

# PROJECT MANAGEMENT PLAN

BRT Bus Station Location and Traffic Flow Enhancement Study  
Project ID: CEEEn-2016CPST-009

TRIPLE J ENGINEERING

Jordan Williams  
Joshua Gibbons  
Jenny Blonquist

## **INTRODUCTION**

### **VISION**

Provide appropriate bus rapid transit (BRT) station locations on 900 North in Provo, Utah that will improve transit access at Brigham Young University (BYU), meet the needs of BYU, and follow the consistency of the rest of the BRT system.

### **PROJECT PURPOSE AND OVERVIEW**

AECOM is helping UTA, in conjunction with other organizations such as UDOT and the Cities of Orem and Provo, design a BRT system that will provide improved public transportation between Orem and Provo. There will be several stations created along the route. The capstone project is to design the station on 900 North between 700 and 900 East in Provo, UT and improve traffic flow through this area.

## **PROJECT DESCRIPTION AND SCOPE**

Locate two BRT side stations on 900 North between 700 East and East Campus drive in Provo, UT. Accommodate local bus stops outside of the BRT stations. There are dedicated bus lanes on the outside of 900 North beginning at the stations and extending to 900 East. Accommodate a direct flow of traffic from 700 East to 900 North with Campus Drive “T-ing” into this reconfiguration. Minimize impacts to existing parking lots with no impacts to any other private property.

### **DESCRIPTION OF REQUIREMENTS**

Technical: Size the stations to be 12 feet wide by 60 feet long with a 13 inch platform height. Meet the Americans with Disabilities Act (ADA) requirements for all sidewalks and accesses to the stations.

Non-technical: Minimize impacts to the adjacent parking lots and utilities. No impacts are allowed to the Stonebridge Apartment property located at 758 East and 900 North.

### **DELIVERABLES**

- Provide up to 3 concepts to meet the project requirements
- Present the concepts in a review meeting where a preferred solution will be identified
- Prepare final layout for the preferred alternative

## **SPONSOR AND MENTOR INFORMATION**

### **SPONSOR**

- AECOM is a global network of experts working with clients, communities, and colleagues to develop and implement innovative solutions to the world's most complex challenges.
- In the Salt Lake City office AECOM has a group that focuses on transportation projects. They have performed several projects for UTA and UDOT.

### **MENTORS**

- Ryan Egbert will be the graduate student mentor and project manager of the project. Ryan will be the main communicator between the project team and the sponsor, AECOM. Ryan is a graduate student at BYU. He is currently working on research for Dr. Jim Nelson about the Food Energy Water Nexus. He has experience as an engineering intern at Spanish Fork City and the Jordan Valley Water Conservancy District.
- Dr. Grant Schultz, a professor in the Civil & Environmental Engineering department at BYU, will be the faculty mentor on the project. Dr. Schultz has prior experience as a transportation engineer consultant and has also participated in the discussions of the BRT design near BYU campus.

## **ORGANIZATIONAL STRUCTURE**

### **Ryan Egbert – Project Manager**

Ryan will be the project manager for this project. He will be in charge of overseeing the project, working with the client, and helping the team with any questions they have.

### **Josh Gibbons – Team Lead**

Josh will be the team lead for this project. His responsibilities will include organizing meetings with the project team and review meetings with the client. He will organize the efforts of the project team to ensure a quality product as a result of the project. He will use his past experience and knowledge of traffic flow and roadway design to assist in creating possible designs for the BRT stations.

### **Jenny Blonquist – Reports and Presentations**

Jenny will be responsible for organizing reports and presentations. She will document and compile necessary resources to be included in the final product. She will also contribute to the design and development of BRT station solutions.

### **Jordan Williams – AutoCAD Designer**

Jordan will be mainly responsible for the design work of the BRT stations using AutoCad software. He will contribute to the process of selecting a solution based on his experience working as a designer for a civil engineering firm.

# SCHEDULE

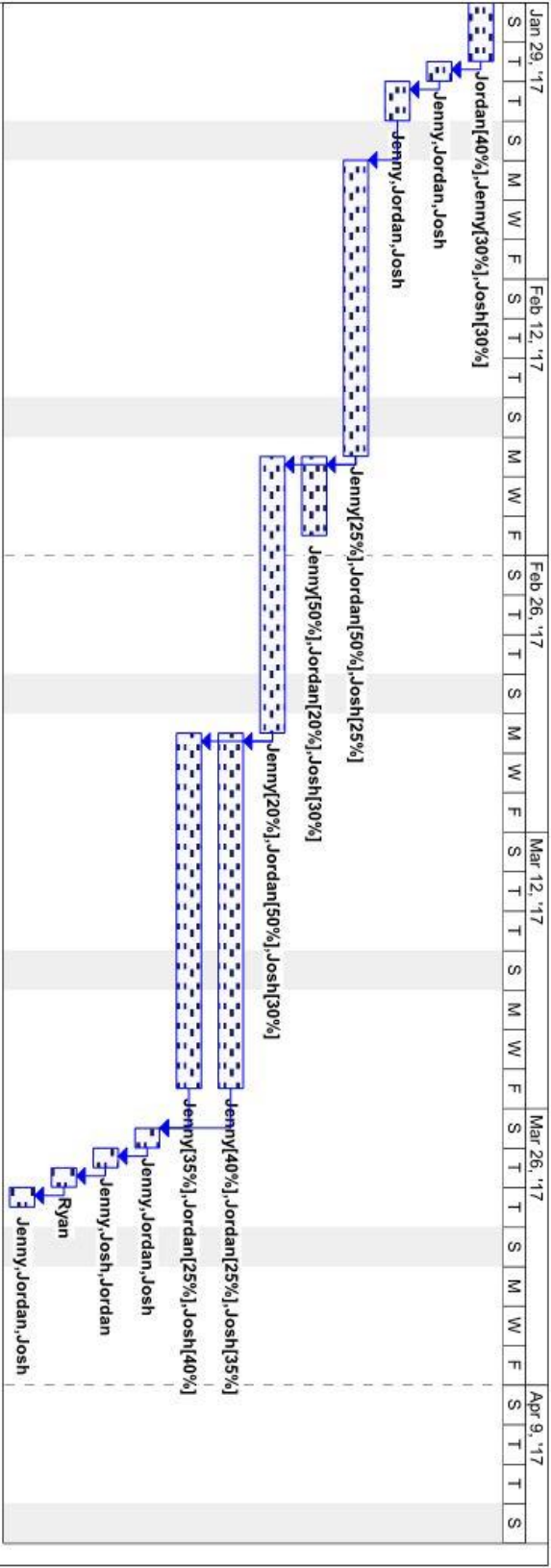
ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	5, '17
1	Preliminary Design Work	11 days	Tue 1/17/17	Tue 1/31/17		Jordan[40%],Jenny[30%],Josh[30%]	T T S M W F
2	Concept Review Meeting	1 day	Wed 2/1/17	Wed 2/1/17	1	Jenny, Jordan, Josh	
3	Monthly Report	2 days	Thu 2/2/17	Fri 2/3/17	2	Jenny, Jordan, Josh	
4	Refine Design	11 days	Mon 2/6/17	Mon 2/20/17	3	Jenny[25%], Jordan[50%], Josh[25%]	
5	50% Report	4 days	Tue 2/21/17	Fri 2/24/17	4	Jenny[50%], Jordan[20%], Josh[30%]	
6	Finalized Design	10 days	Tue 2/21/17	Mon 3/6/17	4	Jenny[20%], Jordan[50%], Josh[30%]	
7	Presentation Preparation/ Poster	14 days	Tue 3/7/17	Fri 3/24/17	6	Jenny[40%], Jordan[25%], Josh[35%]	
8	Final Project Report	14 days	Tue 3/7/17	Fri 3/24/17	6	Jenny[35%], Jordan[25%], Josh[40%]	
9	Final Project Review Meeting	1 day	Mon 3/27/17	Mon 3/27/17	7,8	Jenny, Jordan, Josh	
10	Team Evaluation	1 day	Tue 3/28/17	Tue 3/28/17	9	Jenny, Josh, Jordan	
11	Mentor Evaluation	1 day	Wed 3/29/17	Wed 3/29/17	10	Ryan	
12	Presentation	1 day	Thu 3/30/17	Thu 3/30/17	11	Jenny, Jordan, Josh	

Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

Project: Capstone-Gantt  
Date: Tue 1/17/17

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Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

## **COMMUNICATION PLAN**

### **Weekly Meeting**

The project team will meet each Wednesday at 10:00 a.m. on BYU campus. If needed, this meeting time and location will change when meeting with Andy Powell at AECOM or other individuals involved with the project. The weekly meeting will be used to report on work done in the previous week and to discuss work to be done in the following week. The project team may also meet at other times during the week. However, the weekly meeting will be a recurring meeting for coordination purposes.

### **Project Data Storage**

The Microsoft OneDrive cloud service for BYU students will be used to store data related to the project. This may include meeting minutes, reports, and CAD files. This was the best option for working collaboratively on the same documents.

### **Weekly Communication**

The project team may communicate throughout the week using email for simple questions or comments. If possible, team members will meet together to discuss complex ideas related to the project, to avoid miscommunication.

Hours worked on the project will be recorded in a group time log spreadsheet saved in the group project folder on OneDrive. This will allow project team members to report on their work done and keep a detailed record of when it was done.

## **PROJECTED BUDGET**

The following is a budget of the estimated number of hours that will be required for each task, with the hours being total hours worked as a project team:

<b>DATE</b>	<b>MILESTONE</b>	<b>ESTIMATED HOURS</b>
<b>10/6/16</b>	Kick-off meeting	3
<b>11/21/16</b>	Discuss Tasks	3
<b>11/28/16</b>	Brainstorm Solutions	10
<b>12/1/16</b>	Monthly Report	1
<b>12/12/16</b>	Narrow down solutions	6
<b>1/1/17</b>	Monthly Report	2
<b>1/8/17</b>	Pick design	3
<b>1/9/17</b>	Preliminary Design Work	16
<b>1/31/17</b>	Concept Review Meeting	4
<b>2/1/17</b>	Monthly Report	1
<b>2/6/17</b>	Refine Design	12
<b>2/20/17</b>	Finalize Design/Prepare to Present	20
<b>3/1/17</b>	Monthly Report	2
<b>3/24/17</b>	Final Project Report	25
<b>3/31/17</b>	Final Layout Review Meeting	4
<b>TOTAL</b>		<b>112</b>

## **OTHER COSTS**

<b>SUPPLIES/TRAVEL COSTS</b>	<b>ESTIMATED COST</b>
HARDCOPY OF FINAL PROJECT REPORT	\$25
PRESENTATION POSTER	\$40
<b>TOTAL</b>	<b>\$65</b>