Comprehensive Transit Analysis

• To determine how public transit may better meet the short-term and longer-term needs of the community.
  • Including opportunities for transit service connections to Sacramento Regional Transit’s light rail service.
• An Action Plan to guide the implementation of transit service improvements over the next 5 to 10+ year period.

Analysis of Potential Service Alternatives
• Bus Rapid Transit (BRT)
• Transfer Hubs
• Fare Changes
• Problem identification – what is working and what is not?

• What are the City’s unmet mobility needs?

• What are the key local and regional origin & destinations?

• What are the critical markets in the study area?

• What kind of service is justified for the study area? Future service requirements? (Including Light Rail Transit [LRT] connectivity.)

• What does the community want? How can this be delivered within budget constraints?
Workflow

1. **Project Initiation**
   - Public Workshop/Focus Group Sessions

2. **Data Collection and Existing Conditions Analysis**
   - Community Surveys

3. **Alternatives Development**

4. **Alternatives Analysis and Evaluation**

5. **Preferred Alternative**

6. **Council Meeting**

7. **Final Report**

**Stakeholder Consultation Throughout the Project**
Ridership & Productivity – *Local & Commuter Routes*

**Local Route Productivity**

- 152 Harbour-Laguna
- 151 EG Blvd-Franklin/FHS
- 154 Armand George-Calvine
- 153 Laguna-Fire Poppy/FHS
- 159 Whiteock-Franklin
- 157 Bruceville-Big Horn
- 156 EG Blvd-Bruceville
- 162 Calvine-EG Florin Loop
- 163 Saturday Loop
- 160 Waterman-Bond
- 163 Sunday Loop

**Commuter Route Productivity**

- 91 Butterfield Reverse
- 90 Sacramento Reverse
- 70 Bradshaw
- 59 Old Town
- 71 Laguna
- 58 East Elk Grove
- 52 Big Horn
- 66 Elk Grove Blvd
- 57 Elk Grove Florin
- 60 Elk Grove Park-Ride
- 53 Whitelock-Franklin
Findings and Recommendations
Commuter services are well utilized despite design challenges
- Some alignments are too long
- Some end-to-end bus *travel times* are not competitive with private auto
- Most customers board at park-ride lots located near the freeway

Local route network underperforms its potential
- Overly focused on Cosumnes River College as singular destination
- Wandering alignments - *e.g.*, Routes 157, 162
- Low ridership / limited growth alignments - *e.g.*, Routes 160, 162
- Local route alignments are different from commuter route alignments
- School routes (151-153) are different from local route alignments
- Weekend route alignments are different from weekday route alignment
Study Findings – *What are the critical markets in the study area?*

- **Institutions**
  - Elk Grove Civic Center
  - Library / Senior Center
  - CRC campuses
  - Middle & High Schools

- **Employers**
  - Apple Computer
  - State Office complex – Longleaf Drive
  - Retail stores & shopping centers

- **Health Care**
  - Kaiser Permanente – Big Horn / Promenade
  - Sutter / UC Davis

- **Shopping centers**

- **Transportation**
  - Park-ride lots
  - Multi-modal center

- **Regional Connections**
  - CRC Blue Line
  - Butterfield LRT
  - Downtown Sacramento
Study Findings – *What kind of service is justified for Elk Grove?*

✅ **Peak Period Commuter Service to Sacramento**
- Maintain peak direction current capacity
  - Increase frequency as affordable, within Transit Operating Budget constraints
- Increase reverse direction capacity
- Coordinate non-freeway route segments with local network
- Concentrate service frequency at expanded park-ride lots

✅ **Grid-oriented local fixed route bus network**
- All-day connections to RT Blue Line
- BRT extending south through the City
  - City Master Plan recommends Big Horn Blvd
- East-west lines on Calvine, Sheldon, Laguna Blvd, Elk Grove Blvd
- North-south lines on Elk Grove Florin, Big Horn, Bruceville, Franklin & Harbour Point
- Scalable service span & frequency

✅ **Flexibly routed & scheduled service is an interim choice for midday, evening and weekend operations**
Survey Findings * – What does the community want?

- Generally satisfied with the quality of e-tran services
- Most respondents felt the fares were reasonable
- Felt safe on e-tran buses
- The majority of respondents are regular Commuter Service customers and use for work purposes
- Conversely, 60% of Local Service customers use e-tran for non-work purposes

* 400 responses

Administered during 6-week period (Oct. 1st to Nov. 11th, 2015)
Survey Findings – *What does the community want?* [cont.]

- **Most common reason why survey respondents did not use e-tran services was:**
  - Buses do not go close enough to where they want to travel to and from
  - Infrequent service
  - Feeling that riding the bus takes too long

- **Most desired transit service improvement was a mobile app for real-time information**
  - Followed by a desire for more frequent bus service
  - Third was the desire for later night service

- **Majority of comments addressed an apprehension over using LRT**

![Bar chart showing the types of e-tran service improvements that survey participants would like to see](chart.png)
Local Service Plan
Local Service Design Objectives

- Restructure network to be more consistent with Elk Grove’s grid street network
- Simplify / rationalize route alignments
  - Straighter, more direct lines with fewer turns and deviations
  - Bi-linear – two-way service on a single street
- Integrate e-tran into the multi-modal regional transit network
- Lay the foundation for future enhanced express or rapid transit on Big Horn Boulevard
- Short-term focus resources on peak-period service
- Scalable service design for efficient expansion as demand warrants and within budget.
Local Service Recommendations

Simplify the route network
- Consolidate nine existing routes into six proposed routes
- Grid design consistent with the City’s street network
- Replace free-standing school routes with supplemental capacity on regular routes
- Use the same alignments on weekdays & weekends

Integrate local and regional services
- Connect Blue Line South through Elk Grove with express bus service
- Big Horn corridor referenced as preferred transit corridor in City’s Master Plan
- Local routes operating mostly on arterial streets running east-west & north-south

Operate commuter & local routes on common alignments
- Improves peak frequency on local segments
- Expands midday and evening travel options for e-tran commuters
- Builds system visibility – blend commuter service and all-day local service
**Proposal Highlights**

- Provides a foundation for future rapid transit in preferred corridor

- **Commuter 50**
  - Serves Downtown Sacramento via Hwy 99
  - Stops at two (2) park-ride lots

- **Local 150**
  - Schedules coordinated with Blue Line at CRC station
  - Backbone for grid network

- **Transition toward BRT in stages**
  - Fewer stops
  - Off-board fare collection
  - Queue jumps / signal pre-emption

- **Major stops / transfer points:**
  - CRC/Blue Line station
  - Sheldon Road
  - Laguna Boulevard
  - Elk Grove Boulevard
  - Lotz Parkway
  - Whitelock Parkway
  - Multi-modal transit center
**Proposal Highlights**

**Commuter 51**
- Serves Downtown Sacramento via I-5
- Stops at two (2) park-ride lots

**Local 151**
- Replaces portions of existing routes 157, 159, and school routes 151-153

**Key trip generators**
- Elk Grove Civic Center
- Pinkerton MS
- Franklin Library
- Apple Computer
- Cosumnes Oaks HS
- Franklin HS
- Raleys / Safeway
- Laguna Town Center
Comprehensive Transit Analysis

Route 52/152 Cresleigh

**Proposal Highlights**

**Commuter 52**
- serves Downtown Sacramento via I-5
- Stops at three (3) park-ride lots

**Local 152**
- Fills gaps in the east-west grid
- Replaces school routes 151-153

**Key trip generators**
- Elk Grove Civic Center
- Laguna Creek Town Center
- Apple Computer
- Franklin HS
- Raleys / Safeway
- Laguna Town Center
Proposal Highlights

Commuter 53
- serves Downtown Sacramento via Hwy 99
- Stops at two (2) park-ride lots

Local 153
- replaces portions of existing routes 157 and 162

Key trip generators
- Elk Grove HS
- Old Town
- Marketplace 99
- Laguna Crossroads
- Apple Computer
- Kerr MS
- Senior Center
- State Offices – Longleaf Drive
- Laguna Creek Town Center
- Laguna Town Hall
Proposal Highlights

🚗 Commuter 54
- serves Downtown Sacramento via I-5
- Stops at two (2) park-and-ride lots

🚗 Commuter 57
- serves Downtown Sacramento via Hwy 99
- Stops at two (2) park-and-ride lots

 микро Автомобиліст 154
- Forms an east-west crosstown in north Elk Grove
- Replaces portions of routes 159 & 162

Key trip generators
- Sheldon HS
- Bradford Christian
- Calvine Alternative HS
- Laguna Creek HS
- Laguna Creek Town Center
- Laguna Town Hall
- Smedberg MS
- Bel Air Village
- CRC / RT Blue Line station
- Harris MS
- Apple Computer
Proposed Highlights

Commuter 55
- serves Downtown Sacramento via Hwy 99
- Stops at one (1) park-ride lot

Local 155
- replaces portions of existing routes 154 and 160

Key trip generators
- Pleasant Grove HS
- Bond Plaza
- Creekside Plaza
- CRC / Blue Line station

Albiani MS
SaveMart
Lowes
Commuter 56 - serves Downtown Sacramento via Hwy 99 - Stops at three (3) park-ride lots

Local 156 - Continues on present alignment

Key trip generators
Waterman Plaza - Old Town
Public Library - Kerr MS
Laguna 99 Shopping Plaza - Elk Grove Civic Center
Eddy MS - Laguna Crossroads Shopping Center
Aquatics Complex - CRC / RT Blue Line station
### e-tran Service Plan Options
#### Summary Design Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Current System</th>
<th>Option A Level of Service (LOS)</th>
<th>Option B Level of Service (LOS) (7% reduction in revenue hours in option A)</th>
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<tbody>
<tr>
<td><strong>Annual Revenue Hours</strong></td>
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<tr>
<td>Local</td>
<td>37,054</td>
<td>31,247</td>
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<td>Commute</td>
<td>19,748</td>
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<td><strong>Total</strong></td>
<td>57,502</td>
<td>56,850</td>
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<td><strong>Average Frequency - Local (minutes)</strong></td>
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<td>Peak Weekday</td>
<td>30 - 120</td>
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<td>Midday Weekday</td>
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<tr>
<td>Evening Weekday</td>
<td>30 - 60</td>
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<td>30 - 120</td>
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<td>Saturday</td>
<td>80</td>
<td>60 – 120 (4 routes)</td>
<td>60 – 120 (short day)</td>
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<tr>
<td>Sunday</td>
<td>80</td>
<td>60 - 120</td>
<td>No service</td>
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<tr>
<td><strong>Service Span</strong></td>
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<tr>
<td>Local Weekday</td>
<td>5:52 am – 11:00 pm (16.9 hours)</td>
<td>6:00 am – 8:30 pm (14.5 hours)</td>
<td>6:00 am – 8:30 pm (14.5 hours)</td>
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<td>Local Saturday</td>
<td>7:15 am – 11:10 am 1:15 pm - 6:10 pm</td>
<td>6:00 am – 7:00 pm (13 hours)</td>
<td>8:00 am – 5:00 pm (9 hours)</td>
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<td>Commuter Weekday</td>
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<td>5:30 am – 8:45 am 3:30 pm – 6:00 pm</td>
<td>5:30 am – 8:45 am 3:30 pm – 6:00 pm</td>
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<td><strong>Daily Trips (one-way)</strong></td>
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<td>Local Weekday</td>
<td>199</td>
<td>146</td>
<td>139</td>
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<td>Local Saturday</td>
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<td>55</td>
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<td>0</td>
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<tr>
<td>Commuter Weekday</td>
<td>73</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Reverse Commuter</td>
<td>6</td>
<td>22</td>
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Flexible Circulator Service Option

- Cost-effective solution for low-demand periods
  - Midday, evenings & weekends
- Combines fixed route and demand responsive service attributes
- Dynamic routing and scheduling responds to consumer demand
- Extends geographic coverage city-wide
- Reservations required
- Depends on technology

**Service Design**

- Two (2) zones
- Designated pick-up locations
- Feeder service to:
  - Big Horn
  - CRC Blue Line
  - future multimodal center

FLEX CIRCULATOR SERVICE  
June 3, 2016
Commuter Service Plan
Commuter Service Design Objectives

- Maintain current level of service / expand within budget limitations
- Reshape routes to reflect customer boarding patterns
- Focus resources on service offering competitive end-to-end travel times (competitive - relative to private auto) to attract more peak direction commuters
- Improve reverse commute services into Elk Grove (Increase number of trips)
- Improve capital and operating cost efficiency of commuter service
Expand Commuter Network Capacity

**Peak direction capacity**
- Modify daily schedule
  - Proposed 68 trips on 9 routes
  - Currently 67 trips on 12 routes
- 1.5% increase in service capacity

**Reverse direction capacity**
- Expand daily schedule
  - Proposed 22 trips on 4 routes
  - Currently 6 trips on 2 routes
- Increase service capacity
Comprehensive Transit Analysis

Commuter Service Recommendations

- Operate fewer routes with better schedules
  - Minimum of three (3) scheduled trips per peak direction (minimum design standard)
  - Modify or eliminate existing schedules containing 1 or 2 trips per peak period (*i.e.*, Routes 66, 70, 90, 91 and Purple Route)

- Accommodate ADA-eligible Purple Route customers on regular commuter routes

- Concentrate high frequency (10-15 minutes) at expanded park-ride lots near I-5 and Hwy 99 freeway interchanges

- Limit local pickup segments to 15 minutes (maximum) before entering freeway

- Implement a common two-way route alignment through Downtown Sacramento for all e-tran routes (all commuter trips will share the same bus stops)
Proposed Commuter Service Alignment
Downtown Sacramento

Why a common alignment?

- Reduce bus travel times through Downtown
- Provide reasonable walking distance for most customers
- Easier for new customers to find the right bus stop
- Shorter waiting times for many customers heading to Elk Grove
Proposal Highlights

- Consolidate existing Routes 70 & 71 on a common alignment (enhance productivity, invest on single corridor, increase frequency)

- Extend weekday service span
  - 5:00 AM – 9:00 AM
  - 2:30 PM – 6:30 PM

- Run service in both directions

- Increase schedule to 13 daily one-way trips (currently 9)
Objectives

- Locate park-ride lots near I-5 & Hwy 99 interchanges in Elk Grove
- Expand capacity at key locations to support high frequency service

Recommendations

- Construct new facilities
  - Elk Grove Civic Center
  - Harbour Point / EG Blvd
  - Hwy 99 & Bond/Laguna

- Phase out selected lots
  - Limited parking capacity
  - Farther from freeway
Recommendations

• Pursue a minimum target for system farebox recovery

• Ensure equity across customer fare types (local vs. commuter)

• Strategic Pricing
  - Reduce emphasis on cash
  - Incentivize fare prepayment
  - Review transfer charges and rules for use
  - Consider relationship to regional fares (*Connect Card* – in progress)

<table>
<thead>
<tr>
<th>Fare Type</th>
<th>General Public</th>
<th>Senior/Disabled/Medicare/Military</th>
<th>Student</th>
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<tr>
<td>Cash Fare</td>
<td>$2.25</td>
<td>$1.10</td>
<td>$1.10</td>
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<td>Transfer</td>
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<tr>
<td>Daily Pass</td>
<td>$6.00</td>
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<tr>
<td>10-Ride Pass</td>
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<td>Commuter 31-Day Pass (Monthly)</td>
<td>$100.00</td>
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<td>Local 31-Day Pass (Monthly)</td>
<td>$80.00</td>
<td>$40.00</td>
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COMPREHENSIVE TRANSIT ANALYSIS
Local & Commuter Service

COMMENTS

August 29, 2016