

6767 Perkins Road, Suite 200 Baton Rouge, Louisiana 70808

> Phone: (225) 769-0546 Fax: (225) 767-0060

Exhibit I. Angel Ranch Site Wastewater Infrastructure Upgrade Map & Letter

October 28, 2014

Mr. Jim Cavanaugh Baton Rouge Area Chamber 564 Laurel Street Baton Rouge, LA 70801

Re. Angel Ranch Wastewater System Cost Estimate

CSRS Job No. 212161

Dear Mr. Cavanaugh:

According our research, the Angel Ranch Site located one mile east of the intersection of LA 420 and LA 10 in Pointe Coupee Parish, Louisiana has no existing wastewater infrastructure on site.

In order to provide a wastewater treatment facility to treat 250,000 gallons per day (GPD), a wastewater treatment facility would need to be constructed on site which would discharge to the Mississippi River north of the site.

Before the individual industry discharges to the proposed treatment facility, pretreatment requirements necessitate strengths less than or equal to 200 mg/L 5-day Biological Oxygen Demand (BOD) and 200 mg/L Total Suspended Solids. After treatment at the wastewater treatment facility, treated wastewater then may be discharged to the Mississippi River via a wastewater line constructed from the proposed treatment facility. Expected discharge limits of BOD₅, TSS, NH₃, and Phosphorous are 30/30/2/5 mg/L, respectively. Providing service for a total capacity of 250,000 GPD would yield a peak demand of approximately 250,000 GPD with no excess capacity. The construction cost of this new wastewater treatment facility including the cost of 2,200 linear feet of 8" discharge pipe, ductile iron fittings, and a levee crossing is estimated to be \$1,200,000.

An alternate method of disposing of waste water would be to connect to the Pointe Coupee Parish existing waste water system 1,200 feet west of the site at the intersection of LA 981 and Walter Smith Road. This method would require negotiating an agreement with Pointe Coupee Parish to connect to their facility. In the event that the city allows the site to tie in to their wastewater system, a force main may be installed from the property line along the north side of LA 981 to tie in to the existing manhole. This would require an estimated 1,200 of 8" force main and the installation of a duplex submersible pump station at a cost of approximately \$460,000. Additional pipe from the property line to a proposed site pad is estimated to cost \$50 per linear foot. Please note that the Pointe Coupee Parish sewer system may only accept a maximum of 250-300 gpm flow, so additional infrastructure costs of \$75,000 or more may be incurred if the site's discharge exceeds the Parish's capacity.

Please note that these estimates do not include engineering, rights of way acquisition, environmental impacts and permitting or operation and maintenance costs. This cost estimate was prepared with the best information available at the time of certification. The actual costs can vary based on the availability of material, site conditions and labor availability. Both plans can be executed within a reasonable timetable of 180 days based on preliminary engineering judgment.





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Thank you for the opportunity to assist you in this project. Should you have any questions or require additional information, feel free to contact me. TAYLOR M. GRAVOIS
REG. No. 33928
REGISTERED
PROFESSIONAL ENGINEER
IN

ENGINEER

ENGINE

Sincerely,

CSRS, Inc.

Taylor M. Gravois, PE, PLS

Exhibit I. Angel Ranch Site Wastewater Infrastructure Upgrade Map

Proposed Wastewater Upgrade Angel Ranch Site Pointe Coupee Parish, LA





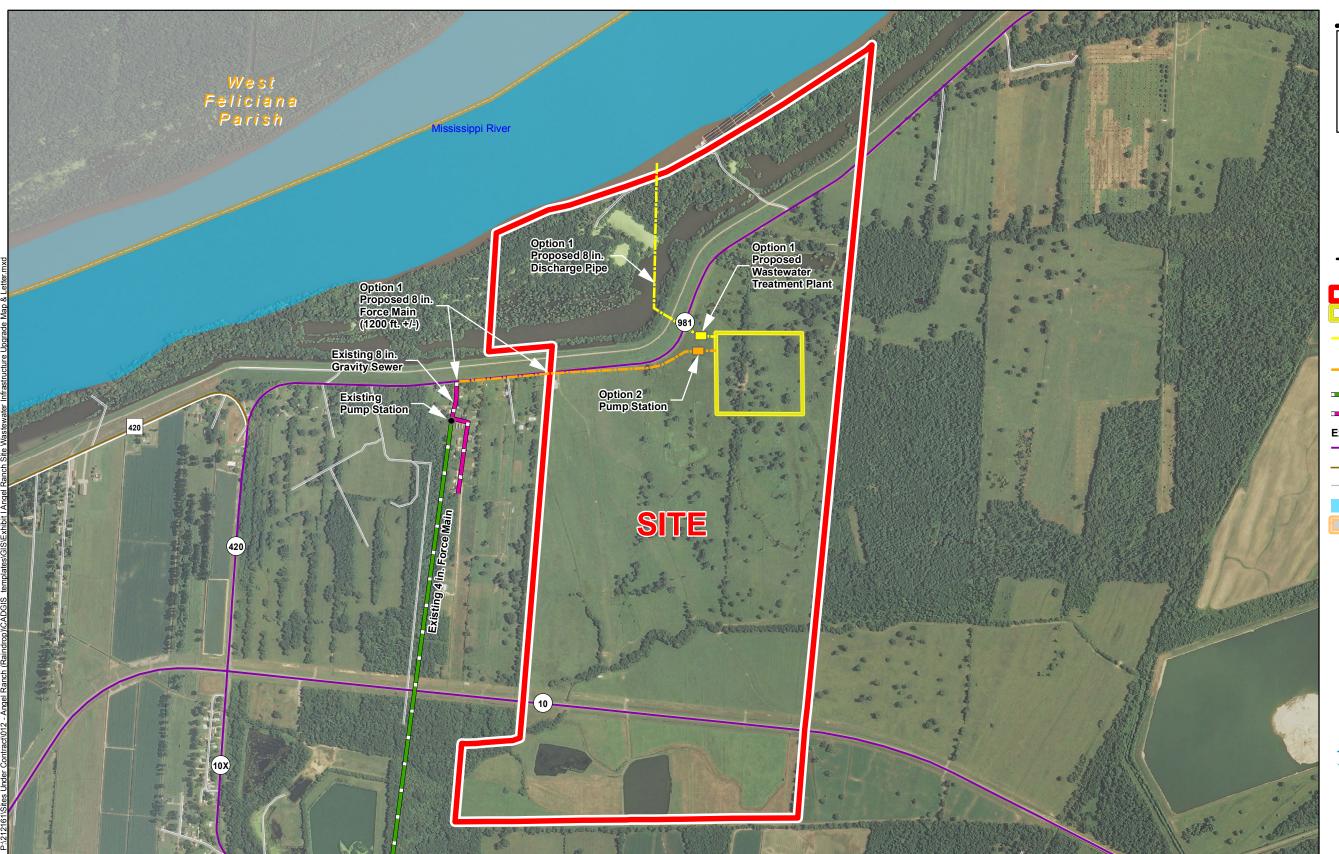


LEGEND

- Site Boundary (731.56 Acres +/-)
- Sample 25-Acre Site Pad
- Option 1 Proposed 8 in. Discharge Pipe
- Option 2 Proposed 8 in. Force
- Existing 4 in. Force Main
- = Existing 8 in. Gravity Sewer

Existing Roadway

- Urban State Highway
- Rural State Highway
- Local Roads
- Waterbody
- Parish Boundary



- 1. No attempt has been made by CSRS, Inc. to verify site boundary, title, actual legal ownership, deed restrictions, servitudes, easements, or other burdens on the property, other than that furnished by the client or his representative.
- 2. Transportation data from 2013 TIGER datasets via U.S. Census Bureau at ftp://ftp2.census.gov/geo/tiger/TIGER2013.
- 3. Proposed wastewater upgrade shown is for representational purposes only, depicting the intent of the cost estimate provided with this exhibit to meet LED minimum requirements, and is subject to revision.

 4. 2013 aerial imagery from USDA-APFO National Agricultural Inventory Project (NAIP) and may not reflect current ground conditions.



Date:	10/28/2014
Project Number:	212161.20.012
Drawn By:	MAT
Checked By:	TMG



Scale 1:14,400