

## 10. Yuba-Sutter Transit Facility Analysis

### Purpose of Facility Analysis

An analysis of the existing Yuba-Sutter Transit facility located at 2100 B Street, Marysville, CA, was undertaken to address the following facility planning questions:

- What is the bus capacity of the existing location, including the currently leased Seven-Up bottling facility?
- Assuming Yuba-Sutter Transit decides to stay at the current location, what are the high priority needs that would need to be addressed in remodeling the facilities?
- What are the estimated costs of the remodel effort for budgeting purposes? What should be budgeted by project phase?
- What are the critical steps that Yuba Sutter Transit needs to take in order to proactively make progress in addressing the facility needs?



### Methodology

The information included in this analysis is based on a site visit by Transit Resource Center (TRC) team, an analysis of the existing site plan drawings, the experience of the TRC team, and industry standards.

TRC personnel Cliff Chambers and Al Pierce met with Keith Martin, Transit Manager, and David Phillips, of Veolia Transportation, at the Yuba-Sutter Transit facility located at 2100 B Street, Marysville, CA on Thursday November 30, 2007. The facility also houses administrative offices for the Regional Waste Management Authority.

The purpose of the meeting was to perform a site inspection, interview Mr. Martin, and gather information about the facility. TRC will take the information and develop a plan to modify the facility to accommodate future growth in the bus fleet and associated support areas, additional administrative staff, bus operators, maintenance operations and security.

The cost estimates are based on recent transit industry experience. A 20% contingency is suggested for budget purposes to account for pricing fluctuations and to provide design flexibility.

## Background

The current facility was originally a beverage bottling plant when purchased by Yuba-Sutter Transit in 1995. Several modifications were made to the facility at that time to accommodate up to 30 buses. However, the fleet will consist of 44 buses by Spring of 2008 with the following breakdown:

- 18 Fixed Route (30'-35')
- 11 Commuter (35'-40')
- 15 Paratransit (20'-25')
- 44 Total

In the recently adopted Capital Improvement Program for the MTP 2035, the Yuba-Sutter Transit fleet is expected to increase to 73 buses by 2034:

- 28 Fixed Route (30'-35')
- 26 Commuter (35'-40')
- 20 Paratransit (20'-25')
- 74 Total

During construction of the original office space, a mezzanine area was provided but not built out. During the intervening years, fire sprinklers, roof drains and air conditioning ducts were added, reducing the ceiling height and available space to below minimum for office space.

## Review of Functional Areas and Needs

The Yuba-Sutter Transit Facility serves all transit functions of Yuba-Sutter Transit, provides space for the operations and maintenance contractor (currently Veolia), and provides administrative space for the Regional Waste Management Authority.

### Administrative Areas

Administrative offices, public access, dispatch / driver's area and restrooms are approximately 3,000 square feet. At the present time, the three Yuba-Sutter Transit administrative staff have separate office space from the contractor administrative space but share several common areas. The following are some of the key deficiencies:

- Driver training is performed in the small conference room and is shared with Yuba-Sutter Transit administrative staff.
- The restroom facilities are inadequate and shared with the contractor.
- File and storage areas are makeshift with shelving and files placed wherever space allows.



- No space is available for the contract operations supervisor to have employee private counseling for performance reviews.
- Additional access from the driver's supervisor area to the administrative office area is needed.
- A dedicated space is needed for an IT area for computers, security systems and phone systems.

### Public Access

The public access area is very small and provides for both Yuba-Sutter Transit and RWMA business. Persons requiring photos for monthly bus passes must walk through the administrative office to have their picture taken.

### Drivers Ready Room / Dispatch Area

The driver's ready room was designed for 20-30 drivers. With route expansion and 40 buses operating today, the driver ranks have swelled to over 60. The dispatch window is in a hallway which causes excessive crowding at a.m. rollout and p.m. check-in. Space is needed for driver's lockers and restroom facilities.

### Maintenance Shop

The maintenance shop is approximately 11,000 square feet. It has one large door on the north end and one large door in the south end for bus entry and exit which requires additional movement of buses to make certain the traffic flow is not blocked. There are two additional roll-up doors, one on the west side and one on the east side located near the north end of the building. The shop layout limits the space for long term bus repairs to two stalls. The shop has two sets of portable bus hoisting equipment, one of which is obsolete and for which it is difficult to acquire parts for repair.



### Mechanic's Area

A restroom and locker area for the mechanics is very limited and needs upgrading. Tool box storage utilizes space on the shop floor and is vulnerable to theft of tools.

### Parts Storage

The parts storage area is open access and not large enough to handle the larger bulky items.

### Outside Area under Canopy

The area is located on the west side of the shop under a canopy, approximately 6,000 square feet, which houses the bus cleaning area and above ground 12,000 gallon fuel storage tank.

### Bus Cleaning

Bus cleaning is restricted to hand washing of one bus at a time with no accommodations for cleaning the chassis or underside of the bus. Lighting in the area is very poor. The water reclamation system is in need of upgrade.

### Above Ground Fuel Storage Tank

The 12,000 gallon fuel storage tank is adequate for future use. An internal containment tank is sufficient to hold the total quantity of the tank if a leak should occur. A curbed area is provided if there is a tank filling spill.

### Fuel Island

The fuel island is partially covered by the canopy and can only accommodate one bus at a time which causes fueling to be staggered between morning, midday, and night (very unproductive). The fuel pump is slow fill and has no automated reporting system so all fuel recording has to be performed manually. The buses have a Drive-Cam system which is automated for download at the fuel island.



### Leased Building

A 14,000 square foot building on the south side of the property is presently leased to Seven-Up bottling. The lease expires December 31, 2009. This area is needed for bus and employee parking.

### Bus Parking

Bus parking space is confined to the north portion of the property. Because of fleet expansion parking space is inadequate and poorly lighted. Some buses must now be parked inside the maintenance shop.

### Employee Parking and Main Entrance

Due to the growth in the operation over time and the limited number of on-site parking spaces, a number of Yuba-Sutter Transit and contract employees now park on the adjacent parcel that is owned by the Marysville Youth and Civic Center. The main entrance to the Yuba-Sutter Transit facility and the property to the south are in disrepair, in need of upgrade and re-sloping.

### **Recommended Facility Capacity**

In the judgment of Transit Resource Center, the existing Yuba-Sutter Transit location can reasonably accommodate a fleet of 70 buses. This would include up to thirty-six 22'-30' buses parked in the north bus parking area, and up to thirty-four 30'-40' buses parked in the south bus parking area after removal of the existing Seven-Up building and repaving. After removal of the Seven-Up building and repaving, automobile parking will be sufficient for a maximum of 61 autos without using the joint access easement. Based on consultations with the operations contractor, the peak employee parking demand for both the recommended Yuba-Sutter Transit administrative staff for a fleet of 70 buses should be 50-55 parking spaces. There are a couple of planning considerations that could affect the facility capacity:

- If the decision is made to purchase 45' commuter buses they would take two 30' bus stalls for one 45' bus. This decision may first be made in 2010 or 2011, when new commuter buses will be ordered. For planning purposes, there could be 22 45' commuter buses in the fleet by 2028, when the facility is planned to be replaced. If 45 foot buses are purchased, parking could become constrained after 2019. Actual parking configurations should be addressed in the detailed architectural drawings.
- All turning radii should be designed to accommodate 45' buses; note: increasing the turning radius may impact 4 bus parking stalls in the south parking area. This should be further defined in the design phase.

The existing Capital Improvement Plan adopted by the Yuba-Sutter Transit Board in December 2007 would achieve the 70 bus fleet size in 2029. The Capital Improvement Program adopted in December 2007 currently schedules a facility replacement in 2028. Therefore, the proposed remodel plan presented below would provide for a sufficient facility between 2010 and 2027.

### **Facility Remodel Plan**

The plan will have two phases:

- Phase one will modify the administration areas, public access, the maintenance shop, and the cleaning area.

- Phase two will take place immediately after January 1, 2010 when the lease to Seven-Up expires. This phase will plan for demolition of the leased building to increase bus and employee parking and adding fueling capacity.

References to room / space numbers are from site drawings A1 through A14 dated 30 April 1995 furnished by Yuba-Sutter Transit. Figure 10-1 is a schematic floor plan for the first floor and the mezzanine level with the room numbers referenced.

## **PHASE I**

Phase I would remodel the existing facility. In the judgment of TRC, the most cost-effective and expedient process would be a design-build process for both Phase I and Phase II. This would require hiring a consultant for approximately 40 hours to develop an RFP. This work should commence by June 2008.

### **1.1 Administrative Areas, Drivers Ready Room, Dispatch, Driver Training Room and Restrooms**

Expansion of the administrative spaces should include building a new driver's ready room, a dispatch area, a driver training room, locker/restroom facilities, and expansion of Yuba-Sutter Transit administrative staff. These functions are now housed in room numbers 101, 102, 103, 110, 111 and 113, and modification to room 115 page A4. The build out of these areas should be into the area north of room 103/114 toward and into room 115; approximately 2400 square feet build out space.

The build out should include the following:

- 1.1.1 Build a new dispatch room approximately 375 square feet.
- 1.1.2 Build a new driver's ready room approximately 800 square feet.
- 1.1.3 Build new driver's restrooms and locker area of approximately 650 square feet.
- 1.1.4 Build out room 115 for driver's training room of approximately 550 square feet.
- 1.1.5 The build out should include removing the roll-up door on the east side of the building and installing a glass store front assembly with an employee access door.
- 1.1.6 Work stations for six Yuba-Sutter Transit employees.

The architect will need to reconfigure the existing and expanded 2,400 square to meet the above needs. The architect should ensure the close proximity of the contractor's Site Manager and Operations Manager with the new dispatch room.

### **1.2 Existing Space Vacated by Dispatch and Driver's Ready Room, Rooms 103 and 113**

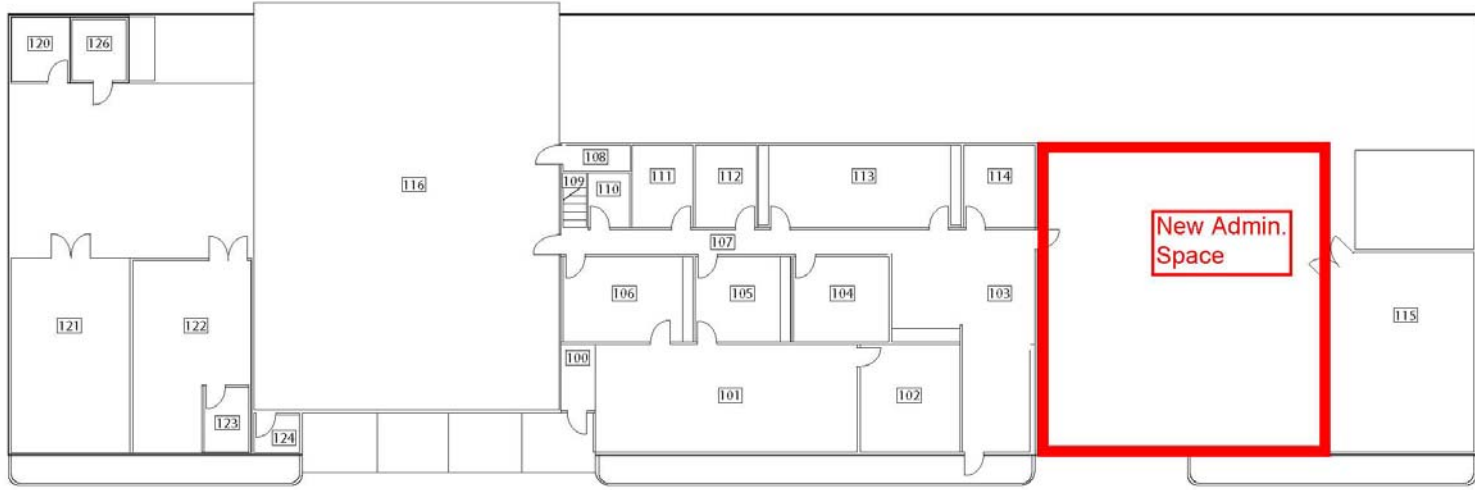
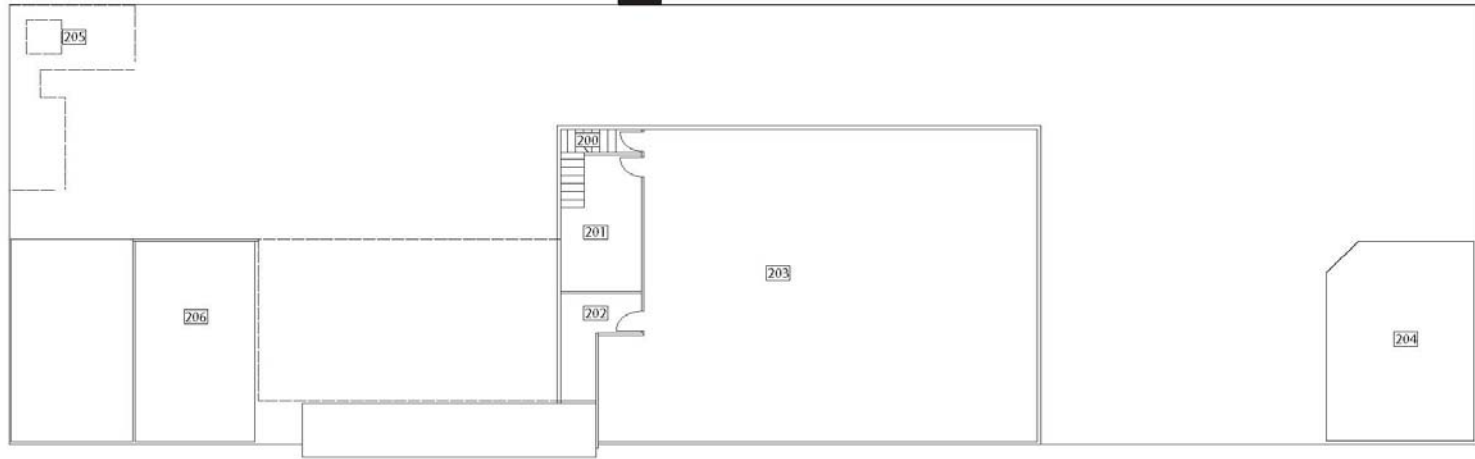
- 1.2.1 The existing employee entrance portion of room 103 could become the public access area.
- 1.2.2 A portion of room 104 should become a new passage between the public access area and admin spaces rooms 101, 107 and a portion of 103.

# Yuba-Sutter Transit Authority

## Maintenance and Operation Facility

### Floor Plan #1

Room Number Key			
100	Wait	107	Hall
101	Office	108	Storage
102	Director	109	Stair
103	Ready Room	110	HC Womens
104	Trainer/Supervisor	111	HC Mens
105	Copy Room	112	Office Manager
106	Conference	113	Dispatch
		114	Contract Manager
		115	Storage
		116	Maintenance Shop
		118	Fueling Station
		120	Unisex Toilet
		121	Parts Storage
		122	Maintenance Manager/Clerk
		123	Storage
		124	Storage
		126	Lockers/Showers
		201	Administration Storage
		203	Mezzanine Storage



### 1.2.3 Convert Room 113 to office space

1.2.3 Room 100 could continue as public access for the Regional Waste Management Authority.

1.2.4 Existing restrooms, rooms 110 and 111 should become dedicated administrative staff restrooms.

1.2.5 Existing administrative space should incorporate an IT area, a work area for printing route schedules and ample room for admin storage.

### 1.3 Second Floor Mezzanine area Rooms 201, 202 and 203

1.3.1 The second floor storage area room 201 could be expanded with a hallway off the stair well to provide clean separation from the open space area 203.

1.3.2 The remaining space in area 203 could be converted to parts storage with a mezzanine stairway access to the shop area.

### 1.4 Maintenance Shop

The objective will be to ensure the drive-through lane between the north and south door is kept open at all times for bus movement.

1.4.1 Add three 40 foot bus repair stalls and two 22-25 foot bus repair stalls on the west side of the drive-through lane. The 30-40 foot buses would be backed in saw tooth style with the front of the bus facing southeast toward the exit door. Because of the sawtooth design, the bus repair stalls could also accommodate 45 foot buses. The 22-25 foot stalls would be opposing saw tooth style with the buses driven front end in facing southwest toward the west wall.

1.4.2 Add necessary utilities to the new bus stalls (consumable dispenser reels, air, electrical, lighting and heaters). Provide a minimum of two additional portable hoists.

1.4.3 The southwest quadrant area is now used for battery and brake storage; it could also be a staging area for palletized items and large components. The tire machine and tire storage activities could be moved to this area. A forklift would be required.

### 1.5 Mechanic's Area

The mechanic's restroom and locker room are in need of an upgrade. The locker room doubles as an emergency shower.

1.5.1 Separate the locker room from the shower and provide ample space. This can be accomplished by moving the tire operation to the other side of the shop, see 2.4.3.

1.5.2 Provide a secured area for mechanics tool boxes (chain link fence area).



- 1.5.3 Renovate the existing maintenance office area to provide appropriate climate controlled space for Maintenance Manager and Maintenance Clerk.

### 1.6 Parts Storage

Parts storage is in need of additional space. The mezzanine area, room 203 should be modified for additional parts storage, see 1.3.

### 1.7 Outside Area Under Canopy

- 1.7.1 Install additional lighting in the bus cleaning area.

### 1.8 Bus Cleaning

- 1.8.1 Install a chassis wash system.
- 1.8.2 Purchase a portable bus washing system suitable for the small space available.
- 1.8.3 Install a new bus wash water reclamation system capable of processing all water from the chassis wash and the bus washer.

### 1.9 Security System

- 1.9.1 Provide an enhanced digital security surveillance system with interior cameras in the public access areas and exterior cameras covering all areas outside the building including the fuel island and cleaning area. The system should have a minimum of eight day storage and capabilities to flag a date and time window and store images indefinitely.
- 1.9.2 Provide a “Key Card” access system for all doors and secure areas within the complex.
- 1.9.3 Site-wide public address system for shop, parking and administrative areas
- 1.9.4 Add new lot light(s) in the north bus parking area.

## **PHASE II**

Phase II work should commence as soon as possible after January 2010, when the 7-Up Bottling lease has expired..

### 2.1 Leased Building

Demolition of 14,000 square foot building located on the south portion of the property and cap all utilities. Retain existing concrete slab for bus parking.

### 2.2 Fuel Island

- 2.2.1 Relocate the fuel island out side the southwest quadrant of the maintenance shop. Provide two fueling lanes and three dispensers, one dispenser next to the shop outer wall, a

second dispenser between the two fuel lanes, and a third dispenser on the outside of the second fuel lane. Fueling rate will be a minimum of 30 gallons per minute utilizing 3 large industrial fuel filters, one for each dispenser. All large buses (35 foot and larger) should have dry disconnect type fuel nozzles. Note, when installing dry disconnect nozzle each bus will require installation of a nozzle receiver component.

2.2.2 Install a canopy and half wall to protect the fueling area from the elements.

### 2.3 Bus Parking

Install 6 inch reinforced concrete slab for bus parking to supplement the existing concrete slab. The entire south lot should be concrete to provide future flexibility in bus parking. Total bus parking will be a minimum of 70, with 36 smaller buses on the north parking and 34 larger buses on the newly developed south parking and should be fully defined in the design phase. Site fencing and electronic access controls should be included.

### 2.4 Employee Parking

Re-slope and repave the main entrance with a minimum of 4 inches of asphalt with proper base. Repave the automobile parking areas with a minimum of 2 inches asphalt and proper base. Note; if buses need to drive in the automobile parking areas then 4 inch asphalt will be used. Total automobile parking will be a minimum of 61. and should be fully defined in the design phase.

Repave the bus driveway areas from the street to the fuel island and the south bus parking lot entrance and the north-south drive areas on the west side of the property including stormwater control.

## **Estimated Cost**

The cost estimates are based on recent industry experience. However, there has been a wide fluctuation in costs of materials over the past year. We have suggested a 20% contingency to account for such fluctuations and to provide some design flexibility.

### **PHASE I**

<b>Area</b>	<b>SF</b>	<b>Cost/SF</b>	<b>Total</b>
<b>1.1 Administration</b>			
<b>New Construction Area</b>			
1.1.1 New Dispatch Office	375	\$55	\$20,625
1.1.2 New Drivers Ready Room	800	45	36,000
1.1.3 Driver Restroom & Locker Rm.	650	85	55,250
1.1.4 Build Out Rm. 115	550	45	24,750

<b>Area</b>	<b>SF</b>	<b>Cost/SF</b>	<b>Total</b>
1.1.5 Remove Roll-up Door Add Storefront	--	--	7,000
Subtotal Administration New Construction			<b>\$143,625</b>
<b>1.2 Modify Existing Areas</b>			
<b>Administration / Drivers Ready Room</b>			
1.2.1 Portion Rm. 103 to Public Access	250	45	\$11,200
1.2.2 Portion Rm. 104 Public Access Employee Circulation Administration Space Portions Of Rooms 101, 103 & 107	200	45	9,000
1.2.3 Convert 113 to Office Space	290	20	5,800
1.2.4 Room 100, Public Access RWMA	--	--	----
1.2.5 Upgrade 110 & 111 Restrooms for Administration Use	180	55	9,900
1.2.6 Build IT & Work Area	144	45	6,480
Subtotal Existing Areas			<b>\$42,380</b>
<b>1.3 Second Floor Mezzanine</b>			
<b>Rooms 201, 202 &amp; 203</b>			
1.3.1 Add Hallway to Room 201	--	--	\$7,500
1.3.2 Convert Rm. 203 to Parts Storage	400	10	4,000
Subtotal Second Floor Mezzanine Area			<b>\$11,500</b>
<b>1.4 Maintenance Shop</b>			
1.4.1 Add Five Bus Stalls W/ Utilities	4500	10	45,000

<b>Area</b>	<b>SF</b>	<b>Cost/SF</b>	<b>Total</b>
1.4.2 Add Two Additional Heavy Duty Portable Hoists	--	--	70,000
1.4.3 Move Tire Machine & Storage	--	--	5,000
1.4.4 Forklift			30,000
Subtotal Maintenance Shop			<b>\$150,000</b>
<b>1.5 Mechanics Area</b>			
1.5.1 Upgrade Locker Rooms & Shower	200	60	\$12,000
1.5.2 Provide Toolbox Secure Area	--	--	2,500
1.5.3 Upgrade maintenance area			
a) Renovate maintenance office area	150	55	8,525
b) Provide Mechanic Break Area	200	45	9,000
c) Additional HVAC	--	--	8,500
Subtotal Mechanics Area			<b>\$30,250</b>
<b>1.6 Parts Storage Mezzanine Area</b>			
1.6.1 Provide Additional Staff Furnishings and work surface	--	--	\$3,000
Subtotal Parts			<b>\$3,000</b>
<b>1.7 Outside Area under Canopy</b>			
1.7.1 Install Additional Lighting	--	--	\$10,000
Subtotal Outside Area under Canopy	--	--	<b>\$10,000</b>
<b>1.8 Bus Cleaning</b>			
1.8.1 Install Chassis Wash	--	--	\$45,000
1.8.2 Purchase Portable Bus Wash System	--	--	20,000
1.8.3 Install New Water Reclaim System	--	--	24,000
Subtotal Bus Cleaning			<b>\$89,000</b>

<b>Area</b>	<b>SF</b>	<b>Cost/SF</b>	<b>Total</b>
<b>1.11 Security System</b>			
1.9.1 Provide Digital Security Camera System of Entire Complex	--	--	\$150,000
1.9.2 Provide Key Card Access	--	--	40,000
1.9.3 Public Address System			5,000
1.9.4 Install Lighting North Lot			\$14,000
Subtotal Security Systems			<b><u>\$209,000</u></b>
<b>Total Phase I (rounded to nearest 000)</b>			<b>\$689, 000</b>
<b>Phase II</b>			
<b>2.1 Leased Building</b>			
2.1.1 Demolish Leased Building, Retain Concrete Slab (includes resell value)	--	--	\$10,000
Subtotal Leased Building			<b>\$10,000</b>
<b>2.2 Fuel Island</b>			
2.2.1 Fuel Island Pumps / Dispensers & Lanes	--	--	\$150,000
2.2.2 Install Canopy & Half Wall	--	--	55,000
Subtotal Fuel Island			<b>\$205,000</b>
<b>2.3 Bus Parking</b>			
2.3.1 Install 6 inch reinforced concrete slab Bus Parking and Fueling Area	32,500	14	\$455,000
2.3.2 Install lighting			14,000
2.3.3 Fencing and Electronic access : tie into building access			25,000
Subtotal Add concrete bus parking pad, lighting, and access			<b>\$494,000</b>

**2.4 Employee Parking**

2.4.1 Re-slope & Repave Main Entrance & Employee Parking Areas	--	--	\$85,000
Subtotal Employee Parking			<b>\$85,000</b>
<b>Total Phase II</b>			<b>\$794,000</b>
<b>Total Phase I &amp; II</b>			<b>\$1,483,000</b>
<b>Design Engineering 10% of Estimate</b>			<b><u>\$148,000</u></b>
<b>Grand Total Estimated (2008 dollars)</b>			<b>\$1,631,000</b>
<b>Budget Contingency 20%</b>			<b>\$ 326,000</b>
<b>Recommended Budgeted Amount, Phase I and II</b>			<b>=====</b> <b>\$1,957,000</b>