VTA’s BART Silicon Valley Phase II Extension

Alum Rock Community Working Group

June 10, 2015

Agenda

• Recap of CWG Process
• Follow up items
• VTA’s BART Silicon Valley Program status
  – Phase II recap
  – Environmental update
  – Community Engagement process
• Ridership and Modeling
• Planned Land Use Framework
• Next Steps
CWG Process

Eileen Goodwin, Facilitator

Role of the CWG

- Be project liaisons
- Receive briefings on technical areas
- Receive project updates
- Build an understanding of the project
- Collaborate with VTA
- Contribute to the successful delivery of the project
Your Role as a CWG Member

• Attend CWG meetings
  – Bring your own binder (BYOB)

• Be honest

• Provide feedback

• Get informed

• Disseminate accurate information

• Act as conduits for information to community at large

Role of the CWG Team

<table>
<thead>
<tr>
<th>CWG Team Member</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eileen Goodwin</td>
<td>Facilitator</td>
</tr>
<tr>
<td>Kathleen Podrasky</td>
<td>Primary Outreach Contact</td>
</tr>
<tr>
<td>Leyla Hedayat</td>
<td>Phase II Project Manager</td>
</tr>
<tr>
<td>Erica Roecks</td>
<td>Technical Lead</td>
</tr>
<tr>
<td>Michael Brilliot</td>
<td>City of San Jose – Planning Liaison</td>
</tr>
<tr>
<td>Rosalynn Hughey</td>
<td>City of San Jose – Planning Liaison</td>
</tr>
<tr>
<td>Ray Salvano</td>
<td>City of San Jose – DOT Liaison</td>
</tr>
<tr>
<td>Jessica Zenk</td>
<td>City of San Jose – DOT Liaison</td>
</tr>
</tbody>
</table>
Work Plan Items

- Presentation on the Berryessa Station parking.

- Presentation on access studies and specifics of Alum Rock Station design especially as the design relates to surrounding potential transit oriented development. Also cover Kiss and Ride lot plans.

- BART staff to present need for maintenance facility and justification of location of maintenance facility including why facility cannot be in Berryessa or another location.

- Financial Analysis as part of New Starts program, including operations and maintenance assumptions.

- Presentation on the evolution of the parking requirements/strategies since there are now about half the spots planned for Alum Rock than there used to be. Include discussion of whether lessening of parking impacts the viability of the project and FTA’s support.

Work Plan Items (continued)

- Added to next month’s discussion on ridership and modeling the specifics about what is the Route 101 access assumption to the Berryessa and Alum Rock Stations.

- Presentation of potential right-of-way impacts and relocations and a discussion on gentrification as a result of the BART project.

- Present the demographics of the Alum Rock area (1 mile, ½ mile and ¼ mile). Present not just typical demographics but also social equity components such as existing transit ridership.

- Update on Five Wounds Trail.

- Presentation on marketing plan to generate new BART riders on this extension.
## Work Plan Items (continued)

- Convene a panel of developers/economists to discuss what can be done to make the Alum Rock area more attractive to developers and also what makes an area less desirable.
- Present project vibration impacts specifically as they relate to Five Wounds Church.
- Present how VTA does its contracting covering the topics of SBE/DBE outreach and local business outreach and preference.
- Presentation on ridership assumptions and affordability, potential for fare integration and subsidies.
- Impacts to Christo Rey School site during construction including dust, noise and impacts from station box construction.
- How will the community near the Tropicana Shopping center access the Alum Rock Station, specifically bike riders’ ability to navigate the hill.

## Follow-up Items

- Suggestion by Terry Christensen and Davide Vieira:
  Elected chairperson would:
  - Liaise with facilitator/VTA staff in advance on meeting agendas
  - Add agenda items at the request of CWG members and in consultation with the facilitator/VTA staff
  - Negotiate deferring agenda items with the facilitator/VTA staff
  - Assist facilitator in management of meetings (but not chair meetings)
  - Serve as spokesperson for CWG as deemed appropriate by the full CWG
  - Discuss whether or not to elect a chair
Upcoming Meetings

VTA Board of Directors
- August 6, 2015
- September 3, 2015
- October 1, 2015

SVRT Program Working Committee
- August 3, 2015
- October 5, 2015
- December 7, 2015

City of San Jose Station Area Walk Audits
- July 21, 2015

Project Status

Kevin Kurimoto, Project Planner
### Phase II Design Completion

<table>
<thead>
<tr>
<th>Tunnel</th>
<th>Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPB Boring Machine</td>
<td>Traction Power 65%</td>
</tr>
<tr>
<td>Tunnel Liners</td>
<td>Line Electrical 65%</td>
</tr>
<tr>
<td>Horiz. &amp; Vert. Alignment / Geotech.</td>
<td>Train Control 65%</td>
</tr>
<tr>
<td>Trackwork</td>
<td></td>
</tr>
<tr>
<td>Portal Structures</td>
<td></td>
</tr>
<tr>
<td>Mid-Tunnel Ventilation structures</td>
<td></td>
</tr>
<tr>
<td>Cross Passages</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stations</th>
<th>Maintenance and Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum Rock</td>
<td>Newhall Yard 30% - 50%</td>
</tr>
<tr>
<td>Downtown</td>
<td></td>
</tr>
<tr>
<td>Diridon/Arena</td>
<td></td>
</tr>
<tr>
<td>Santa Clara</td>
<td></td>
</tr>
</tbody>
</table>

### Environmental Update

- Scoping Report released May 26, 2015
- Over 350 total comments were received in all.
- Documents and consolidates comments received, and considers:
  - Topics/concepts already analyzed
  - Topics/concepts that are not feasible and/or outside of environmental scope
  - New topics/concepts that are feasible and warrant analysis
- Technical analysis continues
Community Engagement process

Brent Pearse, Community Outreach

Community Engagement

• Strategy: To actively engage and educate community stakeholders on project status and technical subjects

• Build long term relationships that will last through environmental, final design and construction

• Develop and encourage public participation between VTA and the community
Three Pronged Approach

1. **Workshops and Walks:** Engage audiences, dive deep on complex subjects: finance/funding, ridership/modeling, access and construction

2. **Community Engagement during Environmental Process**

3. **Ongoing Communication:** 20 plus presentations to organizations/businesses since early 2015

Important Upcoming Opportunities

**Open to All**

1. **July 21, 2015** – Access Planning – Audit Walk, CSJ Lead
2. **July 2015** – Land Use Workshop
3. **October 2015** – Finance/Measures A Workshop
4. **January 2015** – Construction Methods/Approach

**Why These Topics?**

**Answer:** We receive more public comments and questions on these topics that anything else.

**Goal:** Address questions and concerns through technical experts and hands on exercises
General Questions

• When and how is the best time to use my own organization communication tools: blog, website, social media?
  – A: Key project milestones, release of public documents, board meetings
• What types of other groups has or will VTA outreach to?
  – A: Business organizations, community based organizations, low income/minority communities
• How can assigned outreach staff assist me?
  – A: Organize special presentations, meetings, follow up on questions and concerns, keep us moving forward

Staying Involved

• CWG Portal on www.vta.org/bart/phaseIICWGs
• Email Updates: www.vta.org/bart/subscribe
  – Recommend Topics BART Planning, BART, Environmental, BART News
• Social Media Sharing
  – @bartsv
  – facebook.com/bartsv
• Committee and Board Meetings
CWG Information -
www.vta.org/bart/phaseIICWGs
Santa Clara
Valley Transportation Authority
Countywide Model

Presented by George Naylor
Transportation Planning Manager
Travel Demand Forecasting, Research and GIS
Santa Clara Valley Transportation Authority

george.naylor@vta.org
June 10, 2015
Overview of the VTA Travel Demand Model

- Set of Mathematical Models Used to Estimate Existing and Future Travel Patterns > Planning Tools used for Policy Decisions

- Key Inputs – Land Uses, Transportation Networks, Pricing

- Key Outputs – Trips, Mode Shares, Travel Volumes on Roadways and Transit Lines, Travel Speeds and Times

Overview of the VTA Travel Demand Model

- Developed using Observed Travel Patterns from Household Travel Survey Data and Census (Calibration and Validation)

- Forecast Inputs are Applied to Predict Travel Demand

- Used to Define Transportation Improvement Policies and Test ‘What-if’ Scenarios

- Allows for Different Scales of Analysis > Regional, County, Facility, Route, Transit Stop/Station
The Basic Travel Demand Modeling Process

Model Inputs

Apply Model Equations

\[ a^2 + b^2 = c^2 \]

Generate Model Outputs

\[ T_{ij} = T_{i} \sum_{j=1}^{N} A_{ij} (C_{ij}) K_{ij} \]

\[ e = mc^2 \]

Key Model Inputs - Building Blocks

- Socioeconomic Data Inputs
  - Development Patterns and Activities
  - Population, Households, Workers, Age, Income
  - Provided by ABAG: reviewed by local jurisdictions
  - Employment by Industry Type (Retail, Manufacturing, Service, etc.)
  - Summarized by Traffic Analysis Zone

- Multi-modal Transportation Network Inputs
  - Roadways, Transit Lines and Stations, Bicycle Paths, Pedestrian Paths

- Pricing Descriptors
  - Gasoline, auto operating, transit fares, parking costs, tolls
**Socio-economic Data Inputs**

- VTA is required to use the official regional forecasts prepared by Association of Bay Area Governments (ABAG).
- ABAG prepared latest series used in the Regional Transportation Plan (RTP) known as ABAG Projections 2013.
- Projections 2013 have been tailored to meet ABAG and MTC policy goals as well as meet GHG emission targets mandated by Senate Bill 375.
- VTA receives census tract data from ABAG.
- Data are then allocated to smaller Traffic Analysis Zones (TAZs) for use in the VTA models.

---

**Allocation Procedure to VTA Model Traffic Analysis Zones (TAZ)**

- Start with development of base year 2010.
- Households and population from 2010 Census.
- Jobs from latest parcel data from Dataquick.
- Allocated ABAG Census totals to Traffic Analysis Zones (TAZs).
- Added in future growth from approved projects inventory.
- Allocated to specific areas based on General Plan data from jurisdictions (if available).
- Conserve to ABAG census tract control totals.
Countywide Model Traffic Analysis Zones

Historical Growth Trends Regional Households
Historical Growth Trends Regional Jobs

Historical Growth Trends
Santa Clara County Households
Station Area Demographics - Population

<table>
<thead>
<tr>
<th>Station Area</th>
<th>Year 2015 Population</th>
<th>Year 2035 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum Rock</td>
<td>5,863</td>
<td>16,330</td>
</tr>
<tr>
<td>Downtown West</td>
<td>14,501</td>
<td>28,058</td>
</tr>
<tr>
<td>Diridon</td>
<td>7,081</td>
<td>17,330</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>2,231</td>
<td>5,904</td>
</tr>
</tbody>
</table>

Year 2015 and 2035 Population within 0.5 Miles of Station
Station Area Demographics - Jobs

Year 2015 and 2035 Jobs within 0.5 Miles of Station

<table>
<thead>
<tr>
<th></th>
<th>2015 Jobs</th>
<th>2035 Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum Rock</td>
<td>6,159</td>
<td>7,609</td>
</tr>
<tr>
<td>Downtown West</td>
<td>13,463</td>
<td>46,377</td>
</tr>
<tr>
<td>Division</td>
<td>15,172</td>
<td>26,048</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>6,856</td>
<td>8,911</td>
</tr>
</tbody>
</table>

Highway and Transit Networks

- **Highway Networks**
  - Roadway attributes on network links
  - Lanes, free-flow speeds, peak hour lane capacities, etc.

- **Transit Networks**
  - Bus service utilizes road network speeds
  - Rail and Ferry services use transit links with coded speeds
  - Transit attributes include:
    - Frequencies (peak and off-peak)
    - Fares
    - Stop/Non-stop coding
    - Access connectors (walk, transfer, park-and-ride)
Model Calibration and Validation

- VTA Models are Calibrated to Observed Data
  - 1990 MTC Home-Interview Travel Survey for Non-work Trips
  - 2010 Census Data Travel Patterns for Work Trips

- VTA Models are Validated to Observed Traffic and Transit Patterns
  - AM and PM Peak Traffic Counts
  - Daily Transit Boardings by Operator (BART, Caltrain, VTA)

Year 2035 Forecast Networks

- Includes Funded Projects in the Adopted Regional Transportation Plan
- Major Transit Projects Include:
  - VTA BART Extension to Silicon Valley
  - 2-Station Phase I in 2035 No Project (existing + committed projects included)
  - 4-Station Phase II in 2035 Project
  - Caltrain Electrification and Transbay Extension
  - VTA Light Rail Improvements
    - Capitol Corridor Extension
    - Vasona Corridor Extension
    - Alum Rock-Mountain View (Long T) Line
  - VTA ECR and Stevens Creek BRT Corridors

- Major Highway Projects Include:
  - VTA Express Lane Corridors – Countywide
  - Various Countywide Roadway Improvements
BART Silicon Valley Extension

- Model output used in all phases of Project Analysis
  - Transit ridership
    - New transit trips and diverted transit trips
    - Transit vehicle requirements
      - Rail and bus vehicles
    - Station boardings by access/egress modes for station design
      - Park-and-ride spaces and required/kiss-and-ride drop-off
      - Transit transfers – station design for feeder bus and shuttle access/egress

BART Silicon Valley Extension

- Capital cost estimates
- Operating and maintenance cost estimates
- Traffic volumes
  - Station intersection level-of-service impacts
EIR and FTA Ridership Requirements

- Transit Ridership
  - No Project and Project
    - Existing Year (2015) and 20 year horizon (2035)
    - Opening Year 2025
    - New Starts final reported ridership is calculated as 50% of existing and 50% of horizon ridership
  - FTA requires an estimate of project ridership made by transit dependents – for VTA models these are lowest income riders estimated by the models

2035 Ridership – from March 2012 Model Run

<table>
<thead>
<tr>
<th>Location</th>
<th>Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alum Rock</td>
<td>7,200</td>
</tr>
<tr>
<td>Downtown</td>
<td>28,000</td>
</tr>
<tr>
<td>Diridon</td>
<td>14,000</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>12,000</td>
</tr>
</tbody>
</table>
Questions??
What’s Next for Ridership?

- Continue Community Outreach efforts
- Support Environmental Documentation Process – 2015 → 2017
- Coordinate with FTA for Review of Ridership Forecasts – 2015 → 2017
- Incorporate updated ABAG Regional Growth forecasts when available (likely late 2016 → early 2017)
- New Starts Submittal (2017)

BART Phase II

Planned Land Use Framework
Alum Rock/Five Wounds

Alum Rock Community Working Group
June 10, 2015
Existing City and Community Plans

- Five Wounds/Brookwood Terrace Strong Neighborhoods Initiative Plan (2002)
- BART Station Area Community Concept Plan - ComUniverCity (2010)
- Five Wounds Area Urban Village Plans (2013)
Five Wounds Area Urban Villages

- Implemented the Envision San Jose 2040 General Plan

- Integrated the work of the BART Station Area Community Concept Plan (2010) and the Five Wounds/Brookwood Terrace Strong Neighborhoods Initiative Plan (2002)

- Are the City’s first City Council approved Urban Village Plans

---

Village Location Map

- Roosevelt Urban Village
- Five Wounds Urban Village
- Little Portugal Urban Village
- 24th and Wilton Urban Village
Five Wounds Area Urban Villages

Each Plan addresses:

• Land use and urban design
• Phasing of residential development
• Circulation and Parking
• Parks and open space
• Implementation next steps

Five Wounds Urban Village

Horizon 2 – Planned Growth Capacity (Triggered By BART)

• New Commercial Square Footage - 1,215,000 sq ft
• New Housing Units - 845 units
Five Wounds Urban Village

Horizon 2 – Planned Growth Capacity

- New Commercial Square Footage - 82,000 sq ft
- New Housing Units - 310 units

Little Portugal Urban Village
Roosevelt Park Urban Village

Horizon 1 - Planned Growth Capacity

• New Commercial Square Footage - 181,500 sq ft
• New Housing Units - 650 units

24th and William Urban Village

Horizon 1 - Planned Growth Capacity

• New Commercial Square Footage - 124,500 sq ft
• New Housing Units - 217 units
Pending BART Phase II Studies

Development Impact Study

- Identify anticipated impacts of BART upon development
- Evaluate existing Land Use plans and real estate market
- Identify opportunities/mechanisms to catalyze development
- Suggest changes to existing land use plans
Access & Connectivity Study

Integrate BART Station into the Surrounding Environment

• Maximize Ridership
• Connect Seamlessly to Feeder Systems
• Enhance the Quality of Street Life
• Encourage Foot Traffic & Business Vitality

Study Process

• Walk Audit & Workshop with Community Stakeholders (You!)
• Three-Day Charette
• Documentation of Stakeholder Input & Charette Outcomes

Save the Date: Tuesday, July 21st
BART Phase II
Planned Land Use Framework
Alum Rock/Five Wounds

Alum Rock Community Working Group
June 10, 2015

Discussion
Eileen Goodwin, Facilitator
Next Steps

• Next meeting: Wednesday, August 12, 2015 ~ 4:00-6:00 PM,
  Mexican Heritage Plaza ~ BYOB
  – Financial Analysis of BART Phase II (VTA staff & Ernst and Young)
  – City related projects within the BART corridor (City of San Jose staff)
  – VTA related projects within the BART corridor (VTA staff)
  – Economic Analysis surrounding BART stations (SPUR staff)
  – Envision project update (VTA staff)

• Action Items