EXECUTIVE SUMMARY

ES.1 Overview

The Sacramento Regional Transit District (RT), in cooperation with the Federal Transit Administration (FTA), has undertaken an Alternatives Analysis (AA) to evaluate future transit improvements in the Downtown/Natomas/Airport (DNA) Corridor in Sacramento, California. Consistent with FTA's New Starts guidelines, the AA process has been a coordinated effort between RT, members of the public, public agencies, and other stakeholders with numerous opportunities for input at each stage in the planning process.

This AA Report is specifically intended to compare and evaluate alternate transit technologies and alignments through the DNA Corridor. The AA technical analysis and associated public review and responses are designed to support and encourage the process whereby a locally preferred alterative (LPA) can be adopted and then undergo the required full environmental review.

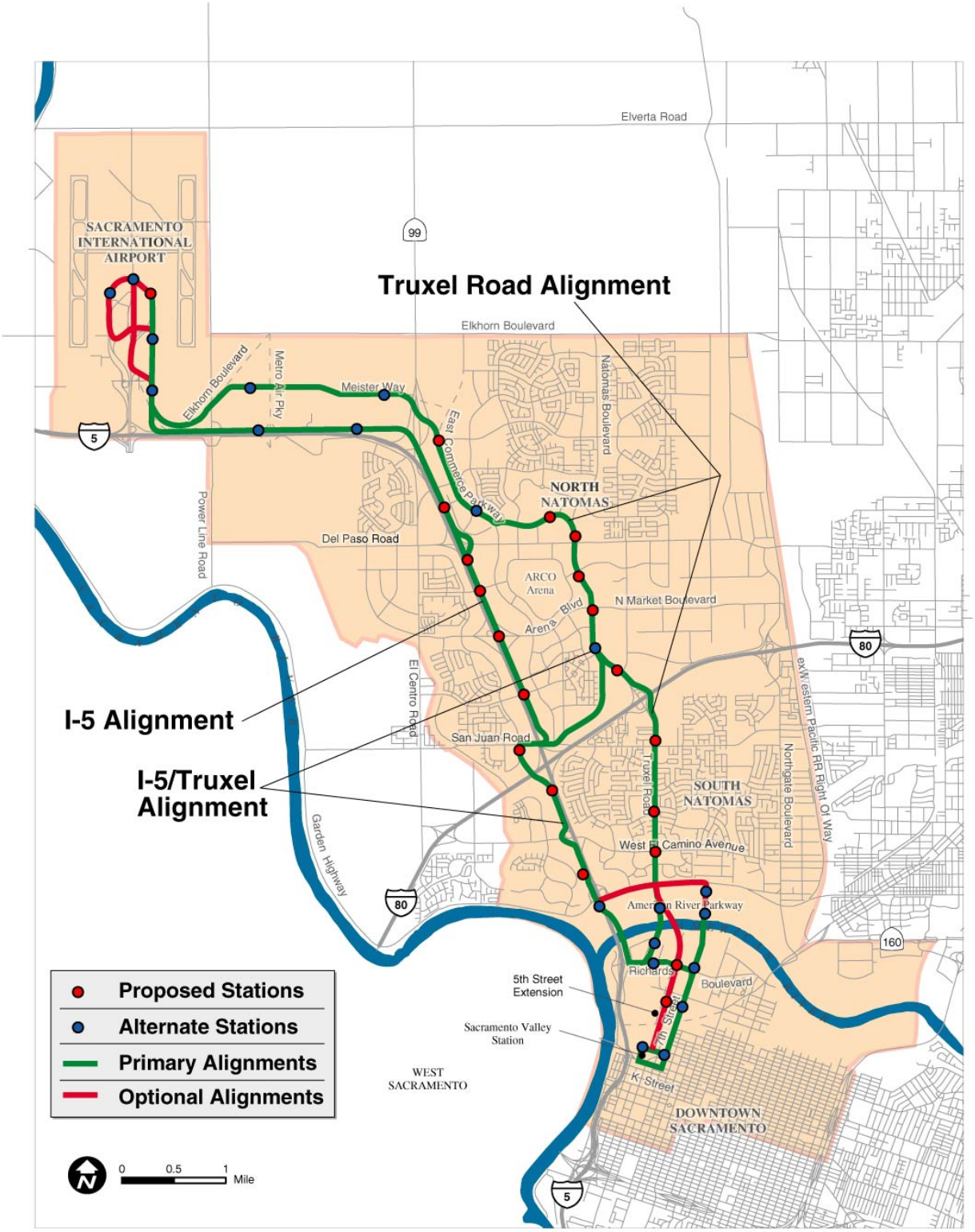
Corridor Alignment and Service Alternatives

Beginning in downtown Sacramento and proceeding north, the DNA Corridor takes in the 240-acre Union Pacific (UP) Railyards, the Richards Boulevard Redevelopment (Capitol District Station) Area, the fast growing communities of South and North Natomas, and certain lands to the west up to and including the Sacramento International Airport.

Figure ES-1 illustrates the DNA Corridor study area and the "short list" of potential north-south transit alignments evaluated in this AA which include the following:

- **Alternative 1: No-Build.** The No-Build Alternative consists of the existing transportation system, as well as all transportation projects that are planned and programmed in the Sacramento Metropolitan Transportation Plan for 2025.
- **Alternative 2: Baseline/Transportation Systems Management (TSM).** The Baseline/TSM Alternative was developed to meet an FTA requirement for an alternative that addresses transportation needs in the corridor without a major new capital investment. The Baseline/TSM Alternative includes a set of lower-cost bus transit improvements in the DNA Corridor.
- **Alternative 3: Truxel Light Rail Transit (LRT).** The Truxel LRT Alternative would extend RT LRT service from downtown Sacramento through Natomas, along Truxel Road, to the airport.
- **Alternative 3A: Truxel LRT Starter Line.** The Truxel LRT Starter Line Alternative would construct an LRT extension similar to Alternative 3, with single-track sections and fewer structures to provide a lower-cost alternative.
- **Alternative 3B: Truxel LRT Minimum Operable Segment (MOS).** The Truxel LRT MOS Alternative would construct a LRT extension similar to Alternative 3A, with single-track sections and fewer structures to provide a lower-cost alternative; however, the alignment would be shorter, extending from downtown Sacramento to the Natomas Town Center.
- **Alternative 4: Truxel Bus Rapid Transit (BRT).** The Truxel BRT Alternative would construct a new guided-busway for a BRT system from downtown Sacramento through Natomas, along Truxel Road, to the airport.

FIGURE ES-1
POTENTIAL NORTH-SOUTH ALIGNMENTS EVALUATED



- **Alternative 4A: Truxel BRT Starter Line.** The Truxel BRT Starter Line Alternative would construct a BRT extension similar to Alternative 4, with fewer structures and grade separations to provide a lower-cost alternative.
- **Alternative 4B: Truxel BRT Minimum Operable Segment (MOS).** The Truxel BRT MOS Alternative would construct a BRT extension similar to Alternative 4, with fewer structures and grade separations to provide a lower-cost alternative; however, the alignment would be shorter, extending from downtown Sacramento to the Natomas Town Center.
- **Alternative 5: I-5/Truxel LRT.** The I-5/Truxel LRT Alternative would extend LRT service along a route following Interstate 5 (I-5) and Truxel Road between downtown Sacramento, Natomas, and the airport.
- **Alternative 6: I-5/Truxel BRT.** The I-5/Truxel BRT Alternative would construct a new guided-busway for a BRT system using a route following I-5 and Truxel Road between downtown Sacramento, Natomas, and the airport.
- **Alternative 7: I-5 LRT.** The I-5 LRT Alternative would extend LRT service along a route following I-5 between downtown Sacramento, Natomas, and the airport.
- **Alternative 8: I-5 BRT.** The I-5 BRT Alternative would construct a new guided-busway for a BRT system using a route following I-5 between downtown Sacramento, Natomas, and the airport.

ES.2 DNA Corridor Study Process

The DNA Corridor AA has followed a rigorous and methodical approach. The major transit investment concept builds upon previous planning efforts in the region; has involved extensive collaboration between the public, government jurisdictions and stakeholders in multiple communities; and has undergone a technical analysis.

Consistency with Local, State, and Federal Planning Processes

For nearly 20 years, representatives of agencies and districts responsible for plans and policies in the Corridor have been considering significant transit improvements to serve anticipated growth in the Corridor planning areas. The following local, community and regional plans have been completed that support the construction and operation of light rail transit (LRT) service between downtown Sacramento and the airport:

- 1984 – Sacramento LRT Expanded LRT System Analysis
- 1986 – Sacramento Area Council of Governments (SACOG) LRT Extension Study
- 1987 – RT High Capacity Corridor Resolution
- 1988 – City of Sacramento General Plan
- 1991 – RT Route Refinement Study and Environmental Impact Report
- 1993 – RT 20-Year Transit Master Plan
- 1993 – County of Sacramento General Plan
- 1994 – North Natomas and South Natomas Community Plans
- 1998 – Amendments to the City of Sacramento General Plan
- 2000 – SACOG Sacramento International Airport Transit Access Study
- 2001 – RT Multi-Corridor Study
- 2002 – SACOG 2025 Metropolitan Transportation Plan

In continuing efforts to realize the local goals for improved transportation in the area, the DNA Corridor AA Study has built upon this breadth of prior planning decisions.

ES.3 Public Involvement Program

The ongoing Public Involvement (PI) program developed for the DNA Corridor AA Study has been extensive and inclusive and continues to be designed to receive public input from all affected citizens and stakeholders. The process documents and incorporates stakeholder comments into the alternatives development and selection process.

Significant Program Activities

To date, the PI Program included the following key activities:

- Three EIR/S scoping meetings and three public open houses.
- Over 100 meetings with citizens, homeowner associations, environmental groups, and business organizations.
- Regular study program updates at publicly noticed meetings (televised on cable TV) to the RT Board of Directors.
- Presentations to the Sacramento City Council, City of Sacramento Planning Commission, Sacramento County Board of Supervisors, Sacramento County Parks Commission, and Sacramento Area Flood Control Agency (SAFCA).
- Technical Review and Citizens Review Panel (TRP and CRP) meetings.
- Distribution of newsletters, media releases, public notices and other materials to a mailing list of over 7,000 individuals and organizations.
- Design and operation of a study website (www.DNArt.org).
- Maintenance of a study information "hotline."
- Attendance at community events (Natomas Community Festival).
- Participation in cable television broadcasts.
- Placement of paid ads in local newspapers and interior ad cards on RT buses.
- A program of public outreach through local schools (8,500 students).
- Door-to-door canvassing of businesses in the Truxel Corridor.

Through these activities the study team was able to obtain valuable, regional input throughout the study program decision-making process. Through September 2003, over 100 presentations/briefings have been made by RT and its consultant team to nearly 60 public agencies, community organizations, and groups of locally elected officials.

A full listing of the public agencies, community organizations, and groups of locally elected officials involved in this process is located in Chapter 3.

Technical and Citizens Review Panels

RT, with assistance from its consultant team, established a Technical Review Panel consisting of approximately 40 members representing various local, state, and federal agencies. The TRP meetings were conducted as working sessions, allowing members to actively participate with team members and RT Staff in discussing study issues.

A Citizens Review Panel also was established, representing a cross-section of community and other organizations with an interest in transportation issues in the study corridor. This group of

over 50 individuals also provided valuable review and comment on the study goals, evaluation criteria, and other issues. See Section 3.1 for a complete listing of TRP and CRP member organizations.

Input Received

Numerous comments have been received from public agencies and the general public throughout the study. These comments generally fall into the following categories:

- Concerns about displacement of homes, traffic congestion, property values, public safety, and noise and visual impacts associated with the various alternatives, particularly along the segment of Truxel Road between Garden Highway and San Juan Road.
- Several groups and a number of individuals have expressed support for providing light rail service in the Corridor. Other individuals have indicated support for BRT.
- Comments or questions related to transit operational issues: for example, will park-and-ride lots be included in the corridor?; how often will feeder bus service be provided and what routes will it use?; how will bus service be provided at the airport?; and when will the location of future transit stations be determined?
- Questions about the criteria used for the definition and evaluation of the alternatives.

ES.4 Purpose of the Study Alternatives

The intent of the Purpose and Need statement is to document the rationale for consideration of transportation improvements in the DNA Corridor, as demonstrated by current and anticipated development and transportation conditions within the study area.

The purpose of the DNA Corridor study alternatives is to provide improved transit service between downtown Sacramento, the Sacramento International Airport and points in between, as well as connect the Corridor to the Regional transit system. Specifically, the study is needed because of:

- **Rapid population and employment growth expected in the Corridor.** Total Corridor population is expected to more than double by 2025, while employment is expected to grow by 65 percent. These projections are at best conservative, since the City of Sacramento has currently approved permits in North Natomas that total 44 percent of the projected residential growth.
- **Projected increases in roadway congestion.** As a result of limited north-south traffic capacity, significant growth will lead to higher traffic volumes on I-5, I-80 and parallel roadways. In addition, there are only two existing bridges across the American River within this three-mile wide corridor that limit north-south traffic capacity. As a result, by 2025, I-5 will be at level of service (LOS) "F" from downtown to I-80, and nearing capacity beyond.
- **Increased demand for transit service.** Increased demand will occur due to the need to serve a large transit dependent population in the Corridor, where 16.5 percent of households are without a personal vehicle as compared to 12.9 percent for the City of Sacramento and 8.7 percent for Sacramento County (U.S. Census 2000).
- **Transit supportive land use plans and policies.** The North Natomas Community Plan was designed as a transit-oriented community. Its center piece is an assumed light rail line with a dedicated right-of-way. It identifies stations with higher densities and mix of land uses in anticipation of the future transit system. A DNA transit improvement would complete that plan with a high quality transit service that is integrated with and enhances

planned corridor land use. Transit-oriented development (TOD) has been shown to decrease vehicle trips by 18 percent, decrease vehicle miles traveled by 12 percent and reduce travel times by 18 to 28 percent. In addition to the planned transit-oriented land uses in the North Natomas Community Plan, the City of Sacramento is also planning similar enhanced land uses in the Richards Boulevard and Railyards areas to encourage transit ridership.

- **The need to reduce vehicle trips and airborne emissions.** Sacramento has the sixth worst air quality in the nation. If the region does not meet the standard by 2005, it could lose $680 million in federal transportation funding.
- **To improve operating efficiencies.** The DNA Corridor would provide intermodal connections to existing and new bus service, to regional rail service at the Sacramento Valley Station (existing Amtrak station) and for Sacramento International Airport passengers. Transit service in the DNA Corridor would provide opportunities for connecting with existing and future light rail and regional rail corridors including the Folsom Corridor, the South Line extension and the Capitol Corridor train service that is operated by Amtrak, connecting Sacramento with San Jose and the Bay Area. The coordination of land use with transit service would improve transit system efficiency and use.

ES.5 Alternatives Screening and Selection Process

Each step of the screening and selection process for the DNA Corridor AA involved the active participation and endorsement by the CRP and TRP. The process of screening the alternatives included the following five steps:

Step 1: Development of Goals, Objectives and Criteria

Step 2: Development of a Long List of Alternatives

Step 3: Level 1 Screening (27 alternatives and 7 alignments screened)

Step 4: Level 2 Screening (12 alternatives, 5 alignments screened)

Step 5: Detailed Evaluation (12 alternatives, 3 alignments evaluated in the AA Report)

At the beginning of the DNA Corridor AA, a set of goals, objectives and evaluation criteria were developed that both met the local needs of the corridor and fulfilled FTA New Starts project justification criteria. The goals and objectives were reviewed and accepted by the CRP, TRP and the RT Board. The goals that guided the analysis included:

- Improve corridor mobility
- Promote patterns of smart growth
- Find cost-effective solutions
- Minimize community and environmental impacts
- Ensure consistency with other planning efforts
- Obtain strong community support

The first three goals are taken directly from FTA's New Starts criteria. These goals are measured by a set of key criteria, for which FTA has identified certain "thresholds" that must be met in order to qualify for New Starts funding.

Following the development of the study goals, objectives and evaluation criteria, a fatal flaw analysis was conducted on an initial set of potential corridor alignments, transit technologies, and American River bridge crossing locations. The fatal flaw analysis eliminated several transit

technologies that did not satisfy the DNA Corridor goals (e.g., expensive transit technologies such as automated guideway transit, heavy rail, etc., since they would in appropriate for meeting future ridership needs or be too expensive to build and operate in the Corridor). Following the fatal flaw analysis, a long list of alternatives was compiled by "mixing and matching" the various potential alignments, transit technologies and river crossing options. A two-step screening process was then initiated by RT and its consultant team.

- Level One screening involved the TRP and CRP in the examination of the initial long list of alternatives. Based on results of the Level One screening, the alternatives were repackaged into five primary alignments that utilized both BRT and LRT modes.
- Level Two screening included refinement of study goals and objectives by the TRP and CRP and preliminary analyses of the five primary alternatives. This work included development of ridership estimates, conceptual engineering, station location options, capital, operating and maintenance (O&M) cost estimates, a preliminary financial analysis, and environmental assessments.

Following the Level Two screening, RT further refined the alternatives to optimize their cost-effectiveness and reduce environmental impacts, resulting in the identification and detailed evaluation of twelve alternatives.

Alternatives Carried Forward For Further Review

Eight of the twelve alternatives would construct a new LRT or BRT transit guideway from downtown Sacramento, through South and North Natomas, to the Sacramento International Airport; and two minimum operable segments would provide a new transit guideway between downtown Sacramento and the Natomas Town Center. The remaining two alternatives, the No-Build Alternative and Baseline/TSM Alternative, have been carried forward as legitimate alternatives, and for comparison purposes. As presented in Section ES-1, the following alternatives were evaluated in detail.

- Alternative 1: No-Build
- Alternative 2: Baseline/Transportation Systems Management (TSM)
- Alternative 3: Truxel Road Light Rail Transit
- Alternative 3A: Truxel Road Light Rail Transit – Starter Line
- Alternative 3B: Truxel Road Light Rail Transit – Minimum Operable Segment (MOS)
- Alternative 4: Truxel Road Bus Rapid Transit
- Alternative 4A: Truxel Road Bus Rapid Transit Starter Line
- Alternative 4B: Truxel Road Light Rail Transit – Minimum Operable Segment (MOS)
- Alternative 5: I-5/Truxel Road Light Rail Transit
- Alternative 6: I-5/Truxel Road Bus Rapid Transit
- Alternative 7: I-5 Light Rail Transit
- Alternative 8: I-5 Bus Rapid Transit

The physical, operational, and cost characteristics of all twelve alternatives are summarized in Table ES-1.

TABLE ES-1
SUMMARY OF PHYSICAL, OPERATIONAL, AND COST CHARACTERISTICS OF THE ALTERNATIVES

	1	2	3	3A	3B	4	4A	4B	5	6	7	8
	No-Build	Baseline/ TSM	Truxel LRT	Truxel LRT Starter Line	Truxel LRT MOS	Truxel BRT	Truxel BRT Starter Line	Truxel BRT MOS	I-5/Truxel LRT	I-5/Truxel BRT	I-5 LRT	I-5 BRT
Physical Characteristics												
Guideway (in miles)												
At-Grade	N/A	N/A	8.46	8.20	2.77	5.83	6.61	1.49	9.25	6.74	5.57	5.61
On Retained Fill	N/A	N/A	1.19	0.91	0.31	2.52	0.98	0.73	0.95	3.18	1.93	2.72
On Structure	N/A	N/A	0.87	0.72	0.66	1.28	0.74	0.60	2.18	1.51	3.58	1.40
Retained Cut	N/A	N/A	0	0	0	0.43	0.18	0.0	0	0.18	0.25	0.17
Street Median	N/A	N/A	2.04	2.04	2.04	0.74	0.00	0.0	0.73	0.00	0.00	0.00
Bus Lanes	N/A	N/A	N/A	N/A	N/A	0.83	0.83	0.83	N/A	1.00	N/A	1.00
Embedded (mixed flow)	N/A	N/A	0.45	1.04	1.04	0.57	2.79	2.79	0.45	0.57	0.45	0.57
In Tunnel (cut & cover box)	N/A	N/A	0	0	0	0.21	0.02	0.0	0.02	0.02	0.02	0.07
Total Miles	N/A	N/A	**12.99**	**12.99**	**6.82**	**12.41**	**12.14**	**6.43**	**13.58**	**13.2**	**11.55**	**11.54**
Number of Stations	N/A	N/A	13	13	11	13	13	11	13	13	10	11
Number of lots (Capacity of Park-and-Ride Lots)	N/A	3 (770)	7 (2,070)	7 (1,910)	6 (1,970)	6 (1,840)	7 (1,760)	5 (1,730)	7 (1,880)	6 (1,660)	3 (1,500)	4 (1,460)
Operational Characteristics												
Travel Time in minutes (Sacramento Valley Station to Sacramento International Airport)	45	37	28	30	37*	28	30	34	27	30	21	27

* Mode change required at Natomas Town Center.

N/A – Not Applicable

TABLE ES-1
SUMMARY OF PHYSICAL, OPERATIONAL, AND COST CHARACTERISTICS OF THE ALTERNATIVES (CONTINUED)

	1	2	3	3A	3B	4	4A	4B	5	6	7	8
	No-Build	Baseline/ TSM	Truxel LRT	Truxel LRT Starter Line	Truxel LRT MOS	Truxel BRT	Truxel BRT Starter Line	Truxel BRT MOS	I-5/Truxel LRT	I-5/Truxel BRT	I-5 LRT	I-5 BRT
Annual Transit Vehicle Miles (thousands)												
Bus	12,857	13,837	13,160	13,160	13,319	13,970	13,956	14,070	12,875	14,381	13,219	14,259
Light Rail	5,007	5,007	6,263	6,166	5,579	5,007	5,007	5,007	6,286	5,007	6,084	5,007
RT Systemwide Annual Revenue Hours (thousands)												
Bus	951	1,020	956	956	970	1,000	1,002	1,008	939	1,013	961	1,009
Light Rail	116	116	140	147	140	116	116	116	140	116	140	116
RT Systemwide Vehicle Requirements												
Bus	481	493	472	472	479	494	495	506	469	512	477	515
Light Rail	104	104	120	121	115	104	104	104	120	104	120	104
Cost Characteristics												
RT Systemwide Operating and Maintenance Annual Costs (in millions of 2002$)	$156.3	$164.6	$172.8	$173.7	$169.7	$164.0	$164.1	$164.4	$171.3	$166.4	$172.1	$165.5
Capital Costs (in millions of 2002$)	N/A	$90.3	$623.1	$447.9	$290.8	$327.5	$208.8	$142.3	$793.1	$311.0	$746.4	$261.3

N/A – Not Applicable

Source: Parsons Brinckerhoff, October 2003.

ES.6 Capital and Operating & Maintenance Costs

Capital and O&M costs were developed for each alternative. Capital costs include all construction, right-of-way, engineering design and construction management costs associated with constructing each alternative. O&M costs include all expenditures required to provide daily transit service, including a pro-rata of RT system costs and the maintenance of the transit guideway, stations, facilities and vehicles. Tables ES-2 and ES-3 illustrate the anticipated capital and O&M costs respectively for the alternatives.

Capital Costs

The capital costs for the "build" alternatives vary considerably by alternative because of technology, length, and the physical infrastructure of the alternatives.

For the full-length LRT alternatives (3, 5 and 7) extending from downtown Sacramento to the Sacramento International Airport, the total capital costs range from $623 million to $793 million (in 2002$) with Alternative 3 the least expensive and thus potentially the most cost-effective. The alternatives would provide different alignments from downtown Sacramento to the airport; however, they all include double-track guideway stations; and a full-service maintenance facility with storage for 16 light rail vehicles. These alternatives also assume the same alignment between downtown Sacramento and Richards Boulevard.

Additional Refinement of Truxel Alternatives

Based on input received from the public and initial calculations of the financial feasibility of all the alternatives, RT subsequently examined how to reduce the cost and environmental impacts for a BRT or LRT guideway along a Truxel Road alignment. This alignment was selected since the Truxel Road alternatives have the highest potential for providing the most cost-effective transit solution. (See Section 6.1 for more detail.) By comparison, the alternatives proposed for I-5 and the I-5/Truxel alignments are not as cost-effective, since they do not directly serve as many residents and because of higher construction costs associated with use of aerial structures along the alignments.

From this analysis, four new sub-alternatives were developed for the Truxel alignment that would provide transit service in a more cost-effective manner. These sub-alternatives include the following:

3A: Truxel LRT Starter Line

3B: Truxel LRT Minimum Operable Segment (MOS)

4A: Truxel BRT Starter Line

4B: Truxel BRT MOS

Alternatives 3A and 3B differ from Alternative 3 in the following ways:

- The crossing of the American River would consist of a double track bridge with a single track span over the river channel rather than a full double-track bridge;
- Single-track rather than double-track on Truxel;
- The overall length of Alternative 3A, Truxel Starter Line, is approximately 13 miles and terminates at the Sacramento International Airport; and
- The overall length of Alternative 3B, the Truxel LRT MOS Alternative, is 6.8 miles and terminates at Natomas Town Center.

The BRT alternatives are generally less expensive in capital cost terms than the LRT alternatives, since BRT does not require significant track, signalization, and electrification improvements as needed for LRT. The full-length BRT alternatives (4, 6 and 8) extend from downtown Sacramento to Sacramento International Airport and range in cost from approximately $261 million to $328 million. As Alternative 4 was the most cost-effective, two sub-alternatives (Alternatives 4A and 4B) were created to further improve the cost-effectiveness of the alternative. Alternatives 4A and 4B differ from Alternative 4 in the following ways:

- Alternative 4A, the Truxel BRT Starter Line Alternative, would construct a BRT extension similar to Alternative 4, with fewer structures and grade separations at an estimated cost of $209 million.
- Alternative 4B, the Truxel BRT MOS Alternative, would also construct a BRT guideway with fewer structures and grade separations; however, it would extend only 5.9 miles from downtown Sacramento to the Natomas Town Center, at a cost of $142 million.

TABLE ES-2
SUMMARY OF CAPITAL COSTS FOR DNA ALTERNATIVES
(MILLIONS OF 2002$)

Alternative	Construction Costs	Vehicles	Right-of-Way	Final Engineering, Construction Management, Project Reserve	Total Costs
2. Baseline/TSM	$17.5	$54.3	$0	$18.5	$90.3
3. Truxel LRT	$327.8	$55.7	$63.5	$176.1	$623.1
3a. Truxel LRT Starter Line	$213.0	$59.2	$54.5	$121.2	$447.9
3b. Truxel LRT MOS	$140.7	$39.4	$31.4	$79.3	$290.8
4. Truxel BRT	$165.2	$6.9	$65.3	$90.1	$327.5
4a. Truxel BRT Starter Line	$101.7	$7.3	$43.5	$56.3	$208.8
4b. Truxel BRT MOS	$67.9	$12.2	$24.6	$37.6	$142.3
5. I-5/Truxel LRT	$463.9	$55.7	$38.1	$235.5	$793.1
6. I-5/Truxel BRT	$177.2	$13.9	$29.9	$90.0	$311.0
7. I-5 LRT	$435.2	$55.7	$34.3	$221.3	$746.4
8. I-5 BRT (new guideway)	$143.1	$16.4	$27.9	$73.9	$261.3

Sources: Parsons Brinckerhoff Quade & Douglas, Inc. and McCormick Rankin International, October 2003.

Operating and Maintenance Costs

O&M costs are calculated using a systemwide approach, since the impacts from new service often extend beyond the route or corridor served.

Under the DNA study, both the BRT and LRT alternatives rely on modifications to existing trunk routes and the establishment of new bus services that extend outside the DNA corridor. In addition, several of the BRT trunk lines are merged with existing RT routes. This interconnection with the future RT route network requires O&M costs to be examined systemwide.

Costs specific to the DNA corridor are identified as the incremental change between the Baseline/TSM Alternative and the "Build" Alternatives. Estimates of operating costs for all the alternatives are presented below in Table ES-3.

Like capital costs, the O&M costs vary by alternative depending on route length, the number of stations served, the frequency of service, and the number of vehicles required to meet passenger demand.

TABLE ES-3
SUMMARY OF SYSTEMWIDE OPERATING AND MAINTENANCE COSTS FOR DNA ALTERNATIVES (MILLIONS OF 2002$)

Alternative	Bus Revenue Hours	LRT Revenue Hours	2025 Systemwide O&M Costs	Annual Cost Increase Over Baseline/TSM Alternative
1. No-Build	950,600	116,355	$156.3	--
2. Baseline/TSM	1,019,600	116,355	$164.6	--
3. Truxel LRT	956,200	140,141	$172.8	$8.2
3A. Truxel LRT Starter Line	956,200	147,200	$173.7	$9.1
3B. Truxel LRT MOS	969,600	140,100	$169.7	$5.1
4. Truxel BRT	999,600	116,400	$164.0	-($0.6)
4A. Truxel BRT Starter Line	1,002,400	116,400	$164.1	-($0.5)
4B. Truxel BRT MOS	1,008,200	116,400	$164.4	-($0.2)
5. I-5/Truxel LRT	939,500	140,100	$171.3	$6.7
6. I-5/Truxel BRT	1,012,900	116,400	$166.4	$1.8
7. I-5 LRT	960,500	140,100	$172.1	$7.5
8. I-5 BRT	1,009,700	116,400	$165.5	$0.9

Source: Manuel Padron & Associates, October, 2003.

ES.7 Evaluation of Alternatives

The proposed alternatives for the DNA Corridor were evaluated based on various factors, including: transportation impacts; environmental impacts; potential for smart growth; cost-effectiveness; financial feasibility; and community and political support. These factors are

reflective of the goals and objectives developed for this study. FTA New Starts Criteria were also considered in the evaluation of the alternatives.

As stated in FTA's New Starts program guidelines, there are specific criteria which the FTA considers in its deliberations to advance transit fixed guideway projects through the study development process and enter into a long-term financial commitment to implement the proposed investments. The New Starts program categorizes these criteria into two broad areas: 1) Project Justification; and 2) Financial Rating. Project Justification criteria which are used to rank alternatives include:

- Mobility Improvements;
- Environmental Benefits;
- Operating Efficiencies;
- Cost Effectiveness; and
- Other Factors (e.g., Transit Supportive Land Use and Future Patterns).

FTA places high value on measures consistent with their "thresholds" for project justification, which are cost-effectiveness, financial affordability, and strong land use policies supporting transit-oriented development. As a result, a project applying for federal New Starts funds must rank at least "medium" under Project Justification and Financing Rating to be considered for federal funding.

Evaluation of Alternatives

As the array of findings and technical data presented in this report is evaluated, it is important to remember that the decision to select a public transit alternative will add value to the community it serves, and continue to do so for the next 50 to 100 years. To facilitate that decision, the alternatives' responsiveness to the DNA Corridor study goals have been summarized in an evaluation format and reflected in Tables ES-4 through ES-9.

Using the adopted DNA Corridor study goals, the following conclusions can be drawn from the technical analysis.

- **Goal #1: Improve Corridor Mobility.** Five alternatives rank highest overall in best meeting this goal: Alternatives 3, 3A, 4, 4A, and 4B. These alternatives along the Truxel alignment would provide access within ½-mile of the alignment to 21,450 residents (approximately 35 percent of the total residents in the Corridor), to 32,100 jobs also located within ½ mile of the transit alignment, good connectivity to the existing regional transit system, and to activity centers in the corridor. While the Truxel alternatives do not have the best travel time from downtown Sacramento to the airport, the 28 to 30 minute travel times for Alternatives 3 and 3A are very comparable with most of the I-5 and I-5/Truxel alternatives. Alternative 3B requires a longer traveling time due to a transfer to a bus connection to travel to the airport. However, the Truxel alternatives may experience potential operational impacts resulting from cross-street traffic, especially under the Starter Line alternatives.
- **Goal #2: Encourage Patterns of Smart Growth.** Alternatives 3, 3A, 3B, 4, 4A and 4B, all of which would use the Truxel Road alignment, offer the greatest opportunity to foster transit-oriented growth and achieve Goal #2, particularly in North Natomas and in the Railyards/Richards Boulevard area. However, the LRT alternatives may provide greater incentives to developers than BRT given its unproven potential for encouraging TOD, which is why LRT is ranked slightly higher. The LRT alternatives are also consistent with adopted community plans and provide the best pedestrian access opportunities.

- **Goal #3: Find Cost-Effective Solutions.** Alternatives 3B, 4, 4A, 4B, and 8 all rank medium or better based on FTA's thresholds. However, Alternative 3A Starter Line falls close to a cost-effectiveness rating that is acceptable to the FTA. If other considerations, such as land use, rate very high, this could offset the higher rankings.
- **Goal #4: Minimize Community and Environmental Impacts.** Alternative 2 appears to have the least overall impact on the environment as compared to the other alternatives. All of the other build alternatives have more community and environmental impacts. These impacts are pretty comparable between the alternatives, with the exception of very significant impacts under Alternatives 3 and 4.
- **Goal #5: Ensure Consistency with Other Planning Efforts.** Alternatives 3, 3A and 3B, which use the Truxel Road alignment, have the highest level of consistency with existing adopted community plans and current planning efforts in the DNA corridor.
- **Goal #6: Obtain Strong Community Support.** The Alternatives Analysis study and the consideration of LRT and BRT have generated considerable community interest from groups and individuals both from within and outside the corridor. Following a planned Community Workshop to be held on November 20 and a Public Hearing on December 8, RT will then be better able to gauge the level of community support for the individual alternatives and the two transportation modes considered in this study.

As RT and the community consider the alternatives, there are two other areas of consideration in selecting a preferred alignment and technology mode. First is the issue of future capacity concerns with the introduction of a new (third) technology into the RT fleet. LRT can best respond to the capacity requirements if the planned and projected figures for 2025 are exceeded in the Corridor. As the peak hour/peak demand maximum load point approaches a value of about 1,000 passengers per hour, the cost-effectiveness for LRT approaches that of BRT. The current patronage forecast reflects a maximum load point of about 1,200 passengers per hour for Alternative 3, Truxel Road LRT.

Second, the availability of construction and operating funding will also need to be carefully considered. RT and SACOG estimate that transit alternatives costing $400 million or less can be funded based on SACOG's 20-year revenue projections, renewal and expansion of RT's share of the County's Measure A sales tax program, and the federal government contributing 50% of the construction funding for a major transit investment in the DNA Corridor.

TABLE ES-4
EVALUATION OF ALTERNATIVES BY GOAL #1: MOBILITY AND OPERATIONAL EFFICIENCIES

Evaluation Criteria/Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 3A	Alternative 3B	Alternative 4	Alternative 4A	Alternative 4B	Alternative 5	Alternative 6	Alternative 7	Alternative 8
	No-Build	Baseline/TSM	Truxel Road LRT	Truxel LRT Starter Line	Truxel LRT Minimum Operable Segment	Truxel BRT	Truxel BRT Starter Line	Truxel BRT Minimum Operable Segment	I-5/Truxel LRT	I-5/Truxel BRT	I-5 LRT	I-5 BRT
Year 2025 average weekday transit linked trips in the corridor	7,550	9,970	13,780	13,520	12,800	12,340	12,120	11,870	13,270	12,120	11,770	11,360
Year 2025 average weekday transit boardings in the corridor	10,810	14,730	23,400	22,650	21,120	16,170	16,340	16,050	21,700	15,550	17,170	15,080
Number of persons within ½ mile of alignment	N/A	21,450	21,450	21,450	21,450 (1)	21,450	21,450	21,450	17,370	17,370	14,260	14,260
Employment within ½ mile of a station	N/A	32,100	32,100	32,100	32,100 (1)	32,100	32,100	32,100	34,900	34,900	36,400	36,400
Provide a direct connection to existing regional transit system	Provide limited connection to a portion of the DNA corridor	Provide limited connection to a portion of the DNA corridor	Good connectivity to other RT bus and LRT routes	Good connectivity to other RT bus and LRT routes	Good connectivity to other RT bus and LRT routes	Good connectivity to other RT bus and LRT routes	Good connectivity to other RT bus and LRT routes	Good connectivity to other RT bus and LRT routes	Limited connectivity to other RT bus and LRT routes	Limited connectivity to other RT bus and LRT routes	Limited connectivity to other RT bus and LRT routes	Limited connectivity to other RT bus and LRT routes
Number of transit dependent households within ½ mile of alignment	N/A	N/A	1,760	1,760	1,760 (1)	1,760	1,760	1,760	1,700	1,700	1,590	1, 590
Number of low income households within ½ mile of stations	N/A	N/A	1,021 low income households within ½ mile of stations	1,021 low income households within ½ mile of stations	1,021 low income households within ½ mile of stations (1)	1,021 low income households within ½ mile of stations	1,021 low income households within ½ mile of stations	1,021 low income households within ½ mile of stations	892 low income households within ½ mile of stations	892 low income households within ½ mile of stations	892 low income households within ½ mile of stations	892 low income households within ½ mile of stations
Make use of advanced technology to increase capacity	N/A	Low	High	High	High	Medium	Medium	Medium	High	Medium	High	Medium
Travel Times along transit way (entire length)	N/A	37 minutes	28 minutes	30 minutes	37 minutes	28 minutes	30 minutes	34 minutes	27 minutes	30 minutes	21 minutes	27 minutes
Provide direct access to activity centers along guideway	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Only north of I-80	Yes	No	No

Note: (1) – Employment, household and population totals represent the entire Truxel Road alignment. Based on 2000 Census Data.

Source: Parsons Brinckerhoff, December 2003.

TABLE ES-5
EVALUATION OF ALTERNATIVES BY GOAL #2: ENCOURAGE PATTERNS OF SMART GROWTH

Evaluation Criteria/Measure	Alternative 1 No-Build	Alternative 2 Baseline/TSM	Alternative 3 Truxel Road LRT	Alternative 3A Truxel LRT Starter Line	Alternative 3B Truxel LRT Minimum Operable Segment	Alternative 4 Truxel BRT	Alternative 4A Truxel BRT Starter Line	Alternative 4B Truxel BRT Minimum Operable Segment	Alternative 5 I-5/Truxel LRT	Alternative 6 I-5/Truxel BRT	Alternative 7 I-5 LRT	Alternative 8 I-5 BRT
Development potential within ½ mile of a station	N/A	N/A	High	High	High	Medium-High	Medium-High	Medium-High	Medium-High	Medium	Medium	Low

Source: Parsons Brinckerhoff, October 2003.

TABLE ES-6
EVALUATION OF ALTERNATIVES BY GOAL #3: FIND COST-EFFECTIVE SOLUTIONS

Evaluation Criteria/Measure	Alternative 1 No-Build	Alternative 2 Baseline/TSM	Alternative 3 Truxel Road LRT	Alternative 3A Truxel LRT Starter Line	Alternative 3B Truxel LRT Minimum Operable Segment	Alternative 4 Truxel BRT	Alternative 4A Truxel BRT Starter Line	Alternative 4B Truxel BRT Minimum Operable Segment	Alternative 5 I-5/Truxel LRT	Alternative 6 I-5/Truxel BRT	Alternative 7 I-5 LRT	Alternative 8 I-5 BRT
Financial												
Capital Cost (in millions of 2002$)	N/A	$90.3	$623.1	$447.9	$290.8	$327.5	$208.8	$142.3	$793.1	$311.0	$746.4	$261.3
Change in Operating & Maintenance Annual Costs (in millions of 2002$) (1)	--	--	$8.2	$9.1	$5.1	-($0.6)	-($0.5)	-($0.2)	$6.7	$1.8	$7.5	$0.9
Cost-Effectiveness												
User Benefit (cost per hour of travel time saved)	N/A	N/A	$28.84	$22.44	$14.36	$12.51	$5.69	$1.24	$39.65	$18.14	$56.97	$13.30

Note: (1) – For Alternatives 3 through 8, the Annual Costs represent the net difference between the cost of operating and maintaining the build alternative and the cost for the Baseline/TSM Alternative.

Source: Parsons Brinckerhoff, October 2003.

TABLE ES-7
EVALUATION OF ALTERNATIVES BY GOAL #4: MINIMIZE COMMUNITY AND ENVIRONMENTAL IMPACTS

Evaluation Criteria/Measure	Alternative 1 No-Build	Alternative 2 Baseline/TSM	Alternative 3 Truxel Road LRT	Alternative 3A Truxel LRT Starter Line	Alternative 3B Truxel LRT Minimum Operable Segment	Alternative 4 Truxel BRT	Alternative 4A Truxel BRT Starter Line	Alternative 4B Truxel BRT Minimum Operable Segment	Alternative 5 I-5/Truxel LRT	Alternative 6 I-5/Truxel BRT	Alternative 7 I-5 LRT	Alternative 8 I-5 BRT
Environment												
Wetlands	N/A	N/A	8 to 11.5 acres	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.
Noise	1 to 3 dBA increase in traffic volumes	1 to 3 dBA increase in traffic volumes	No noise impacts after mitigation. Significant vibration impacts during the construction period. Less than significant impacts from vibration during transit operations.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.
Visual	N/A	3 park-and-ride lots	10,877 feet of aerial structure plus overhead catenary and 7 park-and-ride lots.	8,606 feet of aerial structure plus overhead catenary and 7 park-and-ride lots.	5,122 feet of aerial structure plus overhead catenary and 6 park-and-ride lots.	20,064 feet of aerial structures, 6 park-and-ride lots, and 2 underpasses on South Truxel Road.	9,081 feet of aerial structures and 7 park-and-ride lots.	7,022 feet of aerial structures and 5 park-and-ride lots.	16,526 feet of aerial structures, plus overhead catenary wire and 7 park-and-ride lots.	24,763 feet of aerial structures, and 6 park-and-ride lots.	29,092 feet of aerial structures, catenary wires and 3 park-and-ride lots.	21,754 feet of aerial structure and 4 park-and-ride lots.
Total Displacements	N/A	N/A	7 residential and 7 commercial	7 residential and 7 commercial	7 residential and 7 commercial	0	0	0	10 commercial	8 commercial	10 commercial	8 commercial
Parkland (4(f)) Impacts	N/A	N/A	Permanent use of 3 to 4 acres.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.	Comparable to Alternative 3.

Source: Parsons Brinckerhoff, October 2003.

TABLE ES-8
EVALUATION OF ALTERNATIVES BY GOAL #5: ENSURE CONSISTENCY WITH OTHER PLANNING EFFORTS

Evaluation Criteria/Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 3A	Alternative 3B	Alternative 4	Alternative 4A	Alternative 4B	Alternative 5	Alternative 6	Alternative 7	Alternative 8
	No-Build	Baseline/TSM	Truxel Road LRT	Truxel LRT Starter Line	Truxel LRT Minimum Operable Segment	Truxel BRT	Truxel BRT Starter Line	Truxel BRT Minimum Operable Segment	I-5/Truxel LRT	I-5/Truxel BRT	I-5 LRT	I-5 BRT
Land Use												
Supports community and general plans	No	No	High	High	Medium-High	Medium-Low	Medium-Low	Medium-Low	Medium	Low	Low	Low

Source: Parsons Brinckerhoff, October 2003.

TABLE ES-9
EVALUATION OF ALTERNATIVES BY GOAL #6: OBTAIN STRONG COMMUNITY SUPPORT

Evaluation Criteria/Measure	Alternative 1	Alternative 2	Alternative 3	Alternative 3A	Alternative 3B	Alternative 4	Alternative 4A	Alternative 4B	Alternative 5	Alternative 6	Alternative 7	Alternative 8
	No-Build	Baseline/TSM	Truxel Road LRT	Truxel LRT Starter Line	Truxel LRT Minimum Operable Segment	Truxel BRT	Truxel BRT Starter Line	Truxel BRT Minimum Operable Segment	I-5/Truxel LRT	I-5/Truxel BRT	I-5 LRT	I-5 BRT
Community Support												
Potential community support for an alternative	Low	Low	Residential and commercial property owners have raised objections; 2,500 individuals have signed a petition supporting the use of an I-5 alignment	Same as Alternative 3	Same as Alternative 3	Same as Alternative 3	Same as Alternative 3	Same as Alternative 3	Residents and commercial properties have expressed an interested in the use of an alignment along I-5 or I-5/Truxel, without a preference for technology	Same as Alternative 5	Same as Alternative 5	Same as Alternative 5
Potential agency support for an alternative	N/A	N/A	High	High	High	Low	Low	Low	Medium	Low	Low	Low

Source: Parsons Brinckerhoff, December 2003.

ES.8 Selection of Locally Preferred Alternative

A locally preferred alternative (LPA) is the final candidate physical design concept and scope for a major corridor transit investment. For the DNA Corridor, the LPA will consist of two features: the identification and description of a corridor alignment and the identification of a transit (bus or light rail) mode. The LPA will also generally describe the proposed location of stations, the operating concepts by which transit service will be provided, and a set of specific design options to be further evaluated during the Preliminary Engineering phase of project development.

Selection Process

Earlier sections of this Executive Summary provided a comparison of 12 conceptual alternatives, including a No-Build, a Baseline/TSM, five LRT alternatives and five BRT alternatives. It was structured around criteria designed to reflect the study goals and objectives and FTA New Starts criteria.

Recommendation on a Locally Preferred Alternative

The results of the alternatives analysis were presented to the TRP, CRP and the general public in a series of meetings held in November 2003. As part of this effort, a public workshop was held at the Sacramento Convention Center on November 20. RT also held a public hearing on December 8 in the Chambers of the Sacramento County Board of Supervisors to allow the public more opportunity to provide comments on the alternatives evaluation. Based on the analysis results and public comments, RT staff then recommended to the RT Board of Directors Truxel LRT as the LPA. The RT Board adopted this recommendation at its meeting on December 15, 2003.

Use of the Truxel Road alignment will provide the largest transportation benefit to transit users in the Corridor and the region for the following reasons:

- **Improved Corridor Mobility**. While all three alignments would provide improved transit service between Downtown and the Airport, the Truxel alignment provides the shortest travel times for North and South Natomas residents.
- **Greater Transit Accessibility**. Based on the 2000 Census and year 2025 SACOG projections, the Truxel alignment would provide the greatest transit access to Corridor residents and households than either the I-5 or I-5/Truxel alignments.
- **Connectivity**. The Truxel Road alignment provides better connectivity to the existing regional transit system and to the major concentration of existing and planned activity centers and destinations within the DNA Corridor.
- **Potential for Transit-Oriented Development**. The Truxel Road alignment generally offers the greatest opportunity to foster transit-oriented development, particularly in the North Natomas Community and the Railyards/Richards Boulevard area.
- **Plan Consistency**. The Truxel alignment, with light rail, also offers the highest level of consistency with existing adopted community plans; the City and County general plans; current planning efforts within the Corridor; and over 15 years of prior development and infrastructure commitments in North Natomas.

In addition, among the alternatives studied, the Truxel Road alignment will provide the highest daily ridership, the most-cost effective transit solution using Federal Transit Administration ratings, and, given its construction cost of $450 million or below, the greatest likelihood for project funding.

ES.9 Next Steps

Following the conclusion of the alternatives analysis and adoption of an LPA, RT will proceed with a number of "Next Steps" to succeed at implementing major transit improvements in the Corridor.

Environmental Documentation -- RT has chosen to prepare a single integrated environmental document that represents an Environmental Impact Statement (EIS), consistent with the requirements under the National Environmental Policy Act (NEPA), and an Environmental Impact Report (EIR), which complies with the California Environmental Quality Act (CEQA).

The Draft EIS/R will evaluate two alternatives—a No-Build Alternative, which assumes for comparison purposes that no transit investment is built, and the RT-adopted LPA. Topics to be addressed include impacts to the natural environment, such as air quality, biological resources, noise and visual aesthetics, and impacts to the built environment, such as socioeconomic and fiscal impacts, property acquisition and relocation, environmental justice, cultural and parkland resources, public safety and security, construction impacts, and cumulative and growth inducing impacts.

The Draft EIS is to be prepared in early 2004 and will be circulated for public comment and review for a minimum of 45 days. Following the receipt and response to comments, RT will submit the Draft EIS and the comments to FTA. The agency will then conduct its own review and, assuming all statutory and regulatory requirements have been met, authorize RT to begin the next phase of proposed LPA development: Preliminary Engineering and completion of a Final EIS (PE/FEIS).

Concurrent with public review of the DEIS, RT will also request public comment on the DEIR portion of the document. Unlike the federal process, once RT has received and responded to comments, it will prepare a Final EIR (FEIR) for consideration and approval by the RT Board of Directors during the latter part of 2004. Adoption of the FEIR would enable RT to use local and state funds to acquire right-of-way (ROW) and to conduct other LPA-related implementation activities.

Preliminary Engineering and Refinement Of Design Options -- In preparing the AA, RT has evaluated the study alternatives based on conceptual planning and engineering, or within about a 10 percent level of design. During PE, RT intends to continue the refinement process by exploring in greater detail the engineering and design needed for implementing the LPA and one or more of its design options. During the PE phase, the level of design typically approaches 30 to 35 percent of a Final Design. Also during this phase, RT will complete its work on the FEIS.

Funding Commitments -- To eventually receive a federal commitment to help build any DNA Corridor major transit investment, FTA will require RT to demonstrate it can: a) provide at least 1/2 (50 percent) of the construction costs using local and state funds, and b) that RT has the authority and assumed financial resources to operate the proposed system improvements for the next 20 years. These local funding commitments will need to be documented and provided to FTA prior to the agency giving RT approval to begin Final Design. Upon completion of Final Design, these commitments will need to be reaffirmed by RT prior to FTA approving a Full Funding Grant Agreement (FFGA), thereby committing the federal government to pay for ½ of the construction cost for DNA Corridor improvements.

LPA Implementation Issues and Schedule

Building on the coordination and consultation process established during the planning phase of the DNA Corridor study, RT will continue working closely with local, state and federal agencies

to implement its vision for the DNA Corridor. While the number of agencies RT will need to work with is large, there are seven public agencies where the coordination and consultation process will be critical in maintaining momentum for implementing the LPA. These agencies include:

Sacramento Area Council of Governments (SACOG) -- SACOG, as the regional and metropolitan planning agency for the Sacramento region, should support RT's proposed transit service expansion and update and/or amend its Metropolitan Transportation Plan (MTP) and transportation improvement program (TIP) to reflect RT's decision, and SACOG will play a major role in the programming of state and federal construction funding for the DNA Corridor LPA.

Sacramento Transportation Authority (STA) -- STA has the role of structuring an expenditure program and determining when County voters will be asked to renew the Measure A transportation sales tax program. RT has already begun working with STA staff and others to ensure that a renewal measure provides adequate funding for RT's current and future needs.

Sacramento International Airport -- When fully built, the DNA Corridor line will provide transit service from downtown Sacramento to the airport. Implementation issues include securing the airport's endorsement, coordination and cooperation during construction, and financial commitment toward a project.

City of Sacramento -- The City will play a key role during planning, design, engineering and construction of a new major transit investment in the Corridor. Issues of mutual interest to RT and the City include planned redevelopment of the Union Pacific Railroad (UPRR) Railyards and a new Sacramento Intermodal Transportation Facility (SITF); traffic circulation; encouraging the implementation of high density, transit supportive development within the DNA Corridor; and project funding.

County of Sacramento -- Sacramento County will have a major role in the planning and construction of the DNA line, balancing among competing priorities its capital funding needs. The County also needs to work closely with RT to ensure that the American River Parkway Plan (ARPP) includes provisions for a new transit crossing and that, with RT, transportation improvements are built consistent with RT's implementation schedule, primarily in the vicinity of the airport, Metro Air Park, and the crossing of the American River Parkway.

Sacramento Area Flood Control Agency (SAFCA) -- RT will need to work with SAFCA and others in subsequent planning, design, engineering and construction of transit improvements in the DNA Corridor, since all three study alignments are located within a protected floodplain and will require a new bridge crossing of the American River and the American River Parkway.

California Department of Transportation (Caltrans) -- Since all of the BRT and LRT alternatives would require using and/or crossing portions of the right-of-way maintained by Caltrans, RT will need to work with agency staff to ensure that Caltrans safety standards are maintained. RT will need to consider Caltrans maintenance facility requirements and the location of its existing park-and-ride lots.

LPA Schedule

The DNA Corridor LPA implementation schedule is anticipated to occur as depicted in Figure ES-2. With this scenario, completion of the environmental phase is anticipated in 2006; completion of Final Design and Engineering (PS&E) in 2008; LPA construction between 2009 and 2011; and opening for revenue service to Natomas Town Center by 2012 and to the Sacramento International Airport by 2015.

FIGURE ES-2
DNA CORRIDOR LPA IMPLEMENTATION SCHEDULE