AGENDA TITLE: Update of the Comprehensive Operational Analysis of the City’s Local and Commuter Transit Service (e-tran) – Service Plan Working Paper

MEETING DATE: October 26, 2016

PREPARED BY: Jean Foletta, Transit System Manager

DEPARTMENT HEAD: Robert Murdoch, Public Works Director/City Engineer

RECOMMENDED ACTION:

Receive and file this update to the City Council on the e-tran Comprehensive Operational Analysis (COA).

BACKGROUND INFORMATION:

In July 2014, the City was awarded a competitive grant from the California Department of Transportation (Caltrans) Sustainable Communities Transportation Planning Grant Program to conduct a COA of the City’s local and commuter transit services. On June 24, 2015, the City Council awarded the COA contract to IBI Group.

Staff has kept Council engaged throughout the COA process by providing periodic updates at City Council meetings. This report contains a Service Plan Working Paper, which provides the foundation (recommended service restructuring) for an Action Plan to guide the implementation of transit service improvements over the next 5 to 10+ years.

The service scenarios presented in the Service Plan Working Paper were presented to the public for comment at two public workshops held in August 2016. The general consensus received at the August workshops was one of support for the proposed service scenarios presented.
However, there was some concern expressed regarding the reduction of the level of local transit services.

A COA of the City’s local and commuter transit routes is important in order to improve the efficiency of service within the City, address future anticipated land use development and transportation investments, and enhance connectivity to regional light rail and buses services. Overall, the analysis will culminate in recommendations for local and commuter route revisions that would address future population growth and transit demand, transit-dependent needs, connectivity to regional transit services, and anticipated revenue and transit investment opportunities.

**SERVICE PLAN WORKING PAPER COMPONENTS**

The working paper presents an overview of the System Concept, Service Design Guidelines, Performance Metrics, Recommended Local Network, Recommended Commuter Network, and System Resource Requirements as follows:

1. **System Concept** – System design concepts include:
   a. Restructure the local route network around a new express route with a north-south alignment extending between the Cosumnes River College (CRC) campus light rail station and the planned Outlet Collection at Elk Grove at Highway 99 and Kammerer Road
   b. Implement five additional local routes to provide east-west coverage that would feed into the north-south route noted above.
   c. Overlay seven commuter routes on the local alignment within Elk Grove with peak period service directly to Downtown Sacramento via Highway 99 and Interstate 5.

2. **Service Design Guidelines** – Includes strategies to simplify the current local network including running service on a grid system, design a common set of local and commuter alignments to enhance service quality, local routes adhering to the same alignment on weekdays and weekends, incorporate school routes into the local network to provide all-day connections, recognize the role of e-tran in providing a seamless regional transit network.
3. Performance Metrics – The City needs a way to monitor transit system performance using a compilation of key indicators, measures, targets and standards consistent with transit industry best practices and local requirements. These standards include on time performance, service reliability and ridership performance targets. Performance standards will be presented in the final COA.

4. Recommended Local Network – The proposed local network reflects a shift from the presently configured radial network. The grid is constructed around a primary north-south corridor running between the CRC campus to the future Civic Center and Outlet Collection at Elk Grove locations. Additional local routes operate direct crosstown service and transfer connections to the primary transit corridor.

5. Recommended Commuter Network – Proposed commuter service maintains current level of service (LOS) for riders. Consolidation of twelve existing routes into nine routes is proposed. Fewer routes translate into more robust schedules by modifying or eliminating five marginal routes including the Purple Route (customers with mobility needs will be accommodated on other proposed commuter routes). Proposed routes generally include four or five trips per peak period and cover a wider service span; allowing riders more flexibility when planning their trips.

The recommended commuter network also addresses a more robust reverse commute service, improving Park-and-Ride access, developing a common two-way alignment in Downtown Sacramento, and urges the integration of e-tran with light rail to include all day service to the Blue Line at CRC and the Gold Line at Butterfield stations.

6. System Resource Requirements - Two service scenarios are contained in this section: one which maintains current LOS and the second that includes a 7% reduction in service by reducing service on Saturdays and providing no service on Sundays. The 7% reduction is being included as an option to reduce the current operational subsidy provided by the General Fund for transit operations. The 7% reductions represents approximately $198,600 in annual savings compared to the current LOS. The City currently subsidizes transit services with the General Fund by over $800,000 annually.
The next steps of the COA process are to incorporate any public and Council comments from the October 26 Council Meeting into the Service Plan Working Paper, prepare a financial plan including fare policy structure and capital investment strategy, and prepare a draft COA for the Council’s consideration. Staff anticipates that the draft COA will be presented to Council for adoption on December 14, 2016.

**FISCAL IMPACT:**

The City’s General Fund annually contributes to the Transit Fund. In Fiscal Year 2017 the General Fund contribution is expected to be approximately $835,304.

**ATTACHMENT:**

1. Service Plan Working Paper
COMPREHENSIVE OPERATIONAL ANALYSIS
LOCAL & COMMUTER SERVICE

AN ACTION PLAN TO GUIDE THE IMPLEMENTATION OF TRANSIT SERVICE IMPROVEMENTS OVER THE NEXT 5 TO 10+ YEARS.

SERVICE | PLAN | WORKING | PAPER

ELK GROVE

OCTOBER 26, 2016
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**Appendix A: Presentation Material – Public Workshop (August 29, 2016)**
Background

The Comprehensive Transit Analysis, also known as the Comprehensive Operational Analysis (COA), is an action plan to guide the implementation of transit service improvement over the next 5 to 10+ years. A COA of the City’s local and commuter transit routes is important in order to improve the efficiency of service within the City, address future anticipated land use development and transportation investments, and enhance connectivity to regional light rail and bus services. The COA will specifically address how the City’s transit system will connect to the light rail service at Cosumnes River College (CRC), which opened in September 2015, and serve the proposed future land use development in the City’s Southeast Policy Area. Overall, the analysis will culminate in recommendations for local and commuter route revisions that would address future population growth and transit demand, transit-dependent needs, connectivity to regional transit service, and anticipated financial revenue and transit investment opportunities.

Key elements of the COA study approach included:

- Problem identification – an evaluation of the performance of existing e-tran local and commuter services;
- Identifying the City’s unmet mobility needs;
- Identification of key local and regional origins and destinations;
- Identification of the critical markets in the study area;
- Address the type and level of transit service justified for the study area as well as future service requirements (Including Light Rail Transit [LRT] connectivity; and
- Address community input.

The COA study process has included a great deal of outreach and facilitation with the general public and key regional stakeholders. The alternative service scenarios described below, reflect input received from a variety of activities, including two public workshops, multiple interviews with various agencies, and a community survey that received over 400 responses.

Further, these service scenarios were presented at public workshops held August 29, 2016. A copy of the presentation material is included as Appendix A. Service enhancements as described herein and presented to the public were designed to reflect previous comments received regarding a “desire for a more user-friendly service” and “that some of the alignments of the commuter services are too long” and concern that any restructuring will result in “an elimination or reduction of commuter services with LRT service to the CRC”.

The general consensus at the August public workshops was one of support and favorable comments of the recommended approach. There was some concern expressed if decisions are made to reduce the level of local transit services.

The purpose of this working paper is to provide the foundation (recommended service restructuring) for an Action Plan to guide the implementation of transit service improvements over the next 5 to 10+ year period.
1.0 Introduction / System Concept

A fresh perspective toward transit system development during the next five to ten years is recommended. As the City continues to grow and evolve beyond a suburban bedroom community toward a full-service city within the greater Sacramento region, it can be anticipated that community expectations for e-tran to meet the mobility needs of its residents, businesses and institutions will rise as well. The City’s 2003 General Plan, which currently is undergoing a comprehensive revision, recognized the Elk Grove’s growing place in the region and the role of public transit in facilitating job access.

“Policy Cl.7 - The City shall encourage an approach to public transit service in Elk Grove which will provide the opportunity for workers living in other areas of Sacramento County to use all forms of public transit—including bus rapid transit and light rail—to travel to jobs in Elk Grove, as well as for Elk Grove workers to use public transit to commute to jobs outside the city.”

This working paper presents an overview of the System Concept (Section 1.0); Service Design Guidelines (Section 2.0); Performance Metrics (Section 3.0); the Recommended Local Network (Section 4.0); the Recommended Commuter Network (Section 5.0); and System Resource Requirements (Section 6.0).

1.1 System Concept

The proposed system concept replaces the previously incremental approach to e-tran system development. The recommended service plan would redesign the e-tran fixed route system as a grid network consistent with the underlying street network that makes Elk Grove generally a convenient and efficient place to drive. The objective of a transit grid is to offer e-tran customers transit travel options based on the same critical choices about travel path, distance and time that Elk Grove motorists make in their personal automobiles. Additionally, the local transit network should be an integral part of the regional transit network in much the same way as the local street network interconnects seamlessly with the street networks of neighboring jurisdictions.

The system concept is purposefully budget-neutral to avoid frequent changes to the basic route structure in the next few years. The service plan establishes a new transit network covering Elk Grove neighborhoods and destinations, with local and commuter routes functioning together as an integrated system. Looking ahead to the next five years and beyond, the network should not need to change significantly from year to year unless there is a dramatic change in transit funding. Short-term stability of the route network will give customers and others a better opportunity to comprehend and use e-tran service following implementation of restructuring.

Nevertheless, system level of service (LOS) which is expressed as the total annual revenue service hours (time in which the bus is picking up passengers); must be scalable to available
budgets from year to year. Currently e-tran provides approximately 57,000 annual revenue hours. Transit system operating costs may be calibrated to annual budgets by adjusting the days, hours, and service frequencies that individual routes are operating. Consistent with City staff guidance, this report initially presents two (2) LOS scenarios supporting the service plan. In Section 4.0, a budget-neutral scenario (i.e., no change from FY 2016) is presented as “Option A”. A seven percent (7%) budget reduction scenario is presented as “Option B” in the event that the City needs to reduce transit spending next year. These LOS options are depicted in Section 6.0, Exhibit 16.

It is important to note that there are no differences in commuter LOS reflected in these scenarios. The service reduction inherent to Option B would be achieved through selective reduction of weekend and weeknight service on local routes, based on ridership and productivity expectations. Performance metrics are proposed to guide future improvements as additional revenues for e-tran become available, or conversely, reductions to local service span and frequency if further budget cuts are required.

Implementation of the new system design follows three steps:

1. Restructure the local route network around a new express route with a north-south alignment extending between the Cosumnes River College (CRC) campus light rail transit (LRT) station and the planned business district located near Hwy 99 and Kammerer Road via primarily Big Horn Boulevard. This is intended to lay the foundation for further consideration of an enhanced transit service corridor envisioned in the 2003 General Plan. An enhanced transit service corridor may take the form of express bus, bus rapid transit or ultimately, light rail transit.

2. Implement five (5) additional local routes to provide east-west coverage along developed segments of Calvine Road, Sheldon Road, Bond Road-Laguna Boulevard, W Big Horn Boulevard, Elk Grove Boulevard, and Whitelock Parkway; and north-south coverage on segments of Elk Grove Florin Road, S Big Horn Boulevard, Bruceville Road, Franklin Boulevard, and Harbour Point Drive. This forms a grid network primarily on arterial streets with routes both intersecting the Big Horn corridor, and also running parallel to it.

3. Overlay seven (7) commuter routes on local alignments within Elk Grove with peak period service directly to Downtown Sacramento via Interstate 5 (I-5) and Highway 99 (Hwy 99). These commuter routes would maintain and enhance peak-period service capacity between Elk Grove and Sacramento, focus on serving an improved network of park and ride lots resulting in reduced travel times with the city limits and a downtown realignment resulting in all routes operating in the same network.
2.0 Service Design Guidelines

Translating the recommended system concept into service on the street requires a set of service design guidelines. Specific design guidelines are applied to the creation of new service alignments for e-tran.

2.1 Network Design Recommendations

1. Simplification of the presently complicated e-tran route network is recommended with consolidation of nine existing local routes into six proposed routes.

2. Establish a common set of local and commuter alignments that make sense from the customers’ perspectives and enhancing service quality.

3. Local routes should adhere to the same alignments on weekdays and weekends.

4. Incorporate school Routes 151-153 (currently operating on a limited schedule) serving Franklin High and Cosumnes Oaks High School on regular routes providing all-day connections between Cosumnes Oaks and Franklin High Schools, Pinkerton Middle School, and residential neighborhoods across south Elk Grove, including the East Franklin, Whitelock and Stone Lake subdivisions.

5. Recognize the role of e-tran in providing a seamless regional transit network:
   a. Maintain / enhance peak period commuter service to Downtown Sacramento; and
   b. Expand off-peak and weekend local connections to the Blue Line at CRC LRT station, and to the Gold Line at the Butterfield LRT station.

2.2 Local Route Design Principles

1. Redraw the local route network to fit the City’s grid street network:
   a. Primary north-south line on Big Horn Boulevard;
   b. East-west lines on Calvine, Sheldon, Laguna Blvd, Elk Grove Blvd; and
   c. North-south lines on Elk Grove Florin, Big Horn, Bruceville, Franklin & Harbour Point.

2. Simplify / rationalize route alignments:
   a. Straighter, more direct lines with fewer turns and deviations;
   b. Bi-linear – two-way service on a single street rather than one-way loop; and
   c. Operate on arterial and selected collector streets.
3. Route alignments must be scalable to accommodate planned future frequency improvements efficiently.

### 2.3 Commuter Route Design Principles

1. Overlay commuter services on local route alignments. Schedule commuter trips in between local trips to improve frequency on local segments thereby:
   a. Providing commuters the ability to travel during off-peak periods when necessary; and
   b. Reduces wait times for local customers.
2. Limit local pickup area (non-freeway route segment) to 15 minutes or less of scheduled travel time within Elk Grove.
3. Rationalize use of the I-5 and Hwy 99 freeways:
   a. Neighborhoods west of Big Horn feed into the I-5 Freeway; and
   b. Neighborhoods east of Big Horn feed into Hwy 99.
4. Expand park-ride capacity to accommodate high frequency commuter service at major park-ride lots
5. Redesign downtown alignment resulting in all commuter routes operating in the same network.

### 3.0 Performance Metrics

In addition to design guidelines, the City also needs a way to monitor transit system performance using a compilation of key indicators, measures, targets and standards consistent with transit industry best practices and local requirements. The adopted Fiscal Year 2014-2020 Short Range Transit Plan (SRTP) contains a number of operational policies and performance standards that should be brought forward and calibrated to current conditions in the updated document. These standards focus on service reliability in terms of on-time performance, incidence of road calls and wheelchair lift failures, as well as ridership performance targets. Specific ridership targets are:

- **Local Routes** - 41,000 monthly boardings averaging 16 boardings per service hour; and
- **Commuter Routes** - 41,000 monthly boardings averaging 26 boardings per service hour.

The SRTP recommended consideration and adoption of additional performance standards such as:

- Spacing criteria for adding, removing or relocating bus stops along a route;
• Ridership performance, including minimum productivity thresholds to identify underperforming routes or segments requiring restructuring or discontinuation; and

• On-board loading conditions, including minimum and maximum occupancy thresholds relative to seating capacity.

Performance standards addressing the aforementioned will be presented in the final Comprehensive Operational Analysis report.

4.0 Recommended Local Network

Shown in Exhibit 1, the proposed local route network reflects a shift from the presently configured radial network (i.e., all routes terminate at the CRC campus) to a grid network. The grid is constructed around a primary north-south corridor running between the CRC campus and planned commercial development near the Hwy 99 interchange at Kammerer Road. Additional local routes operate direct crosstown service and transfer connections to the primary transit corridor. These routes are comprised of primarily arterial street segments running east-west and north-south across the City. Key terminal points include the CRC campus, Laguna West, and the new Civic Center. It is noted that restructuring local service as a grid potentially will impact some customers who currently have a one-seat ride to the CRC campus, but would need to transfer on the proposed local network.
Exhibit 1: Proposed Local Route network
4.1 Primary North-South Transit Corridor - Big Horn Boulevard

The City’s 2003 General Plan supports development of enhanced transit service along a north-south alignment through Elk Grove:

- **Policy CI.8** - The City shall encourage the extension of bus rapid transit (BRT) and/or light rail service to the planned office and retail areas north of Kammerer Road and west of Hwy 99.

- **Policy CI.9** - Light rail service in Elk Grove should be designed to serve major employment centers and the regional mall at Kammerer Road/Hwy 99. The City of Elk Grove encourages the development of light rail which will bring workers and shoppers to Elk Grove, while also serving as part of a coordinated, regional transportation network.

The five-year service plan incorporates new commuter and local routes along Big Horn Boulevard to lay the foundation for a potential major transit investment in the future such as Bus Rapid Transit (BRT). Shown in Exhibit 2, Routes 50 and 150 share a common alignment on Big Horn Boulevard between the proposed Civic Center Drive park-ride lot and Lewis Stein Road; and continuing on Lewis Stein to Sheldon Road.

**Local Route 150** operates between the CRC Blue Line station and Kaiser Promenade Medical Center via Elk Grove Civic Center and Kaiser Promenade Parkway. It is assumed that this route will be extended farther south to the proposed development on Kammerer Road or Grant Line Road when warranted by future conditions. As planned, Route 150 operates every 30 minutes on weekdays between 5:30 am and 8:30 pm; and hourly on Saturdays (6:00 am – 7:00 pm) and Sundays (7:00 am – 6:00 pm).

**Commuter Route 50** overlays the local alignment with four morning and four afternoon peak direction trips between Civic Center Drive and Calvine Road; and operates directly between Downtown Sacramento and central Elk Grove via Hwy 99. As planned, Route 50 trips are scheduled between local Route 150 trips to provide 15-minute peak frequency on key local segments.

It is envisioned that bus service on Big Horn Boulevard will transition toward BRT in stages; with incremental improvements designed to expedite bus travel speeds such as using signage and traffic enforcement; limited bus stops; off-board fare collection; and expedited bus flow at intersections (e.g., signal preemption, queue jumps). The proposed multi-modal transit center on Grant Line Road is a logical southern terminus for the BRT line.
4.2 Local Grid Routes

In addition to Route 150, five additional routes complete the proposed local network. As described in Exhibit 3 and displayed in Exhibit 1 these routes form a grid with service on key east-west and north-south streets. These routes are described briefly in the following paragraphs.

**Exhibit 3. Proposed Local Route Network Coverage**

<table>
<thead>
<tr>
<th>Route</th>
<th>East-West Coverage</th>
<th>North-South Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 Big Horn</td>
<td>Whitelock – Promenade to Big Horn</td>
<td>Promenade; Big Horn; Lewis Stein; Bruceville</td>
</tr>
<tr>
<td>151 Franklin</td>
<td>Whitelock Pkwy; Laguna Blvd</td>
<td>Harbor Point Dr.</td>
</tr>
<tr>
<td>152 Cresleigh</td>
<td>Elk Grove Blvd – Cresleigh to Franklin</td>
<td>Franklin – Laguna to Elk Grove Blvd</td>
</tr>
<tr>
<td>153 Elk Grove Florin</td>
<td>Bond-Laguna between Apple &amp; Elk Grove Florin</td>
<td>Elk Grove Florin between Bond &amp; Grant Line</td>
</tr>
<tr>
<td>154 Calvine/Big Horn West</td>
<td>Calvine – Bradshaw to Bruceville Big Horn – Bruceville to Franklin</td>
<td>Bruceville - Calvine to Sheldon Franklin – Big Horn to Laguna Blvd</td>
</tr>
<tr>
<td>155 Power Inn</td>
<td>Sheldon - Power Inn to Elk Grove Florin</td>
<td>Power Inn- Calvine to Sheldon Elk Grove Florin - Sheldon to Bond</td>
</tr>
<tr>
<td>156 Old Town</td>
<td>Elk Grove Blvd - Bruceville to Clarke Farms</td>
<td>Bruceville -CRC to Elk Grove Blvd</td>
</tr>
</tbody>
</table>

Local 151 Franklin replaces portions of existing routes 157, 159, and school routes 151-153. Key trip generators along the route include: Elk Grove Civic Center; Cosumnes Oaks HS; Pinkerton MS; Franklin HS; Franklin Library; Raley’s / Safeway; Apple Computer; and Laguna Town Center. Proposed commuter Route 51 overlays the local alignment and continues to Downtown Sacramento via I-5 with stops at two (2) park-ride lots: Harbour Point and Franklin High Road. Routes 51/151 are displayed in Exhibit 4.
Exhibit 4: Routes 51/151

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Local 152 Cresleigh fills gaps in the east-west grid, and replaces school routes 151-153. Key trip generators include: Elk Grove Civic Center; Franklin HS; Laguna Creek Town Center; Raley's / Safeway; Apple Computer; and Laguna Town Center. Proposed commuter Route 52 overlays the local alignment and continues to Downtown Sacramento via I-5 with stops at three (3) park-ride lots: Civic Center; Laguna Creek Town Center; and Laguna West (Apple). Routes 52/152 are displayed in Exhibit 5.

Local 153 Elk Grove Florin replaces portions of existing routes 157 and 162. Key trip generators include: Elk Grove HS; Kerr MS; Senior Center of Elk Grove; Marketplace 99; Longleaf Drive office building; Laguna; Crossroads; Laguna Creek Town Center; Apple Computer; and Laguna West Town Hall. Proposed commuter Route 53 overlays the local alignment on Elk Grove Florin Road, and continues to Downtown Sacramento via Hwy 99 with stops at two (2) park-ride lots: Elk Grove Boulevard (Caltrans) and Marketplace 99. Routes 53/153 are displayed in Exhibit 6.
Exhibit 6: Routes 53/153

Route 53/153 - Elk Grove Florin
Service Frequency by Time Period (Minutes)

<table>
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Proposed Route 53 & 153 - Elk Grove Florin
Local 154 Calvine/Big Horn forms a new east-west crosstown route across north Elk Grove between Bradshaw Road and Apple Computer. It replaces portions of routes 154, 159 & 162; and installs new local service on Big Horn Boulevard West where existing commuter service (currently Route 52) has been successful in generating ridership west of Bruceville Road. Key trip generators along the proposed alignment include: Sheldon HS; Smedberg MS; Bradford Christian; Bel Air Village; Calvine Alternative HS; CRC / RT Blue Line station; Laguna Creek HS; Harris MS; Laguna Creek Town Center; Apple Computer; and Laguna Town Hall.

Two commuter routes are paired with local Route 154. Route 54 Calvine overlays the local alignment on Calvine Road between Bradshaw and Power Inn Road, and continues to Downtown Sacramento via I-5 with stops at two (2) park-ride lots: Laguna Creek Town Center and Laguna West (Apple). Route 57 overlays the local alignment west of Bruceville Road, and continues to Downtown Sacramento via Hwy 99 with stops at two (2) park-ride lots: Bel Air Village and Calvine-Geneva Point. Routes 54/57/154 are displayed in Exhibit 7.

Local 155 Power Inn replaces portions of existing routes 154 and 160 with a southeast-to-northwest alignment serving the developed areas on the east side of the City. Key trip generators along the proposed alignment include: Pleasant Grove HS; Albiani MS; Bond Plaza; SaveMart Creekside Plaza; Lowes; CRC / Blue Line station. Proposed commuter Route 55 overlays the local alignment and continues to Downtown Sacramento via Hwy 99 with a stop at the Calvine-Geneva Point park-ride lot. Routes 55/155 are displayed in Exhibit 8.

Local 156 Old Town continues on its present alignment using Elk Grove Boulevard and Bruceville Road. Key trip generators along the alignment include: Waterman Plaza; Old Town historic district; Public Library; Kerr MS; Laguna 99 Shopping Plaza; Elk Grove Civic Center; Eddy MS; Laguna Crossroads Shopping Center; Wackford Community & Aquatic Complex; and the CRC campus and Blue Line station. Proposed commuter Route 56 overlays the local alignment on Elk Grove Boulevard east of Hwy 99, and continues to Downtown Sacramento via Hwy 99 with stops at two park-ride lots: Elk Grove Boulevard (Caltrans) and Marketplace 99. Routes 56/156 are displayed in Exhibit 9.
Exhibit 7: Routes 54, 57, 154
Exhibit 8: Routes 55/155

Route 55/155 - Bond-Sheldon-Power Inn
Service Frequency by Time Period (Minutes)

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</table>

Proposed Route 55 & 155 - Bond - Sheldon - Power Inn Road
Exhibit 9: Routes 56/156

Route 56/156 - Old Town

Service Frequency by Time Period (Minutes)

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<thead>
<tr>
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Proposed Route 56 & 156 - Old Town
4.3 Local Service Span and Frequency

Because the local system is designed as a network, it is suggested that e-tran operate all routes during the same span for each service day. Proposed operating hours are summarized in Exhibit 10. With the exception of Route 156, the proposed span is comparable to or longer than existing schedules. Currently, Route 156 operates until 11:00 pm on weeknight. Potential discontinuation of weeknight service after 8:30 pm impacts 25-30 one-way passenger trips per day; including 19 customers on the last four southbound trips departing from the CRC campus; and nine (9) customers aboard the last three northbound trips departing from Old Town. The average service productivity of the proposed reduction (a reduction of 5.9 revenue hours per day) is 4.7 passengers per service hour, which is 71% below the local system productivity of target of 16 boardings per hour (as previously presented in Section 3.0 Performance Metrics).

Exhibit 10 - Local System Service Span

<table>
<thead>
<tr>
<th>Service Day</th>
<th>First Trip begins</th>
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<tbody>
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<td>5:30 am</td>
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</tr>
<tr>
<td>Sunday</td>
<td>7:00 am</td>
<td>6:00 pm</td>
</tr>
</tbody>
</table>

Planned local service frequencies are summarized in Exhibit 11. The proposed service plan initially was developed on a budget-neutral basis with frequencies presented as “Option A”. The impact on local service frequencies of a potential seven percent (7%) budget reduction scenario is presented as “Option B”.

Exhibit 11 – Planned Local Service Frequencies

Option A – Maintain Commute Capacity / Local Fixed Route Peak & Off-peak

<table>
<thead>
<tr>
<th>Route</th>
<th>Weekday Peak</th>
<th>Weekday Midday</th>
<th>Weekday Eve</th>
<th>Saturday Base</th>
<th>Saturday Early / Eve</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 Big Horn</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>60</td>
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<td>60</td>
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<tr>
<td>151 Franklin</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>152 Cresleigh</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>153 Laguna / EG Florin</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>154 Calvine / Big Horn W</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>155 Power Inn</td>
<td>60</td>
<td>120</td>
<td>120</td>
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<tr>
<td>156 Old Town</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
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<td>120</td>
</tr>
</tbody>
</table>

Option B – Net 7% Budget Reduction

<table>
<thead>
<tr>
<th>Route</th>
<th>Weekday Peak</th>
<th>Weekday Midday</th>
<th>Weekday Eve</th>
<th>Saturday Base</th>
<th>Saturday Early / Eve</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 Big Horn</td>
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<td>30</td>
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<td>60</td>
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<tr>
<td>151 Franklin</td>
<td>60</td>
<td>120</td>
<td>120</td>
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<td>--</td>
</tr>
<tr>
<td>152 Cresleigh</td>
<td>60</td>
<td>120</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>153 Laguna / EG Florin</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>154 Calvine / Big Horn W</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>155 Power Inn</td>
<td>60</td>
<td>120</td>
<td>--</td>
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<td>--</td>
</tr>
<tr>
<td>156 Old Town</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>--</td>
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</tr>
</tbody>
</table>

5.0  Recommended Commuter Network

Shown in Exhibit 12, the proposed commuter routes closely aligns with local routes to simplify the transit network and increase the visibility of e-tran service by concentrating more service on particular streets. Merging local and commuter route alignments within Elk Grove will provide e-tran commuters with expanded travel options beyond the peak periods during which commuter buses will continue to access Downtown Sacramento directly. Consolidation of twelve existing commuter routes into nine routes is proposed. These include Routes 50-57 as described in the foregoing pages and proposed Route 71 Laguna serving Butterfield station on the Gold Line.

Fewer commuter routes translate into more robust schedules by modifying or eliminating five marginal routes that currently operate one or two trips per peak period - 66, 70, 90, 91 and the Purple Route. Purple Route customers with mobility limitations will be accommodated on other proposed commuter routes. Proposed commuter schedules generally include four or five trips per peak period, and cover a wider service span to accommodate workers with morning start times between 6:30 am and 9:00 am; and afternoon quit times between 3:30 pm and 6:00 pm.
Shorter local pickup route segments focus resources on trips offering competitive end-to-end commute travel times (i.e., relative to auto travel) averaging less than 60 minutes to Downtown Sacramento. The proposed truncation of local pickup route segments is consistent with customer boarding patterns indicating that most e-tran customers board at park-ride lots and other stops offering relatively quick access to the freeways. Commuter boarding and alighting activity tapers off on local pickup segments as distance from the freeway increases. The data suggests that local pickup segments generally should not exceed 15 minutes of bus travel time within Elk Grove before entering the freeway. Moreover, shorter routes with reduced schedule cycle times could significantly improve vehicle productivity.

5.1 Peak and Reverse Direction Capacity

Given strong utilization of existing e-tran peak direction commuter routes (averaging 70.4% of seated capacity), the five-year service plan maintains and nominally increases current capacity from 67 one-way trips on 12 routes, to 68 trips on 9 routes. Additionally, service quality is enhanced at selected park-ride lots (e.g., Calvine-Geneva Point, Sheldon, Laguna West) with the schedules of two or more routes combined to create high frequency (10-15 minutes) service at these locations during the height of the morning and afternoon peak periods.

A significant expansion of reverse direction service capacity is recommended with currently six daily trips on two routes increasing to potentially 22 trips on four routes to demonstrate the viability of reverse commuter service to locations in Elk Grove including Apple Computer, office buildings on Longleaf Drive, and potentially other locations in south Elk Grove.

Existing Route 90 reverse commute (four trips) between Downtown Sacramento and Longleaf Drive is replaced by proposed Route 53 reverse commute trips. Existing Route 91 reverse commute (two trips) between Butterfield Light Rail Station, the Franchise Tax Board and Longleaf Drive is replaced by proposed Route 71 reverse commute operating four trips. Potentially new service from central Sacramento to Apple could be provided with Route 52 and/or 54 reverse direction service on I-5.
Exhibit 12: Proposed Commuter Network
5.2 Improve Park-Ride Access

The five-year plan includes provisions to both expand the level of commuter service available at e-tran park-ride lots, and upgrade existing facilities. Exhibit 13 provides a development blueprint for constructing new facilities, improving existing facilities, and phasing out the use of minor park-ride lots that lack sufficient capacity or proximate access to a freeway interchange. Specific recommendations include:

- Two new park-ride facilities at the planned Elk Grove Civic Center complex and adjacent to the I-5 Freeway interchange at Elk Grove Boulevard (potentially on the south side of Elk Grove Boulevard between W Taron Drive and Waterfowl Drive).

- Expand parking capacity at key existing park-ride locations, including Laguna West (Apple or Town Hall), Laguna Creek Town Center, Marketplace 99 or a new location in the vicinity of the Hwy 99 interchange at Bond Road, and Bel Air Village at Calvine and Elk Grove Florin Road.

- Upgrade facilities at the Calvine-Geneva Point and Sheldon Road park-ride lots with video security systems, dynamic schedule information, bicycle lockers, and customer amenities.

- Phase out use of minor facilities as new capacity is provided at major park-ride lots. Locations include Laguna Crossings, Laguna Gateway, Calvary Christian, Laguna 99, and Lowe’s at Power Inn and Calvine Road.
Exhibit 13. Proposed Park and Ride Lot Locations
5.3 Downtown Sacramento Routing

Shown in Exhibit 14, a common two-way alignment through Downtown Sacramento is recommended for all proposed commuter routes. The alignment is intended to balance customer walking distances to destinations in the downtown core with shorter wait times and expedited bus travel on less congested streets in the downtown core. A singular alignment has potential both to improve service quality for customers, while also reducing capital costs through higher vehicle productivity. It is important to note that the proposed alignment presented in Exhibit 14 is dependent on the travel patterns of other transit agencies and is subject to further coordination with the City of Sacramento in regards to travel patterns associated with the Golden 1 Events Center.

From the customer perspective, the benefits of a common alignment include potentially shorter wait times at bus stops in Downtown Sacramento for customers with a choice of routes returning to Elk Grove. Fewer stops also may reduce the cost of implementing dynamic timetable information displays and customer amenities suggested to improve the customer waiting experience for e-tran customers.

From an operational perspective, any significant reduction of commuter schedule cycle times created by shorter local pick up segments within Elk Grove and less circuitous routing in Downtown Sacramento could lead to significant capital cost savings if more commuter buses are able to operate consecutive peak direction trips within the same peak period. Cycle time includes round trip bus travel time plus sufficient recovery time to protect schedule integrity. Currently, nearly all e-tran commuter buses are able to make just one peak direction trip per peak period; meaning that one bus is required for every scheduled peak direction trip.
5.4 Regional Connectivity

The service plan urges the further integration of e-tran with the regional transit system, including all-day connectivity to both the Blue Line at the CRC campus station, and the Gold Line at Butterfield station. Shown in Exhibit 15, proposed regional Route 71 Laguna/Bradshaw consolidates resources currently divided between Routes 70 and 71 onto a common alignment in Elk Grove. The singular alignment allows for a longer service span with hourly service running in both directions in the morning from 5:00 am through 9:00 am; and in the afternoon from 2:30 pm until 6:30 pm. Key employment destinations along the proposed alignment include Apple Computer and office buildings along Longleaf Drive in Elk Grove, and the Franchise Tax Board in East Sacramento.
Exhibit 15: Route 71

Proposed Route 71 - Laguna
6.0 System Resource Requirements

The proposed service plan initially was developed on a budget-neutral basis. Exhibit 16 presents level of service options. Level of service characteristics are presented as “Option A”. A potential seven percent (7%) budget reduction scenario is presented as “Option B”.

<table>
<thead>
<tr>
<th></th>
<th>Current System</th>
<th>Option A 2017 Level of Service</th>
<th>Option B 93% Level of Service</th>
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</thead>
<tbody>
<tr>
<td>Annual Revenue Hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>37,054</td>
<td>31,247</td>
<td>27,320</td>
</tr>
<tr>
<td>Commute</td>
<td>19,748</td>
<td>25,604</td>
<td>25,604</td>
</tr>
<tr>
<td>Total</td>
<td>57,502</td>
<td>56,850</td>
<td>52,924</td>
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<td>Average Frequency - Local (minutes)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Peak Weekday</td>
<td>30 - 120</td>
<td>30 - 60</td>
<td>30 – 60</td>
</tr>
<tr>
<td>Midday Weekday</td>
<td>30 - 120</td>
<td>30 - 120</td>
<td>30 - 120</td>
</tr>
<tr>
<td>Evening Weekday</td>
<td>30 - 120</td>
<td>30 - 120</td>
<td>30 - 120</td>
</tr>
<tr>
<td>Saturday</td>
<td>80</td>
<td>60 – 120 (4 routes)</td>
<td>60 – 120 (short day)</td>
</tr>
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<td>Sunday</td>
<td>80</td>
<td>60 - 120</td>
<td>No service</td>
</tr>
<tr>
<td>Service Span</td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<td>Local Sunday</td>
<td>7:15 am – 11:10 am 1:15 pm - 6:10 pm</td>
<td>7:00 am – 6:00 pm (11 hours)</td>
<td>No service</td>
</tr>
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<td>Commuter Weekday</td>
<td>5:20 am – 8:40 pm 3:10 pm – 6:55 pm</td>
<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>Daily Trips (1-way)</td>
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<tr>
<td>Local Weekday</td>
<td>199</td>
<td>146</td>
<td>139</td>
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<td>Local Saturday</td>
<td>10</td>
<td>55</td>
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<td>Local Sunday</td>
<td>10</td>
<td>39</td>
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<tr>
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<td>73</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Reverse Commute</td>
<td>6</td>
<td>22</td>
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</tr>
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</table>

7.0 Next Steps

Key next steps include:

- Presentation to City Council – for information and comment October 26
- Preparation of financial plan including fare policy and structure and capital investment strategy  October/November
- Preparation of draft COA document  November/December
- Draft COA to City Council - TENTATIVE  December 14
Appendix A: Presentation Material

Public Workshop

(August 29, 2016)
COMPREHENSIVE TRANSIT ANALYSIS
Local & Commuter Service

Workshop

August 29, 2016
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 the 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?
Workflow

1. Project Initiation
2. Data Collection and Existing Conditions Analysis
3. Community Surveys
4. Public Workshop/Focus Group Sessions
5. Alternatives Development
6. Alternatives Analysis and Evaluation
7. Preferred Alternative
8. Council Meeting

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 Whitlock-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

Comprehensive Transit Analysis
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
  - 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
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 resources allow.
**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**
  - Facilitate “rubber tire extension” of Blue Line LRT south through Elk Grove
  - 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
- Raley's / Safeway
- Laguna Town Center

Comprehensive Transit Analysis
Route 52/152 Cresleigh

Proposal Highlights

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

 доллар 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
- Raley's / 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
**Commuter 54**
- serves Downtown Sacramento via I-5
- Stops at two (2) park-ride lots

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

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

---

**Proposal Highlights**

**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
### Proposal 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

<table>
<thead>
<tr>
<th>Option</th>
<th>A</th>
<th>B</th>
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<tbody>
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<td>Peak</td>
<td>20-60</td>
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<td>Monday</td>
<td>120</td>
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<tr>
<td>Evening</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Saturday</td>
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<tr>
<td>Sunday</td>
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</tbody>
</table>

![Proposed Route 55 & 155 - Bond - Sheldon - Power Inn Road](image-url)
Route 56/156 Old Town

Proposal Highlights

Bus Commuter 56
- serves Downtown Sacramento via Hwy 99
- Stops at three (3) park-ride lots

Bus Local 156
- Continues on present alignment

Key trip generators

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

<table>
<thead>
<tr>
<th></th>
<th>Current System</th>
<th>Option A 2017 Level of Service</th>
<th>Option B 93% Level of Service</th>
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</thead>
<tbody>
<tr>
<td><strong>Annual Revenue Hours</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>37,054</td>
<td>31,247</td>
<td>27,320</td>
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<tr>
<td>Commute</td>
<td>19,748</td>
<td>25,604</td>
<td>25,604</td>
</tr>
<tr>
<td>Total</td>
<td>57,502</td>
<td>56,850</td>
<td>52,924</td>
</tr>
<tr>
<td><strong>Average Frequency - Local</strong></td>
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<tr>
<td>Peak Weekday</td>
<td>30 - 120</td>
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<td>Midday Weekday</td>
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<td>30 - 120</td>
<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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<td>Sunday</td>
<td>80</td>
<td>60 - 120</td>
<td>No service</td>
</tr>
<tr>
<td><strong>Service Span</strong></td>
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<td></td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>Local Saturday</td>
<td>7:15 am – 11:10 am</td>
<td>6:00 am – 7:00 pm (13 hours)</td>
<td>8:00 am – 5:00 pm (9 hours)</td>
</tr>
<tr>
<td>1:15 pm - 6:10 pm</td>
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</tr>
<tr>
<td>Local Sunday</td>
<td>7:15 am – 11:10 am</td>
<td>7:00 am – 6:00 pm (11 hours)</td>
<td>No service</td>
</tr>
<tr>
<td>1:15 pm - 6:10 pm</td>
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<td></td>
</tr>
<tr>
<td>Commuter Weekday</td>
<td>5:20 am – 8:40 pm</td>
<td>5:30 am – 8:45 am</td>
<td>5:30 am – 8:45 am</td>
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<tr>
<td>3:10 pm – 6:55 pm</td>
<td></td>
<td>3:30 pm – 6:00 pm</td>
<td>3:30 pm – 6:00 pm</td>
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<td><strong>Daily Trips (1-way)</strong></td>
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<td>199</td>
<td>146</td>
<td>139</td>
</tr>
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<td>Local Saturday</td>
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<td>55</td>
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<td>Local Sunday</td>
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<tr>
<td>Commuter Weekday</td>
<td>73</td>
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<td>90</td>
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<tr>
<td>Reverse Commute</td>
<td>6</td>
<td>22</td>
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</table>
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
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

*Scheduled Trips per Weekday*

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Option A</th>
<th>Option B</th>
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<tr>
<td>Peak Direction</td>
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<tr>
<td>Reverse Direction</td>
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</table>
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
Route 71 Laguna-Butterfield

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)
Proposed Commuter Network

Commuter Existing

Commuter Proposed

LEGEND
- Route 50
- Route 51
- Route 52
- Route 53
- Route 54
- Route 55
- Route 56
- Route 57
- Route 58
- Route 59
- Route 60
- Route 61
- Route 62
- Route 63
- Route 64
- Route 65
- Route 66
- Route 67
- Route 68
- Route 69
- Route 70
- Route 71
- Purple Roads
- Purple Rail
- Purple Transit
- Purple Park & Ride
- Purple Place of Interest

Comprehensive Transit Analysis
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
Fare Policy & Rates

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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<td>Local 31-Day Pass (Monthly)</td>
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COMPREHENSIVE TRANSIT ANALYSIS
Local & Commuter Service

COMMENTS

August 29, 2016