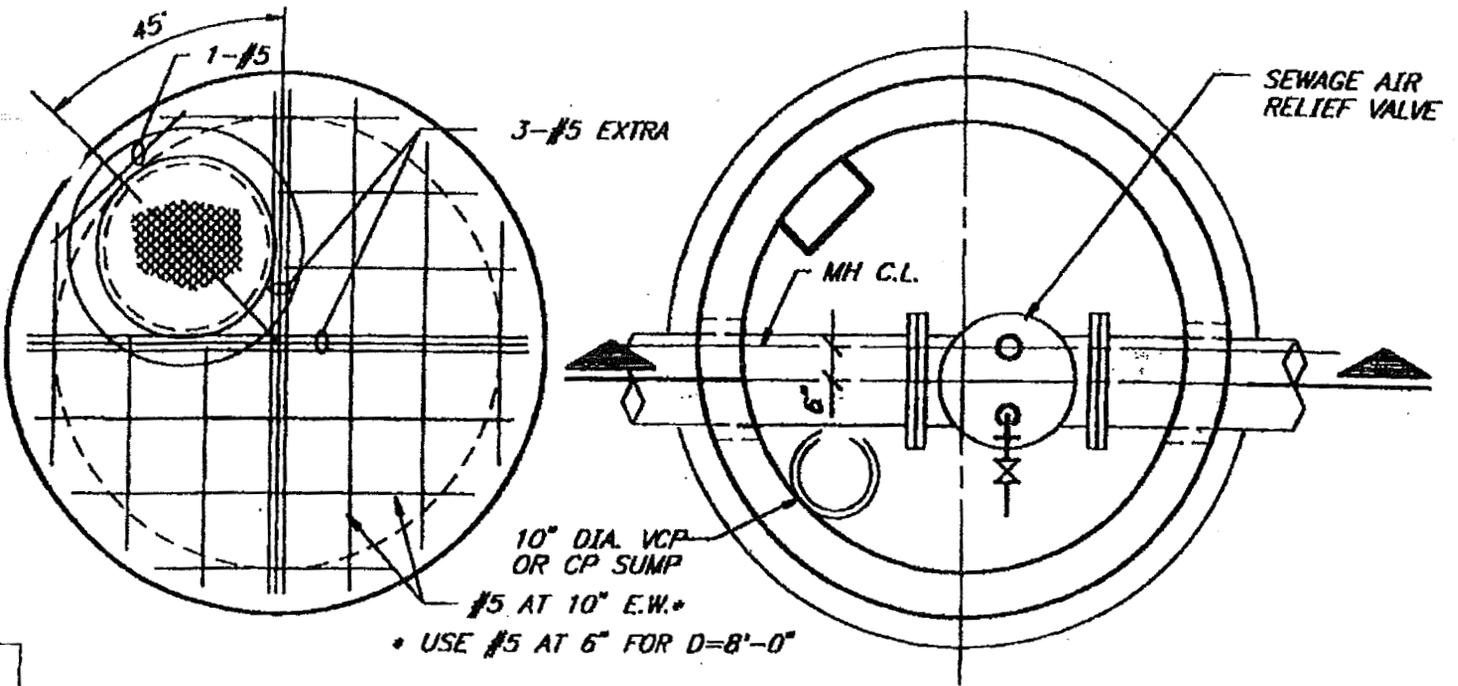
N.T.S.



**TYPICAL FLUSHING  
CONNECTION ON L.P.S. MAIN**

N.T.S.

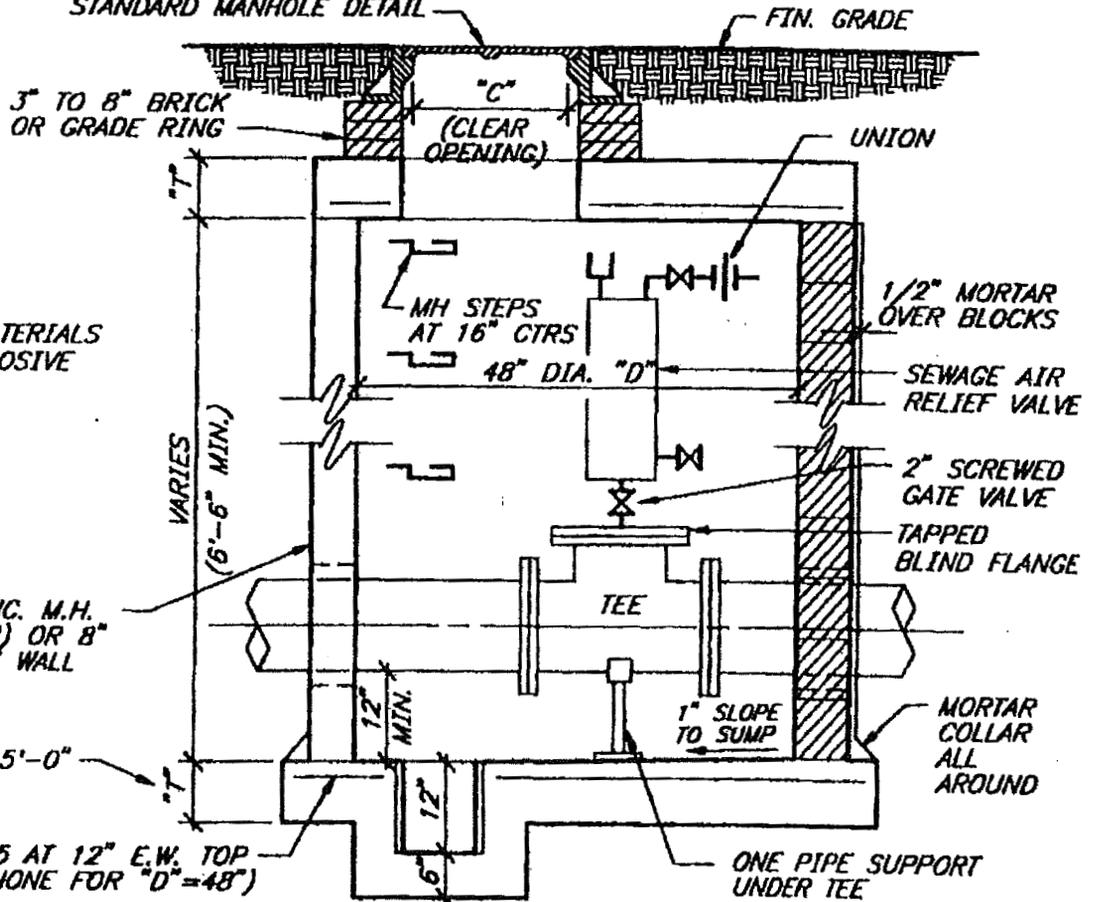




**TOP PLAN**

**SECTIONAL PLAN**

HEAVY DUTY CI MH FRAME  
& COVER AS GIVEN IN  
STANDARD MANHOLE DETAIL



NOTE:  
ALL PLUMBING MATERIALS  
TO BE NON-CORROSIVE

PRECAST CONC. M.H.  
(ASTM C-478) OR 8"  
CONC. BLOCK WALL

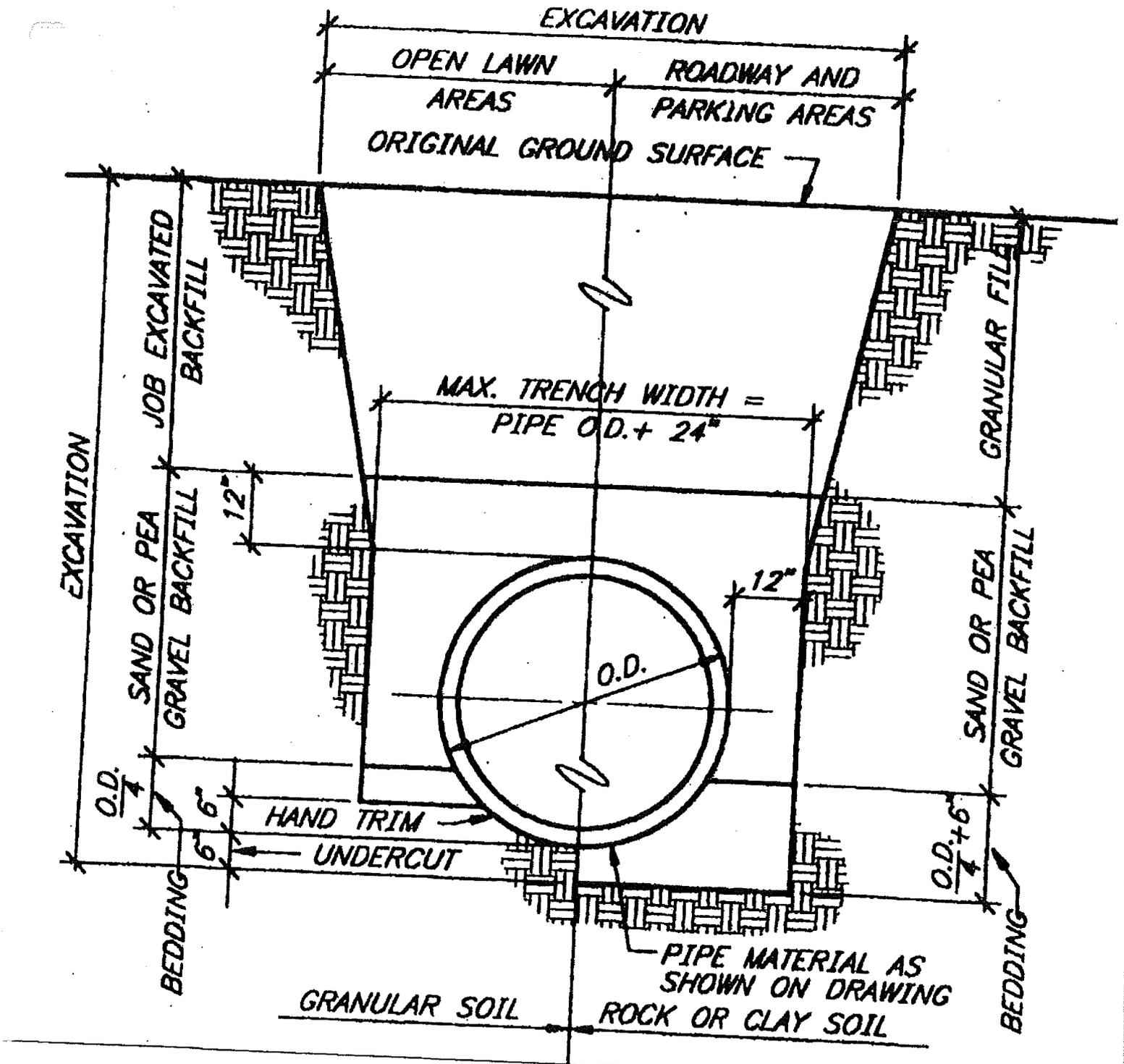
"T"=8" FOR "D"=4'-0" & 5'-0"  
10" FOR LARGER "D"

#5 AT 12" E.W. TOP  
(NONE FOR "D"=48")

**SECTION**

**AIR RELIEF MANHOLE**

N.T.S.



# TRENCH EXCAVATION AND BACKFILL

N.T.S.

**APPENDIX III**

**Lift Station Conceptual Design Specification**

Wickenburg Ranch  
Main Lift Station Pumps

H2Optimize ver: 6.041  
04/27/06

**PUMP DATA SHEET**

Fairbanks Morse Pump, 60 Hz

Selection file: (untitled)

Catalog: FMSUB60.MPC v 2.0

Curve: 35M404E

Design Point: Flow: 1050 US gpm  
Head: 170 ft

Fluid: Water

Temperature: 60 °F

SG: 1

Pump: 5430-NONCLOG - 1800 Size: 4"5435MV  
Speed: 1780 rpm Dia: 13.6875 in

Viscosity: 1.122 cP

Vapor pressure: 0.2568 psi<sub>a</sub>

Atm pressure: 14.7 psi<sub>a</sub>

Limits: Temperature: 104 °F Sphere size: 3 in  
Pressure: 125 psi<sub>g</sub> Power: --- bhp

NPSHa: --- ft

Specific Speed: Ns: 1111 Nss: 7106

Piping:

System: ---

Dimensions: Suction: 4 in Discharge: 4 in

Suction: --- in

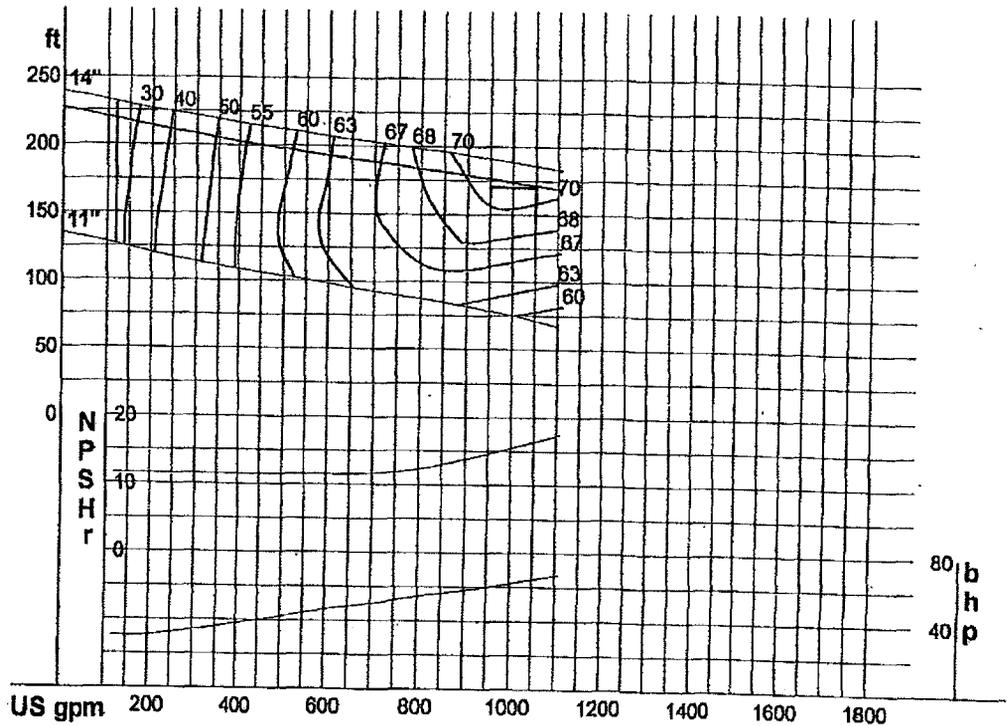
Discharge: --- in

Motor: 75 hp Speed: 1800 Frame: 320  
SUBMRGD StandardXPLPROF Enclosure  
sized for Max Power on Design Curve

--- Data Point ---  
Flow: 1050 US gpm  
Head: 172 ft  
Eff: 70%  
Power: 64.7 bhp  
NPSHr: 16.5 ft

-- Design Curve --  
Shutoff Head: 227 ft  
Shutoff dP: 98.4 psi  
Min Flow: 120 US gpm  
BEP: 71% eff  
@ 989 US gpm  
NOL Pwr: 67.5 bhp  
@ 1107 US gpm

-- Max Curve --  
Max Pwr: 72.6 bhp  
@ 1108 US gpm



**--- PERFORMANCE EVALUATION ---**

Flow US gpm	Speed rpm	Head ft	Pump %eff	Power bhp	NPSHr ft	Motor %eff	Motor kW	Hrs/yr	Cost /kWh
Flow Rate is Out of Range for this Pump									
1050	1780	172	70	64.7	16.5				
840	1780	182	69	55.9	12.9				
630	1780	182	64	47.6	11.8				
420	1780	202	55	38.7	11.5				

## Typical Specifications D5430MV (210-440 Frame)

### General

Furnish and install a quantity of 2 Fairbanks Morse Pump 4" Model D5430MV pull-up submersible pumping unit(s), UL Listed for explosion proof Class I, Division 1, Groups C and D hazardous locations. The pumps shall be clockwise rotation and connect to the discharge piping when lowered into place.

### Conditions of Operation

Each pump shall provide the following hydraulic conditions:

Design Condition	Primary Condition	Secondary Condition
Capacity	<u>1060</u> GPM	_____ GPM
Total Dynamic Head	<u>172</u> TDH	_____ TDH
Maximum Speed	<u>1780</u> RPM	_____ RPM
Efficiency (min. hydraulic)	<u>70</u> %	_____ %
Minimum Wire-to-Water Efficiency	_____ %	_____ %
Shutoff Head	<u>227</u> Feet	_____ Feet
NPSHR	<u>16.5</u> Feet	_____ Feet
Minimum Spherical Solid Size	<u>3</u> Inches	_____ Inches

Minimum net positive suction head available (NPSHA) at the center line of the pump impeller is \_\_\_\_\_ feet at \_\_\_\_\_ GPM.

Liquid is \_\_\_\_\_ with a maximum temperature of \_\_\_\_\_ °F.

### Impeller

Impeller shall be matched to its constant velocity equalizing pressure volute, and be of the one-piece, single suction, enclosed two-vane (or bladeless), radial flow design with large openings, blunt well-rounded leading edges thick hydrofoil shape tapered to the trailing edge, and a circular flow pattern to prevent the accumulation of solids and stringy material. It is to be balanced and secured to the shaft by means of a key and fastener. Wiper vanes are not allowed. Impeller waterways and clearance between the pump's full diameter impeller periphery and volute cutwater shall be capable of passing a \_\_\_\_\_ solid sphere. Impeller shall be trimmed to specifically meet the conditions of operation [and be fitted with an axial (face-type), stainless steel wear ring with a minimum 300-350 Brinell hardness]. The impeller is adjustable by the use of shims to restore the wear ring clearance in the field.

### Volute and Sliding Bracket

Volute is to be cast with extra thick walls made of close-grained cast iron conforming to ASTM A48, Class 30. It is to be one-piece, constant velocity equalizing pressure (except 4" 5435 which is specifically designed with a circular volute to minimize radial loads at low flows) with smooth fluid passages large enough to pass any size solid that can pass through the impeller. The volute shall have an integral tapered suction inlet area to

direct flow to the impeller eye and have a centerline flanged discharge. Volute discharge shall be minimum 4" diameter as measured on the inside diameter of the discharge flange opening. [Volute shall be fitted with an axial (face-type), stainless steel wearing ring with a minimum 410-484 Brinell hardness.]

The sliding bracket assembly shall be a part of the pumping unit constructed so that when lowered to the discharge base/elbow, the knifing action of the vertical metal-to-metal seal provides a self-cleaning, non-clogging, non-sparking UL Listed explosion-proof assembly.

### Guide Rail/Bracket

Two rails shall be provided to guide the pump when being raised or lowered in the sump and mount on the discharge base/elbow. Single rail or cable guide systems are not acceptable. The rails shall align the pump with the discharge elbow as it is lowered into place. A ductile iron upper rail guide bracket shall be furnished to support and align the rails at the top of the sump. For rail lengths greater than 20 feet, a stainless steel intermediate rail guide bracket shall be included.

### Discharge Base

The installation shall include a rigid discharge base-elbow to support the total weight of the pumping unit. The base is to be bolted directly to the floor with the 90 degree elbow having a 125 lb. ANSI flange discharging vertically.

### Motor

Pump(s) shall be driven by completely sealed, electric submersible squirrel cage induction motors with a maximum NEMA nameplate rating of 2.5 HP, 1.15 service factor, 1780 RPM, 460 volts, 3-phase, 60 Hertz. The motor nameplate horsepower rating should exceed the brake horsepower requirements of the specified head and capacity conditions and have a minimum full load efficiency of \_\_\_\_\_ %.

Submersible equipment shall be UL Listed for Class I, Division 1, Groups C and D explosion-proof hazardous locations as defined by the National Electric Code. All electrical parts shall be housed in an air-filled (or oil-filled in 210 frame construction) cast iron, watertight enclosure which is sealed by the use of O-rings and rabbeted joints with extra large overlaps.

The stator-winding and lead shall be insulated with moisture-resistant Class F insulation for continuous duty in 40 degree C ambient. The motor shall be designed for continuous duty capable of ten (10) starts per hour. Automatic reset, normally closed thermal overloads shall be imbedded in the motor windings to provide overheating protection. Motor winding thermostats must be connected to an electric controller per local and state codes and the National Electric Code.

Motor shaft shall be one-piece, 416 stainless steel. Carbon steel shafts or shaft sleeves are not acceptable. Rotor is to be dynam-

ically balanced to meet NEMA vibration limits; all external hardware is to be stainless steel.

Cable leads are to enter at the top of the motor, and are to allow the cable-to-motor connection to be accomplished in the field without soldering. All power and control lead wires are to be double sealed as it enters the motor in such a manner that cable-wicking will not occur. This sealing system shall consist of a rubber grommet followed by epoxy that is high in adhesive qualities and has a low coefficient of expansion. Each cable wire is to have a small section of insulation removed to establish a window area of bare wire and each wire is to be untwisted and surrounded by epoxy potting material. A cable strain relief mechanism shall be an integral part of this sealing system. Cable sealing system shall be capable of withstanding an external pressure test of 1200 PSI as well as a cable assembly pull test as required by Underwriters Laboratories. Singular grommet or other similar sealing systems are not acceptable. Motor shall be supplied with \_\_\_\_\_ feet of multi-conductor type "SOW-A" or "W" power cable and control cable. Cable sizing shall conform to NEC specifications and be UL listed.

Power and control leads shall be terminated on a sealed terminal board. The terminal board and its bronze lugs shall be O-ring sealed.

Pump(s) shall be provided with two separate tandem-mounted mechanical seals to prevent the pumped liquid from entering the rotor/stator cavity area to ensure reliability of operation. The upper and lower seals are mounted to rotate in the same direction.

The upper seal is to be completely immersed in an oil bath and seals the oil chamber and the motor housing. The lower seal mating surfaces are to be immersed in the oil bath sealing the pump volute and the oil chamber. Each seal shall be held in contact by its own spring system and require neither maintenance nor adjustment, but shall be easily inspected and replaceable. The lower seal spring shall be protected from trash in the pumped fluid by a spring cover which extends over the entire length of the compressed seal spring. Pressure generated by the pump assists in sealing the mating surfaces of the lower seal.

Seal materials for the upper seal shall be stainless steel and Buna-N components, carbon rotating face and Ni-resist stationary face. Lower seal construction shall be stainless steel and

Buna-N components, carbon (silicon carbide on 400 & 440 frames) rotating face and ceramic (tungsten carbide on 400 & 440 frames) stationary face [silicon carbide rotating face against tungsten carbide stationary face].

Two moisture detection probes shall be installed so that they will detect moisture in either the seal or stator cavity measuring resistivity between the probes. They shall be wired internally to the control cable connection at the top of the motor. Float type devices located in the rotor/stator area or single probe-to-ground moisture detectors measuring continuity are not acceptable. O-ring sealed inspection plugs shall be provided in the mechanical seal oil chamber for ease in inspection, draining and filling of oil.

The pump shall rotate on a grease lubricated-for-life thrust bearing (oil lubricated in 210 frame) and oil lubricated radial bearing with a minimum L10 life of \_\_\_\_\_ hours. Lower shaft bearings shall be locked in place to prevent shaft movement and to take thrust loads.

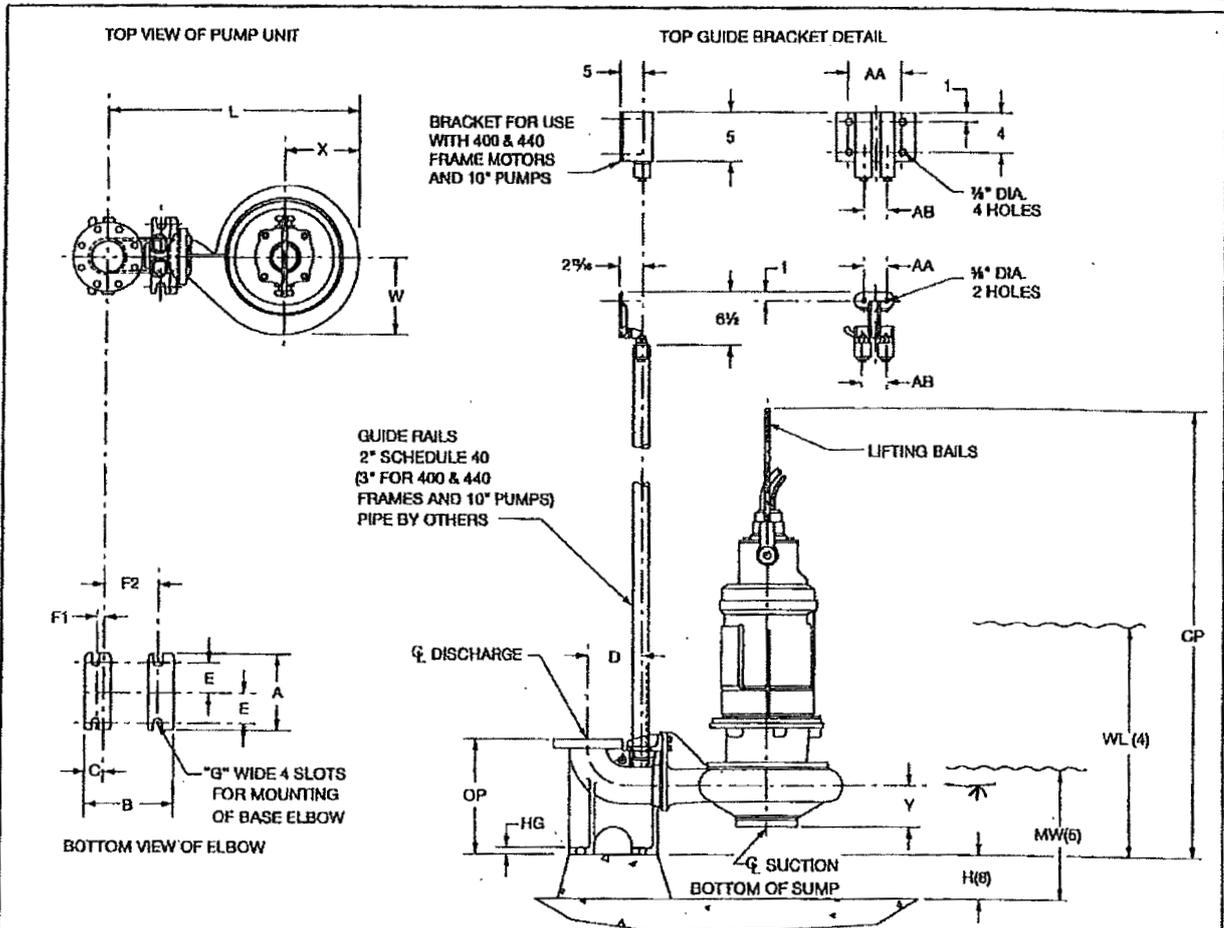
A heavy-duty stainless steel lifting bail shall be included and be of adequate strength to lift the entire pump and motor assembly.

#### Quality Assurance

Pumps and motors are to be engineered, manufactured and assembled in the United States under a written Quality Assurance program. This written Quality Assurance program shall have been in effect for at least five (5) years, and include a written record of periodic internal and external audits to confirm compliance with UL Quality Assurance specifications.

#### ISO-9001 Certification

Pumps and motors shall be manufactured by ISO-9001 certified companies only.



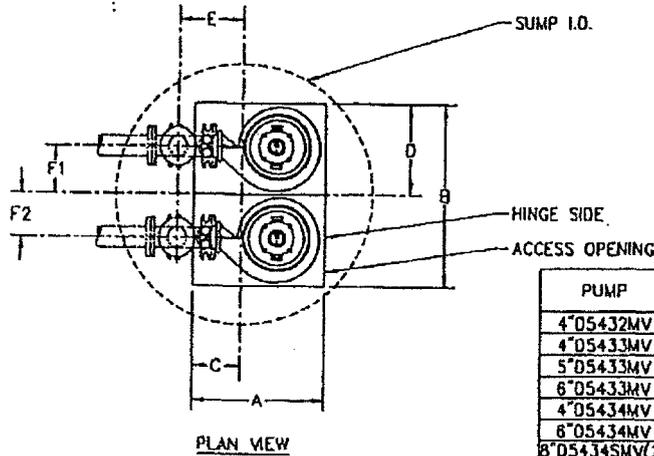
PUMP	MOTOR FRAME	DISCH.	A	B	C	D	E	F1	F2	G	H	L	W	X	Y	AA	AB	CP	HG	MW	OP	WL
4"D5435MV	210T	4(8)	10	11½	2¾	6¼	4	1	7	1¼	3	33¾	10¾	9¾	7¾	3	3¼	55¾	¼	15¼	15	33¼
4"D5435MV	250T	4(8)	10	11½	2¾	6¼	4	1	7	1¼	3	33¾	10¾	9¾	7¾	3	3¼	59¾	¼	15¼	15	38½
4"D5435MV	320T	4(8)	10	11½	2¾	6¼	4	1	7	1¼	3	33¾	10¾	9¾	7¾	3	3¼	68¾	¼	15¼	15	44½
8"D5435MV	320T	8(11)	18	17½	4¾	9¼	7	2½	10½	1¼	9¼	81¼	21	19¾	12½	3	3¼	70	1¼	24½	19	45¾
8"D5435MV	360T	8(11)	18	17½	4¾	9¼	7	2½	10½	1¼	9¼	81¼	21	19¾	12½	3	3¼	70	1¼	24½	19	47¾
8"D5435MV	365T	8(11)	18	17½	4¾	9¼	7	2½	10½	1¼	9¼	81¼	21	19¾	12½	3	3¼	72¼	1¼	24½	19	49¾
8"D5435MV	400T	8(8)	30½	34¼	6¾	12¾	14	4	25	1¼	3¼	69	21	19¾	12½	11	8	RTF	1¼	24½	27½	RTF
8"D5435MV	440T	8(8)	30½	34¼	6¾	12¾	14	4	25	1¼	3¼	69	21	19¾	12½	11	8	112	1¼	24½	27½	71
10"D5435MV	360T	10(8)	30½	34¼	6¾	13¾	14	4	25	1¼	5¼	74½	21¾	20¾	13¾	11	8	85¼	1¼	27	33	62¼
10"D5435MV	400T	10(8)	30½	34¼	6¾	13¾	14	4	25	1¼	5¼	74½	21¾	20¾	13¾	11	8	115	1¼	27	33	74

NOTES:

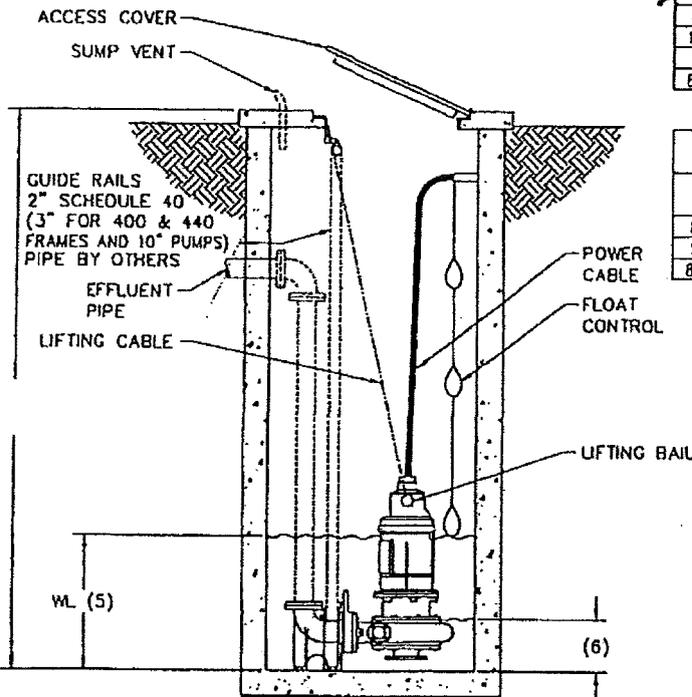
- (1) DISCHARGE FLANGE IS 125# ANSI DRILLING UNLESS NOTED.
- (2) ALL DIMENSIONS ARE IN INCHES UNLESS NOTED.
- (3) 5400'S AND 5400K'S ARE DIMENSIONALLY IDENTICAL.
- (4) RECOMMENDED LOW WATER LEVEL FOR CONTINUOUS OPERATION. 210 FRAME AND WATER JACKETED 250 THRU 440 FRAME UNITS CAN OPERATE CONTINUOUSLY AT "MW" WATER LEVEL. WATER LEVEL MAY BE DRAWN DOWN TO THIS LEVEL FOR SHORT TIME DUTY IN AIR MOTOR RATINGS. DRAW DOWN CAN OCCUR OVER A PERIOD OF 15 MINUTES.
- (5) BASES ARE DESIGNED TO HAVE FULL CONTACT WITH GROUT OR A SOLE PLATE GROUTED IN PLACE.
- (6) NOT FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS CERTIFIED. DIMENSIONS SHOWN MAY VARY DUE TO NORMAL MANUFACTURING TOLERANCES.
- (7) DISTANCE REQUIRED FOR PROPER SUCTION CLEARANCE.
- (8) IF RISER PIPE IS NOT SAME SIZE AS THE DISCHARGE ELBOW, AN ECCENTRIC INCREASER MUST BE USED LIMITED TO TWO SIZES LARGER MAXIMUM.
- (9) IF FUTURE CONSIDERATIONS REQUIRE CHANGING TO A 400 OR 440 FRAME MOTOR, THE 400 OR 440 FRAME DIMENSIONS SHOULD BE USED.
- (10) IF RISER PIPE IS NOT SAME SIZE AS THE DISCHARGE ELBOW, AN ECCENTRIC INCREASER MUST BE USED LIMITED TO ONE SIZE LARGER MAXIMUM.

UL LISTED  
ISO-9001 CERTIFIED  
CSA CERTIFIED (THRU 365 FRAME)

CUSTOMER				P.O. NO.			
JOB NAME				TAG NAME			
PUMP SIZE AND MODEL		GPIA	TDH	RPM	ROTATION		
MOTOR	HP	FRAME	PHASE	HERTZ	VOLTS	ENCLOSURE	
CERTIFIED FOR			CERTIFIED BY		DATE		
				BASIC PUMP D5435MV PULL-UP SUBMERSIBLE FAIRBANKS MORSE MTR			



PUMP	SUMP I.O.	A	B	C	D	E	F1	F2
4" D5432MV	60	30	42	11	21	15	10	10
4" D5433MV	60	30	48	11	24	15	11	11
5" D5433MV	66	38	50	11	25	17 1/2	12	12
6" D5433MV	72	36	60	11 3/4	30	17	13	13
4" D5434MV	66	42	54	13	27	18	13	13
6" D5434MV	96	42	76	21	38	26 1/4	18	18
8" D5434SMV(2)	84	40	68	20	34	26 1/2	13 1/2	13 1/2
8" D5434LMV(3)	96	48	72	24	36	30 1/2	18	18
4" D5435MV	72	36	60	18	30	22	12	12
8" D5435MV	96	58	86	20 1/2	43	27	21	21
10" D5435MV	108	68	88	22	44	30 3/8	22 1/2	22 1/2
5" D5436MV								
8" D5436SMV								



400 & 440 FRAME PUMPS REQUIRING HEAVY DUTY ELBOWS								
PUMP	SUMP I.O.	A	B	C	D	E	F1	F2
8" D5435MV	108	66	90	22 3/8	43	30	21	21
5" D5436MV								
8" D5436SMV								

ELEVATION

NOTES:

- (1) ALL DIMENSIONS ARE IN INCHES UNLESS NOTED.
- (2) FOR USE WITH IMPELLER DESIGN T8D1A.
- (3) FOR USE WITH IMPELLER DESIGNS T8D1D OR TAKC5W.
- (4) 5400'S AND 5400K'S ARE DIMENSIONALLY IDENTICAL.
- (5) RECOMMENDED LOW WATER LEVEL FOR CONTINUOUS OPERATION. 210 FRAME AND WATER JACKETED 250 THRU 440 FRAME UNITS CAN OPERATE CONTINUOUSLY AT "WL" WATER LEVEL.
- (6) WATER LEVEL MAY BE DRAWN DOWN TO THIS LEVEL FOR SHORT TIME DUTY IN AIR MOTOR RATINGS. DRAW DOWN CAN OCCUR OVER A PERIOD OF 15 MINUTES.
- (7) BASES ARE DESIGNED TO HAVE FULL CONTACT WITH GROUT OR A SOLE PLATE GROUTED IN PLACE.
- (8) NOT FOR CONSTRUCTION, INSTALLATION, OR APPLICATION PURPOSES UNLESS CERTIFIED. DIMENSIONS SHOWN MAY VARY DUE TO NORMAL MANUFACTURING TOLERANCES.
- (9) REFER TO BASIC PUMP DIMENSION DRAWING FOR WL AND MW DIMENSIONS.

DUPLEX IN-LINE, D5430MV, SUBMERSIBLE PULL-UP  
DOUBLE DOOR ACCESS COVER

**Fairbanks Morse**  
Pump Corporation

DWG NO 543MS039 REV NO 4

320 Frame  
Short Time Duty In Air (12)

HP (1)	Full Load RPM 230/460V	Full Load Current (AMPS)				Power Cable						Conduit Inside Dia. (Inches) (10)	Code Letter	Efficiency %		Power Factor %	
		208 Volt	230 Volt	460 Volt	575 Volt	208 Volt (11)		230 Volt		460 or 575V				Full Load	3/4 Load	Full Load	3/4 Load
						Dia (in.)	AGW Wire Sz.	Dia. (in.)	AGW Wire Sz.	Dia. (in.)	AGW Wire Sz.						
3 Phase, 60 Cycle, 1.15 S.F., 40°C Insulation																	
50	1770	N/A	N/A	62.7	RTF	N/A	N/A	N/A	N/A	1.27	4	3	F	91.4	91.8	81.7	76.8
60	1770	N/A	N/A	69.4	RTF	N/A	N/A	N/A	N/A	1.450	2	3	F	92.2	93.1	87.8	86.5
75	1770	N/A	N/A	85.0	RTF	N/A	N/A	N/A	N/A	1.450	2	3	G	93.3	94.0	87.8	86.0
30	1180	RTF	79.6	38.6	33.4	RTF	RTF	1.45	2	9.85	8	3	G	89.4	90.0	81.3	77.2
40	1180	RTF	102.0	49.5	41.1	RTF	RTF	1.48	2	1.125	6	3	G	90.1	90.9	83.9	80.8
50	1180	N/A	N/A	60.9	50.5	N/A	N/A	N/A	N/A	1.27	4	3	G	90.2	91.9	85.2	83.0
60	1180	N/A	N/A	78.6	61.8	N/A	N/A	N/A	N/A	1.450	2	3	H	90.0	90.5	79.4	74.3
25	880	RTF	67.2	33.6	28.4	RTF	RTF	1.45	2	.985	8	3	G	89.8	91.0	77.5	73.9
30	880	RTF	81.0	40.5	33.6	RTF	RTF	1.45	2	.985	8	3	G	89.8	91.0	77.2	73.3
40	880	RTF	109.0	54.7	46.6	RTF	RTF	1.48	2	1.125	6	3	F	89.4	90.7	76.7	72.7
15	705	RTF	47.4	23.7	RTF	RTF	RTF	1.12	6	.735	10	3	G	89.8	90.1	66.1	59.6
20	705	RTF	72.0	36.0	RTF	RTF	RTF	1.45	2	.985	8	3	H	87.8	87.6	59.3	51.7
25	705	RTF	81.8	40.9	RTF	RTF	RTF	1.45	2	.985	8	3	F	87.7	88.3	65.3	58.5

320 Frame  
Duty - Continuous in Air, Water Jacketed (12)

HP (1)	Full Load RPM 230/460V	Full Load Current (AMPS)				Power Cable						Conduit Inside Dia. (Inches) (10)	Code Letter	Efficiency %		Power Factor %	
		208 Volt	230 Volt	460 Volt	575 Volt	208 Volt (11)		230 Volt		460 or 575V				Full Load	3/4 Load	Full Load	3/4 Load
						Dia (in.)	AGW Wire Sz.	Dia. (in.)	AGW Wire Sz.	Dia. (in.)	AGW Wire Sz.						
3 Phase, 60 Cycle, 1.15 S.F., 40°C Insulation																	
50	1770	N/A	N/A	65.3	51.5	N/A	N/A	N/A	N/A	1.350	4	3	F	86.4	85.8	82.4	78.2
60	1765	N/A	N/A	73.1	58.1	N/A	N/A	N/A	N/A	1.450	2	3	F	88.2	88.1	87.9	87.0
75	1770	N/A	N/A	89.8	72.7	N/A	N/A	N/A	N/A	1.450	2	3	G	90.3	90.0	87.9	86.5
30	1180	RTF	81.0	39.3	RTF	RTF	RTF	1.45	2	.985	8	3	G	87.9	88.0	81.5	77.6
40	1180	RTF	105.0	50.8	42.0	RTF	RTF	1.48	2	1.125	6	3	G	89.1	89.4	84.0	81.3
50	1175	N/A	N/A	62.3	RTF	N/A	N/A	N/A	N/A	1.350	4	3	G	89.2	90.9	85.3	83.3
60	1180	N/A	N/A	79.9	63.3	N/A	N/A	N/A	N/A	1.450	2	3	H	89.0	89.5	79.5	75.0
25	880	RTF	69.0	34.5	29.0	RTF	RTF	1.45	2	.985	8	3	G	88.8	89.5	77.7	74.5
30	880	95.7	83.4	41.7	34.4	1.450	2	1.45	2	.985	8	3	G	88.8	89.7	77.4	73.9
40	880	RTF	112.0	56.1	RTF	RTF	RTF	1.48	2	1.125	6	3	F	88.4	89.7	76.9	73.3
15	705	RTF	49.0	24.5	RTF	RTF	RTF	1.27	4	.985	8	3	G	87.0	86.6	66.7	60.6
20	705	RTF	76.0	38.0	RTF	RTF	RTF	1.45	2	1.125	6	3	H	85.8	85.0	59.9	52.8
25	705	RTF	RTF	RTF	RTF	RTF	RTF	RTF	RTF	RTF	RTF	3	F	85.7	85.7	65.8	59.1

Notes:

- (1) Ratings are for constant speed drivers. For use with variable frequency drives, contact Application Engineering.
- (2) Motor must have an operational moisture detection system or the warranty is voided.
- (3) Moisture detection system installed must be compatible with the two moisture detecting probes in the motor and the remaining pump control system.
- (4) Requirements of a complete moisture detection system are met by the installation of the standard pump controllers offered by Fairbanks Morse with the specified motor.
- (5) All thermostats incorporated in this motor are automatic reset type and are current limited to 3 amps @ 125 volts, 1.5 amps @ 230 volts and 0.75 amps @ 460 volts, in the control circuitry.
- (6) Thermal protectors will be installed in all motors regardless of horsepower or frame size.
- (7) Thermostats are normally closed and connected in series with the holding coil of the

magnetic switch. When motor temperature reaches a certain preset point, the thermostat will open and cause the holding coil in the magnetic switch to open thereby cutting the power to the motor.

- (8) Thermostats connected to auxiliary signaling devices are available provided the device is approved by Fairbanks Morse.
- (9) Control cable has an outside diameter of .482 inches and includes five #18 wire; two for thermostats two for moisture detectors and one ground.
- (10) Need to add for threaded motor housing cover casting to accept conduit. Standard construction is without threads.
- (11) Refer to factory for 208 volt cable sizes not shown.
- (12) Refer to the Application & Reference section for definitions of duty ratings.

## 250, 320, 360, 365, 400 & 440 Frame Submersible Motors UL Listed Explosion Proof

Fairbanks Morse Pump submersible motors are manufactured to the highest standards. This rugged, Heavy duty design and construction is an integral part of the complete submersible pump system.

The motor consists of a heavy duty cast iron frame which houses a silicon steel laminated stator, a reliable die-cast rotor and 416 stainless steel one-piece shaft in a high efficiency motor design.

Two separate tandem-mounted mechanical seals protect the motor from the pumped liquid in this critical area for added assurance of product reliability. Standard seals consist of the inner seal using carbon against Ni-resist faces, with the outer seal using carbon against ceramic faces (except 400 and 440 frame outer seal faces are standard silicon carbide on tungsten carbide). Optional seal material include silicon carbide against tungsten carbide, and other materials.

Electric power and control cable assemblies are epoxy sealed at the motor's entry point to prevent wicking and prevents moisture from entering the motor housing. Automatic-resetting thermostats are imbedded in the motor windings to protect from overheating.

The oil filled seal cavity and stator housing are fitted with dual moisture detectors to transmit a signal to a compatible controller when moisture is detected in this cavity. The seal cavity shall have two (2) [three (3) on the 440 frame] plugged ports for filling and draining the oil.

Motors are constructed with Class F insulation and rated with a 1.15 service factor and continuous duty at 40 degree C ambient temperature. The motor enclosure is sealed using O-rings, and has rabbet fits with extra large overlaps.

### UL Listed Motors

Fairbanks Morse submersible motors are Listed by Underwriters Laboratories, having met stringent testing and design standards for operation in Class I, Division 1, Group C and D hazardous locations, and feature explosion-proof construction.

UL approves the design of all motor fits, joints and openings to ensure required flame paths and properly sealed for severe environments. All materials used in construction are tested to ensure their proper, intended function.

UL Listed motors must pass a series of stringent tests, including:

- Hydrostatic test of the complete motor without failure.
- External pressure test of the cable connection to 1200 psi without leakage.
- Separate cable assembly pull test for the smaller control cable and the power cable.
- Load test to confirm the function of the built-in thermostats. These tests require the motor to run submerged, non-

submerged, short time duty in air and non-submerged with cooling jacket.

- Motors must pass a surface temperature test confirming the motor frame surface temperatures do not exceed 160 degrees C under operating conditions. Locked rotor tests are run on the motor while operating submerged, non-submerged, short time duty in air and non-submerged with cooling jacket, and required to be below the minimum allowable skin temperature of 160 degrees C.

UL Listing requires detailed inspection of design and construction. UL issues product review instructions so that local UL inspectors can inspect the product on a regular basis. These inspections are done at a minimum quarterly interval at the Fairbanks Morse manufacturing facility to monitor machining and assembly procedures and include:

- Detailed dimensional inspection of each motor component and the witness of the assembly of the complete motor.
- Witness of high voltage dielectric insulation test.
- Witness the no-load electrical running test.
- Review test logs of UL motors shipped since the previous inspection.
- Review calibration of motor test equipment.
- Check purchasing procedures for proper material control.

The stringent standards as defined and required by Underwriters Laboratories ensures a quality product.

### Submersible Motor Cooling Jacket System

Fairbanks Morse features a unique motor cooling jacket design for use when required by the motor to run fully loaded non-submerged. The cooling system is completely internal to the pumping unit requiring no external hose, pipe or connections to an outside cooling source.

Located behind the pump impeller is a stainless steel, self-cleaning, rotating flow-control disc which virtually prevents any solids from entering and accumulating behind the impeller and in the cooling water jacket. This results in longer mechanical seal life, and a clean cooling system, to prevent service shutdown and greatly increasing pump life.

Cooling liquid enters the bottom of the water jacket and a baffle guides the liquid to move completely around the motor frame. A still tube located in the cooling water jacket allows for air to escape as the cooling liquid enters, filling the jacket to the top of the cooling jacket chamber completely surrounding the motor frame promoting excellent heat dissipation. Heated water exits through the still tube returning to the rotating flow control disk that acts as a heat exchange area behind the impeller. Pressure differentials between the rotating flow-control disc and pump volute forces the necessary water circulation in and around the motor.

Units are UL Listed, explosion-proof, for Class 1, Division 1, Groups C & D and manufactured by Fairbanks Morse in our dedicated Kansas City, Kansas manufacturing facility ensuring compatibility, quality assurance, and reliability of the complete unit.

Heavy cast iron motor housing, silicon steel laminations, centrifugally die-cast rotor matched to the stator for high efficiency. Constructed with Class "F" insulation and rated with a 1.15 service factor and continuous duty at 40 degree C ambient temperatures, air filled.

High motor and hydraulic (wire-to-water) efficiencies ensure low operating costs.

**CABLE**

Power and control cable are UL Listed and MSA approved.

**ELECTRICAL CONNECTION**

Double-seal system with strain relief, consisting of rubber grommet followed by epoxy. Individual wires have insulation removed and epoxy potted to prevent wicking into the motor.

Wires are terminated with connectors secured to bronze lugs on the O-ring sealed terminal board. Stator and control leads from the motor are attached to the underside of the lugs.

**SHAFT**

Large diameter one-piece 416 stainless steel, precision machined over its entire length to ensure a tight fit of the impeller and rotor to the shaft.

**MECHANICAL SEALS**

Two separate seals, tandem mounted to protect the motor from the pumped liquid. Upper seal uses carbon against Ni-resist faces and the lower seal uses carbon against ceramic faces as standard. The lower seal also incorporates a protective cup to prevent trash, grit, or stringy material from interfering with the mechanical seal. Optional silicon carbide against tungsten carbide seal faces are also available to provide added assurance of product reliability.

**STAINLESS STEEL BOLTING**

External bolting is stainless steel as standard for ease of maintenance.

**IMPELLER**

Solids-handling enclosed radial flow, two-vane, or bladeless design, having blunt well rounded leading edges and thick hydrofoil shape to pass large solids and stringy material. One-piece cast impellers are designed for circular flow and matched to the equalizing pressure, constant-velocity thick wall volute. Impeller is trimmed to meet conditions of operation.

**WEAR RINGS**

Impeller and volute may be fitted with axial wear rings of hardened 300-350 Bhn or higher stainless steel.

**SOLIDS PASSING**

Spherical solids which pass through the impeller and volute passageways can also pass between the volute cutwater and a full diameter impeller.

**PULL-UP SYSTEM**

Two rails mounted on the discharge base/elbow provide a guide to the pump when raised or lowered in the sump.

**THERMOSTATS**

Embedded in the motor windings to protect from overheating. These devices are reset automatically. Excessive heat will cause the normally closed contact to open, stopping the motor.

**BEARING LIFE**

Grease lubricated thrust bearing and radial bearing with an L10 bearing life of 50,000 hours at BEP. For higher bearing load applications, optional bearing construction is available. Optional RTD available for the thrust bearing.

**TWO MOISTURE DETECTORS**

Detect moisture entering the oil cavity or stator housing and send a signal to a compatible controller.

**OIL INSPECTION PLUGS**

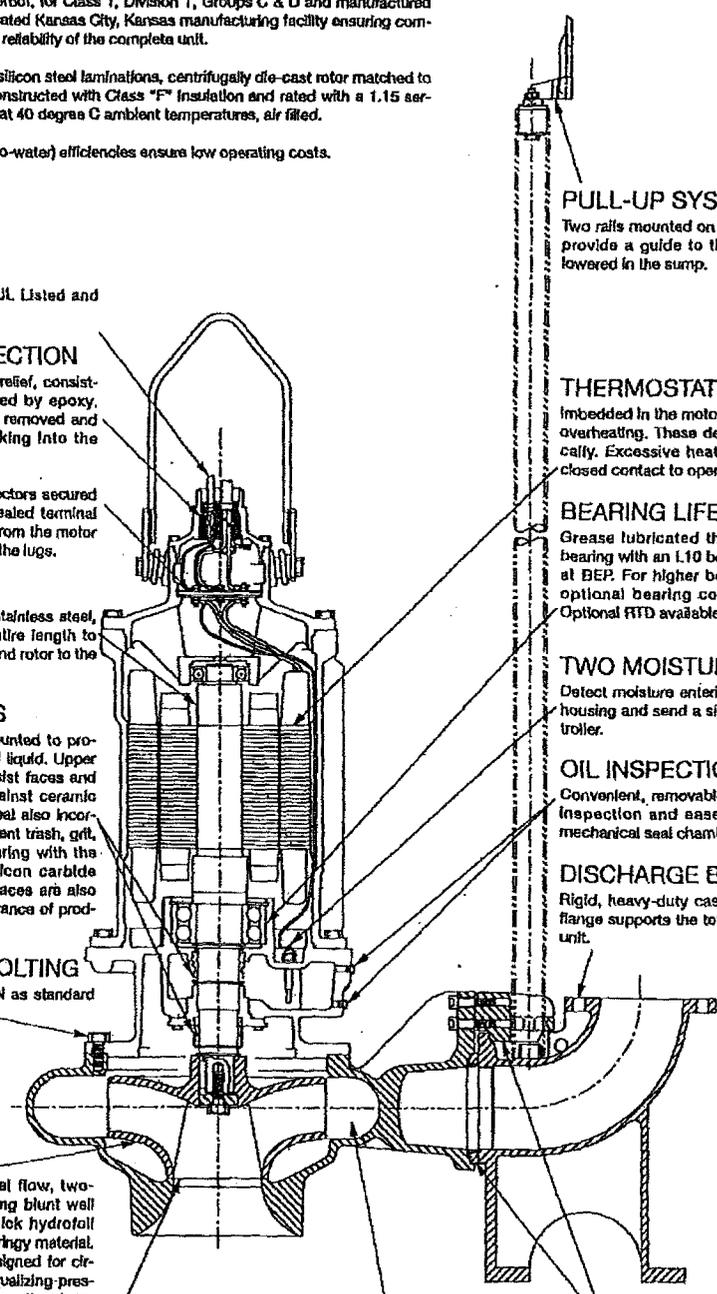
Convenient, removable O-ring sealed plugs for inspection and ease of changing oil in the mechanical seal chamber.

**DISCHARGE BASE/ELBOW**

Rigid, heavy-duty cast iron, with 125 lb. ANSI flange supports the total weight of the pumping unit.

**SLIDING BRACKET ASSEMBLY**

Non-sparking, UL Listed explosion-proof bronze. Constructed so when lowered onto the discharge base/elbow, a knifing action of the vertical metal-to-metal, self-clearing non-clogging connection is secured.



CENTERLINE DISCHARGE, MODEL 5430MV  
PULL-UP SUBMERSIBLE, 320 FRAME

Fairbanks Morse Pump

DSUBM031 REV NO 3

# **EXHIBIT 5**

**WICKENBURG RANCH WASTEWATER, LLC**  
**ESTIMATED COST TO CONSTRUCT WASTEWATER FACILITIES**  
**APPLICATION ITEM T.5.**

	Qty	Unit		\$/Unit		Total
<b>Merv Griffin Way</b>				<b>Subtotal</b>	<b>\$</b>	<b>172,122.50</b>
8" PVC Pipe	3900	LF	\$	18.30	\$	71,370.00
10" PVC Pipe	203	LF		24.00		4,872.00
2" HDPE Low Pressure	525	LF		12.00		6,300.00
3" HDPE Low Pressure	2304	LF		13.25		30,528.00
4' Manhole	19	EA		1,930.00		36,670.00
5' Manhole	3	EA		2,930.00		8,790.00
Sewer Plug	5	EA		250.00		1,250.00
Concrete Encasement	2	EA		1,100.00		2,200.00
Inline Flushing Connection 3"	2	EA		787.00		1,574.00
End Flushing Connection 2"	1	EA		670.00		670.00
End Flushing Connection 3"	1	EA		682.00		682.00
Hydro Vac Sewer after Paving	4103	LF		0.50		2,051.50
2" Isolation Valve	1	EA		1,094.00		1,094.00
3" Isolation Valve	3	EA		1,357.00		4,071.00
<b>Miners Pass</b>				<b>Subtotal</b>	<b>\$</b>	<b>165,893.05</b>
8" PVC Pipe	4338	LF	\$	20.40	\$	88,495.20
4' Manhole	18	EA		1,865.00		33,570.00
5' Manhole	7	EA		3,235.00		22,645.00
4" Sewer Service	1	EA		375.00		375.00
Sewer Plug	10	EA		210.00		2,100.00
Hydro Vac Sewer after Paving	4338	LF		0.50		2,169.00
CO1 - 8"PVC	351	LF		26.35		9,248.85
CO1 - 5' Manhole	2	EA		3,645.00		7,290.00
<b>Cutting Horse Trail</b>				<b>Subtotal</b>	<b>\$</b>	<b>268,725.25</b>
8" PVC Pipe (SDR 35)	1127	LF	\$	20.00	\$	22,540.00
2" HDPE Low Pressure	4180	LF		12.00		50,160.00
3" HDPE Low Pressure	7115	LF		13.25		94,273.75
Air Release Valves	4	EA		2,000.00		8,000.00
4' Manhole	6	EA		1,960.00		11,760.00
1 1/2" House Service	38	EA		800.00		30,400.00
Concrete Encasement	1	EA		1,100.00		1,100.00
Inline Flushing Connection 3"	5	EA		787.00		3,935.00
Inline Flushing Connection 2"	2	EA		742.00		1,484.00
End Flushing Connection 3"	3	EA		670.00		2,010.00
End Flushing Connection 2"	3	EA		682.00		2,046.00
5' Manhole	1	EA		3,120.00		3,120.00
Hydro Vac Sewer after Paving	1127	LF		0.50		563.50
2" Isolation Valve	18	EA		1,094.00		19,692.00
3" Isolation Valve	13	EA		1,357.00		17,641.00

**WICKENBURG RANCH WASTEWATER, LLC**  
**ESTIMATED COST TO CONSTRUCT WASTEWATER FACILITIES**  
**APPLICATION ITEM T.5.**

	Qty	Unit	\$/Unit	Total
<b>Sewer</b>				<b>Subtotal \$ 897,000.00</b>
OSLS-WRF Force Main Boring	1	LS	\$ 725,000.00	\$ 725,000.00
Irrigation Pump Station Mod.	1	LS	22,000.00	22,000.00
WRF - Irrigation Lake	1	LS	150,000.00	150,000.00
<b>Irrigation</b>				<b>Subtotal \$ 345,204.75</b>
Point of Connection Assembly 2"	42	EA	\$ 700.00	\$ 29,400.00
Point of Connection Assembly 3"	2	EA	1,325.00	2,650.00
Isolation Gate Valve Assembly	3	EA	255.00	765.00
Isolation Gate Valve Assembly	6	EA	290.00	1,740.00
Isolation Gate Valve Assembly	12	EA	640.00	7,680.00
Isolation Gate Valve Assembly	4	EA	790.00	3,160.00
Isolation Gate Valve Assembly	1	EA	1,865.00	1,865.00
Manual Drain Valve Assembly	2	EA	325.00	650.00
Air/Vacuum Relief Valve	20	EA	1,360.00	27,200.00
Pressure Reducing Valve	1	EA	4,175.00	4,175.00
C200 PVC Mainline 2"	4210	LF	4.10	17,261.00
C200 PVC Mainline 2.5"	5200	LF	4.35	22,620.00
C200 PVC Mainline 3"	1050	LF	4.50	4,725.00
C900 PVC Mainline 4"	8600	LF	6.85	58,910.00
C900 PVC Mainline 6"	4600	LF	10.00	46,000.00
C900 PVC Mainline 8"	800	LF	14.60	11,680.00
C900 PVC Mainline 10"	230	LF	22.00	5,060.00
4" DIP Mainline 60'	240	LF	26.00	6,240.00
4" DIP Mainline 120'	600	LF	26.00	15,600.00
6" DIP Mainline 60'	60	LF	27.00	1,620.00
6" DIP Mainline 120'	240	LF	27.00	6,480.00
2" C200 PVC Sleeves 60'	720	LF	2.50	1,800.00
2" C200 PVC Sleeves 120'	1440	LF	2.50	3,600.00
4" C200 PVC Sleeves 60'	360	LF	4.20	1,512.00
4" C200 PVC Sleeves 120'	240	LF	4.20	1,008.00
6" C200 PVC Sleeves 60'	60	LF	7.00	420.00
6" C200 PVC Sleeves 120'	360	LF	7.00	2,520.00
Rainmaster Communication	20575	LF	1.85	38,063.75
Fittings, Wire Connectors, Etc.	1	LS	20,000.00	20,000.00
Isolation Gate Valve Assembly	2	EA	400.00	800.00

**WICKENBURG RANCH WASTEWATER, LLC  
ESTIMATED COST TO CONSTRUCT WASTEWATER FACILITIES  
APPLICATION ITEM T.5.**

	<u>Qty</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>
<b>WWTF</b>			<b>Subtotal</b>	<b>\$ 6,410,348.33</b>
Phase I - 0.1 mgd	1	LS	\$ 1,734,903.00	\$ 1,734,903.00
Phase II - 0.315 mgd	1	LS	4,400,000.00	4,400,000.00
APS	1	LS	275,445.33	275,445.33
<b>Lift Station</b>			<b>Subtotal</b>	<b>\$ 375,000.00</b>
Offsite - Parcel HH	1	LS	\$ 375,000.00	\$ 375,000.00
<b>Survey</b>			<b>Subtotal</b>	<b>\$ 64,572.58</b>
Staking	1	LS	\$ 61,710.00	\$ 61,710.00
As-Builts	1	LS	2,862.58	2,862.58
<b>Engineering</b>			<b>Subtotal</b>	<b>\$ 860,049.92</b>
WWTF - Phase I & II	1	LS	\$ 583,349.92	\$ 583,349.92
Sewer - SKG	1	LS	276,700.00	276,700.00
			<b>Subtotal</b>	<b>\$ 9,558,916.39</b>
			Contingency	1,147,069.97
			Service Line Installations	522,900.00
			<b>TOTAL SEWER COSTS</b>	<b>\$ 11,228,886.35</b>

# **EXHIBIT 6**

**ATTACHMENT "C"**  
**PROFORMA BALANCE SHEET (SEWER)**  
**WICKENBURG RANCH WASTEWATER, LLC**

**ASSETS**

**Current Assets**

Cash	\$ 19,500
Accounts Receivable	8,093
Other	

Total Current Assets	\$ 27,593
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**Fixed Assets**

Utility Plant in Service	\$ 3,535,566
(Less) Accumulated Depreciation	(71,275)
Net Plant in Service	3,464,291
Other	

<b>TOTAL ASSETS</b>	<b><u>\$ 3,491,884</u></b>
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**LIABILITIES AND CAPITAL**

**Current and Accrued Liabilities**

Accounts Payable	\$ 3,319
Notes Payable	-
Accrued Taxes	-
Accrued Interest	-
Other	-
Total Current and Accrued Liabilities	<u>\$ 3,319</u>

<b><u>Long-Term Debt</u></b>	<b>\$ -</b>
Other	

**Deferred Credits**

Advances in Aid of Construction	\$ 1,280,048
Contributions in Aid of Construction	-
Accumulated Deferred Income Tax	-
Total Deferred Credits	<u>\$ 1,280,048</u>

<b>TOTAL LIABILITIES</b>	<b>\$ 1,283,367</b>
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**Capital Account**

Common Stock	\$ -
Member Equity	2,255,518
Paid in Capital	-
Retained Earnings	(47,001)
Total Capital	<u>\$ 2,208,516</u>

<b>TOTAL LIABILITIES AND CAPITAL</b>	<b><u>\$ 3,491,884</u></b>
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PROFORMA INCOME STATEMENT (SEWER)

## WICKENBURG RANCH WASTEWATER, LLC

	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Revenue</b>					
Residential Sales	\$ 100,552	\$ 328,505	\$ 610,157	\$ 958,931	\$ 1,367,848
Commercial Sales	4,758	11,103	14,275	17,448	20,620
Effluent Sales	6,436	26,988	44,066	67,196	101,062
Other Revenue	9,650	12,050	14,550	18,300	20,150
<b>Total Projected Revenue</b>	<b>\$ 121,396</b>	<b>\$ 378,646</b>	<b>\$ 683,048</b>	<b>\$ 1,061,875</b>	<b>\$ 1,509,680</b>
<b>Variable Expenses</b>					
Purch Power for Pumping	\$ 4,157	\$ 17,434	\$ 28,466	\$ 43,409	\$ 65,286
Sludge Removal	\$ 54,932	\$ 20,921	\$ 34,160	\$ 52,090	\$ 78,343
Repairs & Maintenance	\$ 19,446	\$ 52,252	\$ 52,812	\$ 60,983	\$ 61,759
Chemicals	\$ 1,211	\$ 3,004	\$ 4,493	\$ 6,510	\$ 9,464
Administrative and Operations	\$ 9,000	\$ 30,000	\$ 57,000	\$ 91,500	\$ 132,720
	\$ 88,746	\$ 123,611	\$ 176,931	\$ 254,492	\$ 347,571
<b>Total Variable Expenses</b>					
<b>Other Expenses</b>					
Depreciation	\$ 71,275	\$ 286,499	\$ 431,465	\$ 443,138	\$ 455,203
Miscellaneous	607	1,893	3,415	5,309	7,548
Insurance	2,428	7,573	13,661	21,238	30,194
Income Taxes	-	-	-	-	-
Property Taxes	5,341	8,907	16,563	29,022	43,395
<b>Total Other Expenses</b>	<b>\$ 79,651</b>	<b>\$ 304,872</b>	<b>\$ 465,105</b>	<b>\$ 498,707</b>	<b>\$ 536,340</b>
<b>Total Projected Operating Expenses</b>	<b>\$ 168,397</b>	<b>\$ 428,483</b>	<b>\$ 642,036</b>	<b>\$ 753,199</b>	<b>\$ 883,911</b>
<b>Operating Income/(Loss)</b>	<b>\$ (47,001)</b>	<b>\$ (49,836)</b>	<b>\$ 41,012</b>	<b>\$ 308,676</b>	<b>\$ 625,769</b>
Interest Income	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Expense	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Income</b>	<b>\$ (47,001)</b>	<b>\$ (49,836)</b>	<b>\$ 41,012</b>	<b>\$ 308,676</b>	<b>\$ 625,769</b>

CS-4  
PROFORMA WASTEWATER PLANT IN SERVICE - YEAR 1

WICKENBURG RANCH WASTEWATER, LLC

	Depreciation Rate	Plant Additions Year 1	Depreciation Expense Year 1	Plant End of Year 1	Accumulated Depreciation Year 1	Original Cost Less Depreciation
		\$	\$	\$	\$	\$
351 Organization	0.00%					
352 Franchises	0.00%					
353 Land and Land Rights	0.00%					
354 Structures and Improvements	3.33%					
355 Power Generation Equipment	5.00%					
360 Collection Sewers - Force	2.00%					
361 Collection Sewers - Gravity	2.00%	672,795	6,728	672,795	6,728	666,067
362 Special Collecting Structures	2.00%					
363 Services to Customers	2.00%	67,550	676	67,550	676	66,875
364 Flow Measuring Devices	10.00%					
365 Flow Measuring Installations	10.00%					
366 Reuse Services	2.00%					
367 Reuse Meteres & Meter Installations	8.33%					
370 Receiving Wells	3.33%					
371 Pumping Equipment	12.50%	24,640	1,540	24,640	1,540	23,100
374 Reuse Distribution Reservoirs	2.50%	168,000	2,100	168,000	2,100	165,900
375 Reuse Transmission & Distr Equip	2.50%	386,629	4,833	386,629	4,833	381,796
380 Treatment & Disposal Equipment	5.00%	2,215,952	55,399	2,215,952	55,399	2,160,553
381 Plant Sewers	5.00%					
382 Outfall Sewer Lines	3.33%					
389 Other Plant & Misc Equipment	6.67%					
390 Office Furniture and Equipment	6.67%					
390 Computers & Software	20.00%					
391 Transportation Equipment	20.00%					
392 Stores Equipment	4.00%					
393 Tools, Shop & Garage Equipment	5.00%					
394 Laboratory Equipment	10.00%					
395 Power Operated Equipment	5.00%					
396 Communications Equipment	10.00%					
397 Miscellaneous Equipment	10.00%					
<b>TOTAL PLANT IN SERVICE</b>		<b>\$ 3,535,566</b>	<b>\$ 71,275</b>	<b>\$ 3,535,566</b>	<b>\$ 71,275</b>	<b>\$ 3,464,291</b>

CS-4  
**PROFORMA WASTEWATER PLANT IN SERVICE - YEAR 2**  
**WICKENBURG RANCH WASTEWATER, LLC**

	Depreciation Rate	Plant End of		Depreciation Expense Year 2	Plant End of Year 2	Accumulated Depreciation Year 2	Original Cost Less Depreciation
		Year 1	Year 2				
351 Organization	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
352 Franchises	0.00%	-	-	-	-	-	-
353 Land and Land Rights	0.00%	-	-	-	-	-	-
354 Structures and Improvements	3.33%	-	-	-	-	-	-
355 Power Generation Equipment	5.00%	-	-	-	-	-	-
360 Collection Sewers - Force	2.00%	-	-	-	-	-	-
361 Collection Sewers - Gravity	2.00%	672,795	260,436	16,060	933,231	22,788	910,443
362 Special Collecting Structures	2.00%	-	-	-	-	-	-
363 Services to Customers	2.00%	67,550	84,350	2,195	151,900	2,870	149,030
364 Flow Measuring Devices	10.00%	-	-	-	-	-	-
365 Flow Measuring Installations	10.00%	-	-	-	-	-	-
366 Reuse Services	2.00%	-	-	-	-	-	-
367 Reuse Meters & Meter Installations	8.33%	-	-	-	-	-	-
370 Receiving Wells	3.33%	-	-	-	-	-	-
371 Pumping Equipment	12.50%	24,640	-	3,080	24,640	4,620	20,020
374 Reuse Distribution Reservoirs	2.50%	168,000	-	4,200	168,000	6,300	161,700
375 Reuse Transmission & Distr Equip	2.50%	386,629	-	9,666	386,629	14,499	372,131
380 Treatment & Disposal Equipment	5.00%	2,215,952	5,620,019	251,298	7,835,971	306,697	7,529,274
381 Plant Sewers	5.00%	-	-	-	-	-	-
382 Outfall Sewer Lines	3.33%	-	-	-	-	-	-
389 Other Plant & Misc Equipment	6.67%	-	-	-	-	-	-
390 Office Furniture and Equipment	6.67%	-	-	-	-	-	-
390 Computers & Software	20.00%	-	-	-	-	-	-
391 Transportation Equipment	20.00%	-	-	-	-	-	-
392 Stores Equipment	4.00%	-	-	-	-	-	-
393 Tools, Shop & Garage Equipment	5.00%	-	-	-	-	-	-
394 Laboratory Equipment	10.00%	-	-	-	-	-	-
395 Power Operated Equipment	5.00%	-	-	-	-	-	-
396 Communications Equipment	10.00%	-	-	-	-	-	-
397 Miscellaneous Equipment	10.00%	-	-	-	-	-	-
<b>TOTAL PLANT IN SERVICE</b>		<b>\$ 3,535,566</b>	<b>\$ 5,964,805</b>	<b>\$ 286,499</b>	<b>\$ 9,500,371</b>	<b>\$ 357,774</b>	<b>\$ 9,142,598</b>

CS-4

PROFORMA WASTEWATER PLANT IN SERVICE - YEAR 3

WICKENBURG RANCH WASTEWATER, LLC

	Depreciation Rate	Plant End of Year 2	Additions Year 3	Depreciation Expense Year 3	Plant End of Year 3	Accumulated Depreciation Year 3	Original Cost Less Depreciation
351 Organization	0.00%	\$ -	\$ -	\$ -	-	\$ -	-
352 Franchises	0.00%	-	-	-	-	-	-
353 Land and Land Rights	0.00%	-	-	-	-	-	-
354 Structures and Improvements	3.33%	-	-	-	-	-	-
355 Power Generation Equipment	5.00%	-	-	-	-	-	-
360 Collection Sewers - Force	2.00%	-	-	-	-	-	-
361 Collection Sewers - Gravity	2.00%	933,231	-	18,665	933,231	41,453	891,778
362 Special Collecting Structures	2.00%	-	-	-	-	-	-
363 Services to Customers	2.00%	151,900	101,850	4,057	253,750	6,927	246,824
364 Flow Measuring Devices	10.00%	-	-	-	-	-	-
365 Flow Measuring Installations	10.00%	-	-	-	-	-	-
366 Reuse Services	2.00%	-	-	-	-	-	-
367 Reuse Meters & Meter Installations	8.33%	-	-	-	-	-	-
370 Receiving Wells	3.33%	-	-	-	-	-	-
371 Pumping Equipment	12.50%	24,640	-	3,080	24,640	7,700	16,940
374 Reuse Distribution Reservoirs	2.50%	168,000	-	4,200	168,000	10,500	157,500
375 Reuse Transmission & Distr Equip	2.50%	386,629	-	9,666	386,629	24,164	362,465
380 Treatment & Disposal Equipment	5.00%	7,835,971	-	391,799	7,835,971	698,495	7,137,476
381 Plant Sewers	5.00%	-	-	-	-	-	-
382 Outfall Sewer Lines	3.33%	-	-	-	-	-	-
389 Other Plant & Misc Equipment	6.67%	-	-	-	-	-	-
390 Office Furniture and Equipment	6.67%	-	-	-	-	-	-
390 Computers & Software	20.00%	-	-	-	-	-	-
391 Transportation Equipment	20.00%	-	-	-	-	-	-
392 Stores Equipment	4.00%	-	-	-	-	-	-
393 Tools, Shop & Garage Equipment	5.00%	-	-	-	-	-	-
394 Laboratory Equipment	10.00%	-	-	-	-	-	-
395 Power Operated Equipment	5.00%	-	-	-	-	-	-
396 Communications Equipment	10.00%	-	-	-	-	-	-
397 Miscellaneous Equipment	10.00%	-	-	-	-	-	-
<b>TOTAL PLANT IN SERVICE</b>		<b>\$ 9,500,371</b>	<b>\$ 101,850</b>	<b>\$ 431,465</b>	<b>\$ 9,602,221</b>	<b>\$ 789,239</b>	<b>\$ 8,812,982</b>

CS-4  
**PROFORMA WASTEWATER PLANT IN SERVICE - YEAR 4**  
**WICKENBURG RANCH WASTEWATER, LLC**

	Depreciation Rate	Plant End of Year 3	Additions Year 4	Depreciation Expense Year 4	Plant End of Year 4	Accumulated Depreciation Year 4	Original Cost Less Depreciation
		\$	\$	\$	\$	\$	\$
351 Organization	0.00%	-	-	-	-	-	-
352 Franchises	0.00%	-	-	-	-	-	-
353 Land and Land Rights	0.00%	-	420,177	-	420,177	-	420,177
354 Structures and Improvements	3.33%	-	-	-	-	-	-
355 Power Generation Equipment	5.00%	-	-	-	-	-	-
360 Collection Sewers - Force	2.00%	-	812,000	8,120	812,000	8,120	803,880
361 Collection Sewers - Gravity	2.00%	933,231	125,338	19,918	1,058,569	61,371	997,198
362 Special Collecting Structures	2.00%	-	-	-	-	-	-
363 Services to Customers	2.00%	253,750	128,100	6,356	381,850	13,283	368,568
364 Flow Measuring Devices	10.00%	-	-	-	-	-	-
365 Flow Measuring Installations	10.00%	-	-	-	-	-	-
366 Reuse Services	2.00%	-	-	-	-	-	-
367 Reuse Meters & Meter Installations	8.33%	-	-	-	-	-	-
370 Receiving Wells	3.33%	-	-	-	-	-	-
371 Pumping Equipment	12.50%	24,640	-	3,080	24,640	10,780	13,860
374 Reuse Distribution Reservoirs	2.50%	168,000	-	4,200	168,000	14,700	153,300
375 Reuse Transmission & Distr Equip	2.50%	386,629	-	9,666	386,629	33,830	352,799
380 Treatment & Disposal Equipment	5.00%	7,835,971	-	391,799	7,835,971	1,090,294	6,745,677
381 Plant Sewers	5.00%	-	-	-	-	-	-
382 Outfall Sewer Lines	3.33%	-	-	-	-	-	-
389 Other Plant & Misc Equipment	6.67%	-	-	-	-	-	-
390 Office Furniture and Equipment	6.67%	-	-	-	-	-	-
390 Computers & Software	20.00%	-	-	-	-	-	-
391 Transportation Equipment	20.00%	-	-	-	-	-	-
392 Stores Equipment	4.00%	-	-	-	-	-	-
393 Tools, Shop & Garage Equipment	5.00%	-	-	-	-	-	-
394 Laboratory Equipment	10.00%	-	-	-	-	-	-
395 Power Operated Equipment	5.00%	-	-	-	-	-	-
396 Communications Equipment	10.00%	-	-	-	-	-	-
397 Miscellaneous Equipment	10.00%	-	-	-	-	-	-
<b>TOTAL PLANT IN SERVICE</b>		<b>\$ 9,602,221</b>	<b>\$ 1,485,615</b>	<b>\$ 443,138</b>	<b>\$ 11,087,836</b>	<b>\$ 1,232,377</b>	<b>\$ 9,855,459</b>

PROFORMA WASTEWATER PLANT IN SERVICE - YEAR 5

WICKENBURG RANCH WASTEWATER, LLC

	Depreciation Rate	Plant End of Year 4	Additions Year 5	Depreciation Expense Year 5	Plant End of Year 5	Accumulated Depreciation Year 5	Original Cost Less Depreciation
351 Organization	0.00%	\$ -	\$ -	\$ -	-	\$ -	\$ -
352 Franchises	0.00%	-	-	-	-	-	-
353 Land and Land Rights	0.00%	420,177	-	-	420,177	-	420,177
354 Structures and Improvements	3.33%	-	-	-	-	-	-
355 Power Generation Equipment	5.00%	-	-	-	-	-	-
360 Collection Sewers - Force	2.00%	812,000	16,240	16,240	812,000	24,360	787,640
361 Collection Sewers - Gravity	2.00%	1,058,569	21,171	21,171	1,058,569	82,542	976,027
362 Special Collecting Structures	2.00%	-	-	-	-	-	-
363 Services to Customers	2.00%	381,850	141,050	9,048	522,900	22,330	500,570
364 Flow Measuring Devices	10.00%	-	-	-	-	-	-
365 Flow Measuring Installations	10.00%	-	-	-	-	-	-
366 Reuse Services	2.00%	-	-	-	-	-	-
367 Reuse Meters & Meter Installations	8.33%	-	-	-	-	-	-
370 Receiving Wells	3.33%	-	-	-	-	-	-
371 Pumping Equipment	12.50%	24,640	3,080	3,080	24,640	13,860	10,780
374 Reuse Distribution Reservoirs	2.50%	168,000	4,200	4,200	168,000	18,900	149,100
375 Reuse Transmission & Distr Equip	2.50%	386,629	9,666	9,666	386,629	43,496	343,134
380 Treatment & Disposal Equipment	5.00%	7,835,971	391,799	391,799	7,835,971	1,482,093	6,353,878
381 Plant Sewers	5.00%	-	-	-	-	-	-
382 Outfall Sewer Lines	3.33%	-	-	-	-	-	-
389 Other Plant & Misc Equipment	6.67%	-	-	-	-	-	-
390 Office Furniture and Equipment	6.67%	-	-	-	-	-	-
390 Computers & Software	20.00%	-	-	-	-	-	-
391 Transportation Equipment	20.00%	-	-	-	-	-	-
392 Stores Equipment	4.00%	-	-	-	-	-	-
393 Tools, Shop & Garage Equipment	5.00%	-	-	-	-	-	-
394 Laboratory Equipment	10.00%	-	-	-	-	-	-
395 Power Operated Equipment	5.00%	-	-	-	-	-	-
396 Communications Equipment	10.00%	-	-	-	-	-	-
397 Miscellaneous Equipment	10.00%	-	-	-	-	-	-
<b>TOTAL PLANT IN SERVICE</b>		<b>\$ 11,087,836</b>	<b>\$ 141,050</b>	<b>\$ 455,203</b>	<b>\$ 11,228,886</b>	<b>\$ 1,687,581</b>	<b>\$ 9,541,306</b>

# **EXHIBIT 7**

**DRAFT**

Gary Edwards  
Town Manager  
155 N. Tegner, Suite A  
Wickenburg Arizona 85390

Dear Mr. Edwards:

On \_\_\_\_\_, Wickenburg Ranch Wastewater, LLC filed with the Arizona Corporation Commission ("Commission") an application for authority to provide sewer service to Wickenburg Ranch in the area (see attached map and legal description). The Commission has designated this matter as docket no. \_\_\_\_\_.

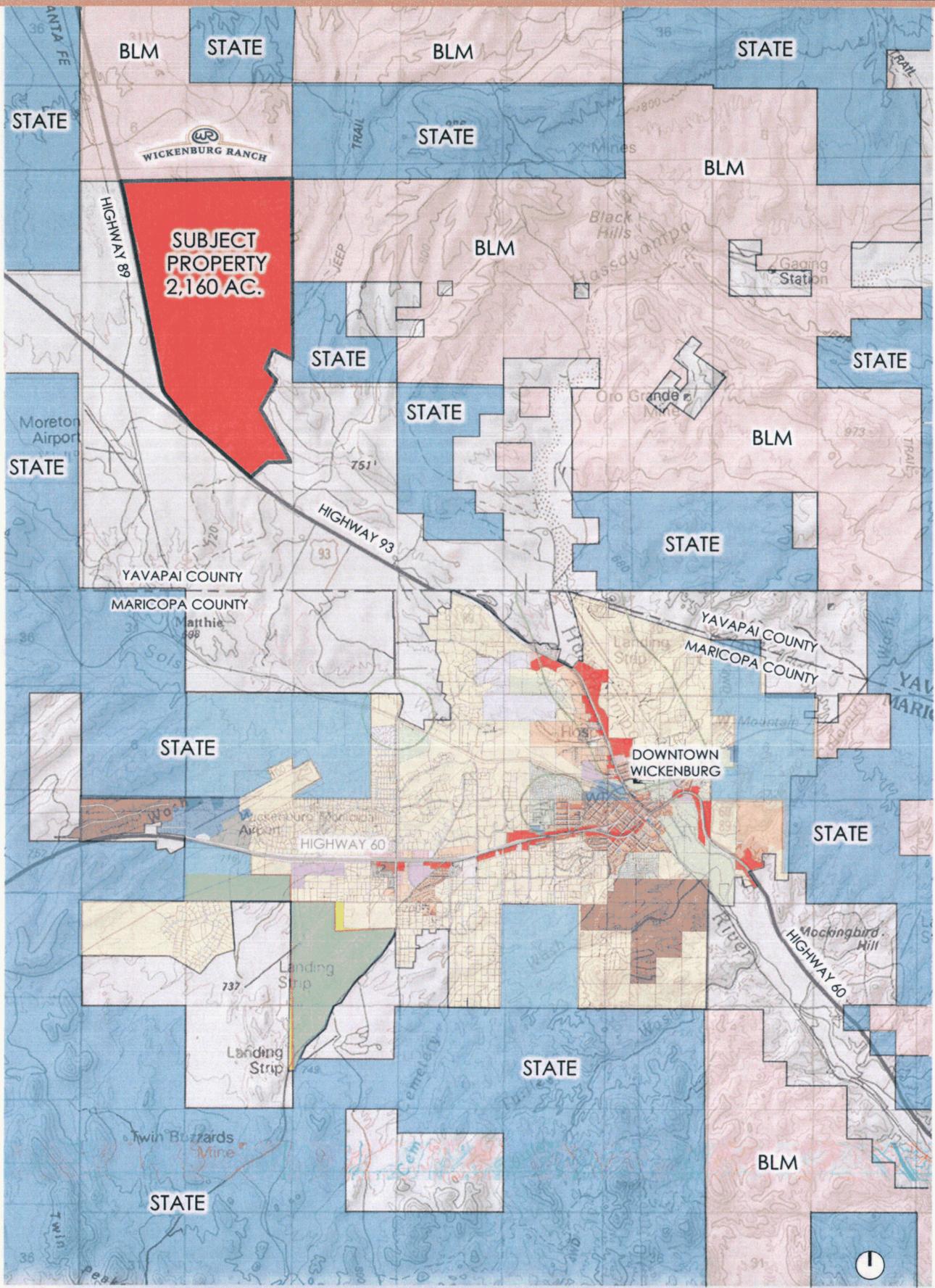
The application is available for inspection during regular business hours at the offices of the Commission at 1200 West Washington Street, Phoenix, Arizona 85007, and at Wickenburg Ranch Wastewater, LLC, c/o M3 Companies, 4222 East Camelback Road, Suite H-100, Phoenix, Arizona 85018. If you have any questions about this application, or if you would like to obtain a copy of the application, you may contact Wickenburg Ranch management, whose contact information is below:

**William I. Brownlee**  
**Manager, The M3 Companies LLC**  
**4222 East Camelback Road**  
**Suite H-100**  
**Phoenix, Arizona 85018**  
**602-386-1307**

You may also contact the Consumer Services Section of the Commission at 1200 West Washington Street, Phoenix, Arizona 85007 or call 1-800-222-7000.

Respectfully,

William I. Brownlee



## VICINITY MAP

EXHIBIT 1

Wickenburg Ranch Wastewater, L.L.C.  
Service Area Legal Description  
Parcel No 1

All that portion of Sections 7, 8, 17 and 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Northeast Corner of said Section 7, point also being the Northwest corner of said Section 8:  
Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8;  
Thence South 17 degrees 27 minutes 50 seconds East, 913.00 feet;  
Thence South 20 degrees 28 minutes 12 seconds East, 802.26 feet;  
Thence South 39 degrees 20 minutes 49 seconds East, 1119.67 feet;  
Thence South 17 degrees 52 minutes 53 seconds East, 402.20 feet;  
Thence South 12 degrees 51 minutes 26 seconds West, 249.52 feet;  
Thence South 01 degrees 07 minutes 38 seconds West, 411.79 feet;  
Thence South 23 degrees 07 minutes 02 seconds East, 236.98 feet;  
Thence South 38 degrees 58 minutes 00 seconds East, 329.01 feet;  
Thence South 54 degrees 59 minutes 00 seconds East, 1101.16 feet;  
Thence South 13 degrees 43 minutes 16 seconds West, 1068.17 feet to a point from which the South Quarter corner of said Section 8 bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;  
Thence North 85 degrees 04 minutes 37 seconds West, 417.23 feet;  
Thence North 74 degrees 12 minutes 30 seconds West, 384.82 feet;  
Thence North 85 degrees 59 minutes 26 seconds West, 252.71 feet;  
Thence South 87 degrees 41 minutes 42 seconds West, 678.82 feet;  
Thence North 78 degrees 08 minutes 06 seconds West, 799.05 feet;  
Thence North 69 degrees 14 minutes 01 seconds West, 601.69 feet to a point from which the corner common to said Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;  
Thence South 06 degrees 07 minutes 06 seconds West, 642.74 feet;  
Thence South 23 degrees 44 minutes 04 seconds East, 565.53 feet;  
Thence South 05 degrees 31 minutes 57 seconds West, 817.18 feet;  
Thence South 11 degrees 54 minutes 27 seconds West, 1042.85 feet;  
Thence South 74 degrees 13 minutes 56 seconds West, 437.84 feet;  
Thence South 82 degrees 21 minutes 15 seconds West, 62.17 feet;  
Thence North 78 degrees 05 minutes 33 seconds West, 964.58 feet to a point on the East right-of way of United States Highway 89;  
Thence North 10 degrees 49 minutes 30 seconds West, 7191.87 feet along the said East right-of-way to a point on a tangent curve concave to the West and having a radius of 11,510.00 feet and a center point which bears South 79 degrees 06 minutes 51 seconds West;

Thence continuing along said curve through a central angle of 02 degrees 43 minutes 45 seconds and an arc length of 548.27 feet;  
Thence North 13 degrees 31 minutes 56 seconds West, 496.30 feet along the East right-of-way to a point on the North line of said Section 7;  
Thence South 89 degrees 59 minutes 56 seconds East, 925.02 feet along the said North line to the North Quarter corner of said Section 7;  
Thence South 89 degrees 56 minutes 00 seconds East, 2368.78 feet to the Northeast corner of said Section 7 and the POINT OF BEGINNING.

EXCEPTING there from that portion of the Southeast quarter of the Northwest (SE ¼, NW ¼) of Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at an aluminum cap marking the West quarter corner of said Section 7 from which a rebar marking the East quarter corner of said Section 7 bears South 89 degrees 06 minutes 17 seconds East, 5288.84 feet;  
Thence along the East-West mid section line of said Section 7, South 89 degrees 06 minutes 17 seconds East 2483.49 feet to the existing right of way centerline of State Route 89 (Wickenburg-Prescott Highway);  
Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 144.20 feet;  
Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the said existing Easterly right of way line of said State Route 89 and the Point of Beginning;  
Thence South 55 degrees 18 minutes 52 seconds East 29.70 feet;  
Thence South 10 degrees 18 minutes 52 seconds East, 50.00 feet;  
Thence South 33 degrees 21 minutes 12 seconds West 30.41 feet to said existing Easterly right of way line of said State Route 89;  
Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 93.00 feet to the Point of Beginning.

AND EXCEPTING that portion of the Southwest quarter of the Southeast quarter (SW ¼, Se ¼) of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, described as follows;  
COMMENCING at a rebar marking the South quarter corner of said Section 7 from which a marked stone marking the Southeast corner of said Section 7 bears South 89 degrees 32 minutes 23 seconds East 2643.46 feet;  
Thence along the South line of said Section 7 South 89 degrees 32 minutes 23 seconds East 347.08 feet to said existing right of way centerline of State Route 89;  
Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 898.02 feet;  
Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the existing right of way line State Route 89 and the Point of Beginning;  
Thence South 55 degrees 18 minutes 52 seconds East 7.07 feet;  
Thence South 10 degrees 18 minutes 52 seconds East 76.00 feet;

Thence South 34 degrees 41 minutes 08 seconds West 7.07 feet to said existing Easterly right of way line of State Route 89;  
Thence along said existing Easterly right of way line of State Route 89 North 10 degrees 18 minutes 52 seconds West 86.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northwest quarter of the Northeast quarter (NW ¼, NE ¼) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a marked stone marking the Northeast corner of said Section 18 from which a rebar marking the North quarter corner of said Section 18 bears North 89 degrees 35 minutes 35 seconds West 2643.46 feet;  
Thence along the North line of said Section 18, North 89 degrees 35 minutes 33 seconds West, 2296.38 feet to said existing right of way centerline of State Route 89;  
Thence along said existing right of way centerline of said State Route 89, South 10 degrees 18 minutes 52 seconds East 616.98 feet;  
Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of said State Route 89 and the Point of beginning;  
Thence South 55 degrees 18 minutes 52 seconds East 24.04 feet;  
Thence South 10 degrees 18 minutes 52 seconds East 20.00 feet;  
Thence South 34 degrees 41 minutes 08 seconds West 24.04 feet to said existing right of way line of said State Route 89;  
Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 54.00 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(Reservoir Site 2008)

AND EXCEPT that portion of the Northwest quarter of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the North quarter corner of said Section 7;  
Thence North 89 degrees 59 minutes 56 seconds West along the North line of said Northwest quarter a distance of 476.65 feet to the TRUE POINT OF BEGINNING;  
Thence South 00 degrees 00 minutes 00 seconds East, leaving said North line a distance of 193.27 feet;  
Thence South 75 degrees 41 minutes 21 seconds East a distance of 318.69 feet to a point on a curve the radius of which bears South 45 degrees 19 minutes 13 seconds East a distance of 42.50 feet;

Thence Southerly along the arc of said curve through a central angle of 41 degrees 35 minutes 32 seconds a distance of 30.85 feet;

Thence North 75 degrees 18 minutes 54 seconds West, leaving said curve a distance of 308.93 feet;

Thence South 16 degrees 29 minutes 36 seconds West a distance of 65.66 feet;

Thence South 00 degrees 00 minutes 00 seconds East a distance of 21.39 feet to the TRUE POINT OF BEGINNING;

Thence continuing South 00 degrees 00 minutes 00 seconds East a distance of 224.22 feet;

Thence South 76 degrees 45 minutes 28 seconds West a distance of 141.74 feet;

Thence North 58 degrees 42 minutes 37 seconds West a distance of 98.50 feet;

Thence North 13 degrees 31 minutes 56 seconds West a distance of 211.40 feet;

Thence North 90 degrees 00 minutes 00 seconds East a distance of 271.61 feet, to the TRUE POINT OF BEGINNING.

(Well 4 site 2008)

AND EXCEPT That portion of the Southeast quarter of Section 7, of Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter Corner of said Section 7, from which the Southeast corner of said Section 7, bears South 00 degrees 00 minutes 08 seconds West a distance of 2641.48 feet;

Thence South 89 degrees 06 minutes 17 seconds East along the North line of said Southeast quarter a distance of 2468.03 feet;

Thence South 00 degrees 53 minutes 43 seconds West leaving said North line a distance of 663.59 feet to the TRUE POINT OF BEGINNING;

Thence North 83 degrees 04 minutes 35 seconds East a distance of 76.74 feet, to a point on a curve the radius of which bears South 83 degrees 04 minutes 35 seconds West a distance of 784.00 feet;

Thence Southerly along the arc of said curve through a central angle of 09 degrees 11 minutes 41 seconds a distance of 125.82 feet to a point of tangency;

Thence South 02 degrees 16 minutes 16 seconds West a distance of 28.78 feet;

Thence North 87 degrees 43 minutes 44 seconds West a distance of 52.84 feet;

Thence North 10 degrees 49 minutes 30 seconds West a distance of 145.58 feet to the TRUE POINT OF BEGINNING.

Parcel 1

WR Wastewater, Service Area

3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No 2

All that portion of Sections 7, 8, 17, 18, 19, 20 and 21, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

Commencing at the Northwest Corner of said Section 8, point also being the Northeast corner of said Section 7;

Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8 to the POINT OF BEGINNING;

Thence continuing North 89 degrees 58 minutes 15 seconds East, 4633.71 feet to the Northeast corner of said Section 8;

Thence South 00 degrees 05 minutes 03 seconds East, 2642.77 feet to the East quarter corner of said Section 8;

Thence South 00 degrees 01 minutes 00 seconds East, 2643.56 feet to the South east corner of said Section 8, point also being the northeast corner of said Section 17;

Thence South 00 degrees 00 minutes 39 seconds East, 3940.42 feet;

Thence North 63 degrees 02 minutes 31 seconds West, 1071.34 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 432.62 feet;

Thence North 42 degrees 25 minutes 18 seconds West, 173.13 feet;

Thence North 07 degrees 17 minutes 47 seconds West, 783.65 feet;

Thence North 05 degrees 50 minutes 06 seconds West, 1558.35 feet;

Thence North 86 degrees 37 minutes 10 seconds West, 2501.12 feet;

Thence South 10 degrees 26 minutes 30 seconds East, 1885.29 feet;

Thence South 12 degrees 35 minutes 38 seconds East, 1051.68 feet;

Thence South 61 degrees 23 minutes 09 seconds East, 972.18 feet;

Thence North 62 degrees 23 minutes 49 seconds East, 135.52 feet;

Thence South 49 degrees 22 minutes 53 seconds East, 66.84 feet;

Thence South 01 degrees 17 minutes 16 seconds East, 176.23 feet;

Thence South 23 degrees 00 minutes 31 seconds West, 142.25 feet;

Thence South 20 degrees 51 minutes 27 seconds West, 70.97 feet;

Thence South 15 degrees 04 minutes 21 seconds West, 231.46 feet;

Thence South 06 degrees 02 minutes 25 seconds West, 150.25 feet;

Thence South 03 degrees 24 minutes 22 seconds East, 175.23 feet;

Thence South 35 degrees 59 minutes 53 seconds East, 291.77 feet;

Thence South 61 degrees 34 minutes 03 seconds East, 135.59 feet;

Thence North 86 degrees 33 minutes 04 seconds East, 303.77 feet;

Thence North 64 degrees 28 minutes 47 seconds East, 159.98 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 540.85 feet;

Thence South 39 degrees 08 minutes 40 seconds East, 821.85 feet;

Thence South 29 degrees 01 minutes 10 seconds West, 1653.95 feet;

Thence South 29 degrees 47 minutes 42 seconds East, 3182.75 feet to a point on the line common to said Sections 20 and 21;

Thence South 89 degrees 58 minutes 04 seconds West, 1096.09 feet;

Thence South 51 degrees 09 minutes 49 seconds West, 1161.14 feet to a point on the East right-of-way of United States Highway 89 and a point on a non-tangent curve to the northeast and having a radius of 21,243.59 feet and a center point which bears North 38 degrees 50 minutes 07 seconds East;

Thence continuing along said curve through a central angle of 03 degrees 26 minutes 23 seconds and an arc length of 1275.14 feet;

Thence North 47 degrees 44 minutes 17 seconds West, 2961.13 feet along said right-of-way to a point from which the section corner common to Sections 17, 18, 19 and 20 bears North 03 degrees 37 minutes 04 seconds West, 1875.90 feet;

Thence North 38 degrees 48 minutes 50 seconds West, 1374.84 feet along said right-of-way to a point on a tangent curve to the Northeast and having a radius of 2810.00 feet and a center point which bears North 51 degrees 09 minutes 42 seconds East;

Thence continuing along said curve through a central angle of 28 degrees 02 minutes 55 seconds and an arc length of 1375.61 feet;

Thence North 10 degrees 49 minutes 30 seconds West, 2087.00 feet along said right-of-way;

Thence South 78 degrees 05 minutes 33 seconds East, 964.58 feet;

Thence North 82 degrees 21 minutes 15 seconds East, 62.17 feet;

Thence North 74 degrees 13 minutes 56 seconds East, 437.84 feet to a point from which the East Quarter corner of said Section 18, bears North 44 degrees 24 minutes 42 seconds East, 402.14 feet;

Thence North 11 degrees 54 minutes 27 seconds East, 1042.85 feet;

Thence North 05 degrees 31 minutes 57 seconds East, 817.18 feet;

Thence North 23 degrees 44 minutes 04 seconds West, 565.53 feet;

Thence North 06 degrees 07 minutes 06 seconds East, 642.74 feet to a point from which the Section corner common to Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;

Thence South 69 degrees 14 minutes 01 seconds East, 601.69 feet;

Thence South 78 degrees 08 minutes 06 minutes East, 799.05 feet;

Thence North 87 degrees 41 minutes 42 seconds East, 678.82 feet;

Thence South 85 degrees 59 minutes 26 seconds East, 252.71 feet;

Thence South 74 degrees 12 minutes 30 seconds East, 384.82 feet;

Thence South 85 degrees 04 minutes 37 seconds East, 417.23 feet to a point from which the South Quarter corner of said Section 8, bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;

Thence North 13 degrees 43 minutes 16 seconds East, 1068.17 feet;

Thence North 54 degrees 59 minutes 00 seconds West, 1101.16 feet;

Thence North 38 degrees 58 minutes 00 seconds West, 329.01 feet;

Thence North 23 degrees 07 minutes 02 seconds West, 236.98 feet;

Thence North 01 degrees 07 minutes 38 seconds East, 411.79 feet;

Thence North 12 degrees 51 minutes 26 seconds East, 249.52 feet;

Thence North 17 degrees 52 minutes 53 seconds West, 402.20 feet;

Thence North 39 degrees 20 minutes 49 seconds West, 1119.67 feet;

Thence North 20 degrees 28 minutes 12 seconds West, 802.26 feet;

Thence North 17 degrees 27 minutes 50 seconds West, 913.00 feet to the POINT OF BEGINNING.

EXCEPTING there from that portion of the West half of the Southeast quarter (W1/2 SE 1/4) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a rebar marking the West quarter corner of said Section 18 being North 89 degrees 29 minutes 14 seconds West 5285.91 feet from the unmonumented East quarter corner of said Section 18 said unmonumented corner being South 00 degrees 33 minutes 47 seconds West 65.85 feet from a stone marked "1/4 W.C." marking the witness monument to said East quarter corner;

Thence along the East-West mid section line of said Section 18 South 89 degrees 29 minutes 14 seconds East 3495.54 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89 South 10 degrees 18 minutes 52 seconds East 1324.17 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of State Route 89 and the Point of Beginning;

Thence North 34 degrees 41 minutes 08 seconds East 70.71 feet;

Thence North 10 degrees 18 minutes 52 seconds West 97.00 feet;

Thence South 79 degrees 41 minutes 08 seconds West 50.00 feet to said existing Easterly right of way line of State Route 89;

Thence along existing right of way line of State Route 89 South 10 degrees 18 minutes 52 seconds East 147.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northeast quarter of the Northeast quarter (NE 1/4 NE 1/4) of Section 19, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows;

COMMENCING at a 1/2 inch stainless steel rod with an aluminum cap marking the Northeast corner of said Section 19 from which a marked stone marking the North quarter corner of said Section 19 bears North 89 degrees 27 minutes 57 seconds West, 2641.50 feet;

Thence along the North line of said Section 19 North 89 degrees 27 minutes 57 seconds West 1249.77 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89, from a local tangent bearing of South 10 degrees 18 minutes 52 seconds East, along a curve to the left, having a radius of 2865.00 feet a length of 748.40 feet;

Thence North 55 degrees 53 minutes 23 seconds East 50.00 feet to said Easterly right of way line of said State Route 89 and the Point of Beginning;

Thence North 11 degrees 48 minutes 05 seconds East 37.76 feet;

Thence North 33 degrees 21 minutes 37 seconds West 20.44 feet;

Thence North 79 degrees 36 minutes 45 seconds West, 37.09 feet to said existing Easterly right of way line of State Route 89;

Thence along said existing Easterly right of way line of State Route 89 from a local tangent bearing of South 32 degrees 37 minutes 50 seconds East along a curve to the left having a radius of 2815.00 feet, length of 72.71 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(WWTP 2008)

AND EXCEPT That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.

(Lift Station Site 2008)

AND EXCEPT That portion of the Northeast quarter of Section 20, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter corner of said Section 20;  
Thence South 89 degrees 58 minutes 26 seconds West along the South line of said Northeast quarter, a distance of 2352.09 feet;  
Thence North 00 degrees 01 minutes 34 seconds West leaving said South line a distance of 680.23 feet to the TRUE POINT OF BEGINNING;  
Thence South 87 degrees 44 minutes 44 seconds West distance of 60.00 feet;  
Thence North 02 degrees 15 minutes 16 seconds West a distance of 85.00 feet;  
Thence North 87 degrees 44 minutes 44 seconds East a distance of 60.00 feet;  
Thence South 02 degrees 15 minutes 16 seconds East a distance of 85.00 feet to the TRUE POINT OF BEGINNING.

Parcel 2  
WR Wastewater, Service Area  
3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No. 3

All that portion of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Southwest corner of said Section 17, from which the Northwest corner bears North 00 degrees 02 minutes 17 seconds East a distance of 5281.72 feet; Thence North 33 degrees 08 minutes 10 seconds East a distance of 3560.09 feet to the TRUE POINT OF BEGINNING, said point being on the West boundary of "The Wickenburg Inn Tennis and Guest Ranch" recorded in Book 17 of Maps, Page 18, records of Yavapai County, Arizona;

Thence along said boundary, North 10 degrees 26 minutes 30 seconds West a distance of 1885.29 feet (record North 10 degrees 25 minutes 50 seconds West, 1885.15 feet); Thence South 86 degrees 37 minutes 10 seconds East a distance of 2501.12 feet (record South 86 degrees 37 minutes 21 seconds East a distance of 2501.02 feet); Thence South 05 degrees 50 minutes 06 seconds East a distance of 1558.35 feet (record South 05 degrees 50 minutes 05 seconds East a distance of 1558.42 feet); Thence South 07 degrees 17 minutes 47 seconds East a distance of 783.65 feet (record South 07 degrees 17 minutes 30 seconds East); Thence leaving said boundary, South 42 degrees 25 minutes 18 seconds East a distance of 173.13 feet;

Thence South 20 degrees 06 minutes 58 seconds West a distance of 1979.10 feet; Thence South 64 degrees 28 minutes 47 seconds West a distance of 159.98 feet; Thence South 86 degrees 33 minutes 04 seconds West a distance of 303.77 feet; Thence North 61 degrees 34 minutes 03 seconds West a distance of 135.59 feet; Thence North 35 degrees 59 minutes 53 seconds West a distance of 291.77 feet; Thence North 03 degrees 24 minutes 22 seconds West a distance of 175.23 feet; Thence North 06 degrees 02 minutes 25 seconds East a distance of 150.25 feet; Thence North 15 degrees 04 minutes 21 seconds East a distance of 231.46 feet; Thence North 20 degrees 51 minutes 27 seconds East a distance of 70.97 feet; Thence North 23 degrees 00 minutes 31 seconds East a distance of 142.25 feet; Thence North 01 degrees 17 minutes 17 seconds West a distance of 176.23 feet; Thence North 49 degrees 22 minutes 53 seconds West a distance of 66.84 feet to a point on the South boundary of said Wickenburg Inn Tennis and Guest Ranch;

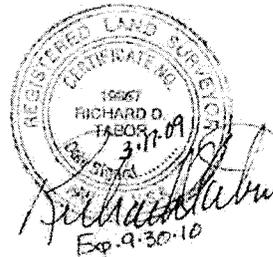
Thence along said Boundary, South 62 degrees 23 minutes 49 seconds West a distance of 135.52 feet (record South 62 degrees 23 minutes 50 seconds West); Thence North 61 degrees 23 minutes 09 seconds West a distance of 972.18 feet (record North 61 degrees 23 minutes 10 seconds West a distance of 972.26 feet); Thence North 12 degrees 35 minutes 40 seconds West a distance of 1051.68 feet (record North 12 degrees 37 minutes 10 seconds West a distance of 1051.93 feet), to the TRUE POINT OF BEGINNING.

EXCEPT all minerals and all Uranium, Thorium, or any other Materials which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America.

(WWTP 2008 Site)

AND EXCEPTING That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.



Parcel 3  
WR Wastewater, Service Area  
3-17-09

# **EXHIBIT 8**



November 15, 2010  
Mr. Robert Bott  
Arizona Public Service  
Land Services  
P.O. Box 53933, MS 3016  
Phoenix, Arizona 85072-3933

Dear Bob:

As you know, the landowner of Wickenburg Ranch recently dedicated one acre of land, parcel no. 201-02-158T, to Arizona Public Service Company ("APS") for the Flores Substation. Pursuant to Arizona Corporation Commission ("Commission") rule R14-2-602, any person applying for a Certificate of Convenience and Necessity ("CC&N") must provide written notice to all landowners within the proposed service area of the application.

Wickenburg Ranch Wastewater, LLC ("WRW") intends to submit to the Commission an application for authority to provide sewer service for Wickenburg Ranch (see enclosed map and legal description) on or after November 16, 2010. The above-described land owned by APS is within this proposed service area. If the application is granted, WRW will be the exclusive provider of wastewater service within the area and will be required by the Commission to provide those services under rates and charges and terms and conditions established by the Commission. The CC&N does not prohibit persons from providing services only to themselves using their own facilities on their own property although other applicable laws may restrict such activity.

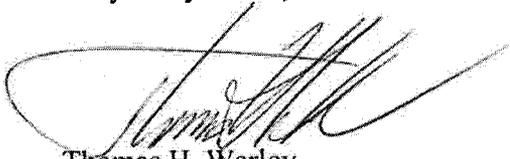
Once filed, the application will be available for inspection during regular business hours at the offices of the Commission at 1200 West Washington Street, Phoenix, Arizona 85007, and at Wickenburg Ranch Wastewater, LLC, c/o M3 Companies, 4222 East Camelback Road, Suite H-100, Phoenix, Arizona 85018. The Commission will hold a hearing on the application. APS may have the right to intervene in the proceeding and may appear at the hearing and make a statement on its behalf even if APS does not intervene. You may contact the Commission for the date and time of the hearing and for information on intervention. You may not receive any further notice of the application proceeding unless requested.

If you want to: (a) obtain a copy of the application; (b) have any questions or concerns about this application; make a statement in support of the application; or (d) object to the approval of the application, you may contact Wickenburg Ranch Wastewater management, whose contact information is below:

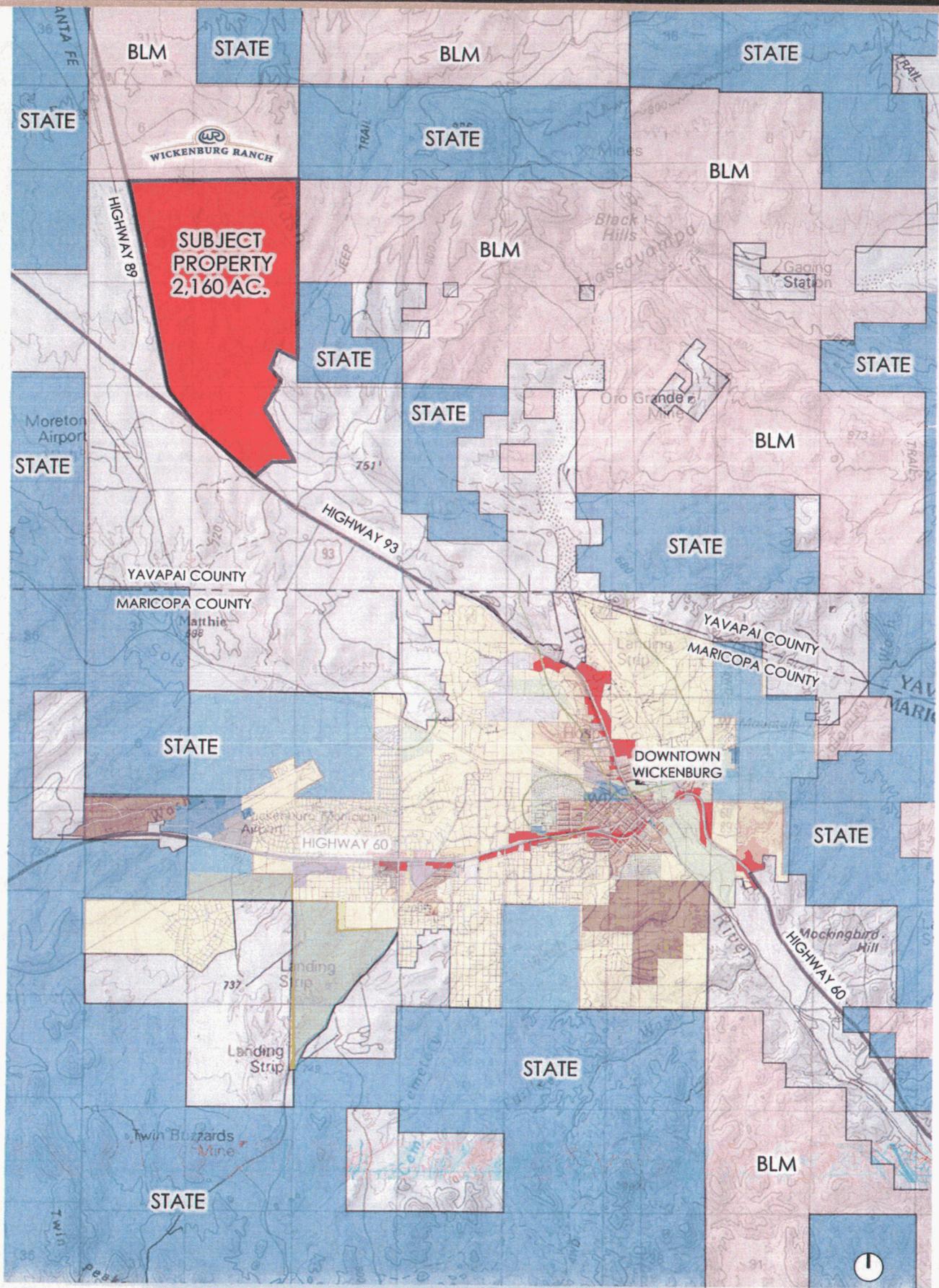
**Bill Brownlee  
M3 Builders, LLC  
4222 E. Camelback Road  
Suite H100  
Phoenix, Arizona 85018  
602-386-1307**

You may also contact the Consumer Services Section of the Commission at 1200 West Washington Street, Phoenix, Arizona 85007 or call 1-800-222-7000.

Very Truly Yours,

A handwritten signature in black ink, appearing to read 'Thomas H. Warley', with a large, sweeping flourish extending to the left.

Thomas H. Warley  
Development Manager  
M3 Builders, LLC



## VICINITY MAP



EXHIBIT 1

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No 1

All that portion of Sections 7, 8, 17 and 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Northeast Corner of said Section 7, point also being the Northwest corner of said Section 8;  
Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8;  
Thence South 17 degrees 27 minutes 50 seconds East, 913.00 feet;  
Thence South 20 degrees 28 minutes 12 seconds East, 802.26 feet;  
Thence South 39 degrees 20 minutes 49 seconds East, 1119.67 feet;  
Thence South 17 degrees 52 minutes 53 seconds East, 402.20 feet;  
Thence South 12 degrees 51 minutes 26 seconds West, 249.52 feet;  
Thence South 01 degrees 07 minutes 38 seconds West, 411.79 feet;  
Thence South 23 degrees 07 minutes 02 seconds East, 236.98 feet;  
Thence South 38 degrees 58 minutes 00 seconds East, 329.01 feet;  
Thence South 54 degrees 59 minutes 00 seconds East, 1101.16 feet;  
Thence South 13 degrees 43 minutes 16 seconds West, 1068.17 feet to a point from which the South Quarter corner of said Section 8 bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;  
Thence North 85 degrees 04 minutes 37 seconds West, 417.23 feet;  
Thence North 74 degrees 12 minutes 30 seconds West, 384.82 feet;  
Thence North 85 degrees 59 minutes 26 seconds West, 252.71 feet;  
Thence South 87 degrees 41 minutes 42 seconds West, 678.82 feet;  
Thence North 78 degrees 08 minutes 06 seconds West, 799.05 feet;  
Thence North 69 degrees 14 minutes 01 seconds West, 601.69 feet to a point from which the corner common to said Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;  
Thence South 06 degrees 07 minutes 06 seconds West, 642.74 feet;  
Thence South 23 degrees 44 minutes 04 seconds East, 565.53 feet;  
Thence South 05 degrees 31 minutes 57 seconds West, 817.18 feet;  
Thence South 11 degrees 54 minutes 27 seconds West, 1042.85 feet;  
Thence South 74 degrees 13 minutes 56 seconds West, 437.84 feet;  
Thence South 82 degrees 21 minutes 15 seconds West, 62.17 feet;  
Thence North 78 degrees 05 minutes 33 seconds West, 964.58 feet to a point on the East right-of-way of United States Highway 89;  
Thence North 10 degrees 49 minutes 30 seconds West, 7191.87 feet along the said East right-of-way to a point on a tangent curve concave to the West and having a radius of 11,510.00 feet and a center point which bears South 79 degrees 06 minutes 51 seconds West;

Thence continuing along said curve through a central angle of 02 degrees 43 minutes 45 seconds and an arc length of 548.27 feet;

Thence North 13 degrees 31 minutes 56 seconds West, 496.30 feet along the East right-of-way to a point on the North line of said Section 7;

Thence South 89 degrees 59 minutes 56 seconds East, 925.02 feet along the said North line to the North Quarter corner of said Section 7;

Thence South 89 degrees 56 minutes 00 seconds East, 2368.78 feet to the Northeast corner of said Section 7 and the POINT OF BEGINNING.

EXCEPTING there from that portion of the Southeast quarter of the Northwest (SE ¼, NW ¼) of Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at an aluminum cap marking the West quarter corner of said Section 7 from which a rebar marking the East quarter corner of said Section 7 bears South 89 degrees 06 minutes 17 seconds East, 5288.84 feet;

Thence along the East-West mid section line of said Section 7, South 89 degrees 06 minutes 17 seconds East 2483.49 feet to the existing right of way centerline of State Route 89 (Wickenburg-Prescott Highway);

Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 144.20 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the said existing Easterly right of way line of said State Route 89 and the Point of Beginning;

Thence South 55 degrees 18 minutes 52 seconds East 29.70 feet;

Thence South 10 degrees 18 minutes 52 seconds East, 50.00 feet;

Thence South 33 degrees 21 minutes 12 seconds West 30.41 feet to said existing Easterly right of way line of said State Route 89;

Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 93.00 feet to the Point of Beginning.

AND EXCEPTING that portion of the Southwest quarter of the Southeast quarter (SW ¼, Se ¼) of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, described as follows;

COMMENCING at a rebar marking the South quarter corner of said Section 7 from which a marked stone marking the Southeast corner of said Section 7 bears South 89 degrees 32 minutes 23 seconds East 2643.46 feet;

Thence along the South line of said Section 7 South 89 degrees 32 minutes 23 seconds East 347.08 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89 North 10 degrees 18 minutes 52 seconds West 898.02 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to the existing right of way line State Route 89 and the Point of Beginning;

Thence South 55 degrees 18 minutes 52 seconds East 7.07 feet;

Thence South 10 degrees 18 minutes 52 seconds East 76.00 feet;

Thence South 34 degrees 41 minutes 08 seconds West 7.07 feet to said existing Easterly right of way line of State Route 89;  
Thence along said existing Easterly right of way line of State Route 89 North 10 degrees 18 minutes 52 seconds West 86.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northwest quarter of the Northeast quarter (NW ¼, NE ¼) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a marked stone marking the Northeast corner of said Section 18 from which a rebar marking the North quarter corner of said Section 18 bears North 89 degrees 35 minutes 35 seconds West 2643.46 feet;  
Thence along the North line of said Section 18, North 89 degrees 35 minutes 33 seconds West, 2296.38 feet to said existing right of way centerline of State Route 89;  
Thence along said existing right of way centerline of said State Route 89, South 10 degrees 18 minutes 52 seconds East 616.98 feet;  
Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of said State Route 89 and the Point of beginning;  
Thence South 55 degrees 18 minutes 52 seconds East 24.04 feet;  
Thence South 10 degrees 18 minutes 52 seconds East 20.00 feet;  
Thence South 34 degrees 41 minutes 08 seconds West 24.04 feet to said existing right of way line of said State Route 89;  
Thence along said existing Easterly right of way line of State Route 89, North 10 degrees 18 minutes 52 seconds West 54.00 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(Reservoir Site 2008)

AND EXCEPT that portion of the Northwest quarter of said Section 7, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the North quarter corner of said Section 7;  
Thence North 89 degrees 59 minutes 56 seconds West along the North line of said Northwest quarter a distance of 476.65 feet to the TRUE POINT OF BEGINNING;  
Thence South 00 degrees 00 minutes 00 seconds East, leaving said North line a distance of 193.27 feet;  
Thence South 75 degrees 41 minutes 21 seconds East a distance of 318.69 feet to a point on a curve the radius of which bears South 45 degrees 19 minutes 13 seconds East a distance of 42.50 feet;

Thence Southerly along the arc of said curve through a central angle of 41 degrees 35 minutes 32 seconds a distance of 30.85 feet;

Thence North 75 degrees 18 minutes 54 seconds West, leaving said curve a distance of 308.93 feet;

Thence South 16 degrees 29 minutes 36 seconds West a distance of 65.66 feet;

Thence South 00 degrees 00 minutes 00 seconds East a distance of 21.39 feet to the

TRUE POINT OF BEGINNING;

Thence continuing South 00 degrees 00 minutes 00 seconds East a distance of 224.22 feet;

Thence South 76 degrees 45 minutes 28 seconds West a distance of 141.74 feet;

Thence North 58 degrees 42 minutes 37 seconds West a distance of 98.50 feet;

Thence North 13 degrees 31 minutes 56 seconds West a distance of 211.40 feet;

Thence North 90 degrees 00 minutes 00 seconds East a distance of 271.61 feet, to the TRUE POINT OF BEGINNING.

(Well 4 site 2008)

AND EXCEPT That portion of the Southeast quarter of Section 7, of Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter Corner of said Section 7, from which the Southeast corner of said Section 7, bears South 00 degrees 00 minutes 08 seconds West a distance of 2641.48 feet;

Thence South 89 degrees 06 minutes 17 seconds East along the North line of said Southeast quarter a distance of 2468.03 feet;

Thence South 00 degrees 53 minutes 43 seconds West leaving said North line a distance of 663.59 feet to the TRUE POINT OF BEGINNING;

Thence North 83 degrees 04 minutes 35 seconds East a distance of 76.74 feet, to a point on a curve the radius of which bears South 83 degrees 04 minutes 35 seconds West a distance of 784.00 feet;

Thence Southerly along the arc of said curve through a central angle of 09 degrees 11 minutes 41 seconds a distance of 125.82 feet to a point of tangency;

Thence South 02 degrees 16 minutes 16 seconds West a distance of 28.78 feet;

Thence North 87 degrees 43 minutes 44 seconds West a distance of 52.84 feet;

Thence North 10 degrees 49 minutes 30 seconds West a distance of 145.58 feet to the TRUE POINT OF BEGINNING.

Parcel 1

WR Wastewater, Service Area

3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No 2

All that portion of Sections 7, 8, 17, 18, 19, 20 and 21, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

Commencing at the Northwest Corner of said Section 8, point also being the Northeast corner of said Section 7;

Thence North 89 degrees 58 minutes 15 seconds East, 639.21 feet along the North line of said Section 8 to the POINT OF BEGINNING;

Thence continuing North 89 degrees 58 minutes 15 seconds East, 4633.71 feet to the Northeast corner of said Section 8;

Thence South 00 degrees 05 minutes 03 seconds East, 2642.77 feet to the East quarter corner of said Section 8;

Thence South 00 degrees 01 minutes 00 seconds East, 2643.56 feet to the South east corner of said Section 8, point also being the northeast corner of said Section 17;

Thence South 00 degrees 00 minutes 39 seconds East, 3940.42 feet;

Thence North 63 degrees 02 minutes 31 seconds West, 1071.34 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 432.62 feet;

Thence North 42 degrees 25 minutes 18 seconds West, 173.13 feet;

Thence North 07 degrees 17 minutes 47 seconds West, 783.65 feet;

Thence North 05 degrees 50 minutes 06 seconds West, 1558.35 feet;

Thence North 86 degrees 37 minutes 10 seconds West, 2501.12 feet;

Thence South 10 degrees 26 minutes 30 seconds East, 1885.29 feet;

Thence South 12 degrees 35 minutes 38 seconds East, 1051.68 feet;

Thence South 61 degrees 23 minutes 09 seconds East, 972.18 feet;

Thence North 62 degrees 23 minutes 49 seconds East, 135.52 feet;

Thence South 49 degrees 22 minutes 53 seconds East, 66.84 feet;

Thence South 01 degrees 17 minutes 16 seconds East, 176.23 feet;

Thence South 23 degrees 00 minutes 31 seconds West, 142.25 feet;

Thence South 20 degrees 51 minutes 27 seconds West, 70.97 feet;

Thence South 15 degrees 04 minutes 21 seconds West, 231.46 feet;

Thence South 06 degrees 02 minutes 25 seconds West, 150.25 feet;

Thence South 03 degrees 24 minutes 22 seconds East, 175.23 feet;

Thence South 35 degrees 59 minutes 53 seconds East, 291.77 feet;

Thence South 61 degrees 34 minutes 03 seconds East, 135.59 feet;

Thence North 86 degrees 33 minutes 04 seconds East, 303.77 feet;

Thence North 64 degrees 28 minutes 47 seconds East, 159.98 feet;

Thence North 20 degrees 06 minutes 58 seconds East, 540.85 feet;

Thence South 39 degrees 08 minutes 40 seconds East, 821.85 feet;

Thence South 29 degrees 01 minutes 10 seconds West, 1653.95 feet;

Thence South 29 degrees 47 minutes 42 seconds East, 3182.75 feet to a point on the line common to said Sections 20 and 21;

Thence South 89 degrees 58 minutes 04 seconds West, 1096.09 feet;

Thence South 51 degrees 09 minutes 49 seconds West, 1161.14 feet to a point on the East right-of-way of United States Highway 89 and a point on a non-tangent curve to the northeast and having a radius of 21,243.59 feet and a center point which bears North 38 degrees 50 minutes 07 seconds East;  
 Thence continuing along said curve through a central angle of 03 degrees 26 minutes 23 seconds and an arc length of 1275.14 feet;  
 Thence North 47 degrees 44 minutes 17 seconds West, 2961.13 feet along said right-of-way to a point from which the section corner common to Sections 17, 18, 19 and 20 bears North 03 degrees 37 minutes 04 seconds West, 1875.90 feet;  
 Thence North 38 degrees 48 minutes 50 seconds West, 1374.84 feet along said right-of-way to a point on a tangent curve to the Northeast and having a radius of 2810.00 feet and a center point which bears North 51 degrees 09 minutes 42 seconds East;  
 Thence continuing along said curve through a central angle of 28 degrees 02 minutes 55 seconds and an arc length of 1375.61 feet;  
 Thence North 10 degrees 49 minutes 30 seconds West, 2087.00 feet along said right-of-way;  
 Thence South 78 degrees 05 minutes 33 seconds East, 964.58 feet;  
 Thence North 82 degrees 21 minutes 15 seconds East, 62.17 feet;  
 Thence North 74 degrees 13 minutes 56 seconds East, 437.84 feet to a point from which the East Quarter corner of said Section 18, bears North 44 degrees 24 minutes 42 seconds East, 402.14 feet;  
 Thence North 11 degrees 54 minutes 27 seconds East, 1042.85 feet;  
 Thence North 05 degrees 31 minutes 57 seconds East, 817.18 feet;  
 Thence North 23 degrees 44 minutes 04 seconds West, 565.53 feet;  
 Thence North 06 degrees 07 minutes 06 seconds East, 642.74 feet to a point from which the Section corner common to Sections 7, 8, 17 and 18, bears South 50 degrees 33 minutes 43 seconds East, 192.62 feet;  
 Thence South 69 degrees 14 minutes 01 seconds East, 601.69 feet;  
 Thence South 78 degrees 08 minutes 06 minutes East, 799.05 feet;  
 Thence North 87 degrees 41 minutes 42 seconds East, 678.82 feet;  
 Thence South 85 degrees 59 minutes 26 seconds East, 252.71 feet;  
 Thence South 74 degrees 12 minutes 30 seconds East, 384.82 feet;  
 Thence South 85 degrees 04 minutes 37 seconds East, 417.23 feet to a point from which the South Quarter corner of said Section 8, bears North 34 degrees 30 minutes 42 seconds West, 471.28 feet;  
 Thence North 13 degrees 43 minutes 16 seconds East, 1068.17 feet;  
 Thence North 54 degrees 59 minutes 00 seconds West, 1101.16 feet;  
 Thence North 38 degrees 58 minutes 00 seconds West, 329.01 feet;  
 Thence North 23 degrees 07 minutes 02 seconds West, 236.98 feet;  
 Thence North 01 degrees 07 minutes 38 seconds East, 411.79 feet;  
 Thence North 12 degrees 51 minutes 26 seconds East, 249.52 feet;  
 Thence North 17 degrees 52 minutes 53 seconds West, 402.20 feet;  
 Thence North 39 degrees 20 minutes 49 seconds West, 1119.67 feet;  
 Thence North 20 degrees 28 minutes 12 seconds West, 802.26 feet;  
 Thence North 17 degrees 27 minutes 50 seconds West, 913.00 feet to the POINT OF BEGINNING.

EXCEPTING there from that portion of the West half of the Southeast quarter (W1/2 SE 1/4) of Section 18, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows:

COMMENCING at a rebar marking the West quarter corner of said Section 18 being North 89 degrees 29 minutes 14 seconds West 5285.91 feet from the unmonumented East quarter corner of said Section 18 said unmonumented corner being South 00 degrees 33 minutes 47 seconds West 65.85 feet from a stone marked "1/4 W.C." marking the witness monument to said East quarter corner;

Thence along the East-West mid section line of said Section 18 South 89 degrees 29 minutes 14 seconds East 3495.54 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89 South 10 degrees 18 minutes 52 seconds East 1324.17 feet;

Thence North 79 degrees 41 minutes 08 seconds East 50.00 feet to said existing Easterly right of way line of State Route 89 and the Point of Beginning;

Thence North 34 degrees 41 minutes 08 seconds East 70.71 feet;

Thence North 10 degrees 18 minutes 52 seconds West 97.00 feet;

Thence South 79 degrees 41 minutes 08 seconds West 50.00 feet to said existing Easterly right of way line of State Route 89;

Thence along existing right of way line of State Route 89 South 10 degrees 18 minutes 52 seconds East 147.00 feet to the Point of Beginning;

AND EXCEPTING that portion of the Northeast quarter of the Northeast quarter (NE 1/4 NE 1/4) of Section 19, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, conveyed to the State of Arizona in Deed recorded in Book 4159 of Official Records, Page 828, records of Yavapai County, Arizona, described as follows;

COMMENCING at a 1/2 inch stainless steel rod with an aluminum cap marking the Northeast corner of said Section 19 from which a marked stone marking the North quarter corner of said Section 19 bears North 89 degrees 27 minutes 57 seconds West, 2641.50 feet;

Thence along the North line of said Section 19 North 89 degrees 27 minutes 57 seconds West 1249.77 feet to said existing right of way centerline of State Route 89;

Thence along said existing right of way centerline of State Route 89, from a local tangent bearing of South 10 degrees 18 minutes 52 seconds East, along a curve to the left, having a radius of 2865.00 feet a length of 748.40 feet;

Thence North 55 degrees 53 minutes 23 seconds East 50.00 feet to said Easterly right of way line of said State Route 89 and the Point of Beginning;

Thence North 11 degrees 48 minutes 05 seconds East 37.76 feet;

Thence North 33 degrees 21 minutes 37 seconds West 20.44 feet;

Thence North 79 degrees 36 minutes 45 seconds West, 37.09 feet to said existing Easterly right of way line of State Route 89;

Thence along said existing Easterly right of way line of State Route 89 from a local tangent bearing of South 32 degrees 37 minutes 50 seconds East along a curve to the left having a radius of 2815.00 feet, length of 72.71 feet to the Point of Beginning;

AND EXCEPT all minerals and all uranium, thorium, or any other material which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America, recorded in Book 192 of Deeds, Page 423 and in Book 10 of Official Records, Page 406, records of Yavapai County, Arizona.

(WWTP 2008)

AND EXCEPT That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.

(Lift Station Site 2008)

AND EXCEPT That portion of the Northeast quarter of Section 20, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the East quarter corner of said Section 20;  
Thence South 89 degrees 58 minutes 26 seconds West along the South line of said Northeast quarter, a distance of 2352.09 feet;  
Thence North 00 degrees 01 minutes 34 seconds West leaving said South line a distance of 680.23 feet to the TRUE POINT OF BEGINNING;  
Thence South 87 degrees 44 minutes 44 seconds West distance of 60.00 feet;  
Thence North 02 degrees 15 minutes 16 seconds West a distance of 85.00 feet;  
Thence North 87 degrees 44 minutes 44 seconds East a distance of 60.00 feet;  
Thence South 02 degrees 15 minutes 16 seconds East a distance of 85.00 feet to the TRUE POINT OF BEGINNING.

Parcel 2  
WR Wastewater, Service Area  
3-17-09

Wickenburg Ranch Wastewater, LLC  
Service Area Legal Description  
Parcel No. 3

All that portion of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

BEGINNING at the Southwest corner of said Section 17, from which the Northwest corner bears North 00 degrees 02 minutes 17 seconds East a distance of 5281.72 feet; Thence North 33 degrees 08 minutes 10 seconds East a distance of 3560.09 feet to the TRUE POINT OF BEGINNING, said point being on the West boundary of "The Wickenburg Inn Tennis and Guest Ranch" recorded in Book 17 of Maps, Page 18, records of Yavapai County, Arizona;

Thence along said boundary, North 10 degrees 26 minutes 30 seconds West a distance of 1885.29 feet (record North 10 degrees 25 minutes 50 seconds West, 1885.15 feet); Thence South 86 degrees 37 minutes 10 seconds East a distance of 2501.12 feet (record South 86 degrees 37 minutes 21 seconds East a distance of 2501.02 feet); Thence South 05 degrees 50 minutes 06 seconds East a distance of 1558.35 feet (record South 05 degrees 50 minutes 05 seconds East a distance of 1558.42 feet); Thence South 07 degrees 17 minutes 47 seconds East a distance of 783.65 feet (record South 07 degrees 17 minutes 30 seconds East); Thence leaving said boundary, South 42 degrees 25 minutes 18 seconds East a distance of 173.13 feet;

Thence South 20 degrees 06 minutes 58 seconds West a distance of 1979.10 feet; Thence South 64 degrees 28 minutes 47 seconds West a distance of 159.98 feet; Thence South 86 degrees 33 minutes 04 seconds West a distance of 303.77 feet; Thence North 61 degrees 34 minutes 03 seconds West a distance of 135.59 feet; Thence North 35 degrees 59 minutes 53 seconds West a distance of 291.77 feet; Thence North 03 degrees 24 minutes 22 seconds West a distance of 175.23 feet; Thence North 06 degrees 02 minutes 25 seconds East a distance of 150.25 feet; Thence North 15 degrees 04 minutes 21 seconds East a distance of 231.46 feet; Thence North 20 degrees 51 minutes 27 seconds East a distance of 70.97 feet; Thence North 23 degrees 00 minutes 31 seconds East a distance of 142.25 feet; Thence North 01 degrees 17 minutes 17 seconds West a distance of 176.23 feet; Thence North 49 degrees 22 minutes 53 seconds West a distance of 66.84 feet to a point on the South boundary of said Wickenburg Inn Tennis and Guest Ranch;

Thence along said Boundary, South 62 degrees 23 minutes 49 seconds West a distance of 135.52 feet (record South 62 degrees 23 minutes 50 seconds West); Thence North 61 degrees 23 minutes 09 seconds West a distance of 972.18 feet (record North 61 degrees 23 minutes 10 seconds West a distance of 972.26 feet); Thence North 12 degrees 35 minutes 40 seconds West a distance of 1051.68 feet (record North 12 degrees 37 minutes 10 seconds West a distance of 1051.93 feet), to the TRUE POINT OF BEGINNING.

EXCEPT all minerals and all Uranium, Thorium, or any other Materials which is or may be determined to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, as reserved in Patent from United States of America.

(WWTP 2008 Site)

AND EXCEPTING That portion of the Southeast quarter of Section 17, Township 8 North, Range 5 West of the Gila and Salt River Base and Meridian, Yavapai County, Arizona, more particularly described as follows:

COMMENCING at the Southeast corner of said Section 17;  
Thence North 89 degrees 55 minutes 20 seconds West along the South line of said southeast quarter of Section 17, a distance of 1621.90 feet;  
Thence North 00 degrees 04 minutes 40 seconds East leaving said South line a distance of 309.24 feet to the TRUE POINT OF BEGINNING;  
Thence South 90 degrees 00 minutes 00 seconds West a distance of 424.78 feet;  
Thence North 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet;  
Thence North 90 degrees 00 minutes 00 seconds East a distance of 424.78 feet;  
Thence South 00 degrees 00 minutes 00 seconds East a distance of 164.42 feet to the TRUE POINT OF BEGINNING.



Parcel 3  
WR Wastewater, Service Area  
3-17-09

# **EXHIBIT 9**

CW-4  
ATTACHMENT "D"

SEWER TARIFF SCHEDULE

UTILITY: WICKENBURG RANCH WASTEWATER, LLC

PAGE 1 OF 1

RATES AND CHARGES

FLAT RATE

Residential \$ N/A Per Month

Commercial \$ N/A Per Month

BASED ON WATER USAGE

Residential Minimum	\$ 70.00	For	-	Gallons
Commodity Rate	<u>2.00</u>	Per	<u>1,000</u>	Gallons
Commercial Minimum	\$ 70.00	For	-	Gallons
Commodity Rate	<u>3.50</u>	Per	<u>1,000</u>	Gallons

EFFLUENT SALES:

\$ 0.86 PER 1,000 Gallons

SERVICE LINE CONNECTION CHARGE \$ 350

SERVICE CHARGES:

1. Establishment (R14-2-603.D.1)	\$ 50.00
2. Establishment (After Hours) (R14-2-603.D.1)	60.00
3. Re-Establishment (within 12 mos) (R14-2-603.D.1)	(a)
4. Reconnection/Delinquent (R14-2-603.D.1)	\$ 60.00
5. Reconnection/Delinquent (after hours) (R14-2-603.D.1)	70.00
6. NSF Check (R14-2-608.E.1)	25.00
7. Deposit (R14-2-603.B.7)	(b)
8. Deposit Interest (R14-2-603.B.3)	2.00%
9. Late Payment Penalty (R14-2-608.F.1)	(c)

*In addition to the collection of regular rates, each utility may collect from its customers a proportionate share of any privilege, sales or use tax, or other imposition based on the gross revenues received by the utility, per Commission rule R14-2-608.D.5.*

- (a) Months off the system times the monthly minimum. (R14-2-603.D.1)
- (b) **Residential** - two times the average bill. **Non-residential** - two and one-half times the average bill. (R14-2-603.B.7)
- (c) 1.5% of the unpaid balance or \$5.00, whichever is greater. (R14-2-608.F.1)

# **EXHIBIT 10**



OFFICE OF THE  
**PUBLIC WORKS DEPARTMENT**  
Road Division   Engineering Division   Solid Waste Division   Emergency Management  
1100 Commerce Drive  
Prescott, Arizona 86305  
Phone (928) 771-3183  
FAX (928) 771-3167

Phil Bourdon  
Director

EXHIBIT 5

April 22, 2009

Mr. Thomas H. Warley  
Development Manager  
M3 Builders, LLC  
4222 E. Camelback Road, Suite H100  
Phoenix AZ 85018

Subject: Wickenburg Ranch Wastewater, LLC – Application for Sewer Franchise

Dear Mr. Warley:

Pursuant to our telephone conversation on April 22, 2009, I'm returning the letter requesting a sewer franchise for the above referenced project along with the application and voided check. The roads in Wickenburg Ranch and the adjacent service area are not under County jurisdiction; as such, a sewer franchise agreement is not required.

If you have any questions or comments regarding this matter, please contact me or Laura Bunn at 928-771-3183. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Huot".

Joe Huot  
Special Projects Manager

JH:wickenburgbranch

cc: Foster Thrift, Development Review Engineer  
Laura Bunn, Administrative Aide



April 17, 2009

Mr. Foster Thrift  
Development Review Engineer  
Yavapai County Planning and Zoning  
500 S. Marina St.  
Prescott, AZ 86303

**Subject: Wickenburg Ranch Wastewater, LLC - Application for Sewer Franchise**

Dear Mr. Thrift:

On Behalf of Wickenburg Ranch Wastewater, LLC, please find the documents attached and outlined below, for the Sewer Franchise application for Wickenburg Ranch.

1. Check in the amount of \$250, payable to the Yavapai County Board of Supervisors.
2. Application.
3. Franchise Agreement.
  - a. Please note a change was made in Paragraph 12. The amount of time to procure a Certificate of Convenience and Necessity from the Arizona Corporation Commission was extended to one (1) year, as opposed to six (6) months, due to the current Arizona Corporation Commission review time.
4. Financial Statement.
5. Legal Description.
6. Map of proposed service area.

If you have any questions or comments, please contact me at 602-386-1317.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas H. Warley", is written over a large, stylized oval graphic.

Thomas H. Warley  
Development Manager  
M3 Builders, LLC

CC: Bill Brownlee  
Steve Wene

*4222 E. Camelback Road, Suite H100, Phoenix Arizona 85018 Phone (602) 386-1325 Fax (602) 386-1315*

**YAVAPAI COUNTY, ARIZONA  
APPLICATION FOR WATER/SEWER FRANCHISE**

Applicant Information

Applicant's Name: Wickenburg Ranch Wastewater, LLC  
Address: 4222 East Camelback H100 City Phoenix State Arizona Zip 85018  
Telephone: 602-386-1325 Emergency Telephone: 602-604-2189

Person(s) who will operate the system, if other than applicant:

Name: Peter Chan  
Address: 4535 East Broadway Road City Phoenix State Arizona Zip 85040  
Telephone: 602-454-9100 Emergency Telephone: 602-604-2189

Is applicant a partnership or joint venture? NO If the answer is yes, please supply the names and addresses of at least two partners:

Name: \_\_\_\_\_  
Home Address: \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Business Address: \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Business Telephone: \_\_\_\_\_ Home Telephone: \_\_\_\_\_

Name: \_\_\_\_\_  
Home Address: \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Business Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Business Telephone: \_\_\_\_\_ Home Telephone: \_\_\_\_\_

Is applicant a corporation? \_\_\_\_\_ If the answer is yes, please attach a copy of the most recent annual report filed with the Arizona Corporation Commission.

Does the applicant have an existing or proposed agreement with anyone proposing to have an ownership interest in the franchise? NO If the answer is yes, please attach a statement setting forth the name(s) and address(es) of the person(s) with such ownership interest, and a copy of the agreement.

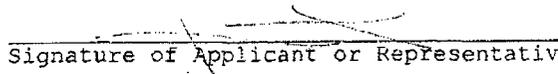
What is the applicant's experience in providing service for the utility for which applicant is applying for a franchise? Wickenburg Ranch Wastewater, LLC ("Company") is managed by M3 Companies, which is primarily responsible for utility planning, construction, and operations. M3 Companies managers have been active in Arizona real estate for more than two decades, including the construction and operation of wastewater systems such as the American Ranch Domestic Water Improvement District wastewater system. Peter Chan of GHD, Inc. will operate the system. Chan is certified to operate both collection and treatment systems. His design, retrofit, and start-up operation experience includes the Arrowhead Ranch, Gold Canyon, and Quintero Water Reclamation Facility projects.

How many people do you anticipate serving with this utility? At full build-out, Wickenburg Ranch will have 1,724 homes, 600 multi-family units, and commercial facilities.

Please attach to this application:

- (1) A financial statement showing the applicant's financial status and financial ability to complete the construction and installation and operate the utility.
- (2) A legal description of the proposed service area.
- (3) A map of the proposed service area (must adhere to the legal description), with location of equipment clearly marked and parcel numbers provided for parcels on which equipment is located.
- (4) A check payable to the Yavapai County Board of Supervisors in the amount of \$250. This is a non-refundable application fee.

I certify that the information contained in this application is true and accurate.

  
\_\_\_\_\_  
Signature of Applicant or Representative

\_\_\_\_\_  
Date

4/2/09

BEFORE THE BOARD OF SUPERVISORS  
OF  
YAVAPAI COUNTY, ARIZONA

In the Matter of Wickenburg  
Ranch Wastewater, LLC for a  
Sewer Franchise

FRANCHISE

WHEREAS, Wickenburg Ranch Wastewater, LLC filed its application pursuant to A.R.S. §40-283, for a franchise to construct and/or maintain and operate sewer lines for a period of fifteen (15) years, along, upon, under and across public highways, roads, alleys and thoroughfares (excepting State Highways) within that portion of Yavapai County, Arizona, described as follows:

EXHIBIT A

and that said area described in Exhibit A above is not within the limits of any incorporated city or town, and,

WHEREAS, this is the time and place set for hearing of said application and due and regular notice was given by publication of notice once a week for three consecutive weeks prior to this time of hearing and proof of publication has been filed herein, and

WHEREAS, all protests to granting such application have been considered, the Board of Supervisors of Yavapai County, Arizona, hereby grants to the Wickenburg Ranch Wastewater, LLC the right, privilege, license and franchise to construct, maintain and operate sewer collection systems for a period of fifteen (15) years from the date hereof, along, upon, under and across the public highways of Yavapai County, Arizona, within the above described area of Yavapai County, which area is not within the limits of any incorporated city or town, upon the following terms and conditions:

**RESTRICTIONS AND LIMITATIONS**

1. All rights and privileges hereunder are granted under the express condition that the Board of Supervisors shall have the power at any time to impose such additional and further restrictions and limitations and to make such regulations on such highways, roads, thoroughfares, alleys, and public ways as may be deemed best for the public safety, welfare and convenience. No

construction of improvements within a County road right-of-way shall be made without a permit from the Yavapai County Engineer first being obtained.

2. Yavapai County ("Grantor") will notify Wickenburg Ranch Wastewater, LLC ("Grantee") if Grantor determines that any lines are located at a depth which interferes with road maintenance. Any such lines shall be buried at a sufficient depth upon receipt of notice. In the event that sewer lines must be relocated due to road construction or because of inadequate depth, the Grantee shall bear the cost of such relocation.

3. All rights and privileges hereunder shall be exercised so as to not interfere or conflict with any easements or rights-of-way heretofore granted by said Board of Supervisors and now in force.

4. All equipment and facilities constructed, installed, erected, used and maintained under this franchise shall in all respects be adequate, sufficient and substantial in design and workmanship and shall be so located, erected and maintained so as not to interfere with the free and full use and enjoyment of the public and so not to endanger life or property.

5. All rights and privileges hereunder shall be exercised so as not to interfere or conflict with any easement, either public or private, of whatsoever nature, which has been acquired in or to the proper use of said highways, roads, thoroughfares, alleys and public ways, or any portion thereof.

6. Grantee shall bear all expenses, including damages and compensation to any aggrieved third parties, incurred or expended for the alteration of the course, direction, surface, grade or alignment of any of the said highways, roads, thoroughfares, alleys, and public ways necessarily made by or for Grantee for the purpose of exercising any right under this franchise, and said Grantee shall indemnify and hold harmless the County of Yavapai and the Board of Supervisors thereof from any and all suits, claims, damages and judgments resulting from injuries to persons or property due to the placing, location and maintenance of equipment and facilities upon, in or under the provisions hereof. Grantee shall maintain its equipment and facilities at its own cost and expense and will make all necessary repairs from time to time as the same may be needed without the necessity of notice from Yavapai County.

7. The Grantee shall be required to secure and maintain in force for the duration of the franchise general comprehensive liability insurance insuring against all damages charged to the County or the Grantee resulting from the installation, development, maintenance or expansion of the Grantee's system, as follows:

(a) Five Hundred Thousand Dollars (\$500,000) for

bodily injury or death to any one person with an aggregate limit for any one occurrence of One Million Dollars (\$1,000,000) for bodily injury or death.

(b) Two Hundred Fifty Thousand Dollars (\$250,000) for property damage resulting from any one accident.

(c) Fifty Thousand Dollars (\$50,000) for all other types of liability.

Yavapai County, Arizona, shall be named on the aforesaid policy as a coinsured, or added thereon by endorsement as a named insured. A certificate of insurance as well as a copy of the policy shall be filed with the Public Works Director. The certificate shall provide that if the policy shall be cancelled by the insurance company or the Grantee during the term of the policy, ten (10) days written notice prior to the effective date of such cancellation shall be given the Public Works Director of Yavapai County, Arizona.

8. This franchise shall not be deemed to be exclusive and the Board of Supervisors hereby expressly reserves the right and power from time to time to grant similar franchises and privileges over the same territory and highways, roads, thoroughfares, alleys, and public ways.

9. Grantee certifies that all sewer operations shall be supervised by a duly authorized local operator, whose name, address, and phone number shall be kept in the records of the Public Works Director. Grantee shall notify the Public Works Director of any operator changes.

10. Grantee shall notify the Public Works Director of any assignment of this franchise, including assignee's name, address and phone number.

11. Grantee shall apply for renewal of this franchise not less than sixty (60) days prior to its expiration. In the event required notice, public hearings and official action cannot be taken prior to expiration due to no fault of Grantee, this franchise shall continue until final action by Grantor has been taken.

12. This franchise is granted upon the express condition subsequent that a Certificate of Convenience and Necessity be procured from the Arizona Corporation Commission within one year from the date of granting of this franchise; and if such Certificate is not granted within one year from said date, then this franchise to be void, otherwise to be in full force and effect for the time herein specified.

Dated: (Insert Date)

ATTEST:

\_\_\_\_\_  
Chairman, Board of Supervisors  
Supervisors

\_\_\_\_\_  
Clerk, Board of  
Supervisors

ACCEPTANCE OF LICENSE

TO: The Clerk of the Board of Supervisors of Yavapai County

Pursuant to the Order of the Board of Supervisors of Yavapai County dated the (Insert Date Here)

Wickenburg Ranch Wastewater, LLC

hereby accepts the license to construct and/or operate a sewer franchise within the authorized service area and under the terms specified in the license.

Dated this (Insert Date Here).

This franchise agreement shall expire on \_\_\_\_\_

By \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF ARIZONA     )  
                              ) ss.  
COUNTY OF YAVAPAI    )

SUBSCRIBED AND SWORN TO before me by \_\_\_\_\_  
this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_



April 2, 2009

Mr. Foster Thrift  
Yavapai County  
500 S. Marina St.  
Prescott, AZ 86303

RE: Wickenburg Ranch Water Reclamation Facility

Dear Mr. Thrift,

This letter is in regard to Wickenburg Ranch Wastewater, LLC and its financial ability to construct major capital infrastructure related to the Wickenburg Ranch Wastewater Treatment Plant.

Vanwick, LLC is the sole member and manager of Wickenburg Ranch Wastewater, LLC. Larry Van Tuyl is the sole member of Vanwick, LLC which is managed by VTwick, Inc. Mr. Van Tuyl is the president of VTwick, Inc.

In the past Chase Bank has participated with Mr. Van Tuyl and his related entities in financing \$30,000,000 for development activities. Chase Bank has had a satisfactory relationship with Mr. Van Tuyl and his related entities for over 25 years.

With respect to the financial resources necessary to construct the subject wastewater treatment plant for Wickenburg Ranch, Chase Bank can state that Wickenburg Ranch Wastewater, LLC and its affiliates have access to funds in an amount of not less than \$20,000,000.

Should you have any further questions regarding this matter, please feel free to contact me directly at 602-221-6379. Thank you.

Sincerely,

Bill Snodgrass  
Vice President and Relationship Manager  
Chase Bank  
201 N. Central Ave.  
Phoenix, AZ. 85004

# **EXHIBIT 11**

**YAVAPAI COUNTY****Development Services**

Prescott - (928) 771-3214 Fax (928) 771-3443  
 Cottonwood - (928) 639-8151 Fax (928) 639-8153

**Flood Control District**

Prescott - (928) 771-3197 Fax (928) 771-3427  
 Cottonwood - (928) 639-8151 Fax (928) 639-8118

500 S. Marina Street, Prescott, AZ 86303 and 10 S. 6<sup>th</sup> Street, Cottonwood, AZ 86326

Addressing - Building Safety - Customer Service & Permitting - Environmental - Flood Control District - Land Use - Planning & Design Review

**Construction Authorization  
 For Sewage Collection Facilities**

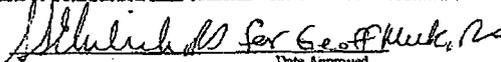
<b>Y. C. D. S.-E.U. File No:</b> A52008001385
<b>System Name:</b> Wickenburg Ranch Wastewater
<b>System Owner/Address:</b> Wickenburg Ranch Wastewater, LLC 4222 E. Camelback Rd., Suite H-100, Phoenix, AZ 85018
<b>Project Name:</b> Wickenburg Ranch Estates
<b>Project Owner/Address:</b> JVT Investors, LLC, C/O M3 Companies, LLC 4222 E. Camelback RD, Suite H100, Phoenix, AZ 85018
<b>Project Location:</b> Wickenburg, Arizona
<b>Project Description:</b> Construction of sewer lines to serve Wickenburg Ranch Estates

Approval to construct the above-described facilities, as represented in the approved plan documents on file at Yavapai County Development Services-Environmental Unit, is hereby subject to the following Provisions:

- ARV's will be added as appropriate to the low pressure sewer line.
- Sewage Treatment Facility Capacity Assurance document to be submitted before a Discharge Authorization will be issued.
- Discharge Authorization will not be issued until an Engineer's Certificate of Completion has been submitted to Arizona Department of Environmental Quality for the waste water treatment plant.
- Construction shall be in accordance with plans and specifications stamped "YCDS-EU Construction Authorization (Approval to Construct)", which are dated and signed by the authorized Environmental Unit staff.
- ~~Issuance of this "Approval to Construct" does not authorize construction in any County, Town, City or State road rights-of-way for this project. A separate permit may be required. Please contact the appropriate jurisdiction for this permit.~~

Provisions are continued on the attached pages.

In accordance with the Arizona Administrative Code Title 18, Chapter 9, Article 3, the permittee is granted a Construction Authorization for the above project. The state law, A. R. S. §49-104.b.10, requires that construction of the project must be in accordance with rule and regulations of Arizona Department of Environmental Quality. The permittee has two years from the approval date of this document to complete construction and submit the applicable verification documents specified in Arizona Administrative Code R18-9-Article 3. Construction shall conform with the record documents.

  
 Date Approved  
 Geoff Meek, RS Manager 6/27/08  
 Environmental Unit

cc: Y.C.D.S.-E.U. File No:  
 Project Owner:  
 System Owner:  
 Engineering Firm:  
 Public Works: Joe Hunt

- The Project Owner shall retain the services of a professional engineer before starting project construction to provide detailed construction inspection of this project.
- Upon completion of construction an applicant shall:
  - Supply a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that provides the following:
    - Confirmation that the project was completed in compliance with the requirements of this Chapter, as described in the plans and specifications corresponding to the Construction Authorization issued by the Director, or with changes that are reflected in as-built plans submitted with the Engineer's Certificate of Completion;
    - As-built plans, if required, that are properly identified and numbered; and
    - Satisfactory field test results from deflection, leakage, and uniform slope testing;
  - Provide any other relevant information required by the Department to determine that the facility conforms to the terms of the 4.01 General Permit; and
  - Provide a signed certification on a form approved by the Department that:
    - Confirms that an operation and maintenance manual exists for the sewage collection system;
    - Confirms that the operation and maintenance manual addresses components of operation and maintenance specified on the certification form;
    - Provides the 24-hour emergency number of the owner or operator of the sewage collection system; and
    - Provides an address where the operation and maintenance manual is maintained and confirms that the manual is available for inspection at that address by the Department on request.
- The Project Owner shall not begin operation of the newly constructed facility until a Discharge Authorization has been issued by the Department.
- Construction Authorization is based on plans submitted by SKG Enterprises, INC signed by Shakir K. Gushgari, PE and dated June 16, 2008.
- This approval does not supersede or eliminate the necessity of obtaining permits or approvals from other county, state or federal agencies or departments.
- Perform a deflection test of the total length of all sewer lines made of flexible materials to ensure that the installation meets or exceeds the manufacturer's recommendations and record the results;
- Test each segment of the sewer line for leakage using the applicable method below and record the results:
  - "Standard Test Method for Installation of Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air, F1417-92(1998)," published by the American Society for Testing and Materials;
  - "Standard Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Air Test Method, C924-02 (2002)," published by the American Society for Testing and Materials;
  - "Standard Test Method for Low-Pressure Air Test of Vitrified Clay Pipe Lines, C828-03 (2003)," published by the American Society for Testing and Materials;
  - "Standard Test Method for Hydrostatic Infiltration Testing of Vitrified Clay Pipe Lines, C1091-03a (2003)," published by the American Society for Testing Materials;
  - "Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines, C969-02 (2002)," published by the American Society for Testing Material; or
  - "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, D2321-00 (2000)," published by the American Society for Testing Materials; or
  - The material listed in subsections (D)(2)(f)(i) through (vi) is incorporated by reference and does not include any later amendments or editions of the incorporated material. Copies of the incorporated material are available for inspection at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, AZ 85007 or may be obtained from the American

Society for Testing and Materials International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959;

- Test the total length of the sewer line for uniform slope by lamp lighting, remote camera, or similar method approved by the Department, and record the results.
- Minimize the planting within the disturbed area of new sewage collection system construction of plant species having roots that are likely to reach and damage the sewer or impair the operation of the sewer or visual and vehicular access to any manhole.
- The applicant shall test each manhole using one of the following test protocols:
  - Watertightness testing by filling the manhole with water. The applicant shall ensure that the drop in water level following presoaking does not exceed 0.0034 of total manhole volume per hour.
  - Negative air pressure testing using the "Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test, C1244-02e1 (2002)," published by the American Society for Testing and Materials. This material is incorporated by reference, does not include any later amendments or editions of the incorporated material and may be viewed at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, AZ 85007, or obtained from the American Society for Testing and Materials International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959; or
  - Holiday testing of a lined manhole constructed with uncoated rebar using the "High-Voltage Electrical Inspection of Pipeline Coatings, RP0274-2004 (2004)," published by the National Association of Corrosion Engineers (NACE International). This material is incorporated by reference as modified below, does not include any later amendments or editions of the incorporated material and may be viewed at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, AZ 85007 or obtained from NACE International, 1440 South Creek Drive, Houston, Texas 77084-4906. The following substitutions apply:
    - Where the word "metal" is used in the standard, use the word "surface" instead; and
    - Where the words "pipe" or "pipeline" are used, use the word "manhole" instead.
- The applicant shall perform manhole testing after installation of the manhole cone or top riser to verify watertightness integrity of the manhole from the top of the cone or riser down.
  - Upon satisfactory test results, the applicant shall install the manhole ring and any spacers, complete the joints, and seal the manhole to a watertight condition.
  - If the applicant can install the manhole cone or top riser, spacers, and ring to final grade without disturbance or adjustment by later construction, the applicant may perform the testing from the top of the manhole ring on down.

# **EXHIBIT 12**

# ARIZONA DEPARTMENT OF WATER RESOURCES

**Office of Assured and Adequate Water Supply**  
3550 North Central Ave., 2<sup>nd</sup> Floor, Phoenix, Arizona 85012  
Telephone 602 771-8585  
Fax 602 771-8689



**Janet Napolitano**  
Governor

**Herbert R. Guenther**  
Director

February 11, 2008

CDC Wickenburg Water, LLC  
Jason Rowley, Esq.  
1550 E. Missouri Ave. Ste. 300  
Phoenix, AZ 85014

Re: Designation of Adequate Water Supply (DWR No. 40-700417.0000) CDC Wickenburg Water, LLC

Dear Mr. Rowley:

I am pleased to inform you that the Department of Water Resources has approved the application for a Designation of Adequate Water Supply for CDC Wickenburg Water. We have enclosed the formal Decision and Order. The Decision and Order includes an itemization of CDC Wickenburg Water's responsibilities in maintaining the Designation.

CDC Wickenburg Water's status as a designated water provider demonstrates that CDC Wickenburg Water is taking a long-term perspective in managing water resources. CDC Wickenburg Water's commitment to long term planning represents a major contribution to the State's water management goal.

If you have any questions regarding these documents, please contact me at (602) 771-8585.

Sincerely,

A handwritten signature in black ink, appearing to read "John Schneeman".

John Schneeman, Manager  
Office of Assured & Adequate Water Supply

JS/rbo

cc: Mr. Roy Tanney, Arizona Department of Real Estate  
Steve Corell, Clear Creek Associates

1 DEPARTMENT OF WATER RESOURCES

2 BEFORE THE DIRECTOR

3	IN THE MATTER OF THE APPLICATION OF )	AWS No. 2007-009
4	CDC WICKENBURG WATER, LLC )	
5	FOR A DESIGNATION AS HAVING AN )	DECISION AND ORDER
6	ADEQUATE WATER SUPPLY )	No. 40-700417.0000

7 I. INTRODUCTION

8 On September 25, 2007, the Department of Water Resources (Department) received an  
9 application from CDC Wickenburg Water, LLC (CDC Water) requesting that the Department designate  
10 CDC Water as having an adequate water supply pursuant to A.R.S. § 45-108 and A.A.C. R12-15-714.

11 After receiving CDC Water's application for a designation of adequate water supply, the  
12 Department reviewed relevant information regarding the designation request, including: 1) the hydrologic  
13 information on file with the Department for the proposed source of groundwater supply; and 2) information  
14 regarding CDC Water's financial capability to construct the necessary delivery system, treatment works  
15 and storage facilities. Based on that information, the Department makes the following Findings of Fact,  
16 Conclusions of Law, and Order of Designation and Conditions of Designation:

17 II. FINDINGS OF FACT

18 A. General

- 19 1. CDC Water is a private water company, subject to the jurisdiction of the Arizona Corporation
- 20 Commission (ACC).
- 21 2. CDC Water provides water service within the territorial boundaries of its certificate of
- 22 convenience and necessity (CC&N), as approved by the ACC.
- 23 3. CDC Water currently serves water through its distribution system to its customers.

1 **B. Water Demands**

2 4. CDC Water's current demand as of calendar year 2006 is 278.44 acre-feet per year (current  
3 demand).

4 5. CDC Water's committed demand as of calendar year 2006 is 0.00 acre-feet per year (committed  
5 demand).

6 6. CDC Water's projected demand in 2013, the sixth calendar year from the date of application, is  
7 945.54 acre-feet (2013 projected demand). The 2013 projected demand does not include the  
8 current demand or the committed demand, but does include the annual demand at build-out of  
9 plats reasonably projected to be approved and customers reasonably projected to be added  
10 through calendar year 2013.

11 7. CDC Water's annual estimated water demand in 2013, which is the sum of its current demand,  
12 committed demand, and 2013 projected demand, is 1224.00 acre-feet per year.

13 **C. Groundwater: Physical, Continuous and Legal Availability**

14 8. CDC Water has the right to withdraw and deliver groundwater to its customers pursuant to A.R.S.  
15 § 45-453.

16 9. Historic hydrologic information demonstrates that depth-to-static water levels within the CDC  
17 Water service area currently average 425 feet below land surface.

18 10. CDC Water has demonstrated that after withdrawing 1224.00 acre-feet per year of groundwater  
19 for 100 years, the depth-to-static water level within CDC Water's service area is not expected to  
20 exceed 1200 feet below land surface.

21 11. CDC Water has demonstrated that it has wells of sufficient capacity to satisfy its annual estimated  
22 groundwater demand of 1224.00 acre-feet per year for at least 100 years.

23 **D. Water Quality**

24 12. CDC Water will be regulated by the Arizona Department of Environmental Quality as a public  
25 water system pursuant to A.R.S. §§ 49-351, et seq.

1 **E. Financial Capability**

- 2 13. On June 29, 2007, a "Water Facilities Extension Agreement" (Agreement) was executed between  
3 CDC Water and JVT Investors, LLC, an Arizona limited liability company (JVT). The Agreement  
4 states that JVT shall fund construction of water system improvements including: distribution lines,  
5 wells, storage tanks, and booster stations to support water service by CDC Water in the existing  
6 CC&N. Upon completion of construction, said improvements shall become the sole property of  
7 CDC Water.
- 8 14. CDC Water has demonstrated capability for financing the construction of adequate delivery,  
9 storage, production and treatment works through the Agreement.

10 **III. CONCLUSIONS OF LAW**

11 Having reviewed the Findings of Fact, the Department makes the following Conclusions of Law:

- 12 1. CDC Water has demonstrated that 1224.00 acre-feet per year of groundwater will be physically  
13 available, continuously available and legally available for at least 100 years, which is sufficient to  
14 meet its annual estimated water demand in 2013, of 1224.00 acre-feet per year. See A.A.C.  
15 R12-15-716, R12-15-717 and R12-15-718.
- 16 2. The water supply served by CDC Water will be of adequate quality pursuant to A.A.C. R12-15-  
17 719.
- 18 3. CDC Water has satisfied the financial capability criteria prescribed in A.A.C. R12-15-720.
- 19 4. CDC Water has satisfied all the requirements for a designation of an adequate water supply.

20 **IV. ORDER OF DESIGNATION AND CONDITIONS OF DESIGNATION**

21 Having reviewed the Findings of Fact and Conclusions of Law, the Director hereby issues this  
22 Decision and Order designating CDC Water as having an adequate water supply, subject to the following  
23 conditions:

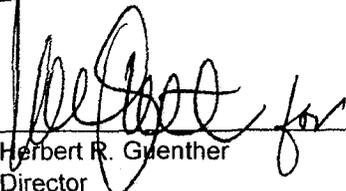
- 24 1. The Director reserves the right under A.A.C. R12-15-715(C) to periodically review and modify the  
25 designation for good cause as conditions warrant.

- 1 2. Pursuant to A.A.C. R12-15-715, the Director may revoke this designation at any time if the  
2 findings of fact or the conclusions of law upon which the designation is based change or are  
3 invalid, or if an adequate water supply no longer exists.
- 4 3. The Director's determination that an adequate water supply exists for CDC Water is based on its  
5 review of the water supply pledged by CDC Water.
- 6 4. CDC Water shall submit an application to modify this decision and order designating CDC Water  
7 as having an adequate water supply to increase the term of the designation when the sum of  
8 CDC Water's current demand, committed demand and two-year projected demand exceeds  
9 1224.00 acre-feet, or by January 1, 2012, whichever is earlier.
- 10 5. Pursuant to A.A.C. R12-15-719, CDC Water shall satisfy any state water quality requirements  
11 established for its proposed use after the date of this designation.
- 12 6. CDC Water shall annually provide to the Department the following information in the manner  
13 prescribed in A.A.C. R12-15-715:
- 14 a. The projected demand at build-out for customers with which CDC Water has entered  
15 into a notice of intent to serve agreement in the calendar year.
  - 16 b. An estimate of the demand of platted, undeveloped lots located in CDC Water's service  
17 area.
  - 18 c. A report regarding CDC Water's compliance with water quality requirements.
  - 19 d. The depth-to-static water level of all wells from which CDC Water withdrew water during  
20 the calendar year.
  - 21 e. The total quantity of water from any source, withdrawn, diverted, or received by CDC  
22 Water for its customers' residential and non-residential use during the previous calendar  
23 year.
- 24  
25

1 f. Any other information requested by the Director to determine whether CDC Water is  
2 continuing to meet all the requirements necessary to maintain this designation of  
3 adequate water supply.

4  
5 **IT IS HEREBY ORDERED THAT CDC WICKENBURG WATER, LLC BE DESIGNATED AS**  
6 **HAVING AN ADEQUATE WATER SUPPLY UNTIL DECEMBER 31, 2013.**

7 DATED this 11<sup>th</sup> day of FEBRUARY, 2008.

8  
9   
10 Herbert R. Guenther  
11 Director  
12 Arizona Department of Water Resources

11 A copy of the foregoing  
12 **Decision and Order** mailed  
13 by certified mail this  
14 11<sup>th</sup> day of February, 2008,  
15 to the following:

16 Certified Mail No. 7006 2760 0002 49850230

17 Sent by: R. Obenshain  
18 Rick Obenshain

19 CDC Wickenburg Water, LLC  
20 c/o Jason C. Rowley, Esq.  
21 1550 E. Missouri, Suite 300  
22 Phoenix, AZ 85014

23 First class mail copies to:

24 Mr. Roy Tanney  
25 Director of Real Estate Subdivisions  
Arizona Department of Real Estate  
2910 N. 44th Street  
Phoenix, Arizona 85018

Steven W. Corell  
Clear Creek Associates  
6155 E. Indian School Rd.  
Suite 200  
Scottsdale, Arizona 85251