SYSTEM ALTERNATIVES DEVELOPMENT

OVERVIEW OF PROCESS

4.1

The WFRC developed a set of multi-modal alternatives as part of the process for adopting *The Wasatch Front Regional Transportation Plan: 2007-2030*. These alternatives were built on the alternatives considered during the Wasatch Choices 2040 visioning process described in Chapter 2, Regional Visioning, and the needs-based alternatives discussed in Chapter 3, System Needs Assessment. Each of the multi-modal alternatives attempt to address the needs identified in Chapter 3 and to support the growth principles adopted by the Regional Council as part of the Wasatch Choices 2040 process. This chapter summarizes the process followed to develop alternatives and the three multi-modal alternatives selected for evaluation.

Initial Consideration Of Alternatives

The Wasatch Choices 2040 process evaluated four separate scenarios for future development and how transportation options would affect them. Each of the scenarios had a different land-use component and transportation system. Based on the evaluation of all of these scenarios, the WFRC and Envision Utah developed one possible vision for future land use and transportation in the region. This vision resulted in less congestion, greater transit use, less land consumption and supported the growth principles adopted by the Regional Council. The land use aspects of the vision were used to project the future population and employment numbers used in its Plan. The transportation system included freeway, arterial, and bus and rail transit improvements to serve the transportation needs of the vision. While the vision transportation system is one way to address needs, the Wasatch Choices 2040 process did not look at other transportation alternatives to serve the vision land use. As part of the development of this Plan, the WFRC developed and evaluated three additional multi-modal alternatives to serve the projected future population and employment for the region.

In order to help in developing the multi-modal alternatives, the WFRC created the three needs-based alternatives described in Chapter 3, Needs Assessment. The WFRC's goal for the needs-based alternatives was to maintain future congestion at no higher than current levels by providing additional highway capacity and new transit service. The first of these needs-based alternatives attempted to do this by expanding freeway capacity, either through widening existing freeways, converting existing arterial streets to freeways, or building new freeways. The second alternative emphasized the arterial street system and major rail and bus transit investments. Finally, the third alternative combined the best parts of the first two alternatives and included freeway, arterial, and transit projects. While these alternatives are not financially constrained and, therefore, unlikely to be built, they did illustrate what types of improvements might better serve transit and highway needs in specific areas.

Finally, the development of the multi-modal alternatives was based on future functional classification of the region's street and highway network. This system identifies a hierarchy of streets that are classified based on their function to provide for mobility, for access, or both. An explanation of street functional classification can be found in Appendix H.

4.2

MULTI-MODAL SYSTEM ALTERNATIVES

The WFRC developed three multi-modal alternatives for consideration for the 2030 Regional Transportation Plan. In developing these alternatives, the WFRC, as mentioned above, had considerable previous work to build upon, including the 2030 Regional Transportation Plan adopted in December 2003, the Wasatch Choices 2040 process and vision, and the needs-based alternatives. All were used to identify potential highway and transit improvements and to package them into multi-modal system alternatives. Although the three multi-modal alternatives were not financially constrained, the WFRC attempted to limit the cost of the improvements considered to what funding was available in the previously adopted 2030 Long Range Transportation Plan. Each of the three multi-modal alternatives is described in more detail below.

Current RTP / Wasatch Choices Vision Alternative

This alternative is based on the highway and transit system included in the current RTP and the Wasatch Choices Vision. It provides a mix of freeway, arterial, and rail and bus transit improvements. Table 4-1 lists the major highway and transit projects in this alternative. Maps 4-1 and 4-2 show the highway and transit improvements, respectively. Since the Wasatch Choices 2040 plan attempts to meet needs projected for the year 2040, the WFRC staff reviewed traffic projections for the year 2030 and did not include several of the projects from the vision in this alternative.

TABLE 4-1

CURRENT RTP / WASATCH CHOICES VISION ALTERNATIVE PROJECTS

MAJOR HIGHWAY PROJECTS	
I-15 - South Weber and North Davis Counties	8 Lanes
North Legacy Parkway	4 Lanes
2000 West / 3500 West	6 Lanes
US- 89	6 Lanes
I-15 - South Davis County	8 General Purpose Lanes + 2 HOV Lanes
I-15 - North Salt Lake County	6 General Purpose Lanes + 2 HOV Lanes
Mountain View Corridor Freeway	4 General Purpose Lanes + 2 HOV Lanes
I-15 - South Salt Lake County	8 General Purpose Lanes + 2 HOV Lanes
MAJOR TRANSIT PROJECTS*	
Ogden – Provo Commuter Rail	
Airport LRT	
Draper LRT to 12400 South	
Mid-Jordan LRT	
West Valley LRT	
Washington Blvd. BRT	2nd Street to the Newgate Mall
Ogden / Weber State University Street Car	Ogden CRT to McKay Dee Hospital
Main Street Davis County BRT	Salt Lake City to Ogden City
Foothill Blvd / I-215 BRT	University of Utah to Fort Union
Magna / West Bench BRT	Salt Lake International Airport to West Bench
Mountain View Corridor BRT/XEB	Salt Lake International Airport to Bangerter CRT

MAJOR TRANSIT PROJECTS CONTINUED	
Redwood Road BRT	North Temple Street to Bangerter CRT
State Street BRT	Salt Lake City to 5200 South to Fort Union
700 East BRT	Salt Lake City to 5200 South CRT
1300 East BRT	University of Utah to Draper City
Draper South LRT	12400 South to Alpine
3500 South / Sugarhouse Street Car	7200 West to Foothill Blvd.
4100 South / 3900 South Street Car	Salt Lake Community College to Highland Drive
5400 South / 5600 South BRT	Mountain View Corridor to Fort Union

* Additional analysis was conducted for each transit corridor using LRT technology

Freeway / BRT On Freeway Emphasis Alternative

The second alternative emphasized improvement of the existing freeways and new freeways for the highway system; and express bus service on HOV lanes for the transit system. Included in this alternative are a new east-west freeway at about 6200 South on the west side of Salt Lake County and the conversion of the south end of the Bangerter Highway to a freeway with a connection to the Mountain View Corridor. Both of these facilities would address the growing east-west transportation problem in Salt Lake County. The transit service included in this alternative emphasizes express bus service on freeways and arterials. Table 4-2 lists the major projects needed for this alternative, while Maps 4-3 and 4-4 show the proposed projects.

TABLE 4-2

FREEWAY / BRT ON FREEWAY EMPHASIS ALTERNATIVE PROJECTS

MAJOR HIGHWAY PROJECTS	
I-15 – South Weber and North Davis Counties	6 General Purpose Lanes + 2 HOV Lanes
North Legacy Parkway	2 Lanes
2000 West / 3500 West	4 Lanes
US Highway 89	Interchanges Only
I-15 – South Davis and North Salt Lake Counties	8 General Purpose Lanes + 2 HOV Lanes
I-15 – South Salt Lake County	8 General Purpose Lanes + 2 HOV and 10 General Purpose Lanes + 2 HOV Lanes
Mountain View Corridor Freeway	6 General Purpose Lanes + 2 HOV Lanes
6200 South Freeway	6 Lanes
Bangerter Highway	Interchanges East / West
MAJOR TRANSIT PROJECTS	
Ogden – Provo Commuter Rail	
Airport LRT	
Draper LRT to 12400 South	
Mid-Jordan LRT	
West Valley LRT	

MAJOR TRANSIT PROJECTS CONTINUED	
Washington Blvd. BRT	2nd Street to Newgate
Roy / Weber State University Street Car	Roy CRT to Weber State University
Ogden Circulator Street Car	Ogden Central Business District
West Davis / Weber Counties BRT	Layton City CRT to Ogden City
Foothill / I-215 / 1300 East BRT	Salt Lake City to Lehi CRT
Mountain View Corridor BRT/XEB	3500 South to 11800 South
Bangerter Highway BRT	Salt Lake City to 9000 South
Redwood Road Street Car	Salt Lake City to Mid-Jordan LRT
State Street BRT	Salt Lake City to 5200 South to Knudsen Corner
700 East BRT	Salt Lake City to 5200 South CRT
1300 East Street Car /BRT	Salt Lake City to Fort Union
3500 South / Sugarhouse BRT	7200 West to Foothill Blvd.
4700 South / 4500 South Street Car	American Express to CRT to Highland Drive
6200 South BRT	West Bench to Salt Lake City

* Additional analysis was conducted for each transit corridor using LRT technology

Arterial / Streetcar On Arterial Emphasis Alternative

The final alternative considered during the development of this plan tried to meet anticipated needs with no new freeways (although it does include some widening of existing freeways) but with the widening of several arterials, especially on the growing west side of Salt Lake County. Transit improvements emphasized bus rapid transit and streetcar service along major arterials. Table 4-3 lists the major projects and Maps 4-5 and 4-6 show the highway and transit improvements for this alternative.

TABLE 4-3
ARTERIAL / STREETCAR ON ARTERIAL EMPHASIS ALTERNATIVE PROJECTS

MAJOR HIGHWAY PROJECTS	
North Legacy Parkway	4 Lanes
2000 West / 3500 West	6 Lanes
US Highway 89	6 Lanes
I-15 – South Davis and North Salt Lake	6 General Purpose Lanes + 2 HOV Lanes
4500 South / 4700 South	8 Lane Arterial
9000 South / 9400 South	8 Lane Arterial
MAJOR TRANSIT PROJECTS	
Ogden – Provo Commuter Rail	
Airport LRT	
Draper LRT to 12400 South	
Mid-Jordan LRT	
West Valley LRT	

MAJOR TRANSIT PROJECTS CONTINUED	
Washington Blvd. BRT	2nd Street to the Newgate Mall
Ogden / Weber State University Street Car	Ogden CRT to McKay Dee Hospital
Ogden Circulator Street Car	Ogden Central Business District
South Davis BRT	Salt Lake City to Farmington City
Foothill Blvd Street Car	University of Utah to I-80
Magna / West Bench BRT	Salt Lake International Airport to West Bench
5600 West Street Car	3500 South to 11800 South
Bangerter Highway BRT	State Route 201 to 10600 South
Redwood Road Street Car	West Valley City to Mid-Jordan LRT
State Street BRT	5200 South to Fort Union
700 East BRT	5200 South CRT
1300 East Street Car	University of Utah to Sandy City CRT
3500 South / Sugarhouse Street Car	7200 West to Foothill Blvd.
4100 South / 3900 South BRT	Salt Lake Community College to Highland Drive
5400 South / 5600 South BRT	West Bench to Fort Union

* Additional analysis was conducted for each transit corridor using LRT technology

IMPROVEMENTS TO OTHER MODES

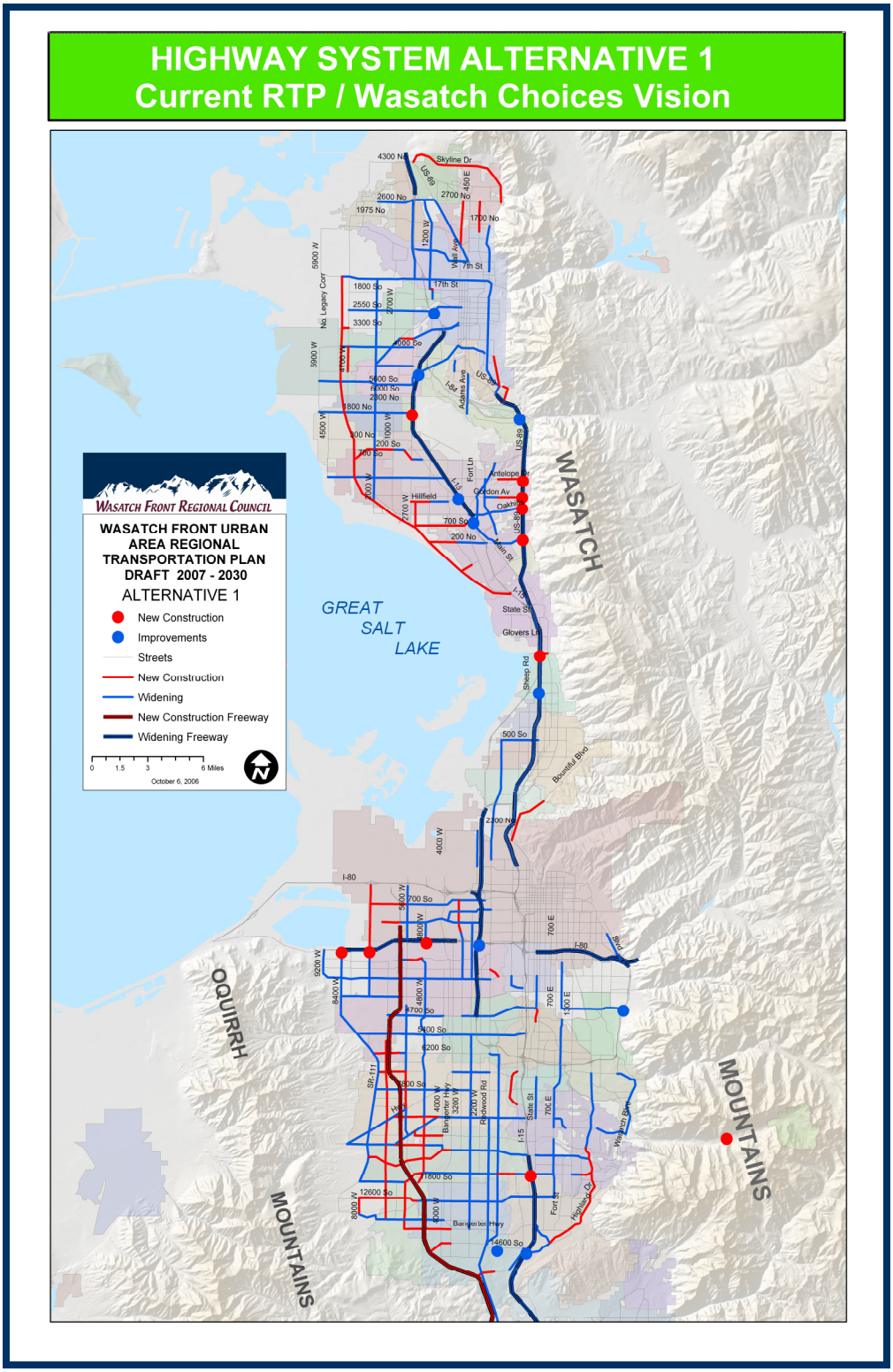
4.3

The growth principles adopted by the Wasatch Front Regional Council encourage the promotion of alternative modes to highways and transit, such as bicycling and walking, to help reduce growth in vehicle travel and support healthy living. While many of these needs are local and should be addressed by city and county officials, the 2030 RTP recommends that bicycle and pedestrian facilities, where appropriate, be included on all highway and transit projects.

In addition, the WFRC has worked with local community planners and officials, along with a number of special interest groups throughout the region, to develop a regional bicycle plan to serve not only a growing number of commuters, but also those individuals wishing to visit major destinations and attractions. The development of system alternatives considered other transportation modes. Map 3-4 in Chapter 3, System Needs Assessment, identifies the major destinations and the bicycle corridors that currently serve them.

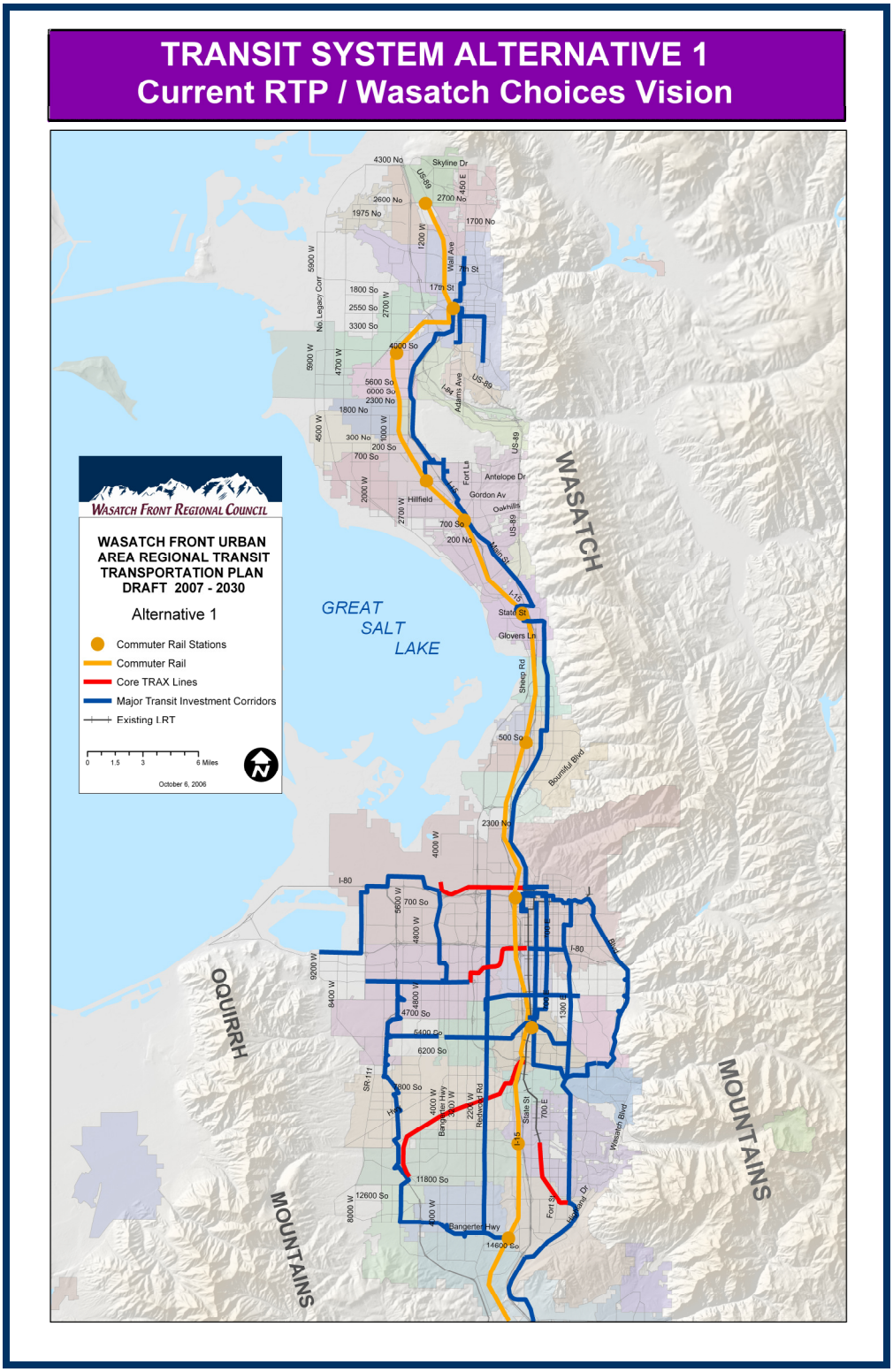
MAP 4-1

HIGHWAY ALTERNATIVE 1 - CURRENT RTP / WASATCH CHOICES VISION



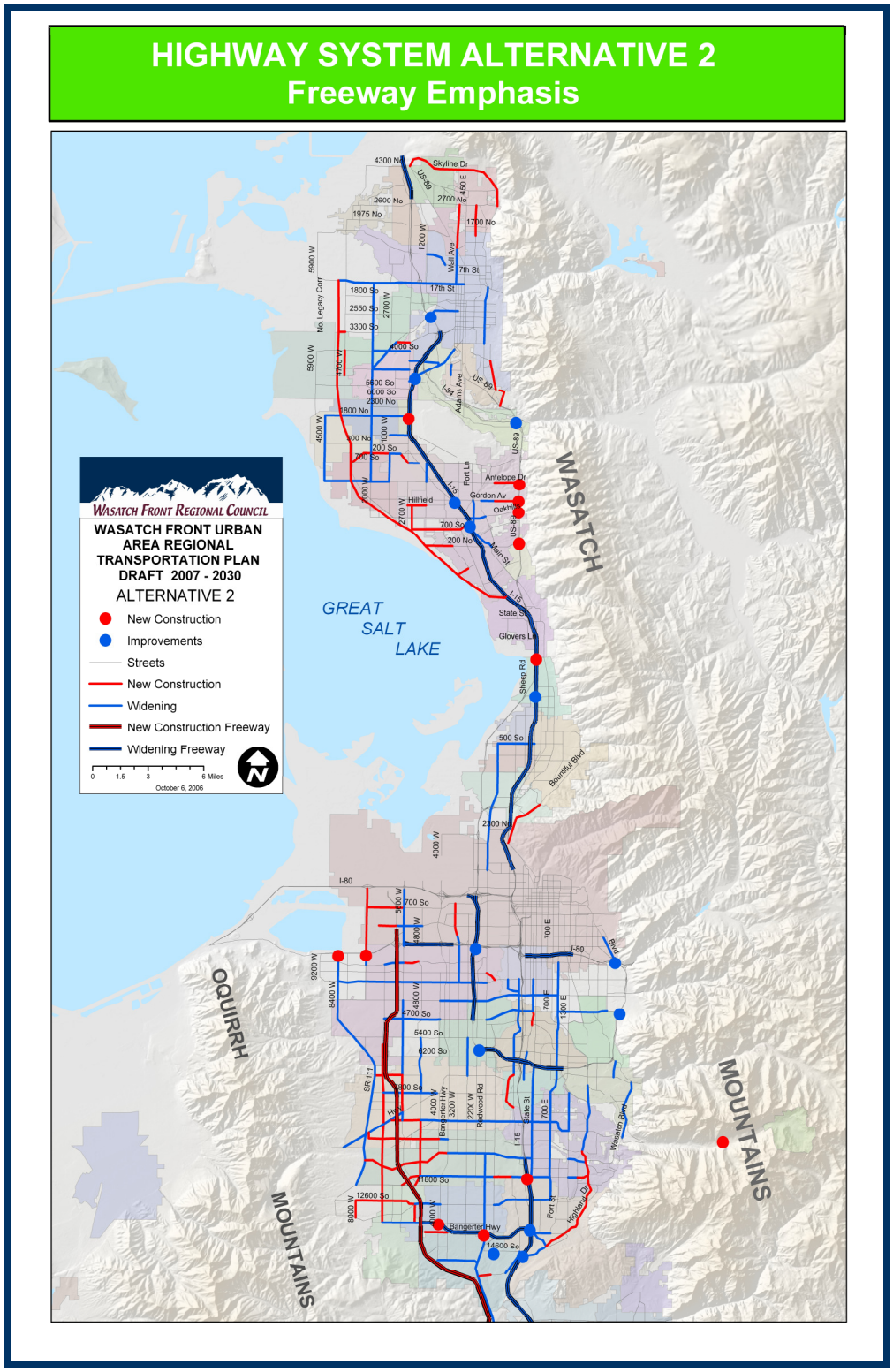
MAP 4-2

TRANSIT ALTERNATIVE 1 - CURRENT RTP / WASATCH CHOICES VISION



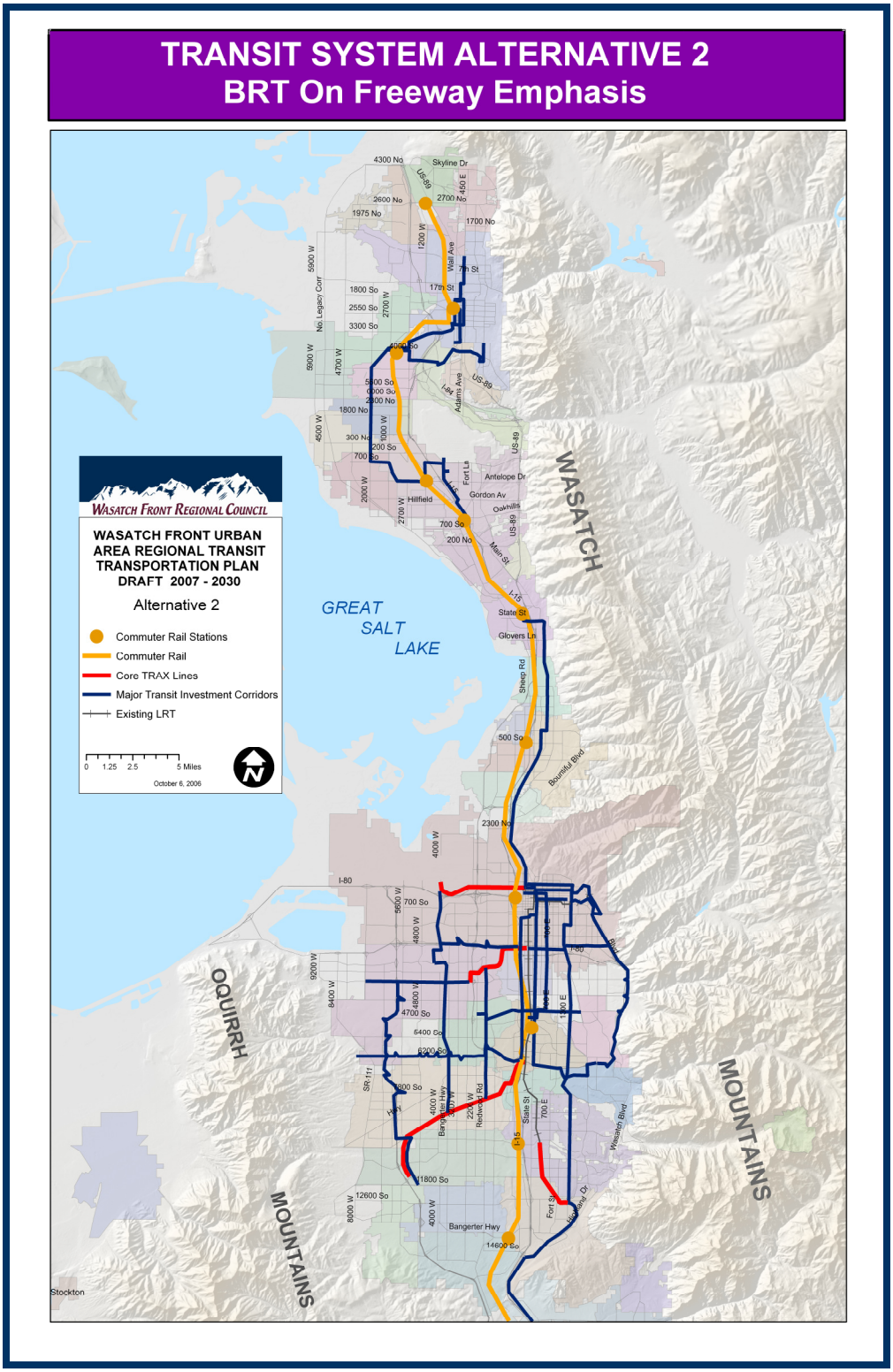
MAP 4-3

HIGHWAY ALTERNATIVE 2 - FREEWAY EMPHASIS



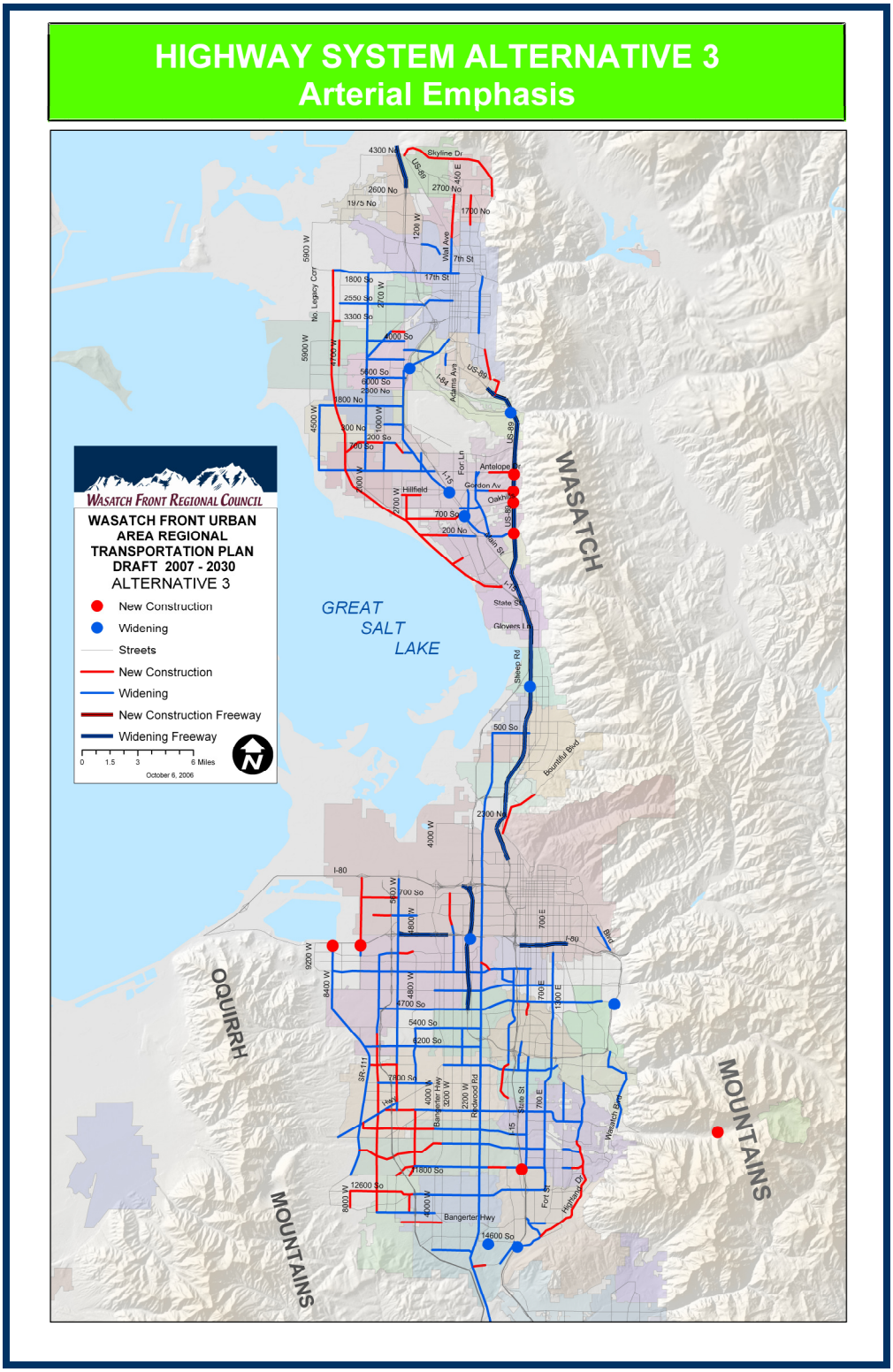
MAP 4-4

TRANSIT ALTERNATIVE 2 – BRT ON FREEWAY EMPHASIS



MAP 4-5

HIGHWAY ALTERNATIVE 3 - ARTERIAL EMPHASIS



MAP 4-6

TRANSIT ALTERNATIVE 3 – STREETCAR ON ARTERIAL EMPHASIS