

City of Bluffdale Transportation Study

Request for Proposal

Background Information

Porter Rockwell Boulevard is a planned, designed and partially built major arterial road that connects Mountain View Corridor to I-15 at the 14600 South (SR140) interchange. Pony Express is the west frontage road of I-15 in Bluffdale. The geometric change to the roads next to the interchange will reduce or eliminate some access to and from the frontage roads to improve the traffic, and reduce the risk of accidents. Several businesses are on the frontage road next to the I-15 interchange at 14600 South and use the interchange and 14600 South as an access to Pony Express. When the changes to the interchange are completed, this access will be limited to a ride in and ride out. These changes will affect the access and traffic on both Pony Express and Porter Rockwell Boulevard.



Figure 1: Location of Porter Rockwell Boulevard and Pony Express Road

Project Description

Bluffdale City has plans to modify both Porter Rockwell Boulevard and Pony Express Road. Pony Express Road will be changed to a ride in and ride out, which should significantly change the traffic flow in the area. In order to better service the area, changes to the transportation infrastructure will be required. It is desired that there are no significant impacts on the local businesses and operations.

Bluffdale City is requesting a study that evaluates possible connections through Porter Rockwell Boulevard to Pony Express. This study considers designed road location feasibility, utilities, topography and use of the land. Possible new access points and other modifications to both Pony Express Road and Porter Rockwell Boulevard will be required to limit the traffic and safety impacts.

Suggested access road locations can be seen on Figure 1, marked as 1, 2 and 3. There are several concerns with the possible locations, such as steep slope, business impact, safety and traffic. The study will determine the most appropriate location. The access road design will then be designed at the specified location. The design speed is 40mph or less. Site visits will be required to survey the location and conduct traffic counts.

The selected students and Bluffdale City engineers will have a preliminary meeting to discuss additional details of the project, scope and deliverables. Any available and project relevant data will be given at this meeting.

Scope of Services

The project will require the following:

- Full transit study of Porter Rockwell Boulevard and Pony Express Road
- Traffic counts
- Roadway geometric design
- Specifications of utilities

Additional services may be required after preliminary meeting with the Bluffdale City Engineers.

Outcome and Performance Standards

“Teams will provide the work "as is" meaning that there is no engineering stamp certifying the work.”

Note: The ability to continue receiving support from outside sponsors is somewhat contingent on the good work you and the undergraduate students do. You represent the BYU Civil & Environmental Engineering Department. The expectation is that you will interact in a professional manner at all times with your mentor and project sponsor, treating them with the utmost respect and consideration of their busy schedules. While successful completion of the design project is fundamental to the outcome of the work, it is expected that you will also learn important team dynamics and leadership principles. This means that in the process of completing

the project you are also seeking to help each member of your design team to grow and develop confidence in his/her engineering abilities.

Deliverables

The team must prepare all deliverables with the intent to present them to the Bluffdale City Council.

The deliverables are:

1. A final report with design alternatives for the project that include economic and environmental considerations.
2. A poster reflecting a summary of your design project.
3. A presentation summarizing your design project.

All deliverables are due **Friday April 1.**

During the week of April 4th both a presentation to sponsors and poster session for students, faculty and other interested people will be organized.

Term of Contract

Undergraduate students are to work during winter semester, eight hours/week/student with at least 3 hours working together. Any class time or time spent on class assignments counts towards the eight hours.

Contractual Terms and Conditions

There will be no monetary compensation with respect to the work completed, and all work is completed and delivered on a "best effort" basis.

Aside: Each member of the undergraduate team will be asked to sign a non-disclosure agreement that simply states the work you do belongs to the project sponsor.

Payments, Incentives, and Penalties

Much of the capstone work is graded by graduate student mentors that include evaluations of the following components:

Team process (how well you work together to accomplish the goals)

Project proposal

Project Management Plan (PMP)

50% complete status report

Final report, poster, and presentation

Overall satisfaction of the client in meeting specific deliverables

Evaluation and Award Process

Three different graduate students will blindly grade proposals using the following rubric. The average of the scores will be the grade given on the proposal and used for granting awards where there is competition.

Timeliness - 1 pt off per full hour late, up to 5.	5
Grammar/Spelling - 1 pt off per blatant error, up to 10.	10
Cover Page - Title, Data, Sponsor, Team Name, Team Members, Department of Civil & Environmental Engineering, Ira A. Fulton College of Engineering and Technology, Brigham Young University - 1 pt per piece of information included.	8
Cover Letter - brief letter of introduction that 1) states your intent to propose and 2) how you may be contact - 4 pts per piece completed.	8
Executive Summary (3/4 to 1 page that summarizes the contents of your proposal) - 7 points for completion, helpfulness - 3 pts max.	10
Team Abilities (Adjust the SOQ to make it relevant to the project) - Summary AS A TEAM of 1) relevant courses and experience, and 3) abilities to complete the work on time and in a professional manner, 4) including use of specific engineering tools/software. Include résumés. 2 pts for including résumés, 6 more points max, 2 per piece completed.	8
Key Personnel - 1) Identify which individuals will focus on which pieces of your potential tasks, and 2) some kind of organizational chart or visual describing how you will work together as a team. 5pts max per piece.	10
Project Understanding - 1) Did they address specific items mentioned in the RFP? 2) Do they repeat basic background in somewhat new terms to <i>demonstrate their understanding</i> of the project? 3) Do they mention key deliverables they may need to provide? 4) Did they articulate a <i>specific</i> approach for developing design alternatives and deliverables? 4 pts max per piece.	16
Formatting - Does it look professional? Consistent? Yes or no, 5 pts each.	10
Concise vs. Wordy , Meaningful vs. Fluffy, repetitive wording. 8 pts means concise, and accurate, and specific. 1 pt means often confusing, wordy, or vague.	8
Clear and professional flow of writing and style. 7 pts means that you would feel comfortable handing this in if it were your own; it is easy to read and understand; feels professional; 1 pt means it feels like it was cut-pasted, rushed, and done with little thought; hard to read; feels like a high school essay.	7

Video Interview - Message is clear and consistent with proposal, each member participates, professional but catches your attention. Leniency on video/audio quality will be given with a focus on the content and overall organization.	20
Total	120

Process Schedule

October 21, 4:00 pm - Request for Proposals will be available online:

<http://cecapstone.groups.et.byu.net/content/winter-2015-projects>

October 27, 4:50 pm - Question and Answer period with respect to the proposal and submission procedures. The period where you can register your intent to propose on a project will begin. Each team will need to identify the primary target of their proposal and three other alternatives (no proposal necessary). Public knowledge of an intent to propose should help distribute proposals more evenly.

***November 17, 4:00 pm** - Three copies of the proposal must be submitted at the beginning of class. Team video interviews should be made available online or on disc and referenced in the proposal.

December 1 - Award notification.

*The review committee reserves the right to reject any proposal or presentation that is not submitted in a timely fashion or in accordance with the instructions given in this RFP.

Contacts

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Submittal Requirements for the proposal

Turn in three copies of the proposal that should include the following:

Cover letter

Executive summary, 1 page or less (by itself)

Work plan that outlines the approach to solving the problem, how the team will work together (including weekly work schedule that shows the hours each team member will work and the time block the team will be together, this is a necessary requirement).

Necessary tools, data, equipment, etc. A couple of paragraphs or a bullet list with one sentence explanation for each item.

Schedule indicating important milestones.

Engineering Design Budget. This is an estimate of the design phase cost.

Outcome and Performance Standards. Provide the following statement: "Teams will provide the work "as is" meaning that there is no engineering stamp certifying the work."

Statement of qualifications that outlines the background, experience, education, and organizational structure of the team. Include some discussion of how you plan to become a "high functioning" team in the course of completing the project.

Outside consultants (professors or others) that are necessary to "make this work."

Appendices:

Appendix A: 1 page resume for each member of the team

Appendix B: (if necessary)