

ANCHORAGE DOWNTOWN COMPREHENSIVE PLAN

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Prepared for:

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INTRODUCTION

As part of the Downtown Anchorage Comprehensive Plan, Kittelson & Associates, Inc. (KAI) evaluated the Anchorage transportation network with respect to improvements necessary to support successful redevelopment of downtown Anchorage. This report summarizes the transportation analysis conducted and outlines the recommendations made for inclusion in the comprehensive plan.

The Anchorage Downtown Comprehensive Plan strives to re-create the downtown area as a vital urban center: a place to live, work, shop, conduct business, and to support tourism. The transportation recommendations made in this report support this vision and are essential for realizing the full potential of downtown Anchorage as a true regional center.

The existing transportation system in Downtown Anchorage is required to serve multimodal local access and circulation, while also accommodating through-traffic and freight movements. Failure to address and find adequate solutions to these objectives will jeopardize the ability of downtown Anchorage to meet the primary vision of the Comprehensive Plan: becoming a vibrant urban center.

To determine the recommended improvements in the downtown Anchorage transportation network, this report sets out the vision for Anchorage's transportation system, as well as accompanying goals and objectives. These goals and objectives guide the recommendations provided throughout the report. The existing transportation network is then evaluated with respect to the downtown vision. Weaknesses are identified in the existing network that need to be addressed to meet the goals, as well as several strengths that can be leveraged as part of the downtown redevelopment.

Recommendations for future transportation network improvements are divided into two parts: changes to the mixture of one- and two-way streets (circulation patterns), and supplemental transportation policies. KAI analyzed downtown circulation patterns through consideration of several circulation scenarios. The scenarios test the impact of changing the directionality and/or functional classification of numerous streets within the Central Business District (CBD). These scenarios are evaluated to determine the likely influence of each on the downtown area and surrounding regional transportation system.

Non-circulation related transportation policy issues are also evaluated as they relate to the overall goals and objectives of the Comprehensive Plan. The policy issues considered include the safety and function of pedestrian and bicycle facilities, transit routing, and parking management strategies.

The key recommendations from this report are summarized below:

- Convert D Street and F Street to two-way operations as soon as practical.
- Move the 5th Avenue/6th Avenue couplet to 3rd Avenue/6th Avenue and convert 4th Avenue and 5th Avenue to two-way operations.
- Convert 9th Avenue from its current 4-lane cross-section to a 3-lane cross section with a center two-way left-turn lane, west of A Street.
- Walking should be considered the primary mode for travel within the downtown core. Policies supporting a high-quality pedestrian environment should be adopted, including streetscape enhancements and measures to encourage average speeds of 20mph or less on all downtown streets. This should include,

but is not limited to, adjusting the progressed speeds of traffic signals along arterials.

- Transit should be perceived as the most effective means of extending the walk trip in downtown. The transit center and transit routes should be located to efficiently connect downtown to the region and provide convenient service coverage for the downtown area.
- Multimodal access to downtown is a cornerstone of its vitality and should be improved. The increased density planned for the downtown core will significantly increase CBD traffic volumes unless viable alternatives to driving are provided for accessing downtown.
- Locate public parking to capture motorists at the earliest and most convenient locations and seamlessly connect them to the pedestrian and transit systems for completing their trips
- Manage downtown parking by pricing parking to match demand (i.e. a market-based approach). This will reduce downtown traffic congestion caused by circulating cars searching for on-street parking spaces by ensuring an adequate number of spaces and will also encourage the use of alternate modes of access to downtown.

GOALS AND OBJECTIVES

The Anchorage Downtown Master Plan seeks to develop the downtown area as a true regional center – a place to live, work, shop, conduct business, recreate, and to support tourism. This vision requires the transportation system in the Anchorage CBD to accomplish many goals at once. Desires have been articulated for the way in which the future transportation should provide access to downtown and support local circulation. These goals are summarized as follows.

- Provide access to downtown via multiple modes of transportation that are viable for a wide variety of trips, including employment, education, shopping, recreation, and tourism.
- Promote and support walking and transit as the primary circulation modes within the downtown core.
- Continue to strategically locate public parking to capture motorists at the earliest and most convenient locations and seamlessly connect them to the pedestrian and transit systems for completing their trips.
- Manage public rights-of-way to balance the quality of service provided for each mode, ensuring that walking and transit are seen as the priority for local access and circulation.
- Provide a network of streets that is simple to navigate, with redundancy to avoid and alleviate congestion.

These goals provide the framework for analyzing potential transportation improvements to the downtown core. Strategies are evaluated based on their impact to these goals, with the recognition that what may positively impact one goal, may negatively impact another. In order to satisfy these goals, several objectives were developed. These objectives relate to both circulation and non-circulation related issues, and are shown below:

- Reduce the out-of-direction travel and confusion that results from the current mix of one- and two-way streets.
- Reduce the number of blocks with “negative circulation”, defined as a block that cannot be completely circumnavigated in either direction. Blocks with negative circulation increase out-of-direction travel.
- Improve pedestrian safety, comfort, and mobility and minimize barriers to walking.
- Improve transit routing to maximize efficiency and the number of destinations served.
- Maintain sufficient capacity in the roadway network to adequately serve regional through-trips on appropriate corridors.
- Avoid congested conditions that are likely to cause gridlock.
- Manage parking in the CBD to support alternate modes for trips made within the CBD and allow convenient access to downtown businesses.

EXISTING CONDITIONS

Overview

The study area for the Downtown Anchorage Comprehensive Plan is shown in Figure 1. While this report considers the entire study area, emphasis is given to the core downtown area, bounded roughly by 4th Street, 7th Street, B Street, and H Street, as this is where the greatest opportunity for dense redevelopment is currently located. Roadway ownership is divided between the Alaska Department of Transportation and Public Facilities (ADOT&PF) and the Municipality of Anchorage. This shared ownership creates a clear need for close coordination in operating and maintaining existing facilities and collaboration in planning and providing for facility and service expansions.

FIGURE 1: DOWNTOWN STREET NETWORK AND ROADWAY OWNERSHIP



Existing Street Network

The existing downtown street network is primarily a grid system and is shown in Figure 2. One-way and two-way streets are mixed within the study area, where major thoroughfares operate as one-way couplets, and most local access streets are two-way. The one-way couplets in the downtown area are 3rd Avenue/4th Avenue, 5th Avenue/6th Avenue, A Street/C Street, E Street/G Street, and I Street/K Street. In addition, D Street and F Street are both one-way streets, traveling in the northbound direction.



(NO SCALE)



LEGEND

- | ONE-WAY | | TWO-WAY | |
|---------|---------|---------|---------|
| | 2-LANES | | 2-LANES |
| | 3-LANES | | 4-LANES |
| | 4-LANES | | |

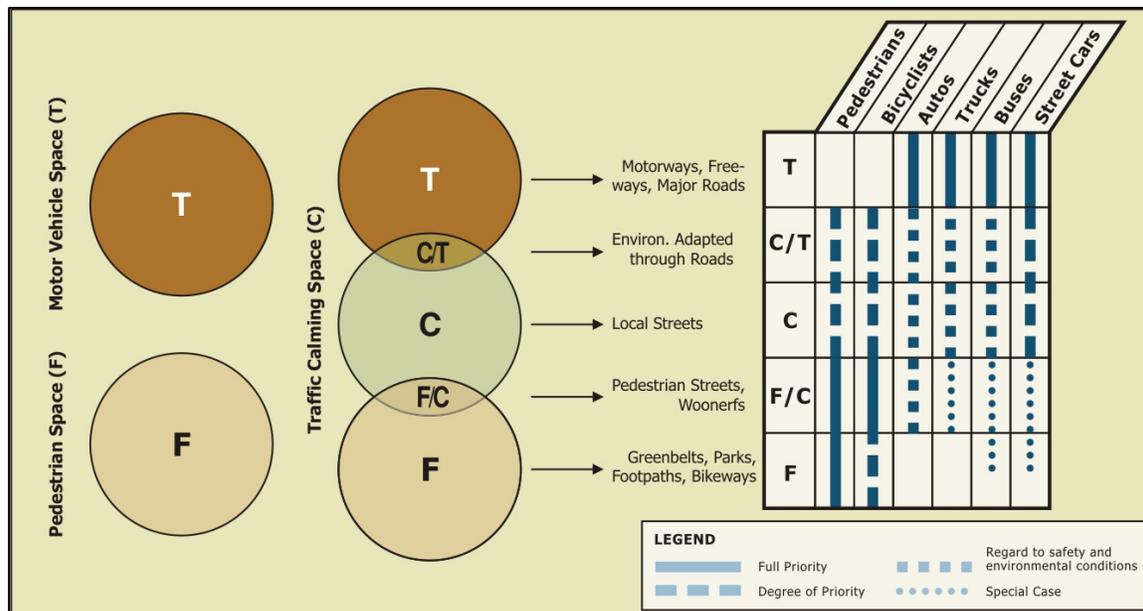
**EXISTING DOWNTOWN STREET NETWORK
ANCHORAGE, ALASKA**

FIGURE
2

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A roadway’s functional classification defines its role in the overall context of the highway transportation system. To insure that roads play their intended role in the transportation network, each functional class is associated with specific standards for roadway width, right of way needs, access spacing, pedestrian and bicycle facilities, and other specifications. A typical functional classification is shown in Figure 3.¹

FIGURE 3: FUNCTIONAL CLASSIFICATION DIAGRAM



As shown in Figure 3, roadway space is typically divided into pedestrian and motor vehicle space, with most roads required to make provisions for both cars and pedestrians. Because of the CBD’s unique role as a regional destination, the downtown transportation network must comfortably handle high volumes of both pedestrians and cars. This problem is compounded in downtown Anchorage, because several roadways are regional through-routes as well, which necessarily increases the automobile traffic volume on these streets.

Streets in downtown Anchorage fall primarily into three of the categories shown in Figure 3:

- **C/T** These are regional thoroughfares, such as the 5th Avenue/6th Avenue couplet, which carry high volumes of regional trips. However, by virtue of their location within the CBD, these streets are also required to serve pedestrian trips as well. Consequently, while the capacity to handle large volumes of traffic must be

¹ Gunnarsson, O. (1999) *Town and infrastructure for urban quality for pedestrians. Strategies for creating a walking friendly city.* Chalmers University of Technology, Department of Road and Traffic Planning.

maintained, provisions to prevent the creation of pedestrian barriers must also be made.

- **C** Most of the streets in downtown Anchorage fall into this category. These streets are important routes for both pedestrians and automobiles, and the design and function must reflect this dual purpose. 9th Avenue provides an example of a street that falls into this category.
- **F/C** Streets in this category are primarily oriented toward pedestrians, although space for automobile traffic is also provided. Speeds should be as low as possible on these streets, with as much space as possible given to pedestrian amenities. 4th Avenue in Anchorage is an example of a street where the high density of pedestrian attractors, and presence of several parallel roadways, creates opportunity for a truly pedestrian-oriented streetscape.

In addition to the above classifications, several Principal Arterials are further identified as National Highway System (NHS) routes. Within the Anchorage downtown area, 5th Avenue, 6th Avenue, I Street, L Street, and A and C Streets north of 5th Avenue are classified as NHS facilities. This federally mandated designation is associated with a set of design standards that must be maintained, and provides access to federal funds for maintenance and expansion.

Traffic Patterns and Street Capacity

Automobiles are currently the primary mode for access to the Anchorage CBD. While the Downtown Comprehensive Plan will improve access for other modes, automobiles are likely to remain the primary access mode for the foreseeable future. In addition, the freight movements that travel through downtown benefit the regional economy and must be accommodated.

Through reviews of previous transportation studies and preliminary field observations, several deficiencies in the downtown automobile circulation network were identified:

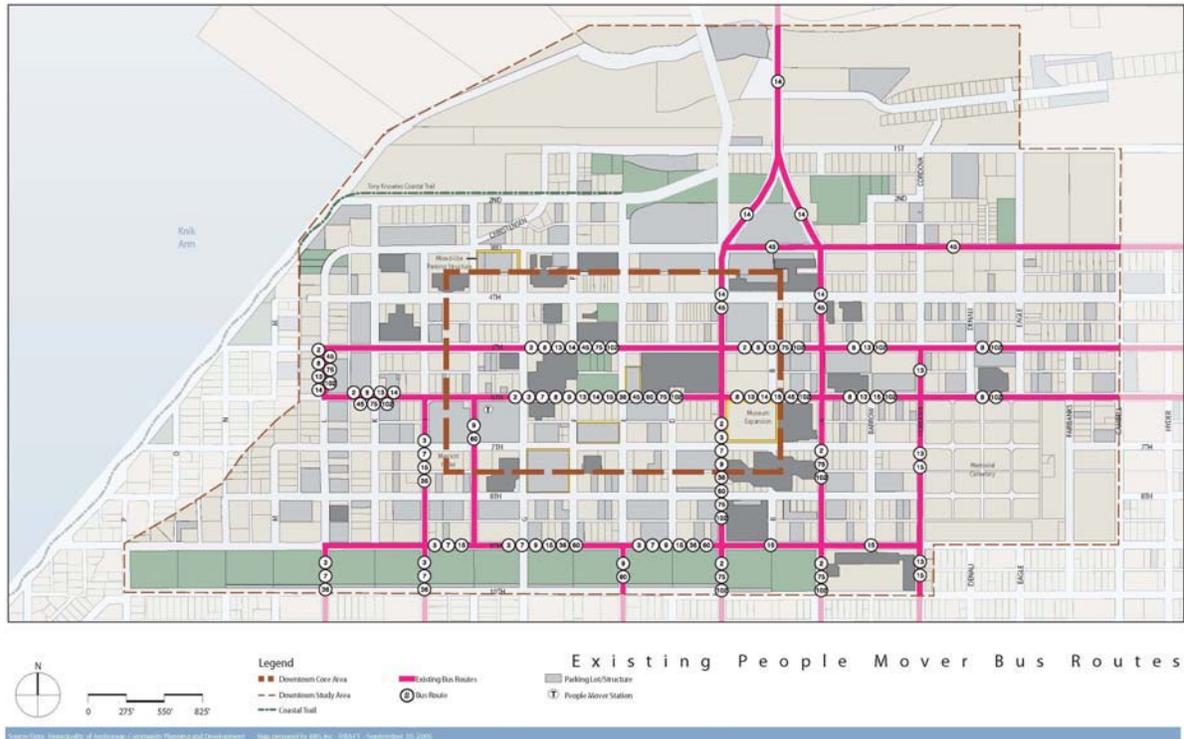
- The current mixture of one- and two-way street causes driver confusion and out-of-direction travel.
- Several super-blocks disrupt the grid street network and adversely impact vehicular operations.
- Through traffic, particularly trucks, traversing downtown negatively impacts downtown circulation and the pedestrian environment.
- Poor local circulation and high-volume streets within the core of downtown are at odds with the goal of high-density redevelopment.

Public Transit

People Mover operates public transportation for the Municipality of Anchorage and currently has fifteen regularly scheduled routes serving the greater Anchorage area, as well as service to and from Eagle River. Figure 4 shows a map of the existing bus routes

in the downtown area and the Transit Center, located along the south side of 6th Street between G and H Street.

FIGURE 4: EXISTING DOWNTOWN PUBLIC TRANSPORTATION NETWORK



Existing conditions analysis of the public transit network identified several areas for improvement:

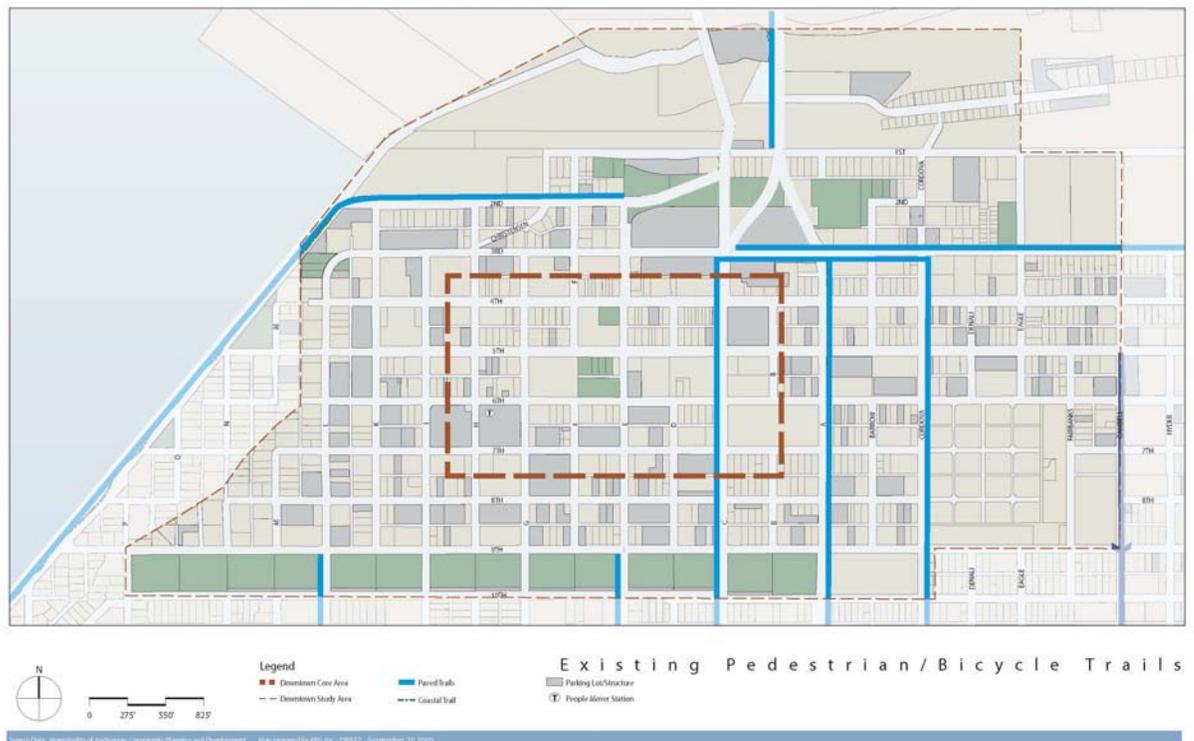
- Expand or relocate the existing transit center to support service expansions and improved coverage efficiency.
- Modify current transit routes to provide improved downtown service or provide a circulator service within the downtown area.
- Integrate transit services and amenities into downtown development and redevelopment projects.

Pedestrian and Bicycle System

Pedestrian and bicycle facilities in urban areas provide people with alternatives to driving. Walking is the most basic form of transportation connecting people to local destinations; it improves health and supports opportunities for community interaction. In a similar fashion, bicycles are the most energy efficient form of transportation. Improving the use of both bicycle and pedestrian facilities has the benefit of reducing traffic congestion, air and noise pollution, and wear and tear on roads.

Pedestrian and bicycle facilities include sidewalks, separated pathways, bike lanes, and roadway shoulders. These facilities provide access into and throughout the downtown area, link local activity centers to surrounding residential neighborhoods, and provide connection to the greater Anchorage area. Figure 5 shows the existing pedestrian/bicycle trails system.

FIGURE 5: EXISTING PEDESTRIAN AND BICYCLE NETWORK



Two pedestrian issues are reviewed as part of this study. The first element is *accessibility*, which measures how easy destinations within the downtown are to reach via either foot or cycling. The second element is the *pedestrian environment*, also referred to as the “streetscape.” In general, pedestrian access is provided by sidewalks along downtown streets and supplemented where feasible with pedestrian-only pathways.

Bicyclists, unlike pedestrians, typically travel in the roadway. Where space permits, dedicated bicycle lanes are often provided in American cities. However, opportunities for bicycle lanes are limited, and will not be possible on all streets that contain destinations for bicyclists. Therefore, bicycles are best served on lower-volume, slower-speed streets that serve as alternate routes to busier, faster speed roadways.

Through reviews of previous transportation studies and preliminary field observations, a number of inadequacies in the current pedestrian/bicycle network were identified. As a result of this analysis, four major pedestrian and bicycle issues need to be addressed in the final recommendations:

- Remove barriers to pedestrian circulation and access created by busy and fast-flowing streets. The most critical current barrier to pedestrian access within the CBD is formed by the 5th Avenue/6th Avenue couplet, which runs through the heart of downtown. The A Street/C Street couplet is equally impactful.
- Enhance key pedestrian corridors serving major downtown destinations.
- Create a continuous bicycle route between Ship Creek and Chester Creek.
- Provide pedestrian wayfinding for low-light conditions.

CONCLUSION

The existing transportation system in downtown Anchorage is tasked with serving local access and circulation needs of all modes, while also supporting through-traffic and freight movements. This is a complex and disparate set of goals to accomplish, and the current system performs with mixed results. The grid network is relatively strong, with few interruptions; however, the mix of one-way and two-way streets sometimes creates confusion and out-of-direction travel.

Differing management policies of the various facility owners affects the quality of the traveling experience in downtown, particularly for pedestrians on NHS facilities with high posted speeds. Wayfinding for pedestrians is confounded by low-light conditions associated with being a winter city. Transit service is not evenly distributed throughout the downtown. Finally, staging for tour buses and trolleys continues to be perceived as a negative impact to circulation and on-street parking. The following sections of this report consider improvements to the transportation network to alleviate the problems identified here.

TRANSPORTATION SCENARIOS

Circulation Scenarios

An initial set of 10 circulation scenarios was developed to address existing deficiencies in the street network, satisfy the goals of the project, and support the revised comprehensive land use plan for the downtown. These scenarios consider a wide range of options for how the downtown street system may be reconfigured.

The purpose of scenarios is to test many concepts and learn what works and what doesn't. Unlike alternatives that strive to represent a "best" solution, scenarios teach lessons, much like crash test dummies. There is something to be learned even when they fail. The ideas the 10 scenarios test include the following:

- Decoupling local streets like D, E, F, and/or G
- Moving the 5th/6th couplet to 3rd/5th, 4th/5th, or 3rd/6th
- Converting E Street to one-way southbound
- Decoupling most streets west of the A/C couplet
- Converting 4th Street to two-way, east of the A/C couplet

Although the scope of this work does not include a capacity analysis, the Anchorage Metropolitan Area Transportation Solutions (AMATS) regional travel demand model was used to assess the impacts of each scenario on local and regional travel patterns under 2025 population and employment conditions. For the purposes of the modeling, the proposed freeway-to-freeway connection between the Glenn Highway and Seward Highway was not assumed. In the event that this connection is built, it will decrease the need for regional trips to travel through downtown, and benefit the downtown pedestrian, bicycle, and transit environment.

Evaluation Criteria

Several evaluation criteria were developed and applied to the transportation scenarios. Each criterion represents a unique characteristic of the transportation system serving downtown and/or the region. Provided below is a description of each criterion.

Land Use Compatibility – Ideally, the function and character of a street closely matches its adjacent land uses, thus defining compatibility. The spectrum from compatible to incompatible can be quite large and is generally defined by tolerance levels of regular users of a facility. For the purposes of this evaluation, incompatibility exists when vehicle speeds are greater than 25 mph, vehicle mix is more than 4% trucks, and/or buffers do not mitigate impacts to the adjacent land uses. These criteria can be adjusted.

Pedestrian Environment – The downtown pedestrian environment is largely dependent on factors that are independent of the chosen scenario, as discussed later under Conflicting Policy Objectives. Individual scenarios affect the pedestrian environment as well by shifting the location of heavy volume streets and making changes to the one-way network. In general, scenarios that lower traffic volumes in downtown and/or utilize more

one-way streets improve the pedestrian environment. These changes must be weighed against the land use compatibility of the streets in question to support pedestrian enhancements. In particular, the effect on the 4th and 5th Avenue pedestrian environment is weighted heavily as these streets provide the best opportunity for a pedestrian-friendly urban core.

Regional Through-Trips – The Anchorage CBD currently serves a large share of regional trips traveling between the Glenn Highway, the New Seward Highway, the A/C Street corridor, and the Minnesota Drive corridor. Without improved regional connections, these trips will continue to travel through downtown. Scenarios are evaluated based on their ability to handle these through trips. If significant volumes of traffic are diverted away from the downtown, the scenario is considered to have a negative impact.

Negative Circulation – The current mixture of one- and two-way streets requires a large amount of out-of-direction travel for many motorists. Out-of-direction travel increases congestion in the downtown core, in addition to frustrating many drivers. Scenarios are evaluated with respect to the number of negative circulation blocks, with a particular emphasis on reducing contiguous negative circulation blocks.

Intuitiveness – In general, grid street networks are easier to navigate than discontinuous and curvilinear systems. However, downtown Anchorage loses this advantage because there is no discernable pattern in the current mix of one- and two- streets; consequently, the system is unintuitive for many drivers. Some mixture of one- and two-way streets may be required to provide adequate capacity and circulation, but the system should be obvious or intuitive to drivers. Scenarios are evaluated here with respect to how the changes to street network will affect the logic of the downtown street network.

Freight Mobility – Maintaining freight mobility to the Ship Creek area is essential to maintaining the economic vitality of the Anchorage region. Currently, the major truck routes through the CBD are along 3rd and 4th Avenues and A, C, I, and L Streets. Each scenario's affect on the viability of these primary routes is assessed to determine the overall impacts on freight mobility.

Transit Access – As densities in the downtown core increase and regional population totals grow, good transit access to downtown is necessary to avoid crippling traffic congestion. Individual scenarios affect transit routes by altering traffic patterns in the CBD. Additionally, determining the best placement for a new transit center is partially dependent on the chosen scenario. The effect of scenarios on the accessibility of transit and the impacts for placing the new transit center are evaluated here.

Construction Feasibility – There is a range of improvements represented by the scenarios, some of which will be costly and potentially difficult to achieve. Potential changes include such things as new signage, signal modifications, on-street parking removal, street widenings, and new connections. Low-cost changes with large benefits for other criteria are favorable. High-cost changes with little or no benefits are negative.

Scenario Evaluation

Table 1 lists the 10 scenarios tested and summarizes how they perform against the key issues identified under the existing conditions analysis and goals, as represented by the evaluation criteria. Four of the ten scenarios are fatally flawed and were precluded from further consideration. Of the remaining six scenarios, Scenarios 3 and 6 perform well against the issues and aspirations and were further developed and analyzed.

TABLE 1 SUMMARY OF SCENARIO IMPACTS

	Land Use Compatibility	Pedestrian Environment	Regional Through Trips	Negative Circulation	Intuitiveness	Freight Mobility	Transit Access	Construction Feasibility
Scenario 1: 3rd Avenue/5th Avenue Couplet	Beneficial	Beneficial	Neutral	Beneficial	Beneficial	Neutral	Beneficial	Neutral
Scenario 2: 3rd Ave/5th Ave Couplet w/ E /G Two-Way	Beneficial	Beneficial	Negative	Large Negative Impact	Beneficial	Negative	Beneficial	Neutral
Scenario 3: 3rd Avenue/6th Avenue Couplet	Large Benefit	Large Benefit	Neutral	Beneficial	Beneficial	Neutral	Beneficial	Neutral
Scenario 4: Major Two-way Street Changes	Neutral	Beneficial	Negative	Large Negative Impact	Beneficial	Neutral	Neutral	Beneficial
Scenario 5: Decouple 5th Ave/6th Ave, West of C St	Neutral	Neutral	Large Negative Impact	Large Negative Impact	Neutral	Negative	Negative	Negative
Scenario 6: 3rd St/6th St Couplet w/ E/G Two-Way	Large Benefit	Large Benefit	Negative	Large Negative Impact	Beneficial	Negative	Beneficial	Neutral
Scenario 7: 4th Street/5th Street Couplet	Fatal Flaw	Large Negative Impact	Neutral	Negative	Neutral	Neutral	Negative	Negative
Scenario 8: 4th St/5th St Couplet w/ E /G Two-Way	Fatal Flaw	Large Negative Impact	Negative	Beneficial	Neutral	Neutral	Negative	Negative
Scenario 9: E Street Southbound	Neutral	Neutral	Neutral	Fatal Flaw	Fatal Flaw	Neutral	Neutral	Negative
Scenario 10: Minor Two-Way Street Changes	Negative	Negative	Negative	Beneficial	Large Negative Impact	Neutral	Neutral	Beneficial



Scenario Descriptions

This section describes and depicts in Figures 6 through 15 each scenario that was tested. Scenarios that include fully refined model results are presented first (Scenarios 1 through 5).

SCENARIO 1: 3RD AVENUE/5TH AVENUE COUPLET

This scenario tests the possibility of moving the existing 5th Avenue/6th Avenue couplet to 3rd and 5th Avenues, with 3rd Avenue traveling westbound and 5th Avenue eastbound. Conversion to two-way operations on 4th Avenue and 6th Avenue is also assumed under this scenario. This conversion will provide positive circulation to eight out of 18 blocks that currently have negative circulation problems in downtown. More importantly, there are no cases with more than three contiguous negative circulation blocks under this scenario.

The 3rd Avenue/5th Avenue couplet creates a more intuitive system of one-way streets in the CBD; all one-way streets operate in couplets, and all couplets are located two blocks apart. A drawback to this scenario is that it requires the reversal of 5th Street, which will have significant costs and create driver confusion during early implementation. Connecting 3rd Street to westbound Glenn Highway east of the downtown core may also be costly and difficult.

Converting 4th Avenue and 6th Avenue to two-way operations has several benefits. Traffic volumes are reduced, which benefit land use compatibility and the pedestrian environment. Additionally, the two-way operations on 4th and 6th Avenues will provide bicyclists will low-volume alternatives to the 3rd Avenue/5th Avenue couplet. This is especially important on 4th Avenue as the large number of destinations located there create high demand for bicycle trips.

Finally, the 3rd/5th Avenue couplet presents the opportunity to reroute People Mover transit routes closer to many downtown destinations. Assuming that the routes now traveling along the 5th Avenue/6th Avenue couplet would move to the 3rd Avenue/5th Avenue couplet, attractions along 4th Avenue, the Alaska Railroad Depot, and the Ship Creek area would all be more accessible via transit. The major drawback to transit occurs if the existing transit center remains or is relocated along 6th Avenue, which is a strong possibility. In that case, routing buses from the 3rd Avenue/5th Avenue couplet to the transit center may increase transit travel times to/from the transit center.

The major drawback to Scenario 1 is that 5th Avenue remains a high-volume street, leaving unresolved the lack of land use/transportation compatibility and the desire for an improved pedestrian environment on this corridor. Additionally, conversion of 3rd Avenue west of A Street to a major route may require removal of some on-street parking in order to provide sufficient roadway/intersection capacity. While Scenario 1 provides benefits to downtown, these benefits are similar to those provided by Scenario 3 and Scenario 3 has fewer negative impacts. Thus, Scenario 1 is not recommended for further evaluation.



(NO SCALE)



LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

SCREENLINE TOTAL = -2,050

3TH / 5TH AVENUE COUPLET
ANCHORAGE, ALASKA

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SCENARIO 2: 3RD AVENUE/5TH AVENUE COUPLET WITH E STREET/G STREET TWO-WAY OPERATIONS

Scenario 2 retains the changes made in Scenario 1 and adds the conversion of the E Street/G Street couplet to two-way operation. The benefits of locating the main east-west couplet through downtown on 3rd Avenue and 5th Avenue are thus the same as in Scenario 1. Converting E Street and G Street restores positive circulation to 10 blocks and improves local access on the west side of the CBD.

The two-way conversion also has several negative side effects. Because two-way streets require more complex intersections, the pedestrian environment along E Street and G Street would be compromised by two-way conversion. Additionally, on-street parking would be lost in order to accommodate the additional turn-lanes that two-way streets often require at intersections. Finally, two-way operations on E Street and G Street will complicate the signalized intersections on the 3rd Avenue/5th Avenue couplet, creating capacity constraints at these locations (a capacity loss of approximately 5 to 15 percent).

The exact nature of these effects cannot be quantified without more detailed analysis. However, because Scenario 2 is associated with similar benefits as Scenario 6, but with more negative impacts, it is recommended that any additional analysis on the impacts of converting E Street and G Street to two-way operations be evaluated using Scenario 6 instead of Scenario 2.

SCENARIO 3: 3RD AVENUE/6TH AVENUE COUPLET

The 3rd Avenue/6th Avenue couplet scenario is very similar to Scenario 1, except that 6th Avenue serves as the eastbound roadway in the couplet. There are three main benefits to Scenario 3 as compared to Scenario 1. Most importantly, 5th Avenue is not required to carry a high traffic load, which allows 4th Avenue and 5th Avenue to form a pedestrian-friendly core to the CBD. Secondly, the 3rd Avenue/6th Avenue couplet does not require the reversal of any streets, as 6th continues to carry the large eastbound volumes it serves today. Finally, spacing the couplet three blocks apart rather than two blocks apart will improve the operations of downtown traffic signals and may reduce congestion in the downtown core. Because of the significant benefits associated with implementation, Scenario 3 is recommended for further evaluation.

SCENARIO 4: MAJOR TWO-WAY STREET CHANGES

Scenario 4 tests the impacts of converting E Street, G Street, 3rd Avenue, and 4th Avenue to two-way operations, while keeping in place the 5th/6th couplet. This scenario improves circulation for 11 of 18 blocks in the CBD compared to existing conditions, with overall results similar to Scenarios 1 and 3.

The most significant result of this scenario is the diversion of nearly 10,000 vehicles from downtown facilities to regional facilities outside the area. This occurs because east-west capacities are reduced due to the conversion of 3rd and 4th to two-way streets. The trips that are diverted tend to be of a regional (longer-distance) nature. This diversion of regional trips can only be understood in the context of municipal and regional policy and the ability of the regional system to accommodate the trips.



(NO SCALE)



LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

SCREENLINE TOTAL = -990

3TH / 5TH AVENUE COUPLET WITH E/G STREET TWO-WAY OPERATIONS ANCHORAGE, ALASKA

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(NO SCALE)



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LEGEND

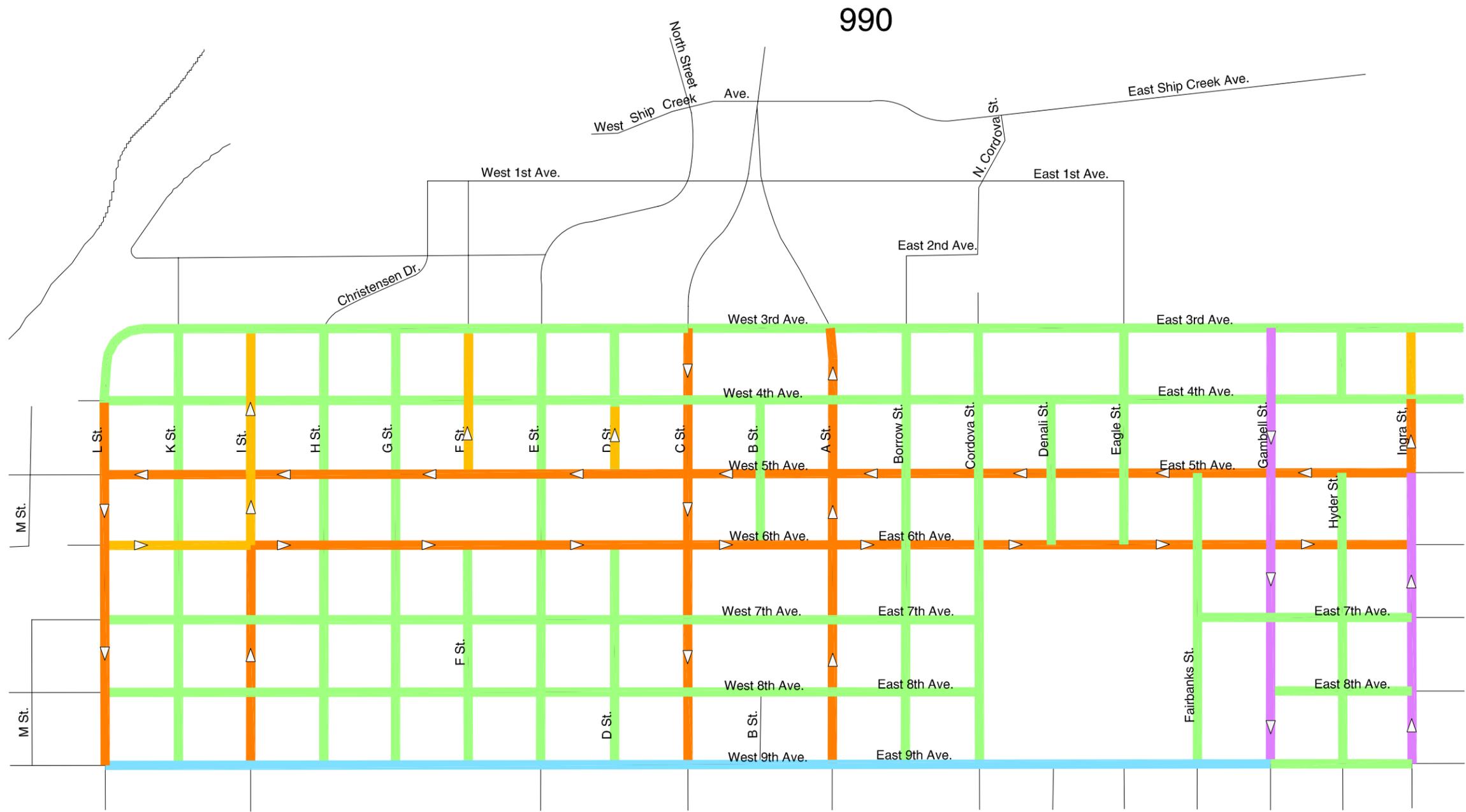
ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

SCREENLINE TOTAL = -2,020

3RD / 6TH AVENUE COUPLET ANCHORAGE, ALASKA



(NO SCALE)



-4,640

-6,220

SCREENLINE TOTAL = -9,870

LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

5TH / 6TH AVENUE COUPLET WITH MAJOR TWO-WAY STREET CHANGES ANCHORAGE, ALASKA

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This scenario produces several new two-way streets in the downtown core, which will result in improved auto access but reduced roadway capacity. This reduced capacity will increase traffic congestion, which may slow traffic to the benefit of the pedestrian and bicycling environment. However, the more complex intersection operations associated with two-way streets will diminish the safety of the pedestrian and bicycle environment. Because of the reduced safety and capacity that result from the multiple two-way conversions, Scenario 4 is not considered further.

SCENARIO 5: DECOUPLE 5TH AVENUE/6TH AVENUE WEST OF C STREET

Decoupling 5th and 6th has dramatic effects on the transportation system. Over 6,000 vehicles are diverted away from the downtown street system. The diversion reduces the volume of traffic on 5th and 6th Avenues by 50 percent or more. Traffic volumes on 3rd and 4th Avenues increase by approximately 20 percent to 30 percent, while volumes on A and C Streets increase by 10 percent to 20 percent. Again, this diversion must be evaluated in the larger regional context.

Local vehicular circulation is improved with 14 of 18 blocks changed to positive circulation blocks (if D and F Streets are made two-way). Reduced traffic volumes result in an improved pedestrian environment and better land use compatibility. Less congestion is likely to occur, even with the more complex intersections, due to the reduced traffic volumes. On-street parking impacts may be less under this scenario, again due to the decreased traffic volumes. Transit operations are not likely to be impacted. Costs and feasibility to implement should be better than previously described scenarios with more dramatic changes. The costs to improve the impacted regional system are unknown but could be significant.

SCENARIO 6: 3RD STREET/6TH STREET COUPLET WITH E STREET/G STREET TWO-WAY OPERATIONS

Scenario 6 is in essence a combination of Scenarios 2 and 3, with two-way operations on E and G Streets and the 5th Avenue/6th Avenue couplet moved to 3rd Avenue/6th Avenue. The costs and benefits associated with this scenario are thus similar to those described earlier for Scenarios 2 and 3. For example, the 3rd Avenue/6th Avenue couplet will allow 4th Avenue and 5th Avenue to develop as a pedestrian-friendly core to the downtown, transit coverage will be expanded if operated on 3rd and 6th Avenues, and costs and feasibility to connect the Glenn Highway to 3rd Street will be relatively high.

The two-way conversions will increase local access and measurably decrease negative circulation. However, the benefits of the two-way conversions will come at the expense of on-street parking, traffic operations, and may adversely affect the pedestrian environment as well. In addition, because less regional trip diversion occurs in this scenario, higher volumes are likely to occur, causing comparatively more congestion.

The impacts of the two-way conversion of E Street and G Street are complex and difficult to quantify, and go beyond the scope of this study. Consequently, it is recommended that Scenario 6 be retained in order to more fully analyze the benefits and costs of making E Street and G Street two-way.



(NO SCALE)



LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

SCREENLINE TOTAL = -6,190

DECOUPLE 5TH / 6TH AVENUE WEST OF C STREET
ANCHORAGE, ALASKA

FIGURE
10

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(NO SCALE)



LEGEND

ONE-WAY		TWO-WAY	
	2-LANES		2-LANES
	3-LANES		4-LANES
	4-LANES		

3RD / 6TH AVENUE COUPLER WITH E / G STREET TWO-WAY OPERATIONS ANCHORAGE, ALASKA

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SCENARIO 7: 4TH STREET/5TH STREET COUPLET

Scenario 7 moves the existing 5th Avenue/6th Avenue couplet to 4th and 5th Avenues, keeping 5th Avenue westbound-only. Only marginal benefits are derived from this scenario, while significant negative impacts result. Land use compatibility, the pedestrian environment, circulation, cost, feasibility, and transit operations are all worse in this scenario than most others. Therefore, Scenario 7 is not recommended for further evaluation.

SCENARIO 8: 4TH STREET/5TH STREET COUPLET WITH E STREET/G STREET TWO-WAY OPERATIONS

The only benefit Scenario 8 offers over Scenario 7 is improved access and circulation. Nonetheless, this benefit does not outweigh the impacts. Therefore, Scenario 8 is also not recommended for further evaluation.

SCENARIO 9: E STREET SOUTHBOUND

This scenario isolates one change to the system, in an effort to answer the question about the directionality of E Street. Converting E Street to one-way southbound has significant adverse impacts to access, circulation, and intuitiveness, as long as C Street remains one-way southbound. This is particularly true because D Street is discontinuous, which only exacerbates circulation problems and operational constraints. Scenario 9 is fatally flawed and does not require further consideration.

SCENARIO 10: MINOR TWO-WAY STREET CHANGES

Scenario 10 considers the conversion of 4th Avenue to two-way operations east of A Street with the intent of allowing better local access to destinations on 4th Avenue. However, this conversion leaves 3rd Avenue as a one-way street with no corresponding couplet. This condition is unintuitive for motorists. Additionally, it actually results in increased traffic on 4th Avenue, caused by undiminished eastbound demand in conjunction with allowing westbound traffic. Because of the importance of the 4th Avenue pedestrian environment to the downtown, increased traffic volumes on 4th Avenue are a major drawback to this scenario. As a result, Scenario 10 is not recommended for further evaluation.



(NO SCALE)



LEGEND

ONE-WAY		TWO-WAY	
	2-LANES		2-LANES
	3-LANES		4-LANES
	4-LANES		

**4TH / 5TH AVENUE COUPLET
ANCHORAGE, ALASKA**

**FIGURE
12**

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(NO SCALE)



LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

4TH / 5TH AVENUE COUPLET WITH E / G STREET TWO-WAY OPERATIONS ANCHORAGE, ALASKA

FIGURE 13

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(NO SCALE)



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LEGEND

ONE-WAY	TWO-WAY
2-LANES	2-LANES
3-LANES	4-LANES
4-LANES	

E STREET ONE-WAY SOUTHBOUND ANCHORAGE, ALASKA



(NO SCALE)



LEGEND

ONE-WAY		TWO-WAY	
	2-LANES		2-LANES
	3-LANES		4-LANES
	4-LANES		

5TH / 6TH AVENUE COUPLET WITH LOCALIZED TWO-WAY STREET CHANGES ANCHORAGE, ALASKA

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Integrating Transportation and Land Use

A new land use plan has been developed for downtown Anchorage, based on significant input from the public, stakeholders, and regional decision makers. The final test of the viable transportation scenarios is how well each supports this new land use plan.

Of the remaining scenarios, Scenarios 2, 3, and 6 represent concepts that show promise. However, Scenario 6 has all of the advantages of Scenario 2, with significantly fewer disadvantages. Therefore, Scenario 2, which included a 3rd/5th couplet is not considered further.

A key component of the Anchorage Downtown Master Plan is encouraging a dense, mixed-use, urban environment in downtown Anchorage. This proposed redevelopment includes a significant residential component. Market analysis conducted by project team members identified the potential for 4,000 new residential units and 1,000 new hotel rooms in downtown Anchorage by 2025. Although the higher-density land use plan (compared to the current plan) anticipates redevelopment throughout downtown Anchorage, the most significant growth is in the area west of C Street and south of 5th Street. Here, we consider how the needs of the transportation system change under this scenario.

EAST-WEST COUPLET OPTIONS

Two concepts for the east-west street network emerged as the best during the previous analysis: a 5th/6th couplet (Scenario 10) and a 3rd/6th couplet (Scenario 6), where 4th and 5th Streets would provide two-way operations. As previously described, there are several disadvantages to the 5th/6th couplet, particularly regarding the “barrier effect” a high-volume, higher-speed couplet can have on all modes moving north/south across the couplet. This effect is likely to be exacerbated by the new land use plan, as it places new residents and businesses south of the couplet that otherwise want to connect with destinations north of the couplet.

The escalation of such a barrier can be mitigated to some extent by lowering the progressed speed to 20 mph or less, minimizing the volume of heavy vehicles, preserving the on-street parking system, and continuing to enhance pedestrian and bicycle facilities on the corridor. However, the possibility of creating a barrier is greater with 5th/6th couplet than with the 3rd/6th couplet, particularly under the high-density land use scenario.

Placing the couplet along 3rd/6th allows for easier integration of all parts of the CBD. This is highlighted further when the new land use plan is considered. Therefore, this couplet arrangement is deemed most appropriate as a long-term transportation strategy for the downtown, in association with the new land use plan.

While the 3rd/6th couplet has several advantages within the CBD, its constructability requires additional consideration. Specifically, the connection between 3rd Street and Glenn Highway on the east of side of downtown may be difficult to construct. Preferably, this connection should be smooth and without interruption for vehicles traveling westbound on Glenn Highway. Creating a smooth connection, however, will necessarily require construction on land outside the current public right-of-way, which makes the conversion from 5th/6th to 3rd/6th a major project. Barring the funding necessary to create a

smooth connection, 3rd Street could be accessed via Ingra Street. However, this scenario may result in significant delay for motorists and should be considered only if necessary.

E/G COUPLET CONVERSION

The location of considerable growth to the west of C Street also has implications for the treatment of E Street and G Street. These streets are located in an area of high anticipated growth, which indicates that opportunities for reducing roadway capacity will be limited. This gives greater justification to the need to confirm the feasibility of decoupling E Street and G Street subsequent to implementation of the 3rd/6th couplet and the new land use plan.

9TH STREET CONVERSION

The new land use plan is expected to provide a much finer-grained land use system that places a greater variety of uses in close proximity. The transportation outcome of implementing such land use strategies is a greater proportion of trips occur as pedestrian, bicycle, transit, or short vehicle trips than would otherwise occur. As long as the pedestrian, bicycle, and transit facilities and services are in place to accommodate travel, the net result is reduced trips on the roadway system. This is an important outcome to keep in mind when considering the effect of converting 9th Street from 4 lanes to 3 lanes.

Travel forecasts available for this study suggest that demands on 9th Street will not exceed what an efficient 3-lane corridor can carry. If converted, 9th Street would be an efficient corridor, due to the very limited number of driveways and signalized intersections that can otherwise compromise carrying capacity.

The new land use plan portends greater demand for travel in the vicinity of the 9th Street corridor. So, logic says more vehicular demand will occur. The counter to this outcome is the success of the land use strategy and the strength of the pedestrian, bicycle, and transit elements of the overall transportation system. Travel demand would grow, commensurate with the land use growth; however, the travel demand would occur more frequently as non-auto, thus minimizing net increases in vehicular demands on critical corridors such as 9th Street. The conclusion is drawn that the new land use plan can be implemented, along with the conversion of 9th Street to a 3-lane cross section, as long as pedestrian, bicycle, and transit facilities and services are provided at levels capable of capturing the anticipated demands as non-auto trips.

OTHER FACILITIES

Finally, the high-density land use scenario anticipates continued development along Ship Creek to the north of the CBD. Integrating this development with the remainder of downtown will be a challenge, as topography causes a physical separation of Ship Creek from the CBD. Because the A Street/C Street couplet primarily serves regional trips, local trips from downtown to Ship Creek will likely be accommodated by E Street, F Street, and Christensen Street. This indicates that changes in the transportation should consider the connecting role that these streets will likely have. Finally, plans for additional or modified transit routes through the CBD should take into account the potential trip generation of the Ship Creek area.

Recommended Street Network Modifications

As a result of the above analysis, four modifications to the downtown street network were identified that support the vision for Downtown Anchorage. These modifications pertain to the following facilities:

- Conversion of D Street and F Street to two-way traffic
- Conversion of 9th Avenue to a typical 3-lane cross section
- Conversion of the 5th/6th Avenue couplet to a 3rd/6th Avenue couplet
- Conversion of the E/G Street couplet to two-way traffic

CONVERSION OF D STREET AND F STREET TO TWO-WAY TRAFFIC

D Street, E Street, and F Street form a series of three one-way northbound streets in the area of downtown north of 5th Avenue. This results in very poor local circulation and causes driver confusion and out-of-direction travel, which out-weigh any identified benefits derived from this configuration. Therefore, it is recommended that the Municipality immediately pursue the conversion of D Street and F Street to two-way traffic at the earliest opportunity. Right-of-way constraints on D Street near 5th Avenue may impact the cost and timing of implementing this recommendation or preclude the conversion of D Street. No constraints have been identified to the conversion of F Street back to two-way operations.

CONVERSION OF 9TH AVENUE TO A 3-LANE CROSS SECTION

The typical cross section of 9th Avenue provides two travel lanes in each direction. The segment west of C Street provides convenient access to many downtown destinations south of the 5th/6th couplet. The segment east of A Street serves as an alternative route to the 5th/6th couplet for access to Ingra/Gamble and the Glenn Highway Forecast. Travel demands on this corridor under the proposed land use scenario do not exceed the carrying capacity of a typical 3-lane cross section, particularly for the segment west of C Street.

Conversion of 9th Avenue to a typical 3-lane cross section would allow on-street parking to be provided, as well as improved pedestrian amenities. These outcomes support efforts to connect all of downtown with an effective pedestrian system and strengthen pedestrian connections from downtown to Delany Park. In addition, this improvement could serve as a catalyst to promote desired residential development and redevelopment along the corridor as represented in the proposed land use concept.

In addition, research on 4-lane to 3-lane conversions conducted by the Iowa Department of Transportation indicates that significant safety benefits can be derived with only minor reductions in roadway capacity.² Although small reductions in capacity will occur, the adverse impacts can be mitigated with improvements to pedestrian, bicycle, and transit

² http://www.dot.state.ia.us/crashanalysis/pdfs/ite_draft_4to3laneconversion_papersubmission_2005.pdf

access. It is recommended that the Municipality pursue this conversion at the earliest opportunity.

CONVERSION OF THE 5TH/6TH AVENUE COUPLET TO A 3RD/6TH AVENUE COUPLET

Several factors impact the desirability of maintaining the major east/west couplet in downtown on 5th Avenue and 6th Avenue. These two adjacent streets currently act as barriers to north/south pedestrian travel, due to the high volume of traffic each carries. Traffic on the 5th/6th couplet also travels at speeds that are uncomfortable to pedestrians and deters east/west pedestrian travel on the couplet. The volume and speed of traffic is not compatible with the adjacent land uses, particularly the major pedestrian destinations located between the couplet streets.

Conversion of the 5th/6th Avenue couplet to a 3rd/6th Avenue couplet is recommended to alleviate the issues described above. This conversion would keep 6th Avenue as currently configured; re-create 5th Avenue as a two-way street, with characteristics similar to 4th Avenue; and, convert 3rd Avenue to one-way westbound. The couplet would extend from L Street to east of Ingra. The physical distance between 3rd and 6th will remove the perceived north/south pedestrian barrier. Conversion of 5th to a two-way street, similar to 4th Avenue, supports the creation of a very walkable sub-district between 3rd, 5th, L, and C. Average travel speeds on the new 3rd/6th couplet would be managed to approximately 20 miles per hour to improve the pedestrian environment on the new couplet compared to the current 5th/6th couplet.

This long-term improvement is contingent on building a couplet connection from the Glenn Highway to 3rd Avenue. This will likely require new right-of-way being obtained somewhere east of Ingra Street. In addition, it is understood that 3rd Avenue is only able to carry two lanes of traffic west of Christensen Drive. However, this limitation does not appear to create a capacity constraint under the proposed land use scenario through the long-term planning horizon.

CONVERSION OF THE E/G STREET COUPLET TO TWO-WAY TRAFFIC

Conversion of the E/G Street couplet to two-way traffic has been considered as a means of simplifying the circulation patterns in the downtown. This is not a viable option with the east/west streets as they are configured today. The scenarios analysis shows that this action can be further considered upon completion of the 3rd/6th couplet and re-creation of 5th Avenue as a two-way street. With the 3rd/6th couplet in place, the remaining issues to address in determining the feasibility of the E/G couplet conversion are the safety of pedestrian movements along the corridor, the adequacy of vehicular operations, and the impact to on-street parking on both streets.

TRANSPORTATION MANAGEMENT POLICIES

Economic, land use, and transportation policies must be coordinated to produce the desired effect on downtown. This analysis has provided the opportunity to examine several transportation policies and consider their possible impacts on economic and land use policies. Three transportation policies are of particular concern.

FREIGHT GOODS MOVEMENT

The Municipality is committed to providing for the timely movement of freight to, through, and within the region. This policy is supported by the designation of truck routes, which attempt to provide the most direct and timely corridors for regular and significant freight movements. Particular emphasis is given to efficient connections from ports to the state and regional highway system. Conflicts result when these connections and corridors are required to serve other transportation purposes or occur adjacent to land uses that are sensitive to the noise, vibration, and speed of freight vehicles.

The Municipality has explicitly recognized this conflict and minimized one element of its impact by avoiding the designation of any Double Load Routes for Reasonable Access on downtown streets. In addition, trucks are expressly prohibited on most downtown streets, including 5th and 6th Avenues from west of L Street to Gambell Street. These policies should remain in effect. Mitigations to the adverse impacts trucks have on 3rd Avenue, A Street, and C Street should be developed and implemented, whenever practical.

PEDESTRIAN ENVIRONMENT

The Municipality recognizes the importance of a safe and attractive pedestrian environment in contributing to the health and economic vitality of the downtown. Public investments have been made to enhance the pedestrian experience on several streets in downtown and plans are underway to expand these improvements to the E Street corridor. The greatest challenges to providing the desired pedestrian environment, from strictly a transportation perspective, are:

- the speed and type of vehicles traveling on the adjacent street;
- whether buffers, such as on-street parking or planter strips, provide adequate separation from vehicular traffic; and,
- the perceived and actual safety of pedestrian crossings.

Policies supporting an enhanced pedestrian environment should remain in effect. Opportunities to expand the scope of current policies should also be sought.

LAND USE/TRANSPORTATION COMPATIBILITY

This policy strives to provide appropriate transportation services in a manner well-suited to adjacent land uses. It is most easily met where land uses are of one type only and the transportation facilities serve only that use, such as a local road for a residential neighborhood. Accomplishing this policy is difficult in areas with varied land uses, where transportation facilities must support multiple uses and trips to many destinations. Such is the case in downtown.

Serving the mixed-use needs of downtown (office, residential, school, entertainment, retail, government, hotel, etc.), while also meeting the needs of surrounding areas (ports, industry, warehousing, etc.) and the mobility needs of a region forces downtown streets to simultaneously act as highways, arterials, truck routes, transit routes, bicycle routes, pedestrian routes, AND complement the adjacent land uses.

Success depends on innumerable factors, such as funding, right-of-way, policy priorities, and system flexibility and redundancy. Current policies have not been wholly successful in creating a harmonious relationship between downtown land use and the transportation system. Future policies should strive to improve local circulation and access in areas with high redevelopment potential and attempt to separate high-volume thoroughfares from streets with multiple pedestrian attractors.

Balancing Competing Objectives

Several streets in downtown are challenged to meet all of these competing objectives. Unfortunately, there is no optimal solution that applies equally to all streets and all circumstances. Developing a balanced approach to meet the objectives requires a clear set of policy priorities, flexible design and operational standards, an understanding of the trade-offs, and a willingness to accept the compromises.

POTENTIAL SOLUTIONS

The following example is offered as a starting point for discussing policy priorities and the range of acceptable solutions that can be considered.

Policy Issues: (1) Truck routes and highway-to-highway connections are managed to provide higher-speed mobility (progressed speeds greater than 25 mph); (2) Good pedestrian environments require wide sidewalks, planter strips, on-street parking, and safe street crossings; (3) downtown mixed-use developments are best served by slower-speed roadways that carry multiple modes and provide direct access and favorable circulation.

Potential Solutions: Options for responding to the issue include:

Option 1: Prohibit the through-movement of freight on downtown streets and reduce the progressed speeds on former truck routes.

- Adversely impacts directness of routes and freight travel times
- Adversely impacts other routes forced to carry more freight traffic
- Benefits pedestrian environment by eliminating ped/truck conflicts
- Benefits pedestrian environment by allowing former truck routes to operate at slower progressed speeds
- Benefits adjacent land uses by eliminating truck noise and vibration

Option 2: Enhance and promote the use of existing truck routes that are alternatives to downtown and reduce the progressed speeds of existing downtown routes.

- Adversely impacts travel times on slower speed facilities
- Adversely impacts other routes forced to carry more freight traffic
- Benefits pedestrians due to slower traffic speeds and lower truck volumes
- Benefits adjacent land uses by reducing truck noise and vibration
- Less impact on freight travel times compared to Option 1

Option 3: Enhance pedestrian buffers on downtown truck routes.

- Maintains freight operations as is
- Adversely impacts on-street parking and/or street capacity, which could affect freight operations if congestion occurs
- Benefits aesthetics of adjacent land uses, but little to no noise/vibration benefit
- No mitigation to adverse pedestrian environment on highway-to-highway connections (speeds still high, with no added buffer)

Again, these policy solutions are provided for example purposes and meant to support discussions regarding the relative priority of policies affecting downtown and the level of flexibility available to staff in implementing the policies and managing the land use and transportation systems.

Additional Improvements to Consider

Consideration of the policy conflicts discussed has resulted in several policy recommendations for downtown Anchorage. Most importantly, vehicle speeds within the downtown core should be reduced to the extent possible. The primary determinants of a quality pedestrian environment are mix of traffic, traffic volumes, and speeds. While decreased traffic volumes can be difficult to attain without reducing regional mobility and the economic viability of the CBD, speeds are easier to control. In particular, where signals are closely spaced, as in Anchorage's downtown, signal progression largely controls the speed of the prevailing traffic stream.

In addition to providing a safer and more comfortable pedestrian environment, lower progressed speeds make bicycling more viable. Where progressed speeds are high, average cyclists will receive red signals every 2-3 blocks. This increases travel times and the added delay makes it more likely that cyclists will choose to ignore the signals, thus creating a safety problem. Additionally, lower traffic speeds create a more comfortable bicycling environment. Although decreasing the progressed speeds will lengthen automobile travel times through downtown, current capacities will remain unchanged with lower speeds.

Opportunities should also be sought to make physical roadway improvements that increase pedestrian and bicyclist safety and comfort. These include, but are not limited to, curb extensions, bike lanes, better street lighting, and frequent pedestrian crossings. These improvements can be installed individually to address specific problems or system-wide, depending on available funding. Also, bicycle parking should be provided at frequent intervals in well-lit places along streets with a high number of destinations.

The current Anchorage Long Range Transportation Plan projects transit ridership to more than double in the next 20 years. This growth creates a strong need for a new transit center in the CBD to serve these passengers. Determining the location for the new transit center is somewhat dependent on downtown circulation patterns; the need for a new center, however, is not. Planning for the new transit center should focus on providing easy access for customers to as many downtown destinations as possible. In addition, the new center should allow for off-street loading and unloading to improve the efficiency of

both transit and traffic operations in the CBD. Finally, a new transit center should focus on amenities that make transit-use more viable, such as heated bus stops and schedule information.

One of the most important facets of effective transportation system management is parking management. Where the demand for on-street parking exceeds the supply, drivers searching for vacant parking spaces considerably increase congestion. Effective parking management requires that on-street parking be time-limited and priced to make a certain number of parking spaces available without expending undue effort searching. In addition to reducing congestion, time limits and pricing of this sort will maximize the turnover of on-street parking to the benefit of downtown businesses.

CONCLUSIONS AND RECOMMENDATIONS

This report provides transportation recommendations for inclusion in the Draft Anchorage Downtown Comprehensive Plan. The recommendations address a limited number of issues that are central to the long-term vision of the Draft Anchorage Downtown Comprehensive Plan. The recommendations are presented in two categories: (1) recommendations that are specific to street network modifications, and (2) policy-based recommendations.

Recommended Network Changes for Downtown

Conversion of D Street and F Street to two-way traffic – The current configuration of D Street, E Street, and F Street as one-way northbound streets results in poor local circulation and causes driver confusion and out-of-direction travel. Therefore, it is recommended that the Municipality immediately pursue the conversion of D Street and F Street to two-way traffic at the earliest opportunity.

Conversion of 9th Avenue to a typical 3-lane cross section - Conversion of 9th Avenue to a typical 3-lane cross section, from A Street to west of L Street, would allow on-street parking to be provided, as well as improved pedestrian amenities. In addition, 4-lane to 3-lane conversions are associated with significant safety benefits. Because travel demands on this corridor under the proposed land use scenario do not exceed the carrying capacity of a typical 3-lane cross section, it is recommended that the Municipality pursue this conversion at the earliest opportunity.

Conversion of the 5th/6th Avenue couplet to a 3rd/6th Avenue couplet – The 5th/6th couplet currently act as barriers to north/south pedestrian travel, due to the high volume of traffic each carries. The volume and speed of traffic is not compatible with the adjacent land uses, particularly the major pedestrian destinations located between the couplet streets. Conversion of the 5th/6th Avenue couplet to a 3rd/6th Avenue couplet is recommended to alleviate these issues. This long-term improvement is contingent on building a couplet connection from the Glenn Highway to 3rd Avenue. This will likely require new right-of-way being obtained somewhere east of Ingra Street. Long-term opportunities should be pursued to realize this improvement.

Conversion of the E/G Street couplet to two-way traffic - Conversion of the E/G Street couplet to two-way traffic has been considered as a means of simplifying the circulation patterns in the downtown. This is not a viable option with the east/west streets as they are configured today. This action can be further considered upon completion of the 3rd/6th couplet and re-creation of 5th Avenue as a two-way street.

Recommended Transportation Policies for Downtown

Two transportation policies are critical to supporting the vision for downtown. These policies should be fully developed with staff and the Assembly and implemented in a consistent and comprehensive manner.

Policy 1: The primary mode of transportation within downtown is walking. Transit should be provided to extend the walking distance of pedestrians such that all areas of the downtown are perceived as pedestrian accessible. Roadway speeds should be managed to preserve the pedestrian environment (i.e. progressed speeds of 20 miles per hour or less). Traffic signals should provide adequate time to safely cross pedestrians. All intersections

should accommodate safe pedestrian crossings with such elements as lighting, pavement markings, and pavement treatments. Parking structures should be located near key points of entry into downtown and near major destinations. Transit and a high-quality pedestrian environment should connect these parking structures with all areas of the downtown. Traffic volumes should be managed such that the perception of a pedestrian barrier is avoided.

Policy 2: Multimodal access to downtown is a cornerstone of its vitality and viability. The increased density planned for the downtown core will significantly increase CBD traffic volumes unless viable alternatives to driving are provided for accessing downtown. Proposed actions for downtown must consider the potential impact on access and avoid adverse impacts wherever possible. When access constraints develop or are foreseen, multimodal solutions should be considered and evaluated in the context of Policy 1.

Policy 3: Manage downtown parking by time-limits and pricing to match demand (i.e. a market-based approach). Use the public off-street system to complement the on-street system, locating and pricing the off-street system to be perceived as an attractive option. This will reduce downtown traffic congestion caused by circulating cars searching for on-street parking spaces and will also encourage the use of alternate modes of access to downtown. This policy will also benefit downtown businesses by increasing parking turnover.

