

The logo features the MTS logo on the left, followed by the text "City/Park" in a serif font. Below this, the word "STREETCAR" is written in a large, bold, sans-serif font inside a dark, stylized banner. Underneath the banner, the words "Feasibility Study" are written in a serif font.

MTS® City/Park
STREETCAR
Feasibility Study

STEERING COMMITTEE MEETING #3
October 13, 2011

MEETING AGENDA

1. Alternatives & Evaluation Matrix
2. Operating Plan
3. Ridership Estimates
4. Preliminary Cost Estimates
5. Project Wrap-up & Final Report Schedule
6. Thank You for Participating
7. Conclusion

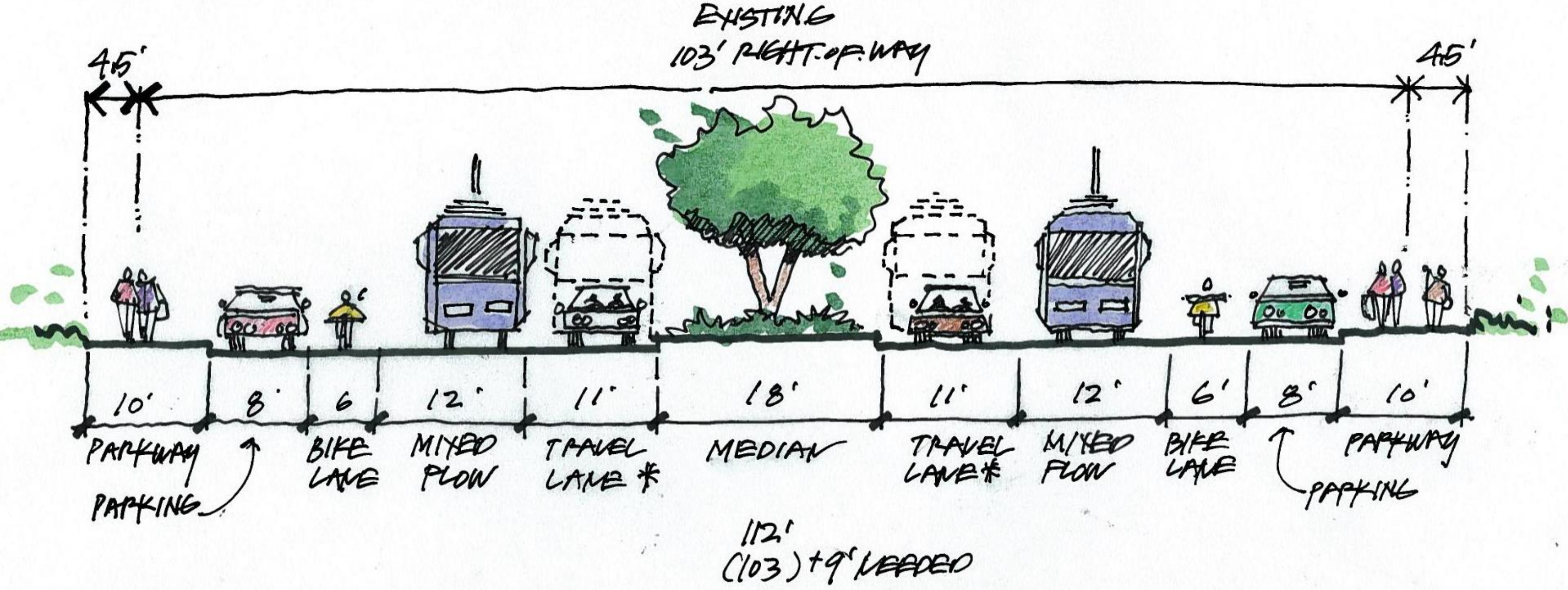
Following the meeting please meet us downstairs for a display of vintage & Siemens Ultra-Short vehicles.



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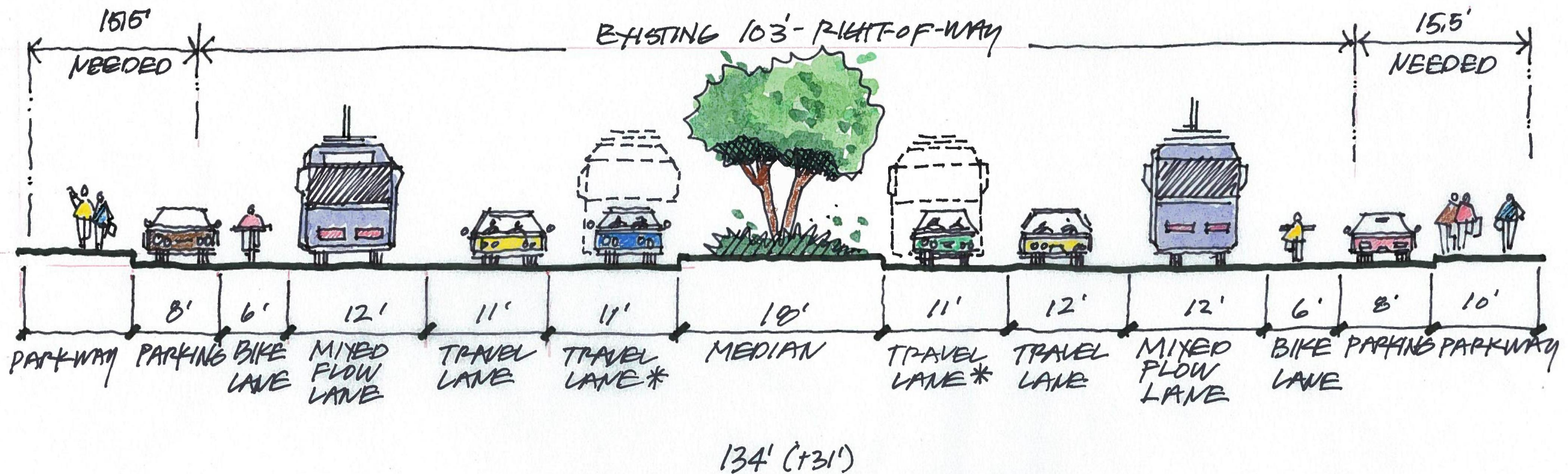
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Alternatives & Evaluation Matrix



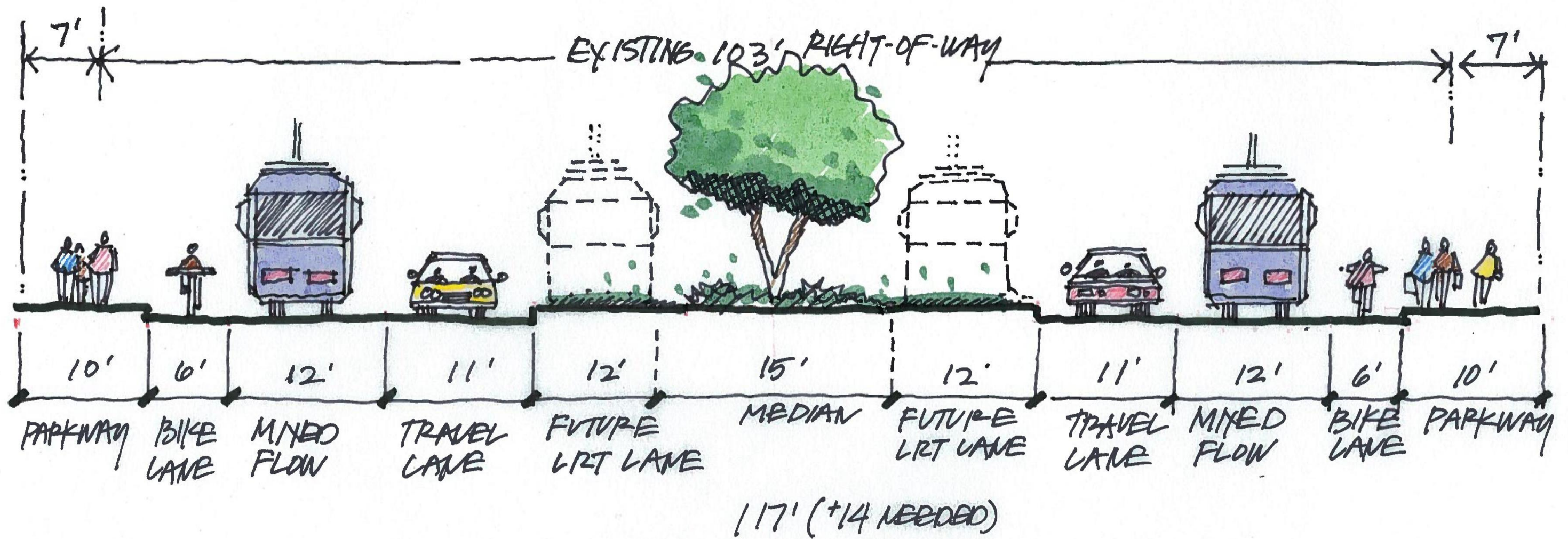
CONCEPT 1: General Purpose Travel Lane is Converted to Future Exclusive LRT Lane

Date: 10.02.2011



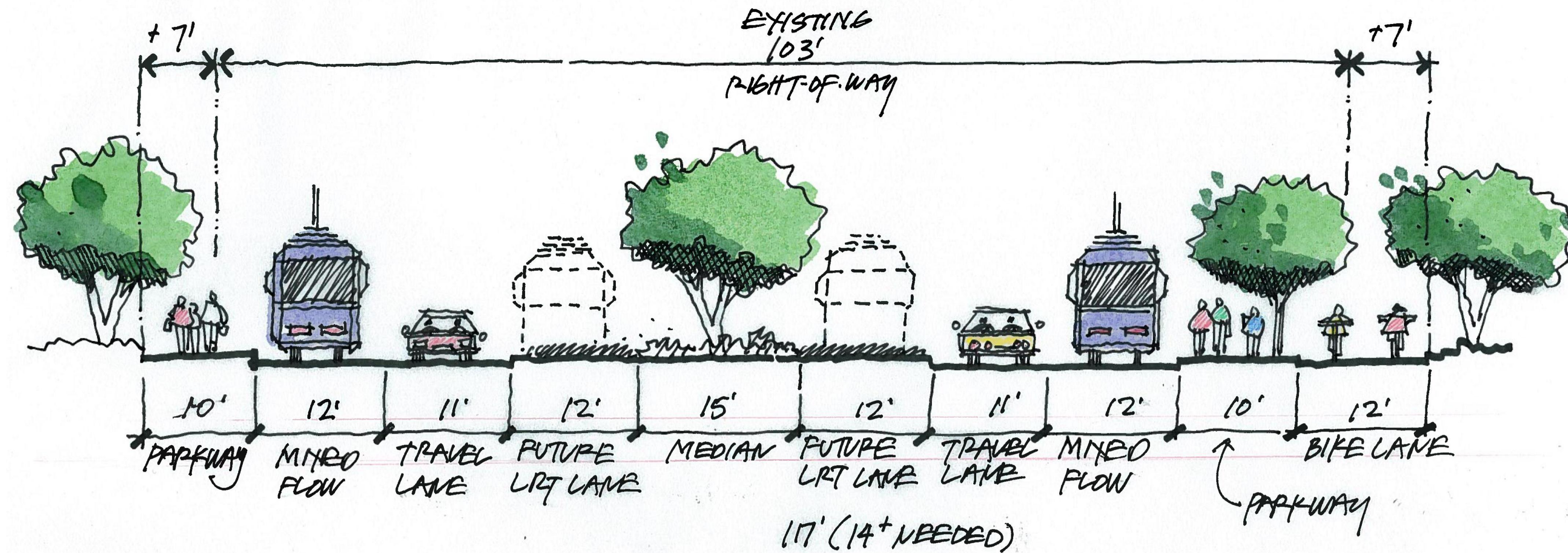
CONCEPT 2: New Travel Lane Converted as Future Exclusive LRT Lanes

Date: 10.02.2011



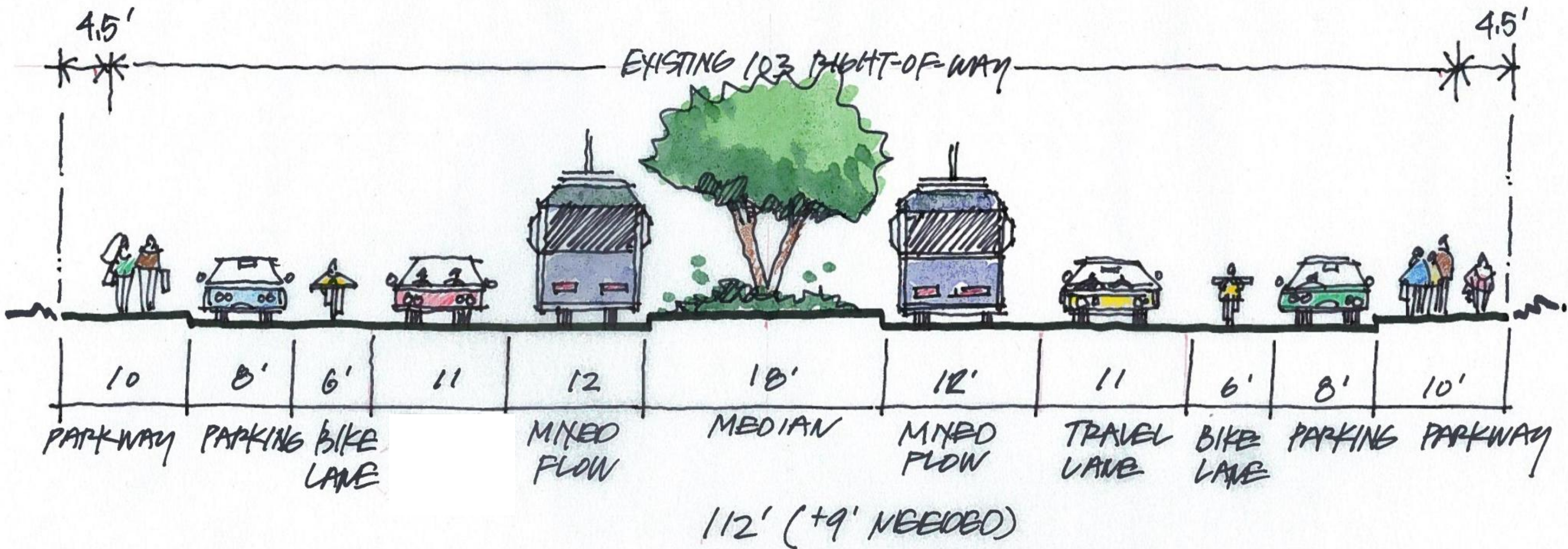
CONCEPT 3: Future LRT Lane in Median / Class 2 Bike Lane

Date: 10.02.2011



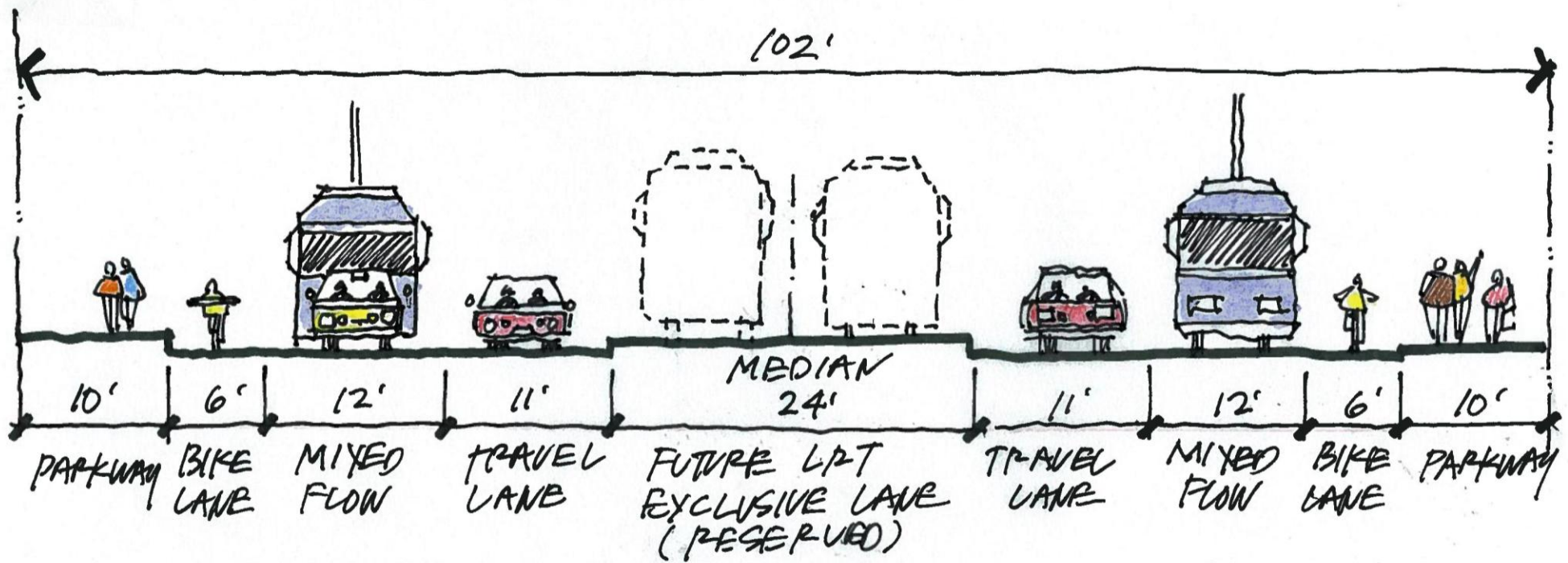
CONCEPT 3a: Future LRT in Median / Class 1 Bike Path

Date: 10.02.2011



CONCEPT 4: Median Running Streetcar / No Provisions for Future LRT

Date: 10.02.2011

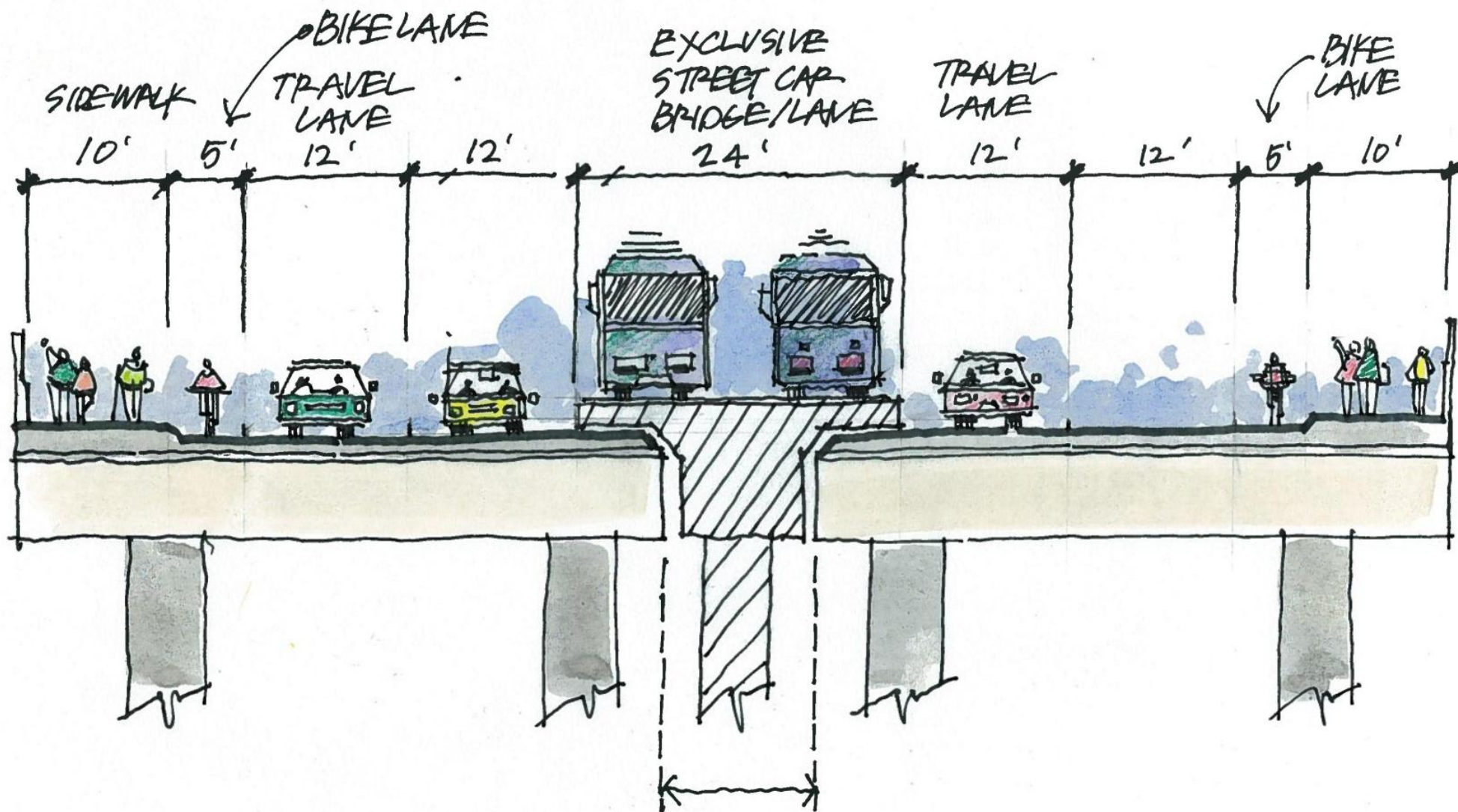


President Way to 'C' Street

Date: 10.02.11



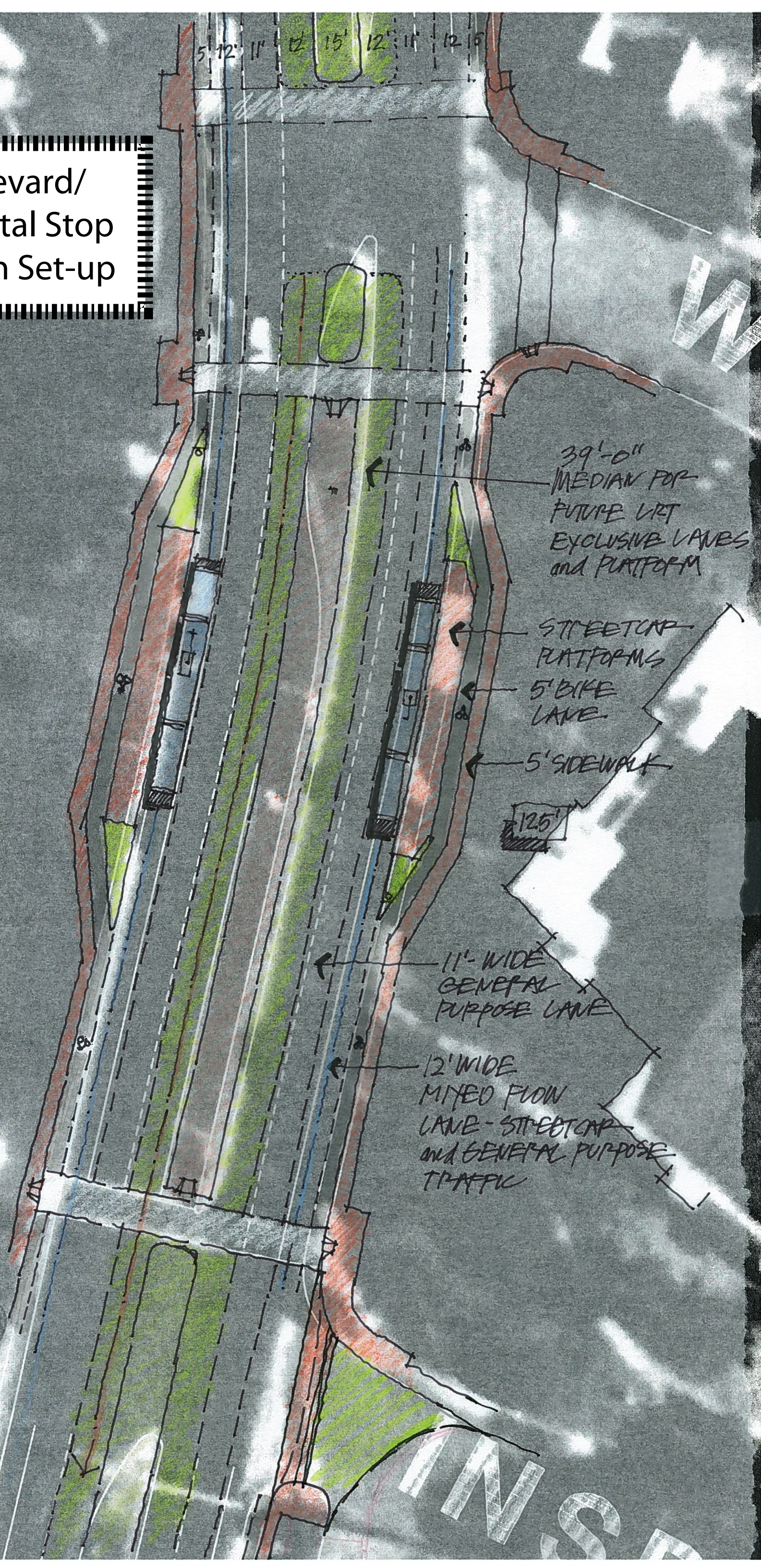
CITY/PARK STREETCAR FEASIBILITY STUDY



Interstate 5 Bridge

Date: 10.02.11

Park Boulevard/
Naval Hospital Stop
Draft Station Set-up



ENGINEERING FEASIBILITY	Alternative 1	Alternative 2	Alternative 3	Alternative 4	General Comments
Interstate 5 Bridge					
<i>Minimize impacts to the existing bridge crossing over Interstate 5</i>	0	0	0	0	
Pedestrian Bridge					
<i>Minimizes conflicts between right-of-way and pedestrian bridge</i>	3	1	3	3	
Utilities					
<i>Minimize impacts to existing above- and below-grade utilities</i>	0	0	0	0	
R.O.W. Requirements					
<i>Minimizes the need for additional right-of-way</i>	3	1	2	3	
Vehicles					
<i>Maximizes flexibility in the vehicle types that may be used</i>	3	3	3	1	
Length of Alignment					
<i>Minimizes the length of track miles needed for operations, including turn-around requirements for single-ended/sided vehicles</i>	0	0	0	0	
SUBTOTAL SCORE	9	5	8	7	

OPERATIONAL FEASIBILITY	Alternative 1	Alternative 2	Alternative 3	Alternative 4	General Comments
On-street Parking Conflicts					
Minimizes the number of on-street parking spaces eliminated	2	2	1	3	
Vehicular/Auto Conflicts					
Minimizes impacts to auto traffic flow (pre-LRT)	2	3	2	2	
Minimizes impacts to auto traffic flow (post-LRT)	2	3	3	0	
Minimizes turn-movement conflicts with autos at intersections (pre-LRT)	2	2	2	1	
Minimizes turn-movement conflicts with autos at intersections (post-LRT)	1	2	2	0	
Bicycle Conflicts					
Minimizes conflicts with existing and proposed bicycle improvements. Increases safety and enhances connectivity	2	2	2	3	
Pedestrian Conflicts					
Minimizes conflicts with existing and proposed pedestrian improvements. Increases safety and enhances connectivity	0	0	0	0	
Maximizes passenger safety at stations. Minimizes passenger traffic crossings necessary to reach activity centers	3	3	3	2	
Station Locations					
Stations are located at key activity centers	0	0	0	0	
Stations serve other regional transit connections	0	0	0	0	
Sub-station Requirements					
Minimizes the number of sub-stations required and the location of sub-stations has minimal impact	0	0	0	0	
Ridership Potential					
Maximizes ridership opportunities	0	0	0	0	
Headway Requirements					
Provides the most flexible headway frequencies/options	0	0	0	0	
System Integration					
Compatible with existing LRT (trolley) systems	0	0	0	0	
Alignment can expand into larger streetcar network	0	0	0	0	
Alignment most compatible with conversion of Mid-City Rapid to future LRT	0	0	0	0	
OPERATIONAL SUBTOTAL SCORE	14	17	15	11	

COST FEASIBILITY	Alternative 1	Alternative 2	Alternative 3	Alternative 4	General Comments
Capital Cost					
<i>Low initial capital cost</i>	3	1	2	3	
<i>Highest potential for private investment</i>					
Operational Cost					
<i>Low operational cost; funding sources; partnering sources</i>	0	0	0	0	
Cost Effectiveness					
<i>Total cost per new rider is low.</i>	0	0	0	0	
<i>Total cost per passenger mile</i>					
COST FEASIBILITY SUBTOTAL SCORE	3	1	2	3	

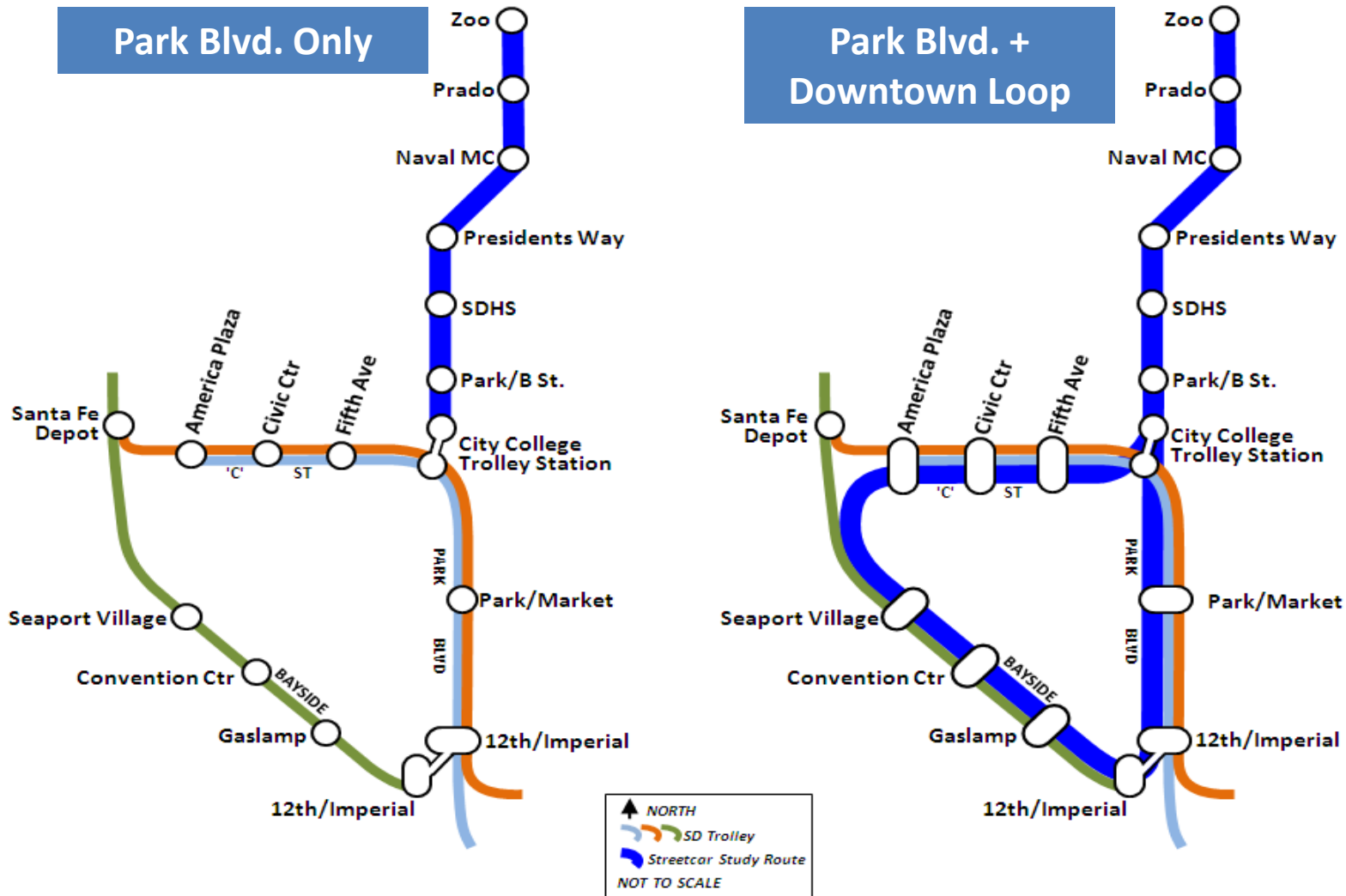
OTHERS	Alternative 1	Alternative 2	Alternative 3	Alternative 4	General Comments
Environmental Issues					
<i>Air Quality</i>					
<i>Biology Resources</i>					
<i>Climate Change</i>					
<i>Community and Neighborhood</i>					
<i>Economic and Fiscal</i>					
<i>Environmental Justice</i>					
<i>Geotechnical</i>					
<i>Historic/Cultural</i>					
<i>Hydrology and Water Quality</i>	1	3	3	2	
<i>Land Use</i>					
<i>Light & Glare</i>					
<i>Noise and Vibration</i>					
<i>Open Space/Park Lands (Section 4f)</i>					
<i>Traffic</i>					
<i>Visual/Aesthetics</i>					
<i>Minimizes traffic circulation</i>	1	3	3	1	
<i>Minimizes amount of park take</i>	3	1	2	3	
Consistency with Planning Documents					
<i>Consistent with SANDAG 2050 RTP and associated planning documents</i>	3	3	3	1	
<i>Consistent with CISD Bicycle Master Plan</i>	3	3	3	3	
<i>Consistent with CISD Balboa Park Master Plan Central Mesa Precise Plan</i>	3	2	3	3	
<i>Consistent with CISD Balboa Park Master Plan Park Blvd. Promenade Amendment</i>	3	3	3	3	
<i>Consistent with CISD Parking Management Action Plan for Balboa Park</i>	3	3	3	3	
<i>Consistent with San Diego City College Facilities Master Plan</i>	0	0	0	0	
<i>Consistent with CISD/CCDC Downtown Community Plan</i>	3	3	3	3	
Complete Streets					
<i>Alternative provides the best opportunity for a Complete Streets Approach</i>	3	3	3	3	
Economic Development					
<i>Maximizes economic development along the corridor</i>	1	1	1	1	
Stakeholder items					
<i>Addresses other stakeholder issues</i>	0	0	0	0	
Known Issues/Advantages					
	0	0	0	0	
"OTHERS" SUBTOTAL SCORE	27	28	30	26	
TOTAL SCORE	53	51	55	47	

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MTS® City/Park
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Operating Plan

TWO ROUTES EVALUATED



TWO ROUTES EVALUATED

1) Park Blvd. Only (City College Trolley Station – San Diego Zoo)

- Shorter route reduces cost, vehicle requirement
- Least complicated, better reliability
- Less ridership potential due to transfer

2) Park Blvd. + Downtown Loop (Clockwise or Counter Clockwise)

- Direct route to Park Blvd. from all downtown stations
- Increased ridership potential
- Requires more vehicles, much higher operating cost
- Significant conflict with Trolley operations

TWO ROUTES EVALUATED

Estimates	Park Blvd. Only	Park + Dwtm Loop
Round-trip mileage	2.9 miles	6.2 miles
Round-trip time	20-23 min.	47-50 min.
Stations Served	7 stations	15 stations
Vehicles Required	2-3 cars	5-6 cars
Annual Passengers	377,000	490,000
Est. Annual Operating Cost	\$1.07 million	\$2.14 million

Park Blvd. Only: Routing chosen for further analysis in this feasibility study.

OPERATING ASSUMPTIONS

- **Days: Service 7 days a week**
- **Hours: 8 AM – 6 PM Everyday**
 - › Most park attractions within 9 AM – 5 PM
 - › Extended hours possible seasonally/special events, but not factored in operating plan
- **Frequency: Every 15 minutes**
 - › Projected ridership doesn't warrant higher frequency
 - › Less frequency would lose significant riders
- **Alternative: Alternative 3 or 3a, with a stub end and/or turntable at terminals (no turnaround loops)**

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Ridership Estimates

RIDERSHIP CONSIDERATIONS

Ridership/market data from Route 7

SANDAG 2050 RTP

Peer cities streetcar systems

Current and future land use practices

Light rail experience and literature

Operating plan

Streetcar Ridership Projection		
Day Type	Annual	Average Daily
Weekday	279,000	1,100
Weekend	98,000	1,800
Total	377,000	

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Preliminary Cost Estimates

CITY/PARK STREETCAR FEASIBILITY STUDY –DRAFT

10/12/2011

ORDER-OF-MAGNITUDE CONSTRUCTION COST ESTIMATE

Item Total (\$)

GUIDEWAY & TRACK ELEMENTS	\$	20,179,000.00
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STATION PLATFORMS	\$	3,424,200.00
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SUPPORT FACILITIES: YARDS, SHOPS, ADMIN BLDGS	\$	-
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SITE WORK & SPECIAL CONDITIONS	\$	10,637,000.00
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SYSTEMS	\$	8,875,000.00
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CONSTRUCTION SUBTOTAL	\$	43,115,200.00
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R.O.W, LAND, & EXISTING IMPROVEMENTS	\$	-
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PROFESSIONAL SERVICES	\$	16,814,928.00
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CONSTRUCTION, ROW, & PROFESSIONAL SERVICES SUBTOTAL	\$	59,930,128.00
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TOTAL PROJECT COST (EXCLUDING VEHICLES)	\$	65,923,140.80
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Project Wrap-up & Final Report Schedule
Thank You for Participating
Conclusion



- **Oct. – Dec. 2011**
Draft report
- **Dec. 2011 or Jan. 2012**
MTS Board of Directors Presentation
- **Jan. 2012**
Final Report



THANK YOU!

Please look for updates at:
<http://www.sdmts.com/streetcarstudy.asp>



CITY / PARK STREETCAR FEASIBILITY STUDY



VEHICLE DISPLAY

Please join us downstairs after the meeting for a display of vintage & Siemens Ultra Short vehicles.