Alternatives Analysis
Detailed Definition of Alternatives
Honolulu High-Capacity Transit Corridor Project

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Chapter 1 Introduction

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved mobility for persons traveling in the highly congested east-west transportation corridor between Kapolei and UH Mānoa, confined by the Waiʻanae and Koʻolau Mountain Ranges to the north and the Pacific Ocean to the south. The project would provide faster, more reliable public transportation services in the corridor than those currently operating in mixed-flow traffic. The project would also provide an alternative to private automobile travel and improve linkages between Kapolei, the urban core, UH Mānoa, Waikīkī, and the urban areas in between. Implementation of the project, in conjunction with other improvements included in the Oʻahu Regional Transportation Plan (ORTP), would moderate anticipated traffic congestion in the corridor. The project also supports the goals of the Oʻahu General Plan and the ORTP by serving areas designated for urban growth.

History of the Project

Transit has a long history on Oʻahu starting with the Oʻahu Railway and Land (OR&L) system that carried passengers on approximately 150 miles of track between 1890 and 1947. The route structure included a line in the corridor between ʻEwa and Honolulu (Chiddix and Simpson, 2004). The Honolulu Rapid Transit and Land (HRT&L) company began operating an electric streetcar system in Honolulu in 1903 and had more than 20 miles of lines in operation during its peak. The population of Oʻahu was 59,000 in 1900 and had increased to 120,000 by 1920.

Roadway development, buses, and private automobile ownership decreased rail-transit demand beginning in the 1920s. Buses provided a more economical means to serve growing communities away from established rail tracks. They operated on city streets that were developed and maintained with taxpayer funds, compared to the railways, which had to be privately developed and maintained. The HRT&L streetcars were completely replaced by buses in 1942. Increasing transportation demand was met in the 1950s with the development of the H-1 Freeway.

The population of Oʻahu continued to increase, growing from 350,000 people in 1950 to 500,000 in 1960 and 630,000 by 1970. However, despite increasing travel demand, public opposition to extensive freeway expansion began to develop in the early 1960s. A proposal for an elevated Makai Freeway was abandoned. The island-wide Oʻahu Transportation Study that was completed in 1967 concluded that a fixed-guideway transit system, serving a corridor between Pearl City and Hawaiʻi Kai, would provide cost-effective transportation capacity as part of a larger transportation system expansion needed to meet increased demand (OTPP, 1967).

During the early 1970s, the Preliminary Engineering and Evaluation Program (PEEP) I and PEEP II studies further explored options for a fixed-guideway transit system. Based on these studies, the City and County of Honolulu began planning the Honolulu Area Rail Rapid Transit (HART) project to provide transit in the corridor identified in the 1967

study (Pearl City to Hawai‘i Kai). In 1982, project planning, environmental analysis, and preliminary engineering culminated in a Final Environmental Impact Statement issued by the City and the Urban Mass Transportation Administration (UMTA was the predecessor to the current Federal Transit Administration [FTA]). However, a change in city administration resulted in changed transportation priorities and work on the HART project stopped. O‘ahu’s population continued to increase (in 1980 O‘ahu’s population was 760,000).

In 1985, the City partnered with UMTA to begin a new study for an exclusive right-of-way, fixed-guideway rapid transit project. The Honolulu Rapid Transit Development Project (HRTDP) built on the planning completed for the HART project, but explored new automated transit technologies. When the combined Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) for the project was completed in 1990, the island’s population had grown to 840,000 people.

Later in 1990, following completion of the AA/DEIS, the State Legislature passed funding acts to provide State funds and authorize the City to impose a general use and excise tax surcharge to provide local funding for the project. Local funding was needed to leverage the federal funds that the U.S. Congress would make available for the project. The City selected a grade-separated, fixed-guideway transit alternative that included a tunnel under Downtown, and FTA authorized the City to proceed to preliminary engineering for this alternative (the locally preferred alternative, or LPA).

Over the following two years, the City conducted additional engineering studies and issued a request for proposals to design, build, operate and maintain the system. Soil conditions in the Downtown area and updated financing and environmental impact information resulted in an amendment to the LPA. The project was changed to follow Nimitz Highway on an elevated structure, and a branch line to Waikīkī was eliminated. The FTA and the City issued a Supplemental EIS to address the amended LPA and the addition of several park-and-ride lots to the project. In 1992, a final EIS was issued for the project. However, the City Council failed to authorize the general use and excise tax surcharge to provide the local funding and the project collapsed. Federal funds authorized to Honolulu were diverted to cities on the mainland.

During this planning, and while O‘ahu’s population was steadily increasing, the number of trips taken, or “transportation demand,” was increasing at a greater rate than population growth. In 1960, 134,000 automobiles were registered on O‘ahu and residents made a total of 1,190,000 daily person trips. Eleven percent of those trips were made on transit (OTPP, 1967). In 1980, 2,170,000 daily person trips were made and eight percent of those were made on transit (OMPO, 1984). By 1990, there were 613,000 automobiles registered on O‘ahu. Residents made 2,410,000 daily person trips and only seven percent of the trips were made on transit (OMPO, 1995). Between 1960 and 1990, the population of O‘ahu increased by 68 percent, while the number of daily person trips more than doubled, and the number of vehicles registered on the island increased almost five-fold.

In 1998, the City began developing the Oʻahu Trans2K Islandwide Mobility Concept Plan. Through an intensive public involvement program, the Plan identified the increasing need for improved mobility and links between land use and transportation. The plan endorsed an integrated transportation approach, with roadway, high-occupancy vehicle, and transit improvements. Once again the need for high-capacity, frequent transit service was identified for the Primary Urban Center. This study led to the Primary Corridor Transportation Project.

Unlike prior projects, the Primary Corridor Transportation Project focused on alternatives that could be constructed within existing transportation rights-of-way to provide mobility improvements at a lower cost and with fewer impacts. A Major Investment Study and draft EIS was completed in 2000, which proposed a system based on bus rapid transit (BRT) operations. The BRT system continued to be developed and refined into the locally preferred alternative addressed in the final EIS in 2002. The proposed system included Regional and In-Town BRT operations extending from Kapolei to Waikīkī and the UH Mānoa.

Some of the Regional and In-Town BRT facilities from the BRT system proposal have been completed. The Hawaiʻi Department of Transportation has implemented the extension of the morning "zipper lane" between Radford Drive and the Keʻehi Interchange. In-Town BRT facilities that have been constructed include seven transit stops.

The 2030 Oʻahu Regional Transportation Plan includes the afternoon "zipper lane" that was also proposed as part of the Regional BRT project. This facility will be included in the No Build Alternative and all other alternatives analyzed for this Honolulu High-Capacity Transit Corridor Project. Other elements of the Primary Corridor Transportation Project, such as transit centers, are part of the 2030 Oʻahu Regional Transportation Plan, while others, including additional transit centers and expanded bus service, are part of the proposed TSM Alternative for this project.

Between 1990 and 2000 the island experienced travel demand growth that again outstripped population growth, with a five percent increase in residents and a 15 percent increase in trips. The population of Oʻahu in 2000 was 880,000; residents made 2,760,000 daily person trips; and transit continued to carry seven percent of the total trips (OMPO, 2001).

Transportation demand has continued to increase on Oʻahu since 2000. As part of its work to update the Regional Transportation Plan, OMPO surveyed Oʻahu residents about transportation issues in 2004. The survey identified commute-period traffic congestion in the ʻEwa and Central Oʻahu to Downtown Honolulu corridor as the greatest concern. Nearly twice as many residents responded that improving transit was more important than building more roadways. Seventy percent of the respondents believed that rail rapid transit should be constructed as a long-term transportation solution, and 55 percent supported raising taxes to provide local funding for the system.

During the summer of 2005, the State legislature recognized the need and public support for a high-capacity transit system on O‘ahu and passed Act 247. Act 247 authorized the County to levy a general excise tax surcharge to construct and operate a mass transit project serving O‘ahu. The City Council subsequently adopted Ordinance 05-027 to levy a tax surcharge to fund public transportation. With secure local funding established for the first time, the City began the AA process to implement a high-capacity transit system in the corridor between Kapolei and UH Mānoa. A range of alternatives was evaluated and screened to select alternatives that would provide the most improvement to person-mobility and travel reliability in the study corridor. FTA published a Notice of Intent to Prepare an EIS in the *Federal Register* on December 7, 2005, and DTS published an EIS Preparation Notice in the State of Hawai‘i *Environmental Notice* on December 8, 2005. The public was asked to comment on the proposed alternatives, the purpose and need for the project, and the range of issues to be evaluated at a series of scoping meetings in December 2005.

Identification of Alternatives

An extensive range of alternatives with the potential to improve mobility within the corridor were identified and evaluated at a high-level in the *Honolulu High-Capacity Transit Corridor Project Alternatives Screening Memorandum* (DTS, 2006). The screening analysis identified four travel modes, 11 technologies and 73 possible alignments. The classes of alternatives that were evaluated included:

- Fixed Guideway Transit
- Bus
- Bus Rapid Transit
- High-Occupancy and Toll Lanes
- Tunnel or Bridge across Pearl Harbor
- Waterborne Ferries

The alternatives were developed through a screening process intended to refine all possible and reasonable alternatives into those that meet corridor needs, are technically feasible, and are viable for further study. The range of possible alternatives was developed based on previous transit studies, a field review of the study corridor, an analysis of current housing and employment data for the corridor, a literature review of technology modes, and work completed by the O‘ahu Metropolitan Planning Organization (OMPO) for its *2030 O‘ahu Regional Transportation Plan* and from public and agency comments received during project scoping.

The merits of each class of alternative were evaluated against a number of criteria related to: shortening travel times, project costs, environmental impacts, ease of implementation, support of the City’s long-range land use plans, and community benefits. The range of alignment options were evaluated by section. The sections, identified from the Wai‘anae to Koko Head direction, were defined based on logical termini and the presence of

existing transportation facilities, travel origins and destinations, and/or neighborhood boundaries. This provided the opportunity to focus on the particular needs and characteristics of an area in order to select the best options within each section of the corridor.

This screening process culminated with the selection of four alternatives, including a No Build Alternative for comparison, a Transportation System Management Alternative with additional improvements to the existing bus system, a Managed Lane Alternative with two operating options, and a Fixed Guideway Alternative with multiple alignment options.

Those four major alternatives were presented to interested agencies and the public in scoping meetings. The purpose of the scoping meetings was to gain agency input and public comment on the purpose of and need for the Project, the process of evaluation, and the potential unmitigatable impacts of the proposed alternatives. The consideration of those comments was an important element of the screening process. The input received was considered during the definition and refinement of alternatives to be considered during the study.

A specific technology will not be selected for the Fixed Guideway Alternative at this point in the analysis. However, the technology screening identified seven technologies as potential candidates for providing the fixed guideway service. The candidate technologies are: conventional bus, guided bus, light rail, people mover, monorail, maglev and rapid rail. The technology is anticipated to be identified after the selection of the Locally Preferred Alternative.

The result of the screening and scoping processes are the following four alternatives that are being advanced for detailed analysis in the Alternatives Analysis. The remainder of this report defines these alternatives in detail.

Chapter 2 Existing Transportation Facilities

This section describes facilities located in and services operating within the corridor. This includes highway and transit systems, parking facilities and availability, freight facilities, and pedestrian and bicycle facilities. Greater detail about the existing transportation system may be found in the *Honolulu High-Capacity Transit Corridor Project Transportation Impact Results Report* (DTS, 2006c).

Street and Highway System

Freeways, highways, and streets are the basic transportation network elements responsible for the movement of people and goods on O‘ahu. The transportation network is used by all types of vehicles, public and private transit services, bicycles, and pedestrians. The roadway system on O‘ahu is maintained by the State of Hawai‘i Department of Transportation (HDOT) and the City and County of Honolulu Department of Facility Maintenance (DFM).

State Highway System

The State highway system includes all freeways and major highways connecting various parts of the island. The following description provides background information regarding the State highways maintained by HDOT. The State highway system is illustrated in Figure 2-1.

The interstate freeways on O‘ahu are dedicated transportation structures. They are fully grade-separated, access-controlled structures with the sole purpose of facilitating the movement of people and goods to different parts of the island. Access to the interstate system is restricted to dedicated ramps, which minimize disruptions to the flow of traffic; this allows for higher operational speeds and improved capacity when compared to surface streets. The corridor is served primarily by the H-1 Freeway and the Moanalua Freeway (State Route 78), as indicated in Figure 2-1. The H-2 Freeway provides access to the corridor from Central O‘ahu, and the H-3 Freeway provides access to the corridor from the Windward side.

Highways serve a purpose similar to that of the interstate system (i.e., facilitating the movement of goods and people to different parts of the island). Unlike the interstate system, highways are not fully grade-separated roadways. Rather, highways are major surface streets and expressways. Local traffic can access these facilities without the use of dedicated ramps; capacities and operational speeds are not as high as the interstate system. The State highway system consists of 280 route miles and 940 lane miles, including the freeway system. State highway facilities located within the project corridor include the following:

- Interstate Route H-1, Connection with Kalaniana‘ole Highway in Wai‘alae to connection with Farrington Highway in Makakilo

- Interstate Route H-2, Intersection with Interstate Route H-1 at Waiawa Interchange to Wahiawā
- Interstate Route H-3, Marine Corps Base Hawai‘i to Intersection with Interstate Route H-1 at Hālawa Interchange
- Route 61, Pali Highway, Honolulu to Kailua
- Route 63, Likelike Highway, Kalihi to Intersection with Kamehameha Highway (Route 83) in Kāne‘ohe
- Route 64, Sand Island Access Road
- Route 76, Fort Weaver Road, Intersection with Interstate Route H-1 to ‘Ewa Beach
- Route H201, Moanalua Freeway, Middle Street to Hālawa Interchange
- Route 80, Kamehameha Highway, Wahiawā to Intersection with Kamehameha Highway (Route 99)
- Route 83, Kamehameha Highway, Intersection with Pali Highway (Route 61) to Intersection with Kāne‘ohe Bay Drive (Route 65)
- Route 92, Nimitz Highway, Pearl Harbor to Honolulu Harbor
- Route 92, Ala Moana Boulevard, Honolulu Harbor to Waikīkī
- Route 93, Farrington Highway, Waiawa Interchange to Mākua
- Route 95, Kalaeloa Boulevard, Intersection with Interstate Route H-1, Makakilo Interchange to Barbers Point Harbor
- Route 99, Kamehameha Highway, Schofield Barracks to Waialua
- Route 750, Kunia Road, Intersection with Interstate Route H-1 to Schofield Barracks.

City and County Street System

The City and County of Honolulu’s street system consists of those arterial facilities that are not in the State system as well as local streets (Figure 2-2). Principal ‘Ewa/Koko Head arteries located in the corridor include the following:

- Ala Wai Boulevard
- Beretania Street
- Dillingham Boulevard
- Kalākaua Avenue
- Kapi‘olani Boulevard
- King Street
- Kūhiō Avenue
- Moanalua Road
- Salt Lake Boulevard
- School Street.

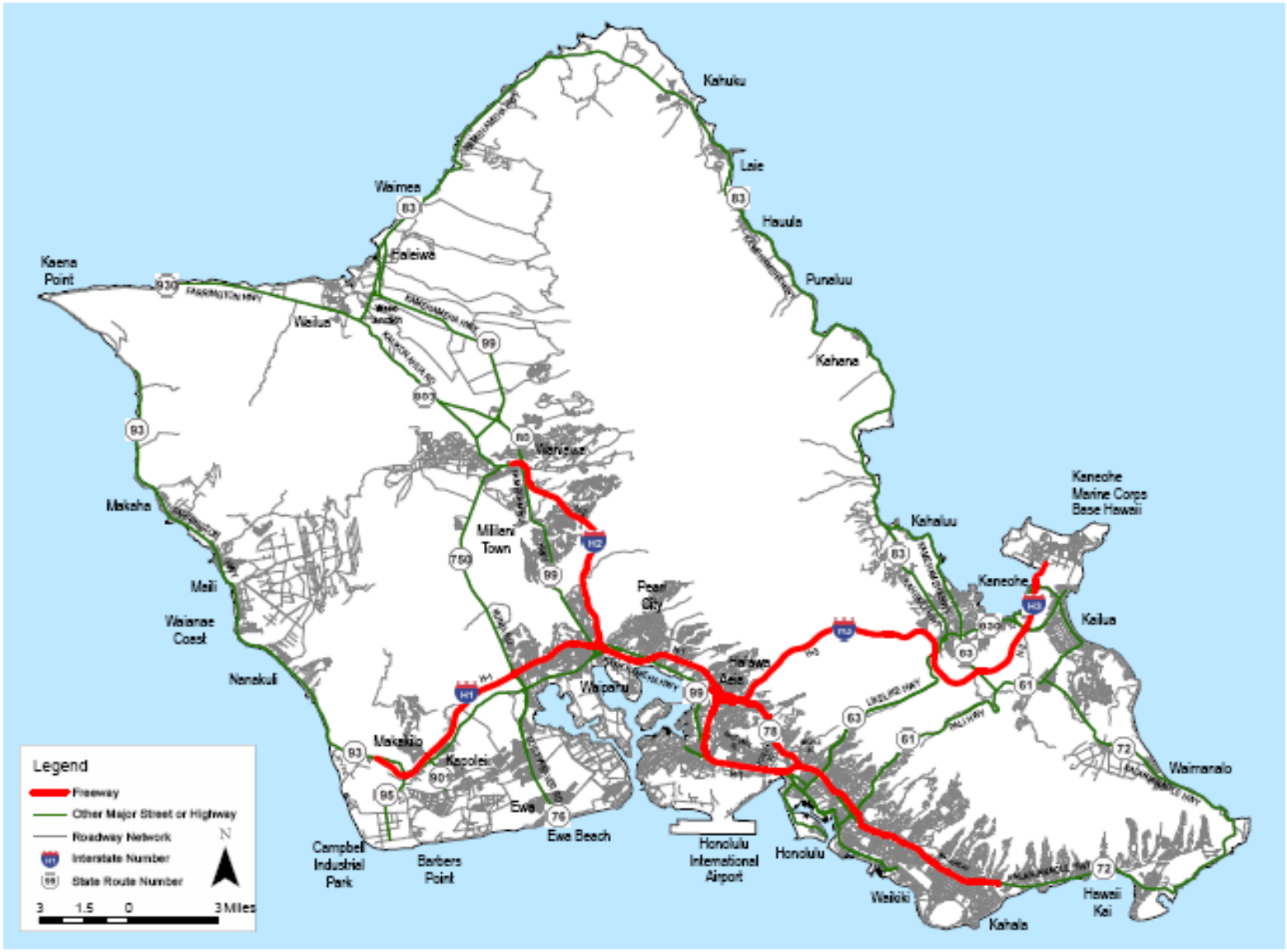


Figure 2-1. Existing State Highway System

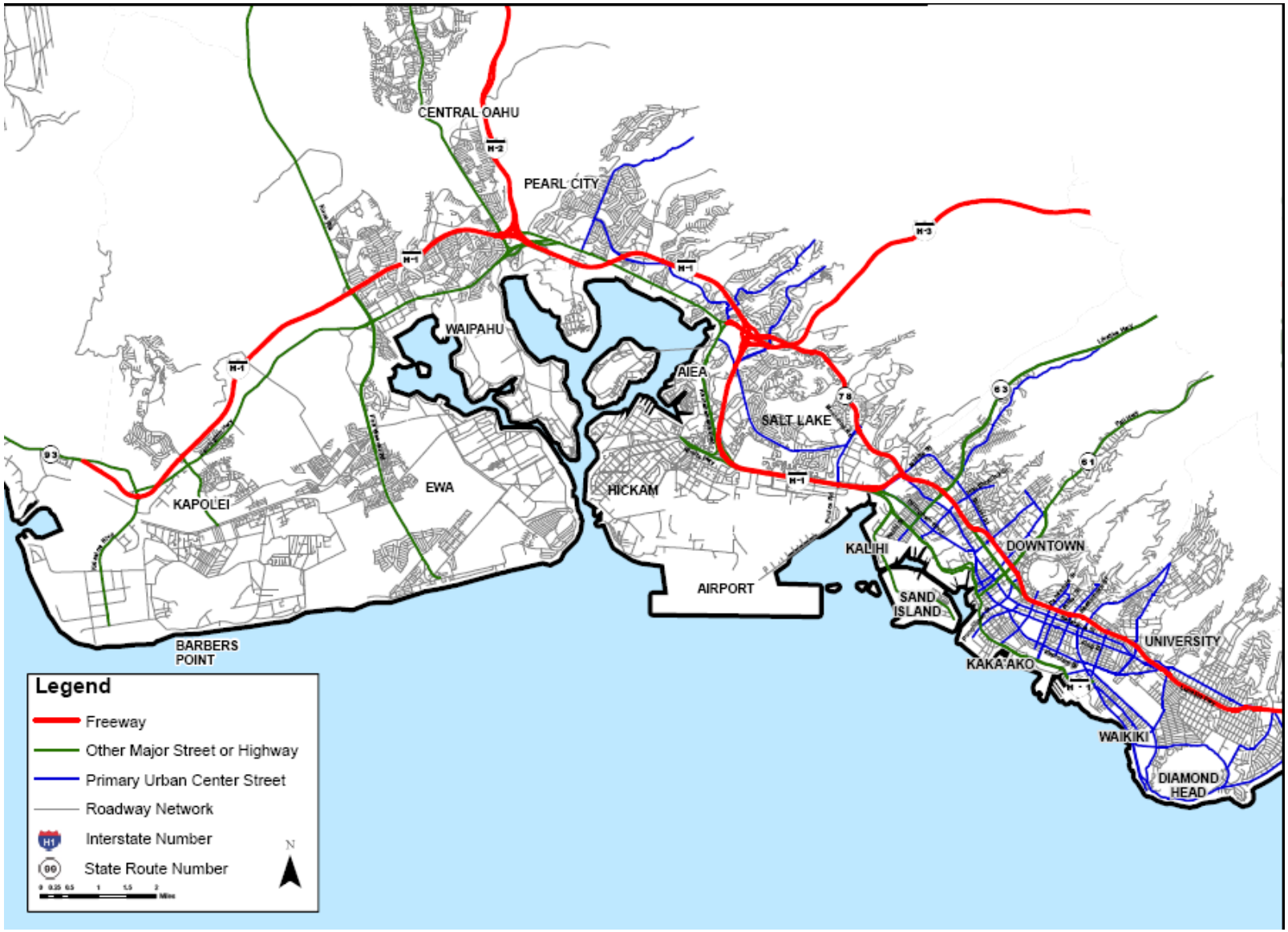


Figure 2-2. Existing Arterial Roadways in the Study Corridor

The main mauka/makai roadways in the corridor are as follows:

- Houghtailing Street
- Kalākaua Avenue
- Kalihi Street
- Kapahulu Avenue
- Keʻeaumoku Street
- McCully Street
- Middle Street
- Pensacola Street
- Piʻikoi Street
- Punchbowl Street
- Puʻuloa Road
- South Street
- University Avenue
- Waiakamilo Road
- Ward Avenue.

Transportation Demand Management and Transportation Systems Management

Transportation Demand Management (TDM) is a general term referencing a variety of strategies to reduce highway travel demand. Transportation System Management (TSM) has a basic objective of creating a more efficient use of transportation facilities by improving the operation and management of vehicles and roads. Examples of TDM/TSM measures specific to the island of Oʻahu include contraflow operations, special traffic lanes, and High Occupancy Vehicle (HOV) lanes; these measures are overseen either by HDOT or the City and County of Honolulu.

Contraflow lanes are a TSM strategy wherein a lane that typically provides vehicular travel in one direction is reversed during certain times of the day (e.g., a lane serving the off-peak direction is reversed so as to provide an additional travel lane in the peak direction).

Contraflow facilities operated by the State are restricted to buses, vanpools, and vehicles with two or more occupants. HDOT currently provides contraflow operations at the following locations within the study corridor during the morning peak period:

- H-1 Zipper Lane: The "zipper" contraflow lane provides an additional Koko Head direction lane from Managers Drive in Waipahu to the Pearl Harbor interchange during the morning peak period and is open to HOVs only.
- H-1 Shoulder Express Lane: This lane provides a short Koko Head lane for HOV use only between the Pearl Harbor interchange and the Keʻehi interchange during the morning peak period.
- Nimitz Highway (Route 92): During the morning peak period, a Koko Head contraflow HOV lane extends between the Keʻehi interchange and Industrial Parkway.

The City and County of Honolulu also operates contraflow lanes along congested corridors during specific peak periods. Unlike HDOT contraflow operations, the City and County facilities do not have occupancy restrictions and operate during both the morning and afternoon peak periods. City and County locations with reversible lane operations include the following:

- Kapiʻolani Boulevard: from the H-1 Freeway near South King Street to ʻEwa of Ward Avenue in the morning, and from Pensacola Street to McCully Street during the afternoon peak.
- Ward Avenue: from Lunalilo Street to makai of South King Street during the morning peak period.
- Atkinson Drive: from Kona Street to Kapiʻolani during the morning peak period.
- Waiʻalae Avenue
- Kalākaua Avenue: from Kapahulu Avenue to 8th Avenue during the afternoon peak.

State High Occupancy Vehicle Operations

HOV lanes are freeway or surface street lanes designated for exclusive use by buses, carpools, and vanpools. HDOT operates HOV lanes on the following facilities during certain times of the day:

- Interstate H-1
- Interstate H-2
- Moanalua Freeway (Route 78)
- H-1 Zipper Lane and Shoulder Express Lane
- Nimitz Highway (Route 92)
- In addition to the contraflow lanes and HOV facilities described above, the shoulder along a portion of Interstate H-1 is used to provide an additional travel lane during the morning peak period.

Public Transportation System

Public transportation plays an important role in O‘ahu’s transportation system. Such services provide an alternative to automobile travel and, by extension, benefit the island by aiding in the reduction of roadway congestion, air and noise pollution, and energy consumption. Public transit also offers mobility options to the elderly, the physically and mobility challenged, and persons who do not have access to an automobile.

TheBus

A private company, O‘ahu Transit Services, Inc. (OTS), operates the public transit system on the island of O‘ahu (TheBus). OTS is under contract to the City and County of Honolulu. TheBus system is a fixed-route public transit service. Since August 2000, TheBus has restructured to a “hub-and-spoke” network with the intent of improving accessibility, increasing ridership, providing an enhanced level of service, and serving increasing number of trips to destinations other than the PUC. Components of the restructured system are as follows:

- Community and Urban Trunk Routes: Trunk routes form spokes within the hub-and-spoke system and facilitate hub-to-hub connections. The limited stop rapid bus routes A, B and C are trunk routes.
- Community and Urban Circulators: Circulator routes also form spokes within the hub-and-spoke system and radiate from the hubs and provide local neighborhood service.
- Express Services: Express bus services also form spokes of the hub-and-spoke system, and direct, non-stop, hub-to-hub connections are facilitated by the express services.

Weekday transit service for most bus routes is provided between 5 a.m. and 10 p.m. The *Honolulu High-Capacity Transit Corridor Project Existing Bus Transit System Base Data Report* (DTS, 2006) summarizes the various lines of service and their respective headway ranges by service period. TheBus system provides 93 numbered buses serving urban, suburban, and rural areas throughout O‘ahu. As of 2006, TheBus has a fleet of 525 buses and approximately 4,200 bus stops on the island.

TheBus system carries approximately 68 million passengers who travel approximately 21.5 million miles per year. Data collected through on-board surveys in December 2005 and January 2006 indicate that the observed ridership is 236,600 average weekday boardings. Of this figure, 199,100 boardings were observed on local bus service, 8,300 boardings on peak-period express bus service, and 29,200 boardings on limited stop rapid bus routes (Routes A, B and C). These figures are only for TheBus system and do not include TheHandi-Van system.

An annual pass costs $440 for an adult and $220 for a youth. A monthly pass costs $40 for adults and $20 for youths. One-way fares are $2/$1 for an adult and youth, respectively. Senior citizens and individuals with disabilities pay $30 for an annual pass and $1 for a one-way fare with a reduced fare card or a valid Medicare card; a $5 monthly pass sticker is also available.

TheHandi-Van

TheHandi-Van is a curb-to-curb demand-based transportation system provided by OTS for those persons eligible for paratransit service under the guidelines established by the Americans with Disabilities Act (ADA). TheHandi-Van is not a fixed-route service, although the areas serviced are similar to those serviced by TheBus. TheHandi-Van fleet consists of 106 vehicles that include different types of vans that provide service to more than 13,000 eligible customers, performing more than 630,000 trips annually. The days and hours of operation are the same as those of TheBus. Fares are $2 one-way and advance reservations are required.

LOTMA Commuter Express

The Leeward O‘ahu Transportation Management Association (LOTMA) offers the LOTMA Commuter Express, a private commuter bus service. The LOTMA Commuter Express provides non-stop freeway express lane service between Central O‘ahu and Honolulu as an alternative to solo driving. This is a subscription-based service; financial support by local companies reduces the end-user subscription to $95 for an unlimited use monthly pass and $55 for a 20-trip monthly pass. Casual riders are accommodated on a space-available basis for $3.50 per one-way trip. Additionally, LOTMA sponsors carpooling and vanpooling programs and offers computerized ride-matching assistance.

HDOT Vanpool Program

HDOT currently operates a vanpool program, Vanpool Hawai‘i, through an outside contractor, VPSI, Inc. A vanpool is a group of four to 15 commuters sharing one vehicle during the commute to and from work. As of September 2006, there were 185 vanpools in operation on O‘ahu. This program offers the option of a full-sized 15-passenger van for $55 per seat per month (Vanpool) or a seven-passenger minivan or sport utility vehicle for $70 per seat per month (Cool Pool). All riders share the vehicle’s fuel and parking costs, regardless of the vanpool option.

Transit Centers

Transit centers are points within TheBus’s hub-and-spoke system; they offer locations for multimodal transfer and are intended to support the bus transit systems as well as alternate travel means. Currently on O‘ahu there are two existing transit centers and three in the plan, design, or construction phases; the locations are listed below and identified in Figure 2-3:

Existing Transit Centers

- Waipahu Transit Center in Waipahu, located at Hikimoe Street near the Waipahu Library
- Kapolei Transit Center in Kapolei, located at Kamokila Boulevard near the Kapolei Post Office.

Proposed Transit Centers

- Mililani Transit Center in Mililani, located on Meheula Parkway near the Town Center of Mililani
- Wahiawā Transit Center in Wahiawā, located on California Avenue near the Civic Center
- Waiʻanae Transit Center in Waiʻanae, located on Leihoku Street near the Waiʻanae Mall.

Park-and-Ride Lots

Park-and-ride lots are designed as an alternative for people wishing to travel the majority of their commute by public transit. They are similar in function to transit centers, in that transfers to other travel means are facilitated. Typical users include commuters who drive to the park-and-ride facility, park their vehicle, and use either transit or a vanpool to complete the journey. The four existing park-and-ride facilities on Oʻahu are listed below and their locations are illustrated in Figure 2-3:

- Hawaiʻi Kai Park-and-Ride in Hawaiʻi Kai, located on Keāhole Street near the Hawaiʻi Kai Towne Center
- Mililani Park-and-Ride in Mililani Mauka, located on Ukuwai Street near the Mililani-Mauka District Park
- Wahiawā Park-and-Ride in Wahiawā, located in Leilehua Golf Course Road near the Wahiawā Armory
- Royal Kunia Park-and-Ride in Waipahu, located on Kupuna Loop near the Kunia Interchange.

Bikeway System

The bikeway system provides residents and tourists an inexpensive and convenient means of getting around Oʻahu for either recreation or commuting purposes. With the continued dependence on the automobile and increasing congestion found on the street system, the development and promotion of alternate travel means is important to the island of Oʻahu. Three primary facility types provide the bikeway infrastructure on the island. The three facility types fall into the following categories as defined by *Bike Plan Hawaiʻi*, A State of Hawaiʻi Master Plan (HDOT, 2003):

- Shared Roadway: A shared roadway is any street or highway that is open to both bicycle and motor vehicle travel. Shared roadways may have signs designating their status as a preferred bike route.
- Bike Lane: A bike lane is a section of the roadway that has been designated by striping, signing, and/or pavement markings for the preferential or exclusive use of bicyclists.
- Shared Use Path: A shared use path is a pathway that is physically separated from motorized vehicular traffic by an open space or barrier and is either within the highway right-of-way or has an independent right-of-way.

Existing Bikeway System

Figure 2-4 illustrates the locations of existing and planned bikeways on the island. As of 2003, approximately 208 miles of bikeway facilities are available statewide; O‘ahu contains 98 miles of these bikeways, or 47 percent of the statewide bikeway system. Although the current system is geared toward the recreational user, connections to activity centers are provided for commuter use. The following summarizes the bikeway facilities currently available on O‘ahu:

- 30.1 miles of shared roadways
- 33.6 miles of bike lanes
- 34.3 miles of shared use paths.

As indicated in the *Bike Plan Hawai‘i* (HDOT, 2003), 24,777 bicycle and moped registrations were recorded on O‘ahu in 2001. In terms of the relationship between registrations and population, O‘ahu has an average of 28 bicycles or moped registrations per 1,000 residents.

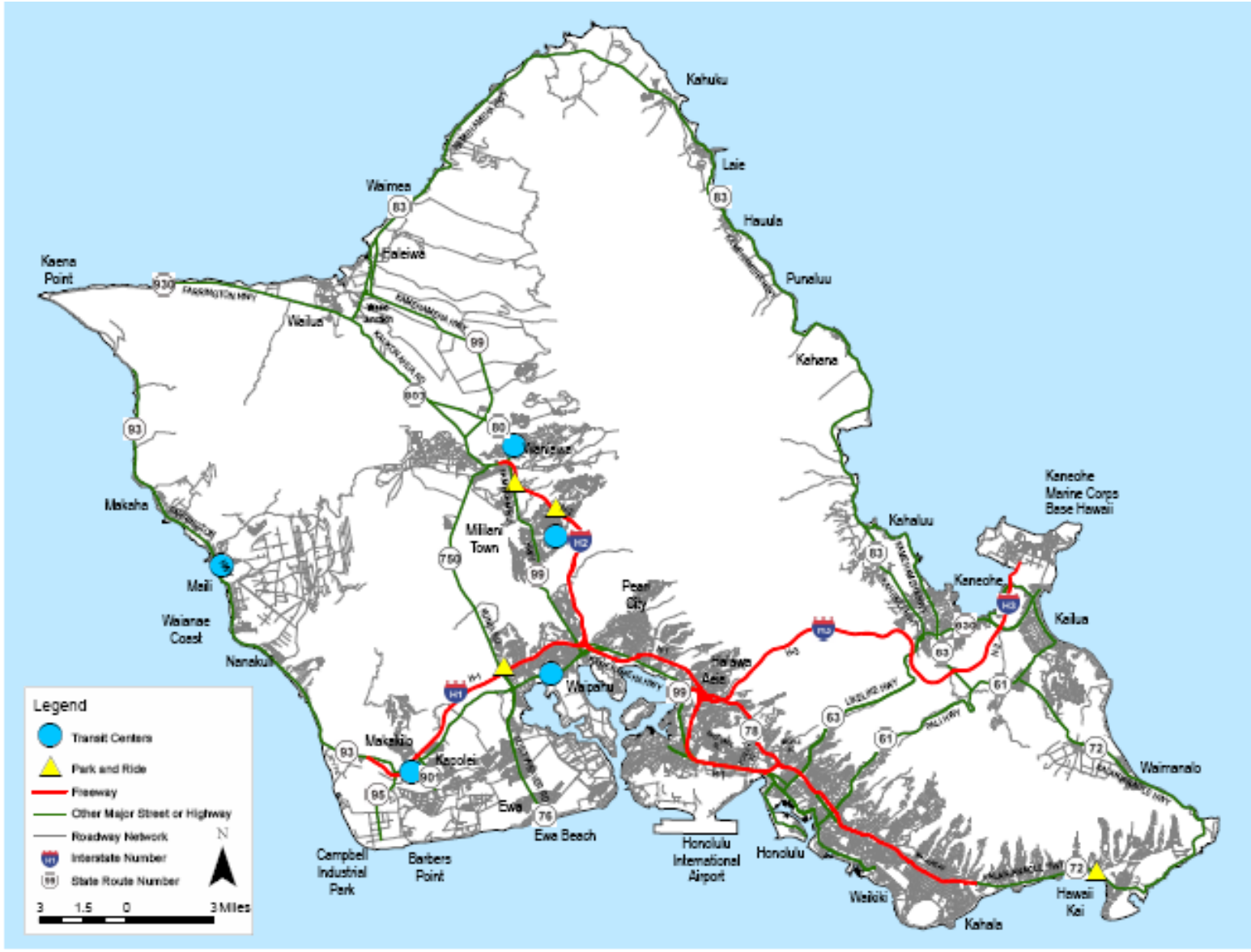
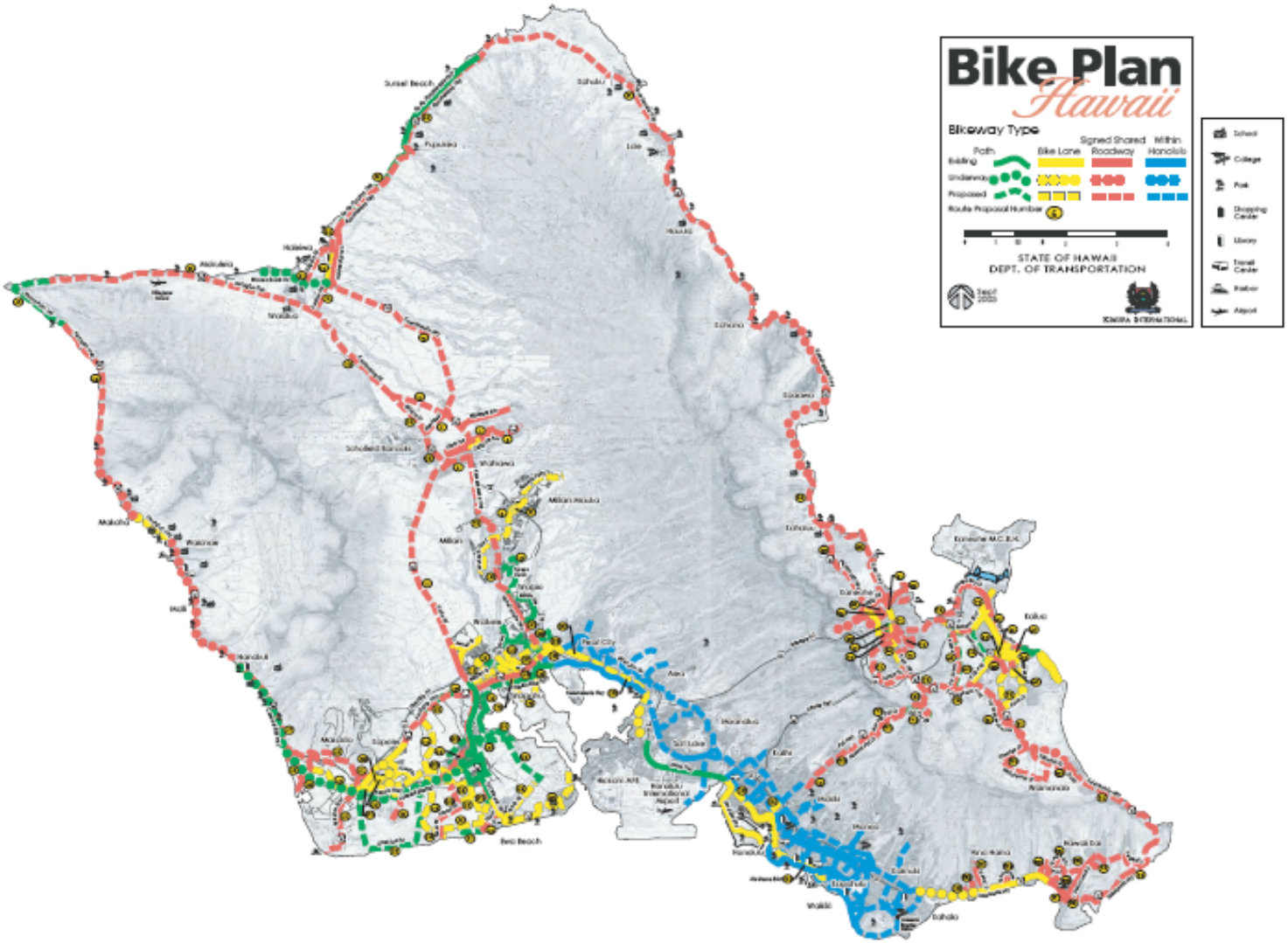


Figure 2-3. Existing Transit Center and Park-and-Ride Locations



Source: Bike Plan Hawai'i (HDOT, 2003)

Figure 2-4. Existing and Proposed Bikeways

Every bus in TheBus fleet is equipped with bike racks allowing each bus to hold a maximum of two bikes. As more bicyclists have become aware of this option, bicycle loadings on the bus network now exceed 30,000 per month.

Parking

Existing parking conditions throughout the corridor are dictated by the specific areas within the corridor. Suburban neighborhoods, such as Pearl City and ʻAiea, have parking situations similar to other suburban neighborhoods; i.e., parking is relatively accessible. There is parking available at most shopping facilities, at residences, and on the street. In the downtown areas, such as the Central Business District, Chinatown, Kaka'ako and Waikīkī, parking is much like other metropolitan areas – limited. The available land is extremely limited and costly; consequently parking lots are high priced and have a high demand. In July 2006, Colliers International released a mid-year survey that listed Honolulu as the ninth most expensive metropolitan area in the U.S. for parking. Colliers reported a 27 percent increase in parking costs in downtown Honolulu between 2005 and 2006. This trend is not likely to continue at the same rate; however, as the occupancy of office space downtown increases and redevelopment creates new high-density facilities, it is unlikely that the parking costs will decrease or that availability will increase. The cost of parking is a major factor in cities throughout the U.S. causing commuters to choose between using transit or using private automobiles for their trip.

Chapter 3 ALTERNATIVE 1: No Build

The No Build Alternative includes existing transit and highway facilities and most committed transportation projects anticipated to be operational by 2030. There are two types of projects included in the No Build: highway projects and transit projects. Committed highway transportation projects are those programmed in the financially constrained *2030 O'ahu Regional Transportation Plan (ORTP)* prepared by OMPO. Transit projects included are those that are in the financially constrained *ORTP* and are also included as funded projects in the *Statewide Transportation Improvement Program (STIP)* prepared by the Hawai'i Department of Transportation, with the exception of the Rail Transit, Kapolei to Mānoa project. The rail project is included in the *STIP*, but is one of the major alternatives for this project and is excluded from the No Build alternative. The existing facilities and committed projects in the No Build Alternative also will be included in all other alternatives. The committed projects included in the No Build Alternative are listed in Appendix A.

Physical Description

A great number of significant highway improvements are included in this alternative. Some major projects specifically included are:

- Widening H-1 in locations throughout the corridor,
- Construction of new HOV lanes on H-1 between Waiawa Interchange and Makakilo,
- Widening Farrington Highway between Fort Barrette Road and Fort Weaver Road,
- Creation of a p.m. "zipper" lane on H-1 from Ke'ehi Interchange to Kunia Interchange,
- Operation of an intra-island ferry service between Ocean Pointe Marina and Aloha Tower and Kalaeloa Harbor and Aloha Tower,
- Construction of a two-lane elevated High Occupancy Vehicle (HOV) Flyover along Nimitz Highway between Ke'ehi Interchange and Pacific Street
- Construction of North-South Road,
- Widening Fort Weaver Road from 4 lanes to 6 lanes,
- Waiawa Interchange upgrades,
- Traffic signal synchronization on many arterials,
- Creation of a joint state and city traffic management center.

A complete listing of the projects included in the No Build Alternative is found in Appendix A.

Some of the committed projects would improve current bus transit service. These include the two lane reversible Nimitz Highway High-Occupancy Vehicle (HOV) Flyover, two new HOV lanes on H-1 between Waiawa Interchange and Makakilo, p.m. "zipper lane" facilities on H-1 between Ke'ehi Interchange and Kunia Interchange, intra-island ferry service, and new transit centers in Kalihi, Wahiawā, and Wai'anae. Note that

while transit centers at Pearl City and ʻAiea are also contained in the ORTP, they are not in the STIP; hence, they are not included in the No Build Alternative.

Supporting Facilities and Bus Service

There are no new facilities planned as part of this alternative. However, there are three new transit centers included in the ORTP which are currently under construction or will be built and operational before 2030. These transit centers improve the transit service of the No Build Alternative over what currently exists. The transit centers are described as follows:

- Mililani Transit Center in Mililani, located on Meheula Parkway near the Town Center of Mililani
- Wahiawā Transit Center in Wahiawā, located on California Avenue near the Civic Center
- Waiʻanae Transit Center in Waiʻanae, located on Leihoku Street near the Waiʻanae Mall.

There are no new park-and-ride lots planned for this alternative.

In anticipation of increased roadway congestion and slower overall bus transit speeds, the No Build Alternative's transit component would include an increase in fleet size to allow service frequencies to remain the same as today. It will also include new bus service to serve proposed growth areas (e.g., Kapolei), and restructured "hub-and-spoke" service to serve the regional transit centers. The increase in the bus fleet is planned to be 89 buses, bringing the fleet total from 525 to 614 buses. Additionally, scheduled bus replacement will occur in accordance with existing plans.

There are two types of service modifications identified to respond to population and employment growth. A total of 16 new routes are planned for this alternative. The first are those new routes necessary to serve entirely new large-scale developments. These are predominantly community circulators designed to operate between the new development and the nearest transit center. The type of operation for each community circulator is consistent with those in operation today including span of service and frequency of service.

The span of service matches those of other comparable routes operating into neighborhoods. The frequency of service is normally on a clocked headway interval consistent with other routes serving the same transit center such that timed-transfer connections can be made without any significant wait time (normally less than five minutes). The day of operation is consistent with the size of the development and comparable service to other similar sized developments. All community circulators provide all-day, Saturday and Sunday services. Nine (9) of the sixteen (16) new routes identified in the No-Build Bus Alternative are community circulators.

One new *CountryExpress* route is identified in the No-Build Bus Alternative. Route D is a limited-stop, all-day, two-directional, express bus route with an emphasis on direct

service between transit centers. The service operating characteristics are consistent with existing *CountryExpress* bus operations (including the Route C). Its function is to serve as a high-capacity trunk operation using articulated (60 foot) buses. It is scheduled to make timed-connections at transit centers or to operate with frequent intervals so timed-connections are not essential. Therefore, the transfer time between community circulators and *CountryExpress* routes should be made without any significant wait times.

The other five routes added to the existing bus route network all relate to ferry operations. Two of the routes are specifically designed to time connect with passenger-only ferry vessel departures and arrivals at the Kalaeloa/Barbers Point ferry terminal. One route is a water taxi connecting Ko ‘Olina with the ferry terminal. The other two routes are the ferry services themselves. One of the ferry routes operates between Kalaeloa/Barbers Point and Aloha Tower and the other between Ocean Pointe Marina and Aloha Tower.

The community circulators in the developing Ocean Pointe area in ‘Ewa are designed to time connect at the Ocean Pointe terminal and therefore do not require separate ferry oriented bus feeder services.

To provide the additional service, the bus fleet would be increased by 89 buses over the 2005 fleet to a total bus fleet of 614. The maximum number of peak hour buses operating at one time would be 511. The total fleet size includes a 20% overage above the maximum peak hour demand to accommodate planned and unplanned maintenance.

Table 3-1 provides a summary of new bus routes added to the No Build Alternative.

Minor changes will be made the existing routes to maintain service at the current levels. Many of the changes include increasing the bus size, extending routes to service new areas, routing buses through the p.m. “zipper” lane and Nimitz Flyover, and increasing frequency of the buses to compensate for increased traffic congestion. These changes are itemized in Table 3-2 that follows.

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix B. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Table 3-1: No Build Alternative Characteristics of Bus Route Additions

	NEW ROUTES	VEHICLE SIZE	MILES	MPH	BEGIN SERVICE	END SERVICE	PEAK CYCLE TIME	HEADWAYS					
								AM Peak	Mid-Day	PM Peak	Even.	WEEKEND SAT.	WEEKEND SUN.
	CountryExpress Limited Stop												
D	Wahiawa-UH Manoa	60	50.6	20.2	5:00 AM	10:00 PM	150	15	30	15	30	30	30
	Community Circulators:												
415	Kalaeloa-Ocean Pointe-Waipahu	40	21.4	12.2	5:30 AM	11:00 PM	105	30	30	30	30	30	30
416	Kapolei West-Ko Olina	40	5.2	10.4	5:30 AM	10:00 PM	30	30	30	30	30	30	30
417	West Oahu Campus	40	10.8	10.8	5:00 AM	12:30 AM	60	30	30	30	30	30	30
418	Kalaeloa	40	10.9	10.9	5:00 AM	11:00 PM	60	30	30	30	30	30	30
419	Makaiwa Hills	40	7.1	14.2	5:00 AM	11:00 PM	30	30	30	30	30	30	30
422	West Oahu-Ocean Pointe-Ewa	40	16.2	16.2	5:00 AM	12:30 AM	60	30	30	30	30	30	30
434	Royal Kunia Extension	40	5.8	11.6	4:30 AM	1:00 AM	30	30	30	30	60	30	30
440	Koa Ridge-Ka Uka	40	5.6	11.2	5:00 AM	10:00 PM	30	30	30	30	30	30	30
441	Waiawa-Ka Uka	40	11.2	11.2	5:00 AM	10:00 PM	60	30	30	30	30	30	30
	Ferry Services:												
4F	Downtown/UH/Aloha Terminal	40	9.2	9.2	5:00 AM	6:35 PM	60	15	0	15	0	0	0
8F	Waikiki/Ala Moana/Aloha Terminal	40	12.4	9.9	5:00 AM	6:35 PM	75	15	0	15	0	0	0
30F	Chinatown/Kalihi/Aloha Terminal	40	7.2	9.6	5:00 AM	6:35 PM	45	15	0	15	0	0	0
41F	Kapolei Villages-Kalaeloa Ferry	40	12.1	12.1	5:00 AM	6:35 PM	60	30	0	30	0	0	0
93F	Makaha-Kalaeloa Ferry	40	32.3	16.2	5:00 AM	6:35 PM	120	30	0	30	0	0	0
411F	Makakilo-Kalaeloa Ferry	35	13.6	13.6	5:00 AM	6:35 PM	60	30	0	30	0	0	0
413F	Kapolei-Kalaeloa Ferry	40	7.1	14.2	6:20 AM	6:45 PM	30	30	0	30	0	0	0
415F	Ewa Beach/Ocean Pointe Marina	40	7.1	14.2	6:20 AM	6:45 PM	30	30	0	30	0	0	0

Table 3-2: Bus Operating Plan for No Build Alternative Changes to Existing Routes (Routes as of 2010)

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
1	Yes	60							Add artic buses.
1L	Yes	60							Add artic buses.
2	No	40							
3	Yes	60							Add artic buses.
4	No	40							
5	No	40							
6	No	40							
7	No	40							
8	Yes	60							Add artic buses.
9	No	40							
10	No	30							
11	No	40							
13	Yes	60							Add artic buses.
15	No	30							
16	No	35							
17	No	40							
18	No	40							
19	Yes	60			9/12	9/18	7/10		Add artic buses. Waikiki to airport trips added.
20	Yes	60							Add artic buses.
23	No	40							
31	No	35							
32	No	35							
40	Yes	60			10/12	12/18	6/15	16/24	Add artic buses. Increase frequency; 24-hour service.
41	Yes	40							Interline with Route 421.
42	Yes	60			11/12	12/14	7/10	8/24	Add artic buses. Increase frequency; 24-hour service.
43	Yes	40		Yes					Operate in PM Zipper Lane.
50	No	40							
51	Yes	60							Add artic buses.
52	Yes	60		Yes	8/12	11/14	5/10	3/10	Add artic buses. Increase frequency. Serve Ka Uka P&R.
53	Yes	60							Add artic buses.
54	Yes	60							Add artic buses.
55	Yes	60							Add artic buses.
56	No	40							
57/57A	No	40							
65	No	40							
70	No	35							
71	No	35							
73	No	35							

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
74	No	35							
77	No	30-35							
131	Yes	30				0/6			Add mid-day and weekend services.
132	Yes	30				0/6			Add mid-day and weekend services.
133	No	30							
134	No	30							
231	No	35							
232	No	35							
401	No	35							
402	No	35							
403	No	35							
411	Yes	40							Interline with Route 417.
412	No	35							
413	No	40				0/6			Add mid-day service.
414	No	CA*							
415	Yes	40							
416	Yes	40							New route; see separate discussion. Interline w/419.
417	Yes	40							New route; see separate discussion. Interline w/411.
418	Yes	40							New route; see separate discussion.
419	Yes	40							New route; see separate discussion.
421	Yes	40							Interline with Route 41.
422	Yes	40							New route; see separate discussion.
432	No	40							
433	Yes	40							Extend service to Ka Uka Blvd & H-2 transfer point.
434	Yes	40							Extend service to Royal Kunia - adds one bus.
440	Yes	40							New route; see separate discussion.
441	Yes	40							New route; see separate discussion.
501	No	40							
502	No	35							
503	No	CA							
504	No	35							
505	No	35							
511	No	40							
512	No	40							
513	No	40							

CA: Community Access Route.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
521	No	35							
522	No	35							
Express Routes:									
80/82	No	40							
80A	No	40							
80B	No	40							
81	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
83	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
83A	Yes	40		Yes					Operate PM Zipper Lane if access available.
84	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
84A	Yes	40	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane.
85	No	40							
85A	No	40							
86	No	40							
86A	No	40							
88	No	40							
88A	No	40							
89	No	40							
90	No	40							
92	Yes	40	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane.
93	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
93A	Yes	40		Yes					Operate PM Zipper Lane if access available.
95	No	40							
96	Yes	40	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane.
97	Yes	40	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane.
98	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
101	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
102	Yes	60	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane. Add artic buses.
103	Yes	40	Yes	Yes					Operate Nimitz Flyover & PM Zipper Lane.
203	No	40							
Limited Stop Routes:									
A	Yes	60							Extend service to UH West Oahu Campus.
B	Yes	60							Add artic buses.
C	Yes	60		Yes	12/24	12/24	6/12	5/10	Add artic buses. Increase frequency.
D	Yes	60		Yes					New route; see separate discussion.
E	Yes	60	Yes	Yes	12/24	12/24	6/12	5/10	Add artic buses. Increase frequency.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
Ferry Routes									
4F	Yes	40							New route; see separate discussion.
8F	Yes	40							New route; see separate discussion.
30F	Yes	40							New route; see separate discussion.
41F	Yes	40							New route; see separate discussion.
93F	Yes	40							New route; see separate discussion.
411F	Yes	35							New route; see separate discussion.
413F	Yes	40							New route; see separate discussion.
415F	Yes	40							New route; see separate discussion.
900F	Yes	--	--	--					New ferry route; see separate discussion.
901F	Yes	--	--	--					New ferry route; see separate discussion.
910F	Yes	--	--	--					New ferry route; see separate discussion.

Chapter 4 ALTERNATIVE 2: Transportation System Management (TSM)

The Transportation System Management Alternative is designed to be the best that can be done to improve transit service within the corridor without a major new fixed guideway investment. This requires an optimization of the bus system and physical and operational improvements that can be made without a major capital investment.

In addition to the committed projects included in the No Build Alternative, the TSM Alternative would include new transit centers at Pearl City and ‘Aiea, and an enhanced bus system based on an expanded hub-and-spoke route network and relatively low-cost capital improvements on selected roadway facilities providing priority to buses.

Physical Description

New transit centers will be constructed in Pearl City and ‘Aiea to facilitate the new hub-and-spoke bus network implemented in this alternative.

The enhanced bus system would include an increase in fleet size that attempts to meet the purpose and needs of the project. Based on the redesigned bus network, it is estimated that 240 new buses would need to be purchased to provide a sufficient fleet size to perform operations as planned. New buses purchased will create a fleet size of 765. The maximum peak hour demand for buses is 638 to which an additional 20 percent overage is added to create to final fleet size. The overage accommodates planned and unplanned maintenance while allowing uninterrupted bus coverage. In addition, the normal schedule of bus replacement will be executed.

Operation

In the TSM Alternative, service will be increased by adding buses, increasing the service frequency, and increasing the peak hours of operation for specific bus routes. Buses would also use the “zipper” lanes, new HOV lanes, and the Nimitz Flyover where possible for the specific route. These specific changes are described in the Supporting Facilities and Bus Service section.

Supporting Facilities and Bus Service

Park-and-ride facilities will be incorporated into the plan and the bus network will service the new park-and-ride facilities. There are five new park-and-ride lot locations planned throughout the corridor to improve service. The size of the park-and-ride lot was determined by the projected demand at each location. Table 4-1 shows the location and number of stalls for each of the new park-and-ride lot locations.

Table 4-1: TSM Park-and-Ride Sites

Park-and-Ride Location	TSM Alternative
Hanua Street and Kapolei Parkway	1,200 Stalls
UH West O' ahu at North-South Road, south of Farrington Highway	1,700 Stalls
Ka Uka Boulevard and H-2 Freeway	1,000 Stalls
Aloha Stadium	1,300 Stalls

There are three types of service modifications to the bus service identified to provide the best mobility without a major capital project to serve the population and employment growth in the project corridor. The first includes frequency adjustments primarily in the peak periods to serve work trip demands. Frequency adjustments involve adding trips to community circulators, limited stop express routes and the ferry services. The ferry operations are increased to offer additional departures and reverse-commute opportunities from downtown Honolulu. The number of trips provided by the connecting ferry bus routes are increased to serve the additional ferry trips.

Ferry service from Ocean Pointe marina and Kalaeloa will begin serving downtown areas via the Aloha Tower. Six ferries per peak period direction are planned and it is anticipated that reverse commute demand will necessitate at least two trips from Aloha Tower to Ocean Pointe and Kalaeloa morning and afternoon. Bus service to provide access to and from the ferry terminals will connect communities in the 'Ewa plain with the ferry terminals.

The second modification is the addition of three peak period bus express routes to serve demand in developing areas including Royal Kunia, Koa Ridge and Waiawa.

The third modification is the restructuring of bus services in Pearl City and 'Aiea to maximize use of the planned transit centers and the extension of some urban Honolulu bus routes to provide improved local service to several neighborhoods.

The evening peak period definition is changed from 3:00 p.m.-6:00 p.m. to 3:00 p.m.-7:00 p.m. to account for the added traffic congestion. This impacts the number of bus trips provided during the peak periods for those bus routes identified to receive frequency changes.

New bus route additions are summarized in. Table 4-2. Changes to bus service are reflected in Table 4-3. Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix C. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Table 4-2: TSM Alternative Characteristics of New Bus Route Additions

TSM ALTERNATIVE NEW ROUTES	VEHICLE SIZE	MILES	MPH	BEGIN SERVICE	END SERVICE	PEAK CYCLE TIME	HEADWAYS					
							AM Peak	Mid-Day	PM Peak	Even.	WEEKEND SAT.	WEEKEND SUN.
Pearl City/Aiea Local Routes:												
54 Pearlridge TC-Ala Moana TC	60	23.4	11.7	4:30 AM	1:00 AM	120	10	15	10	30	20	20
53 Replaced with 54 and 547												
Pearl City/Aiea Circulators:												
541 Halawa Heights	35	13.5	13.5	5:30 AM	10:00 PM	60	15	30	15	30	30	30
542 Aiea Heights	35	6.3	12.6	5:30 AM	10:00 PM	30	30	30	30	30	30	30
543 Kaonohi	35	5.2	10.4	5:30 AM	9:00 PM	30	15	30	15	30	30	30
544 CA - Kilinoe	CA	6.3	12.6	5:30 AM	9:00 PM	30	30	30	30	30	30	30
545 Newtown	35	7.0	14.0	5:30 AM	9:00 PM	30	30	30	30	30	30	30
546 Kaahumanu	35	7.6	15.2	5:30 AM	9:00 PM	30	30	30	30	30	30	30
547 Pacific Palisades	40	11.8	15.7	4:30 AM	12:30 AM	45	15	30	15	30	30	30
548 Pearl City Loop	40	7.9	10.5	4:30 AM	12:30 AM	45	15	30	15	30	30	30
549 Pearlridge TC-Ford Island	40	7.2	14.4	6:30 AM	10:00 PM	30	30	30	30	30	30	30
435 LCC (Waipahu TC-Pearlridge TC)	40	13.0	13.0	6:30 AM	10:00 PM	60	30	30	30	30	0	0
71 Replaced with 545												
73 Replaced with 435												
74 Replaced with 541 & 542												
Peak Express Routes:												
434X Royal Kunia-Downtown	40	21.6	24.9	5:45 AM	7:40 AM	52	15	0	0	0	0	0
434X Downtown-Royal Kunia	40	20.8	24.0	4:45 PM	6:37 PM	52	0	0	15	0	0	0
440X Koa Ridge-Downtown	40	19.0	24.7	5:45 AM	7:40 AM	46	15	0	0	0	0	0
440X Downtown-Koa Ridge	40	19.2	24.5	4:45 PM	6:35 PM	47	0	0	15	0	0	0
441X Waiawa-Downtown	40	16.5	23.1	6:00 AM	7:40 AM	43	15	0	0	0	0	0
441X Downtown-Waiawa	40	17.1	22.8	4:45 PM	6:35 PM	45	0	0	15	0	0	0
Urban Honolulu Route Changes:												
4 Downtown-UH-Waikiki	40	17.8	8.9	5:00 AM	12:00 AM	120	15	20	15	30	30	30
8 Waikiki-AM TC-Ward Center	60	8.9	5.9	7:15 AM	12:00 AM	90	15	10	10	15	20	20
17 Nuuanu-AM TC-Makiki	40	17.4	8.7	5:00 AM	12:00 AM	120	10	20	15	30	30	30
30 Kalihi-Palama-Pauoa-Kakaako	40	14.7	7.3	5:00 AM	12:00 AM	120	30	30	30	30	30	30
301 Kalihi-Airport-Moanalua	35	18.7	12.5	5:00 AM	8:00 PM	90	30	30	30	60	60	60
302 Tripler Army Medical Center	40	7.0	7.0	4:30 AM	10:11 PM	60	30	60	30	60	60	60
303 Kalihi Valley Homes	40	3.6	7.3	4:30 AM	12:00 AM	30	15	30	15	60	60	60
304 Kalihi-Liliha-Alewa	30	13.1	13.1	5:00 AM	11:00 PM	60	30	60	30	60	60	60
305 Kalihi Valley-Sand Island	40	11.4	11.4	5:00 AM	11:00 PM	60	15	30	15	60	60	60
7 Replaced with Routes 303 & 305												
10 Replaced with Route 304												
16 Replaced with Route 301												
31 Replaced with Route 302												

TSM ALTERNATIVE NEW ROUTES	VEHICLE SIZE	MILES	MPH	BEGIN SERVICE	END SERVICE	PEAK CYCLE TIME	HEADWAYS					
							AM Peak	Mid-Day	PM Peak	Even.	WEEKEND SAT.	WEEKEND SUN.
Windward Local Routes:												
60 Kailua-Honolulu	40	39.6	15.9	5:00 AM	12:00 AM	150	15	30	15	30	30	30
61 Kaneohe-Honolulu	40	28.8	14.4	5:00 AM	11:00 PM	120	20	30	20	30	30	30
62 Kaneohe-Circle Island	60	110.3	18.4	12:00 AM	12:00 AM	360	20	30	20	30	30	30
63 Kailua-Sea Life Park	40	48.5	16.2	5:00 AM	12:00 AM	180	20	30	20	30	30	30
64 Keolu-Kailua-Kaneohe	40	24.6	12.3	5:00 AM	10:00 PM	120	20	30	20	30	30	30
65 Kaneohe-Kailua-Waimanalo	40	23.7	15.8	5:00 AM	8:00 PM	90	30	60	30	60	60	60
66 Kaneohe-Pearlridge	40	26.8	26.8	4:30 AM	10:00 PM	60	30	60	30	60	60	60
55 Replaced with 62												
56 Replaced with 60 & 64												
57 Replaced with 63												
57A Replaced with 64												
65 Replaced with 611												
Windward Circulators:												
611 Ahuimanu-Kahaluu	35	9.1	12.2	5:00 AM	10:00 PM	45	30	60	30	60	60	60
612 Puohala-Keapuka-Mokulele	35	9.8	13.0	5:00 AM	10:00 PM	45	30	60	30	60	60	60
613 Haiku-Kahuhipa	CA	5.2	10.5	5:00 AM	9:30 PM	30	60	60	60	60	60	60
614 Lilipuna-Keaahala-Kapunahala	CA	5.6	11.2	5:00 AM	9:00 PM	30	60	60	60	60	60	60
615 Maunawili-Lanikai	35	13.4	13.4	5:00 AM	9:00 PM	60	60	60	60	60	60	60
70 Replaced with 631												
77 Replaced with 65												
North Shore Added Circulator												
523 Haleiwa-Waimea-Pupukea	35	17.2	17.2	5:00 AM	9:00 PM	60	60	60	60	60	60	60

Table 4-3: Bus Operating Plan for TSM Alternative Changes to Existing Routes (Routes as of 2010)

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate Managed Lanes	Operate Zipper Lanes	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
1	No	60							
1L	Yes	60			10/25	12/18	6/18	10/12	Frequency change 10-minute peak periods start @ 5:00 AM; 20-minute off-peak. Regular new route alignment.
2	No	40							
3	No	60							
4	Yes	40							Alignment change. See separate discussion.
5	No	40							
6	No	40							
7	Yes	40							Replaced with Routes 303 and 305.
8	Yes	60							Route extended to Ward Center. See separate discussion.
9	No	40							
10	Yes	30							Replaced with Routes 304 and 305.
11	No	40							
13	No	60							
15	No	30							
16	Yes	35							Replaced with Route 301. See separate discussion.
17	Yes	40							Alignment Change. See separate discussion.
18	Yes	40			12/24	24/48	12/24	20/24	Frequency change 15 minutes peak and midday. Regular new route alignment.
19	No	60							
20	No	60							
23	No	40							
31	Yes	40							Replaced with Route 302. See separate discussion.
32	Yes	40							Replaced with Route 31. See separate discussion.
40	No	60							
41	Yes	40			8/12		6/12	8/10	Frequency change 15 minutes peak periods start @ 5 AM. Headway change for regular alignment Ewa TC to Kapolei TC.
42	No	60							
43	No	40		Yes					
50	Yes	40			8/16		6/12	10/12	Frequency change 15 minutes peak periods start @ 5 AM. Entire alignment.
51	Yes	60			15/17		6/12	10/12	Frequency change 15 minutes peak periods start @ 5 AM. Frequency change for alignment Wahiawa (Cane & California to Ala Moana TC.
52	No	60		Yes					
53	Yes	40							Replaced with Routes 54 and 547. See separate discussion.
54	Yes	60							Alignment & frequency change. See separate discussion.
55	Yes	60							Replaced with Route 62. See separate discussion.
56	Yes	40							Replaced with Routes 60 & 64. See separate discussion.
57/57A	Yes	40							Replaced with Routes 63 & 64. See separate discussion.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
65	Yes	40							Replaced with Route 611. See separate discussion.
70	Yes	35							Replaced with Route 615. See separate discussion.
77	Yes	35							Replaced with Route 65. See separate discussion.
131	No	30							
132	No	30							
133	No	30							
134	No	30							
231	No	35							
232	No	35							
401	Yes	35			5/9		3/6	4/5	Frequency change 30 minutes peak periods start @ 5 AM.
402	Yes	35			5/9		3/6	4/5	Frequency change 30 minutes peak periods start @ 5 AM.
403	Yes	35			5/9		3/6	4/5	Frequency change 30 minutes peak periods start @ 5 AM.
411	Yes	40			9/17		6/12	8/10	Frequency change 15 minutes peak periods start @ 5 AM. Regular route alignment (not serving Palailai).
412	Yes	35			9/17		6/12	2/4	Frequency change 15 minutes peak periods start @ 5 AM.
413	Yes	40			7/14		6/12	0/4	Frequency change 15 minutes peak periods start @ 5 AM.
414	No	CA*							
415	Yes	40			7/14		6/12	8/10	Frequency change 15 minutes peak periods start @ 5:30 AM .
416	Yes	40			7/14		6/12	7/9	Frequency change 15 minutes peak periods start @ 5:30 AM .
417	Yes	40			8/16		6/12	10/12	Frequency change 15 minutes peak periods start @ 5 AM.
418	Yes	40			8/16		6/12	8/10	Frequency change 15 minutes peak periods start @ 5 AM.
419	Yes	40			8/16		6/12	8/10	Frequency change 15 minutes peak periods start @ 5 AM.
421	Yes	40			5/17		3/12	5/8	Frequency change 15 minutes peak periods start @ 5 AM.
422	Yes	40			8/16		6/12	10/12	Frequency change 15 minutes peak periods start @ 5 AM.
432	No	40							
433	No	40			8/16		6/12	7/9	Frequency change 15 minutes peak periods start @ 5 AM.
434	No	40			9/16		6/12	8/10	
440	Yes	40			8/16		6/12	7/9	Frequency change 15 minutes peak periods start @ 5 AM.
441	Yes	40			8/16		6/12	7/9	Frequency change 15 minutes peak periods start @ 5 AM.
501	Yes	40			7/16		6/12	8/10	Frequency change 15 minutes peak periods start @ 5 AM.
502	No	35							
503	No	CA							
504	Yes	35			3/5		2/5	2/3	Frequency change 40 minutes peak periods. Increase span.
505	Yes	35			3/5		2/5	2/3	Frequency change 40 minutes peak periods. Increase span.
511	Yes	40			9/17		6/12	10/12	Frequency change 15 minutes peak periods start @ 5 AM.
512	Yes	40			8/16		6/12	4/6	Frequency change 15 minutes peak periods start @ 5 AM.
513	No	40							

CA: Community Access Route.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
521	Yes	35			4/8		3/6	2/3	Frequency change 30 minutes peak periods start @ 5 AM.
522	Yes	35			4/8		3/6	2/3	Frequency change 30 minutes peak periods start @ 5 AM.
Express Routes:									
80/82	No	40							
80A	No	40							
80B	No	40							
81	No	60	Yes	Yes					
83	No	60	Yes	Yes					
83A	No	40		Yes					Operate PM Zipper Lane if access is available.
84	No	60	Yes	Yes					
84A	No	40	Yes	Yes					
85	No	40							
85A	No	40							
86	No	40							
86A	No	40							
88	No	40							
88A	No	40							
89	No	40							
90	No	40							
92	No	40	Yes	Yes					
93	No	60	Yes	Yes					
93A	No	40		Yes					Operate PM Zipper Lane if access is available.
95	No	40							
96	No	40	Yes	Yes					
97	No	40	Yes	Yes					
98	Yes	60	Yes	Yes	3/6		3/6		Frequency and alignment change.
101	No	60	Yes	Yes					
102	No	60	Yes	Yes					
103	No	40	Yes	Yes					
203	No	40							

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES							
		Vehicle Size	Operate on Nimitz Flyover	Operate PM Zipper Lane	WEEKDAY TRIPS ADDED				COMMENT
					AM Peak	Mid-Day	PM Peak	Evening	
Limited Stop Routes:									
A	Yes	60			15/30		10/24	7/12	7.5 minute headways in Peak Periods start @ 5:30 AM.
B	No	60							
C	Yes	60		Yes	24/42		15/36	12/15	5 min headways in Peak Periods to/from Kapolei T.C.@ 5AM. 15-minute headways to/from Makaha.
D	Yes	60		Yes	7/15		6/12	7/9	15 minute headways in Peak Periods start @ 5:00 AM.
E	Yes	60	Yes	Yes	20/27		12/18		10 minute headways in Peak Periods start @ 5:00 AM.
New Peak Express Routes:									
434X	Yes	40	Yes	Yes	0/4		0/4		Royal Kunia Express 4 AM and 4 PM trips.
440X	Yes	40	Yes	Yes	0/4		0/4		Koa Ridge Express 4 AM and 4 PM trips.
441X	Yes	60	Yes	Yes	0/4		0/4		Waiawa Express 4 AM and 4 PM trips.
Ferry Routes									
4F	Yes	40			7/16		4/6	3/10	Add trips to serve additional ferry trips.
8F	Yes	40			7/16		4/6	3/10	Add trips to serve additional ferry trips.
30F	Yes	40			7/16		4/6	3/10	Add trips to serve additional ferry trips.
41F	Yes	40			3/6		1/1	2/5	Add trips to serve additional ferry trips.
93F	Yes	40			3/6		1/1	2/5	Add trips to serve additional ferry trips.
411F	Y&	35			3/6		1/1	2/5	Add trips to serve additional ferry trips.
413F	Yes	40			3/6		1/1	2/5	Add trips to serve additional ferry trips.
415F	Yes	40			3/6		1/1	2/5	Add trips to serve additional ferry trips.
900F	Yes	--	--	--	3/6		3/4	0/2	Add three trips each direction; reverse commute added.
901F	Yes	--	--	--	3/6		3/4	0/2	Add trips to serve 6 ferry departures & arrivals.
910F	Yes	--	--	--	3/6		3/4	0/2	Add three trips each direction; reverse commute added.

Chapter 5 ALTERNATIVE 3: Managed Lane

The Managed Lane Alternative would provide two additional travel lanes between the H-1 and H-2 merge (Waiawa Interchange) and Pacific Street in Iwilei (Figure 5-1 and Figure 5-2). Bus operations would be restructured and enhanced by utilizing the managed lanes to provide additional service between Kapolei and other points ‘Ewa of Downtown, through to the University of Hawai‘i at Mānoa.

Physical Description

The alternative would include construction of a two-lane grade-separated facility between Waipahu and the Ke‘ehi Interchange along Kamehameha Highway and modifications to the currently proposed Nimitz Highway High-Occupancy Vehicle (HOV) Flyover project from Ke‘ehi Interchange to Pacific Street. Construction of the Nimitz Highway HOV Flyover project is part of the No Build Alternative. The modification of the Nimitz Flyover design would involve widening the proposed two-lane elevated facility to accommodate a 50 mph speed limit instead of the planned 35 mph speed limit.

There are two variations to the operation of the Managed Lane that require slightly different physical and operational features. One option provides two lanes, one lane in each direction, that operate as such permanently (the Two-Direction Option). The other option provides two reversible lanes that operate in the peak direction per time of day (the Reversible Option). Specific details for each option are included in the discussion of the Two-Direction Option and the Reversible Option since each contains different construction and detailed operating plans.

Operation

The entire managed lane facility would be managed to maintain free-flow speeds for buses. Provided enough capacity exists, HOVs and toll-paying single-occupant vehicles would also be allowed to use the facility. Tolls would be variable and set so as to ensure free-flow conditions on the facility. An intermediate access point would be provided in the vicinity of Aloha Stadium. Two design and operational variations of the Managed Lane Alternative will be evaluated: a two-direction facility (one lane in each direction) and a two-lane reversible direction facility.

The two-direction facility would operate 24 hours a day as a fixed facility. Since both lanes will be operational all day, there is no change required.

The reversible facility would operate with the flow of traffic headed Kokohead from 4 a.m. – 12 p.m. At 12 p.m. the facility would be converted to allow the flow of traffic in the ‘Ewa direction. This flow would be operational from 1 p.m. to 4 a.m. These times are planning factors and are subject to change.

Tolls will be collected by an Electronic Toll Collection (ETC) system. Toll paying facility users will be required to purchase the remote toll collection device. The ETC

system will be stationed at the access points to the Managed Lane and will automatically charge toll-paying users as they pass under the collection overheads. Tolls will vary at off-peak hours at peak hours and will change based on forecast facility usage. Toll prices may vary per a predetermined schedule, per mile or by dynamic updates, depending on the specific technology of implementation.

Supporting Facilities and Bus Service

Supporting facilities for the managed lane would include park-and-ride lots, transit center integration, and maintenance facilities. All facilities and services included in the TSM alternative are also included in this alternative. In addition to the TSM changes, there are additional express bus services dedicated to optimize the Managed Lane's functionality.

The enhanced bus system would include an increase in fleet size. Based on the redesigned bus network for the Managed Lane Alternative, it is estimated that 321 new buses would need to be purchased for the two-direction managed lane facility and 381 new buses would need to be purchased for the reversible managed lane facility to provide a sufficient fleet size to perform operations as planned. New buses purchased will create a fleet size of 846 buses for the two-direction facility and 906 buses for the reversible facility. The maximum peak hour demand for buses is 705 for the two-direction facility and 755 for the reversible facility. The total fleet size reflects an accommodation for planned and unplanned maintenance of vehicles while continuing all bus service. In addition, the normal schedule of bus replacement will be executed. Table 5-1 shows the bus fleet size for each operational option.

Table 5-1: Managed Lane Bus Fleet Size

Alternative	Bus Fleet Size	% Change from No Build
No Build	614	N/A
Managed Lane - Two-Direction	846	37.80%
Managed Lane – Reversible	906	47.50%

The bus network will be structured to support access to the Managed Lane via bus transfers at park-and-ride locations. The two design variations for the Managed Lanes Alternative offer a limited number of access points to maintain optimal lane operations. Bus operations for the Managed Lanes facility would be staged from large park-and-ride facilities to serve Central and Leeward O'ahu residents.

The park-and-ride facilities would be located to intercept vehicles prior to the major choke points of the freeway system. The location for Central O'ahu residents would be near Ka Uka Boulevard and H-2. It could include utilizing the median of H-2 (makai of the Ka Uka interchange the H-2 median provides sufficient space for a facility and access and egress lanes) for the park-and-ride facility as discussed in the *Mililani Mauka Park-and-Ride Facility Master Plan* (DTS, 2003). Residents would drive to the park-and-ride

facility to access buses for their trip to town. Buses during the peak travel period would depart approximately every five minutes.

Leeward residents would be able to park at a park-and-ride lot near the intersection of Kapolei Parkway and Hanua Street. Buses would depart from this park-and-ride lot and would serve the Kapolei Transit Center and other routes as planned.

Another park-and-ride lot is planned at the intermediate access point at Aloha Stadium. This facility would be within the Aloha Stadium parking lot adjacent to the Managed Lane on and off ramps and would be integrated with the Managed Lane access ramps so transit riders could access the bus system via this intermediate access point.

Table 5-2 shows the number of parking stalls that are planned for each park-and-ride lot site.

Table 5-2: Managed Lane Park-and-Ride Sites

Park-and-Ride Location	Managed Lane Alternative
Hanua Street and Kapolei Parkway	1,200 Stalls
UH West O' ahu at North-South Road, south of Farrington Highway	1,700 Stalls
Ka Uka Boulevard and H-2 Freeway	1,000 Stalls
Aloha Stadium	1,300 Stalls

The bus system is slightly different for each of the Managed Lane options, therefore the details of the bus system are listed in the discussion of each operational option.

An additional bus maintenance and storage area is planned in Kalaeloa to accommodate the larger bus fleet. The maintenance area is planned to be in 35 acres located mauka of Saratoga Avenue, Wai'anae of the future Wākea Street extension.

The alignments for the Managed Lane Alternatives are illustrated in Figure 5-1 and Figure 5-2.

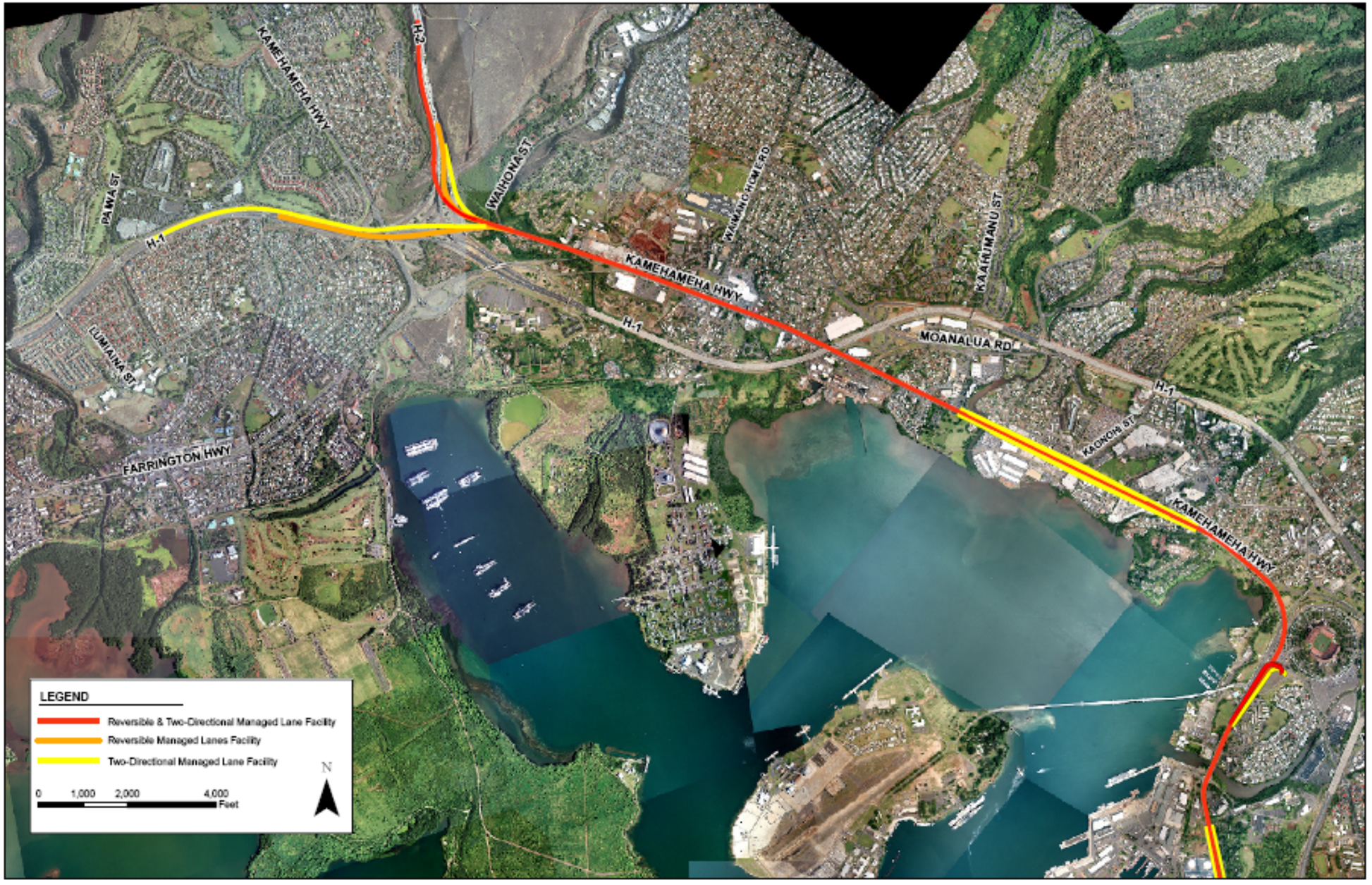


Figure 5-1. Alternative 3: Managed Lane Alternative (Waiawa Interchange to Halawa Stream)

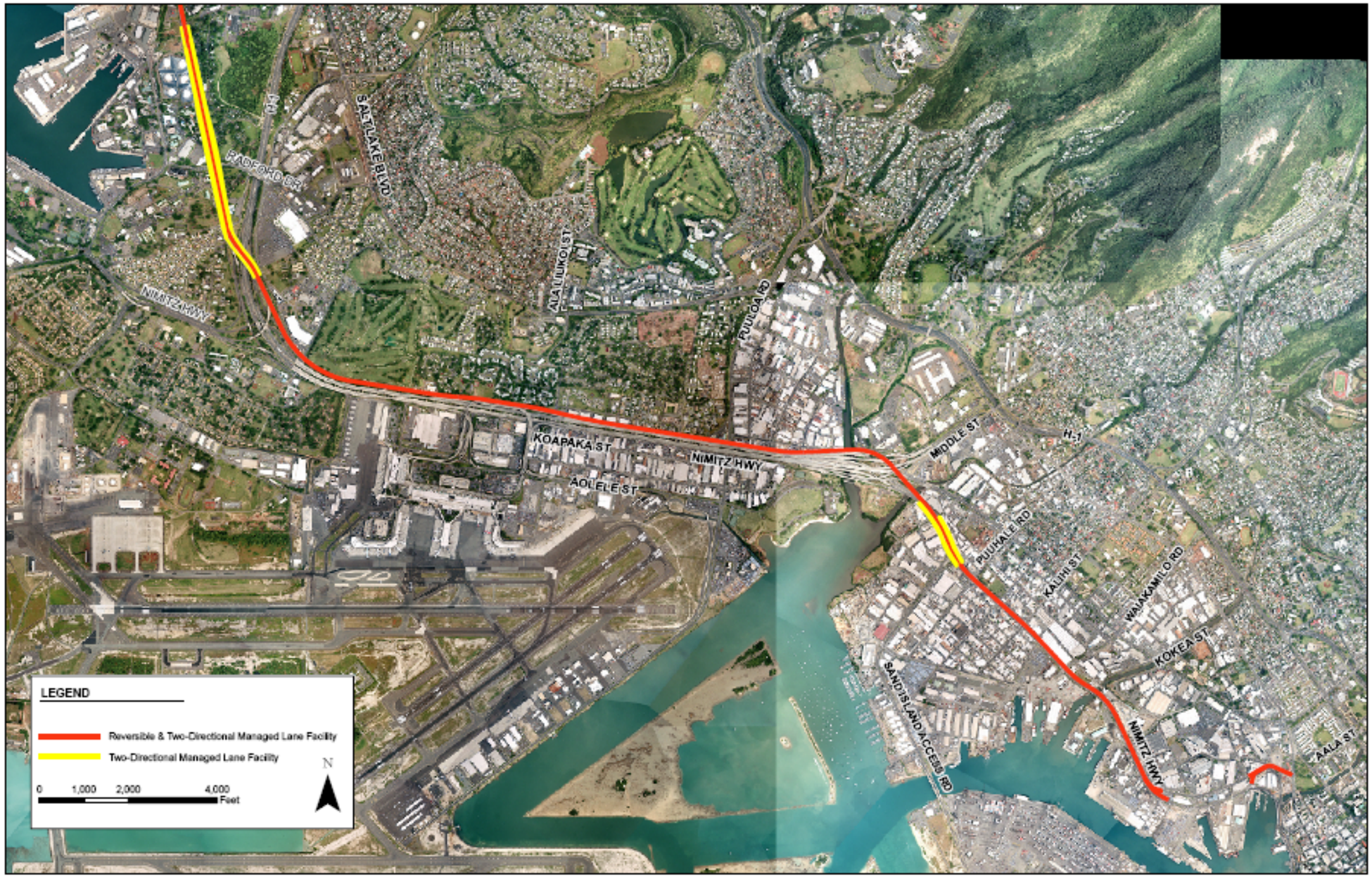


Figure 5-2. Alternative 3: Managed Lane Alternative (Halawa Stream to Pacific Street)

ALTERNATIVE 3a: Two-direction Facility

As a two-direction facility, the managed roadway would operate with one lane designated for each direction. This facility would have an average roadway width of 46 feet. Shoulders would be provided in each direction that are sufficiently wide to accommodate stalled vehicles. The facility would allow access from the H-1 Freeway in the median area at Managers Drive and would connect directly to the new HOV lanes that are part of the *2030 ORTP* between Waiawa Interchange and Makakilo Interchange. The facility would also connect directly with the H-2 Freeway along the outside lanes of H-2 near the Waiawa Interchange. The a.m. "zipper" lane and H-1 HOV lanes would not be disrupted by the two-direction managed lane facility in this area.

In the vicinity of Aloha Stadium, an intermediate access facility would provide an on-ramp for vehicles Koko Head bound and off-ramp for vehicles ʻEwa bound. An additional access point would be provided in the vicinity of Keʻehi Interchange for the two-direction facility only. This access point would also provide an on-ramp for vehicles Koko Head bound and off-ramp for vehicles ʻEwa bound.

Bus flyer stops would be provided on the facility at Kaonohi Street and at Radford Drive (Makalapa Gate). The flyer stops would require a widening of the facility on each side to provide a lane for bus deceleration, stopping and acceleration as well as passenger platforms at the stopping locations. Vertical circulation would be provided from the platforms to the surface along Kamehameha Highway.

At the Keʻehi Interchange, the managed lane facility would be integrated with the proposed Nimitz Flyover. The Nimitz Flyover would be modified by adding a third lane, resulting in one managed lane in each direction plus a reversible HOV lane which would operate in the peak direction (i.e., Koko Head bound in the morning and ʻEwa bound in the afternoon). In the morning, the single Koko Head bound managed lane facility as well as the a.m. "zipper" lane would feed into the two inbound flyover lanes. The outbound flyover lane would continue through the Keʻehi Interchange as the outbound managed lane. In the afternoon, there would be a single Koko Head bound managed lane. There would be two ʻEwa bound lanes, one managed lane and one HOV lane. The HOV lane exits at Keʻehi Interchange, continues on the H-1 viaduct until Radford Drive, where is crosses over to become the p.m. "zipper" lane. There would be no change to the p.m. "zipper" lane described in the 2030 ORTP.

The managed lane facility would connect with Nimitz Highway on the ʻEwa side of Pacific Street. Separate bus-only flyover ramps (one lane each direction) would be constructed in the vicinity of Sumner Street to provide a priority connection for buses traveling between Nimitz Highway and Hotel Street.

A toll structure has been developed that ensures that the managed lane facility would operate to maintain free-flow speeds for buses. For the two-direction option, there would be sufficient volumes of buses and HOVs using the facility in 2030 such that no excess capacity will be available for use by toll-paying SOVs. In order to maintain free-flow

speeds, it may be necessary to charge tolls to manage the number of 2-person HOVs using the facility. Initial toll charges are planned to be $5.00 for use during peak hours and $2.50 for use during off-peak hours.

Two-direction Operation Bus Services

Concentrating the buses in the most direct, point-to-point operation optimizes the amount of service offered to residents. Buses would depart the park-and-ride facilities every couple minutes utilizing the Managed Lanes and connecting bus-only ramp to Iwilei and downtown Honolulu via Hotel Street; terminating at the Alapa‘i Transit Center, except for those routes continuing to the University of Hawai‘i at Mānoa Campus and Waikīkī. Buses would be able to make multiple trips during the peak periods with the higher speeds that are anticipated and the available west-bound lane. This is particularly important for the peak express routes allowing one bus to make additional trips that previously required several buses due to traffic congestion and lower operating speeds.

The Managed Lanes Alternative will require a substantial increase in bus route frequencies similar to the TSM Alternative and new bus routes to accommodate the demand for transit services, especially in the Leeward and Central O‘ahu areas. There are nine new express routes designed exclusively to optimize transit service on the Managed Lane. Three of the routes start at the Kalaeloa and H-1 park-and-ride lot and are destined for the Alapa‘i Transit Center, UH Mānoa and Waikīkī. Three more routes start from the North-South Road park-and-ride lot destined for the Alapa‘i Transit Center, UH Mānoa and Waikīkī. The final three routes start at the Ka Uka Boulevard and H-2 park-and-ride lot destined for the Alapa‘i Transit Center, UH Mānoa and Waikīkī.

Route 100X: Kalaeloa Park-and-Ride Facility/Downtown Honolulu Express Service. Route 100X provides all-day, two-directional express service on the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 10-minute peak period, peak direction (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures) service and 60-minute mid-day, two-directional service. As with all the Managed Lanes express routes serving Alapa‘i Transit Center the route will operate in the Managed Lanes to Hotel Street, Richards, King and Alapa‘i. The return trip begins at the Alapa‘i Transit Center, to Beretania, left on Richards, right on Hotel Street to access the Managed Lanes. Routes serving the Kalaeloa Park-and-Ride Facility will travel from the facility to Kapolei Parkway (serving the Kapolei Transit Center) continuing to left on North-South Road (serving park-and-ride facilities located on North-South Road) to the H-1 access. Route 100X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 101X: Kalaeloa Park-and-Ride Facility/UH Mānoa Service. Route 101X provides all-day, two-directional express service on the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed

Lanes express routes serving the University of Hawai‘i at Mānoa Campus the route will operate the Managed Lanes to Nimitz, left on South, right on King, left on Ward to access H-1 to University exit terminating at Sinclair Circle. The return trip begins at Sinclair Circle to University and H-1, exit Vineyard to left on Punchbowl, right on Nimitz to the Managed Lanes access. Routes serving the Kalaeloa Park-and-Ride Facility will travel from the facility to Kapolei Parkway (serving the Kapolei Transit Center) continuing to left on North-South Road (serving park-and-ride facilities located on North-South Road) to the H-1 access. Route 101X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 102X: Kalaeloa Park-and Ride Facility/Waikīkī. Route 102X provides all-day, two-directional express service on the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed Lanes express routes serving Waikīkī the route will operate the Managed Lanes to Nimitz and Ala Moana Boulevard, right on Kālia, left on Saratoga to Kūhiō, right on Kapahulu, left on Monsarrat to terminus. The route returns via Monsarrat, to left on Pākī, left on Kapahulu, right on Kūhiō to Kalākaua, left on Ala Moana Boulevard to Nimitz and the Managed Lanes facility. Routes serving the Kalaeloa Park-and-Ride Facility will travel from the facility to Kapolei Parkway (serving the Kapolei Transit Center) continuing to left on North-South Road (serving park-and-ride facilities located on North-South Road) to the H-1 access. Route 102X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 200X: North-South Road Park-and-Ride Facilities/Downtown Honolulu Express Service. Route 200X provides all-day, two-directional express service on the Managed Lanes facility serving the two identified park-and-ride facilities along North-South Road. The route will offer 10-minute peak period, peak direction (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures) service and 60-minute mid-day, two-directional service. As with all the Managed Lanes express routes serving Alapa‘i Transit Center the route will operate in the Managed Lanes to Hotel Street, Richards, King and Alapa‘i. The return trip begins at the Alapa‘i Transit Center, to Beretania, left on Richards, right on Hotel Street to access the Managed Lanes. Routes serving the North-South Road Park-and-Ride Facilities will begin and terminate their travel from the makai facility located at North-South Road and Kapolei Parkway, traveling the North-South Road to the H-1 facility prior to accessing H-1. Route 200X will serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 201X: North-South Road Park-and-Ride Facilities/UH Mānoa Service. Route 201X provides all-day, two-directional express service on the Managed Lanes facility serving the two identified park-and-ride facilities along North-

South Road. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed Lanes express routes serving the University of Hawai‘i at Mānoa Campus the route will operate the Managed Lanes to Nimitz, left on South, right on King, left on Ward to access H-1 to the University exit terminating at Sinclair Circle. The return trip begins at Sinclair Circle to University to H-1, exit Vineyard to left on Punchbowl, right on Nimitz to the Managed Lanes access. Route 201X will serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 202X: North-South Road Park-and-Ride Facilities/Waikīkī. Route 202X provides all-day, two-directional express service on the Managed Lanes facility serving the two identified park-and-ride facilities along the North-South Road. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed Lanes express routes serving Waikīkī the route will operate the Managed Lanes to Nimitz and Ala Moana Boulevard, right on Kālia, left on Saratoga to Kūhiō, right on Kapahulu, left on Monsarrat to terminus. The route returns via Monsarrat, to left on Pākī, left on Kapahulu, right on Kūhiō to Kalākaua, left on Ala Moana Boulevard to Nimitz and the Managed Lanes facility. Route 202X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 300X: Ka Uka/H-2 Park-and-Ride Facility/Downtown Honolulu Express Service. Route 300X provides all-day, two-directional express service on the Managed Lanes facility serving the Ka Uka/H-2 Park-and-Ride Facility/transfer facility. The route will offer 10-minute peak period, peak direction (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures) service and 60-minute mid-day, two-directional service. As with all the Managed Lanes express routes serving Alapa‘i Transit Center the route will operate in the Managed Lanes to Hotel Street, Richards, King and Alapa‘i. The return trip begins at the Alapa‘i Transit Center, to Beretania, left on Richards, right on Hotel Street to access the Managed Lanes. Routes serving the Ka Uka/H-2 facility will begin and terminate their travel from the facility traveling H-2 to H-1 and the Managed Lanes. Route 300X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 301X: Ka Uka/H-2 Park-and-Ride Facility/UH Mānoa Service. Route 301X provides all-day, two-directional express service on the Managed Lanes facility serving the park-and-ride facility/transfer facility. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed Lanes express routes serving the University of Hawai‘i at Mānoa Campus the route will operate the Managed Lanes to Nimitz, left on South, right on King, left on Ward to access H-1 to the University exit terminating at Sinclair Circle. The return trip begins at Sinclair Circle to University to H-1, exit Vineyard to left on

Punchbowl, right on Nimitz to the Managed Lanes access. Route 301X will serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Route 302X: Ka Uka/H-2 Park-and-Ride Facility/Waikīkī. Route 302X provides all-day, two-directional express service on the Managed Lanes facility serving the park-and-ride facility/transfer facility. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service. As with all the Managed Lanes express routes serving Waikīkī the route will operate in the Managed Lanes to Nimitz and Ala Moana Boulevard, right on Kālia, left on Saratoga to Kūhiō, right on Kapahulu, left on Monsarrat to terminus. The route returns via Monsarrat, to left on Pākī, left on Kapahulu, right on Kūhiō to Kalākaua, left on Ala Moana Boulevard to Nimitz and the Managed Lanes facility. Route 302X will not serve the pedestrian access facilities at the Pearl City/‘Aiea and Radford Drive locations.

Three new peak period express routes would also use the Managed Lane facility: Route 434X (Royal Kunia Extension), 440X (Koa Ridge – Ka Uka) and 441X (Waiawa – Koa Ridge).

Of the 27 existing peak period express routes, 13 of them would be restructured to use the Managed Lane for the portion of the route where possible.

Pedestrian access points will be provided at the Pearl City and ‘Aiea Transit Center and another near Radford Drive such as the example shown in Figure 5-3. At the Pearl City and ‘Aiea Transit Center, passengers arriving at the transit center from community circulator routes will be able to access buses traveling in both the ‘Ewa and Koko Head direction. These facilities will add to the capital costs for this alternative but provide needed access to the system.

Figure 5-3. Example Pedestrian Access Los Angeles Harbor Freeway Transitway

The bus operations for the Managed Lanes Alternative Option 1 are summarized in Table 5-3. Table 5-3 identifies each route in the bus system and if a change is anticipated from the TSM Alternative Bus Network by a "Yes" or "No" response. The "Comment" column describes the anticipated route change. The Managed Lanes Express Bus System routes are identified as "New" in the "Changed Proposed" column.

In the table, for example, the comment for Route C states the route will provide 15-minute headways in the peak periods (peak direction). The start for the morning peak period headway change is listed as 5:00 a.m. The inbound service on Route C starts at 3:50 a.m. The fifteen minute headways begin at 5:00 a.m. The evening peak period for all routes is 3:00 p.m. to 7:00 p.m.

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix D. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Table 5-3: Managed Lanes Option 1 Features of Planned Bus Route Changes

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES			
		Vehicle Size	Operate Managed Lanes	Operate Zipper Lanes	COMMENT
Limited Stop Routes:					
A	Yes	60			10-minute headways in Peak Periods start @ 5:30 AM; 20-minute off-peak. Headway change for entire new route alignment UH West Oahu to UH Manoa.
B	No	60			
C	Yes	60		Yes	15-minute headways in Peak Periods start @ 5:00 AM. Access/egress H-1 at North-South Road. Reroute to/from Kapolei Transit Center via Kapolei Parkway, left on North-South Road (serving both park-and-ride facilities), to H-1.
D	Yes	60		Yes	15-minute headways in Peak Periods start @ 5:00 AM; 30-minute off-peak; serves park-and-ride facility.
42L(E)	Yes	60	Yes		15-minute headways in Peak Periods start @ 5:00 AM; 30-minute mid-day; 30-minute evening. Route will stop at pedestrian access at Pearlridge and Radford Drive.
1L	No	60			TSM ALT frequency and span of service.
Local Routes and Community Circulators:					
1	No	60			Regular route alignment Kalihi Transit Center to Kahala Mall.
2	No	60			
3	No	60			
4	No	40			TSM changed alignment.
5	No	40			
6	No	40			
8	No	60			TSM changed alignment.
9	Yes	40			Serves Radford Drive pedestrian access. 15-minute peak.
11	Yes	40			Rerouted to access managed lanes at Aloha Stadium.
13	No	60			TSM changed alignment.
15	No	30-35			TSM changed alignment.
17	No	40			TSM changed alignment.
18	No	40			TSM changed alignment.
19	Yes	60			Alignment adjustment to serve Radford Drive pedestrian access. 15-minute peak.
20	No	60			
22	No	40			
23	No	40			
30	No	40			
32	Yes	40			Alignment change. Frequency change 15 minutes peak periods start @ 5 AM.
40	Yes	60			Frequency change 15 minutes peak periods start @ 5 AM; 30 minute off peak; 60-minute owl service. Serves Kalaeloa park-and-ride facility.
41	No	40			
42	Yes	60			Frequency change 15 minutes peak periods start @ 5 AM.; 30-minute off-peak; 60 minute owl service.
43	No	40		Yes	
50	No	40			TSM headways.
51	No	60			TSM headways.
52	No	60		Yes	TSM headways.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES			
		Vehicle Size	Operate Managed Lanes	Operate Zipper Lanes	COMMENT
54	No	60			TSM alignment, headways and span.
60	No	40			TSM alignment, headways and span.
61	No	40			TSM alignment, headways and span.
62	No	60			TSM alignment, headways and span.
63	No	40			TSM alignment, headways and span.
64	No	40			TSM alignment, headways and span.
65	No	40			TSM alignment, headways and span.
66	No	40			TSM alignment, headways and span.
131	No	30			TSM alignment, headways and span.
132	No	30			TSM alignment, headways and span.
133	No	30			TSM alignment, headways and span.
134	No	30			TSM alignment, headways and span.
231	No	35			TSM alignment, headways and span.
232	No	35			TSM alignment, headways and span.
301	No	35			TSM alignment, headways and span.
302	No	40			TSM alignment, headways and span.
303	No	40			TSM alignment, headways and span.
304	No	30			TSM alignment, headways and span.
305	No	40			TSM alignment, headways and span.
306	No	35			TSM alignment, headways and span.
401	No	35			TSM alignment, headways and span.
402	No	35			TSM alignment, headways and span.
403	No	35			TSM alignment, headways and span.
411	No	40			TSM alignment, headways and span.
412	No	35			TSM alignment, headways and span.
413	No	40			TSM alignment, headways and span.
414	No	CA			Community Access Route - no change.
415	No	40			TSM alignment, headways and span.
416	No	40			TSM alignment, headways and span.
417	No	40			TSM alignment, headways and span.
418	No	40			TSM alignment, headways and span.
419	No	40			TSM alignment, headways and span.
421	No	40			TSM alignment, headways and span.
422	No	40			TSM alignment, headways and span.
432	No	40			TSM alignment, headways and span.
433	No	40			TSM alignment, headways and span.
434	No	40			TSM alignment, headways and span.
435	No	40			TSM alignment, headways and span.
440	Yes	40			Serves Ka Uka/H-2 Park-and-Ride Facility.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES			
		Vehicle Size	Operate Managed Lanes	Operate Zipper Lanes	COMMENT
441	Yes	40			Serves Ka Uka/H-2 Park-and-Ride Facility.
501	No	40			TSM alignment, headways and span.
502	No	35			TSM alignment, headways and span.
503	No	CA			Community Access
504	No	35			TSM alignment, headways and span.
505	No	35			TSM alignment, headways and span.
511	No	40			TSM alignment, headways and span.
512	No	40			TSM alignment, headways and span.
513	No	40			TSM alignment, headways and span.
521	No	35			TSM alignment, headways and span.
522	No	35			TSM alignment, headways and span.
523	No	35			TSM alignment, headways and span.
541	No	35			TSM alignment, headways and span.
542	No	35			TSM alignment, headways and span.
543	No	35			TSM alignment, headways and span.
544	No	CA			TSM alignment, headways and span.
545	No	35			TSM alignment, headways and span.
546	No	35			TSM alignment, headways and span.
547	No	40			TSM alignment, headways and span.
548	No	40			TSM alignment, headways and span.
549	Yes	40			Alignment change to serve Salt Lake & Bougainville. TSM headways.
611	No	35			TSM alignment, headways and span.
612	No	35			TSM alignment, headways and span.
613	No	CA			TSM alignment, headways and span.
614	No	CA			TSM alignment, headways and span.
615	No	35			TSM alignment, headways and span.
Peak Period Express Routes:					
80/82	No	40			
80A	No	40			
80B	No	40			
81	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
83	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
83A	No	40			
84	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
84A	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
85	No	40			
85A	No	40			
86	No	40			
86A	No	40			
88	No	40			
88A	No	40			
89	No	40			

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES			
		Vehicle Size	Operate Managed Lanes	Operate Zipper Lanes	COMMENT
90	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
92	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
93	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes. Add two AM and PM trips. Serves Kalaeloa park-and-ride.
93A	No	40			Serves Kalaeloa park-and-ride.
95	No	40			
96	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes. Add two AM and PM trips.
97	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes. Add two AM and PM trips.
98	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
101	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
102	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
103	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes. Add two AM and PM trips.
203	No	40			
New Peak Express Routes:					
434X	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
440X	Yes	40	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
441X	Yes	60	Yes		Operate in Managed Lanes. Out of service return/start utilizing managed lanes.
Managed Lanes Express Bus System:					
100X	New	60	Yes		Kalaeloa Blvd/H-1 Park-and-Ride Lot to Alapai TC; managed lanes both directions.
101X	New	60	Yes		Kalaeloa Blvd/H-1 Park-and-Ride Lot to UH Manoa; managed lanes both directions.
102X	New	60	Yes		Kalaeloa Blvd/H-1 Park-and-Ride Lot to Waikiki; managed lanes both directions.
200X	New	60	Yes		North-South Road/H-1 Park-and-Ride Lot to Alapai TC; managed lanes both directions.
201X	New	60	Yes		North-South Road/H-1 Park-and-Ride Lot to UH Manoa; managed lanes both directions.
202X	New	60	Yes		North-South Road/H-1 Park-and-Ride Lot to Waikiki; managed lanes both directions.
300X	New	60	Yes		Ka Uka/H-2 Park-and-Ride Lot to Alapai TC; managed lanes both directions.
301X	New	60	Yes		Ka Uka/H-2 Park-and-Ride Lot to UH Manoa; managed lanes both directions.
302X	New	60	Yes		Ka Uka/H-2 Park-and-Ride Lot to Waikiki; managed lanes both directions.
Ferry Routes:					
4F	No	40			TSM trips and headways.
8F	No	40			TSM trips and headways.
30F	No	40			TSM trips and headways.
41F	No	40			TSM trips and headways.
93F	No	40			TSM trips and headways.
411F	No	35			TSM trips and headways.
413F	No	40			TSM trips and headways.
415F	No	40			TSM trips and headways.
900F	No	--	--	--	TSM trips.
901F	No	--	--	--	TSM trips.
910F	No	--	--	--	TSM trips.

ALTERNATIVE 3b: Reversible Facility

As a reversible facility, the managed roadway would operate with both lanes traveling in a single direction. This facility would have an average roadway width of 36 feet. It would be operated in the peak direction during peak periods (i.e. Koko Head bound in the a.m. and ʻEwa bound in the p.m.). Shoulders would be provided for stalled vehicles on one side for the length of the facility. During the morning and afternoon peak periods, there would be two managed lanes plus an existing HOV lane heading in the peak direction. Since three managed/HOV lanes in the peak direction are sufficient to satisfy the demand for restricted lanes, the a.m. and p.m. "zipper" lanes would be deleted. Eliminating the "zipper" lanes frees up two off-peak direction lanes – one HOV lane and one general purpose lane.

For access from the H-1 Freeway, the managed lane facility would begin in the median Koko Head of the Paiwa Street overpass. A one lane reversible ramp would provide access to and from the managed lane facility. The HOV lanes planned in the *2030 ORTP* from Makakilo to Waiawa Interchange would flow directly into and out of the managed lane depending on the direction of traffic flow.

Access for the H-2 Freeway would vary based on time of day to coordinate with the Koko Head bound or ʻEwa bound direction of the reversible facility. In the morning, access from the H-2 Freeway southbound would be from the outside lane. A flyover would connect directly into the Koko Head bound flow of the managed lane. In the afternoon, access to the H-2 Freeway would be from a flyover that feeds from the ʻEwa bound managed lane directly into the H-2 Freeway northbound HOV lane. Two separate access facilities are planned for the H-2 Freeway to avoid interference with the HOV lane queue for the H-1 Freeway. The H-1 and H-2 access ramps would merge in the vicinity of Waihona Street into the two-lane facility and follow Kamehameha Highway.

In the vicinity of Aloha Stadium, an intermediate access facility would function as an on-ramp for vehicles Koko Head bound during the a.m. peak and as an off-ramp for vehicles ʻEwa bound in the p.m. peak.

Bus flyer stops would not be provided as part of the Reversible Facility Option.

At the Keʻehi Interchange, the managed lane facility would be integrated with the proposed Nimitz Flyover. There would be two inbound managed lanes in the morning peak and two outbound managed lanes in the afternoon peak. Three inbound and three outbound general purpose lanes would remain as existing at-grade on Nimitz Highway. With the Reversible Facility Option, the a.m. "zipper" lane and proposed p.m. "zipper" lane would be completely replaced by the managed lane facility. The HOV lanes on H-1 would remain as they exist today and would not connect with the Nimitz Flyover.

The Nimitz Flyover would be modified by having a flatter profile on the ʻEwa side of the proposed facility to allow a higher design speed. The managed lane facility would remain elevated throughout the entire facility instead of descending to grade near Kalihi Stream and ascending before Sand Island Access Road as planned for the Nimitz

Flyover. The managed lane structure would also be four feet wider than the proposed Nimitz Flyover, 36 feet wide instead of 32 feet wide, to accommodate the increased design speed.

The managed lane facility would connect with Nimitz Highway on the ʻEwa side of Pacific Street. A separate single lane reversible bus-only flyover ramp would be constructed in the vicinity of Sumner Street to provide a priority connection for buses traveling between Nimitz Highway and Hotel Street.

A toll structure has been developed that ensures that the managed lane facility would operate to maintain free-flow speeds for buses. For the reversible option, three-person HOVs would be allowed to use the facility for free, while single-occupant and two-person HOVs would have to pay a toll. The tolling charges for this option would be $0.45 per mile during peak hours and $0.20 per mile during off-peak hours.

Reversible Operation Bus Services

This option provides single direction flow on the Managed Lanes facility. Since bi-directional flow is not provided on this Managed Lane option, bus out-of-service return trips to start another trip would be in regular freeway traffic lanes. Mixing with general traffic on H-1 to return to start a new trip is off-set by the addition of one westbound freeway lane previously used for the zipper lane operation. This alternative would replace the morning and afternoon zipper lane operations.

Routes C, 43 and 52 currently utilizing the zipper lane system would be required to operate in the HOV system. Realigning the routes to utilize the Managed Lanes facility would impact passengers relying upon these routes to access the Dillingham Corridor. Route D will be realigned to operate in the Managed Lanes facility versus the zipper lane to H-1 and the Vineyard Corridor. Express buses currently utilizing the zipper lane will be realigned to operate in the Managed Lanes.

The Managed Lanes Express Bus System will operate from park-and-ride facilities located in Leeward and Central Oʻahu. The facilities will be well-served by community circulators connecting residences and businesses with the facilities. This option of the Managed Lanes alternative does not provide for pedestrian access along the facilities.

The Managed Lanes Alternative will require a substantial increase in bus route frequencies similar to the TSM Alternative and new bus routes to accommodate the demand for transit services, especially in the Leeward and Central Oʻahu areas. There are nine new express routes designed exclusively to optimize transit service on the Managed Lane. Three of the routes start at the Kalaeloa and H-1 park-and-ride lot and are destined for the Alapaʻi Transit Center, UH Mānoa and Waikīkī. Three more routes start from the North-South Road park-and-ride lot destined for the Alapaʻi Transit Center, UH Mānoa and Waikīkī. The final three routes start at the Ka Uka Boulevard and H-2 park-and-ride lot destined for the Alapaʻi Transit Center, UH Mānoa and Waikīkī.

Route 100X: Kalaeloa Park-and-Ride Facility/Downtown Honolulu Express Service. Route 100X provides express service utilizing the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 10-minute peak period, peak direction service (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures); 30-minute peak period reverse direction and 60-minute mid-day, two-directional service.

As with all the Managed Lanes express routes serving Alapa'i Transit Center (Routes 100X, 200X and 300X) the route will operate inbound in the Managed Lanes to Hotel Street, right on Richards and left on King to the Alapa'i Transit Center. Buses returning 'Ewa bound for another inbound morning trip or going out of service will continue on Beretania from the Alapa'i Transit Center to access H-1 via Beretania to King, right on Liliha and left on Vineyard.

Outbound in the afternoon period, the trip begins at the Alapa'i Transit Center, to Beretania, left on Richards and right on Hotel Street to access the Managed Lanes. Buses returning Koko Head bound for another outbound afternoon trip will operate H-1 to Punchbowl and left on King to the Alapa'i Transit Center.

Route 100X will offer 30-minute reverse direction service in the peak periods. Depending upon the direction of the Managed Lanes operation, the buses will travel Koko Head bound in either the Managed Lanes or H-1. In service buses using H-1 will travel to Liliha, left on King to Hotel Street to continue the route to the Alapa'i Transit Center. The mid-day 60-minute service will be offered in both directions to provide access to the park-and-ride facilities and will be provided by Route 101X.

Routes serving the Kalaeloa Park-and-Ride Facility will travel from the facility to Kapolei Parkway (serving the Kapolei Transit Center) continuing to left on North-South Road (serving park-and-ride facilities located on North-South Road) to the H-1 access.

Route 101X: Kalaeloa Park-and-Ride Facility/UH Mānoa Service. Route 101X provides express service utilizing the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 20-minute peak period service (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) and 60-minute mid-day service.

As with all the Managed Lanes express routes serving the University of Hawai'i at Mānoa Campus the route will operate inbound in the Managed Lanes to Nimitz, left on South, right on King, left on Ward to access H-1 to University exit terminating at Sinclair Circle. Buses returning 'Ewa bound for another inbound morning trip or going out of service will travel from the terminus at Sinclair Circle to University and the H-1 directly to the park-and-ride facility.

Outbound in the afternoon period, the trip begins at Sinclair Circle to University and H-1, exit Vineyard to left on Punchbowl, right on Nimitz to the Managed Lanes access. Buses returning Koko Head bound for another outbound afternoon trip will operate H-1 to the University Exit to Sinclair Circle.

The mid-day 60-minute service will be offered in both directions to provide access to the park-and-ride facilities. Mid-day Route 101X will alter its alignment to provide service for downtown as well as the University of Hawai‘i passengers. Depending upon the direction of the Managed Lanes operation, the buses will travel Koko Head bound in either the Managed Lanes or H-1. In service buses using H-1 will travel to Nimitz, left on Pacific, right on Iwilei Road to King and Hotel to right on Richards, left on King to University and Sinclair Circle. Outbound mid-day trips will travel from Sinclair Circle on University to left on Beretania, left on Richards, right on Hotel to King Street, left on Iwilei, left on Pacific and right on Nimitz to the H-1. Mid-day Managed Lane operation will follow the combined downtown and UH alignment using Managed Lanes to Hotel Street.

Routes serving the Kalaeloa Park-and-Ride Facility will travel from the facility to Kapolei Parkway (serving the Kapolei Transit Center) continuing to left on North-South Road (serving park-and-ride facilities located on North-South Road) to the H-1 access.

Route 102X: Kalaeloa Park-and Ride Facility/Waikīkī. Route 102X provides express service on the Managed Lanes facility anchored at the Kalaeloa Park-and-Ride Facility. The route will offer 20-minute peak period service (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) and 60-minute, mid-day, two-direction service.

As with all the Managed Lanes express routes serving Waikīkī (Routes 102X, 202X and 302X) the route will operate the Managed Lanes to Nimitz and Ala Moana Boulevard, right on Kālia, left on Saratoga to Kūhiō and left on Kapahulu. Buses returning ‘Ewa bound for another inbound morning trip or going out of service will continue on Kapahulu to Old Wai‘alae and H-1 West.

Outbound in the afternoon the route travels in service from Kapahulu to right on Kūhiō, right on Kalākaua, left on Ala Moana Boulevard to Nimitz and the Managed Lanes facility. Buses returning Koko Head bound for another outbound afternoon trip will operate H-1 to the King Street exit to Harding and right on Kapahulu.

Mid-day connections will operate in either the Managed Lanes facility or H-1 depending upon the time of day. Inbound on the H-1, the route will travel H-1 to Nimitz exit continuing along the regular alignment. Outbound the route will

operate Nimitz to H-1. Route 102X will provide mid-day service for all three Kapolei park-and-ride facilities.

Route 200X: North-South Road Park-and-Ride Facilities/Downtown Honolulu Express Service. Route 200X provides express service utilizing the Managed Lanes facility serving the two identified park-and-ride facilities along North-South Road. The route will offer 10-minute peak period, peak direction service (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures). Routes serving the North-South Road Park-and-Ride Facilities will begin and terminate their travel from the makai facility located at North-South Road and Kapolei Parkway, traveling the North-South Road to the H-1 facility prior to accessing H-1. (See discussion for Route 100X for route alignment.)

Route 201X: North-South Road Park-and-Ride Facilities/UH Mānoa Service. Route 201X provides express service on the Managed Lanes facility serving the two identified park-and-ride facilities along North-South Road. The route will offer 20-minute peak period (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) service and 60-minute mid-day service.

The mid-day 60-minute service will be offered in both directions to provide access to the park-and-ride facilities. Mid-day, Route 201X will alter its alignment to provide service for downtown as well as the University of Hawai‘i passengers. Depending upon the direction of the Managed Lanes operation, the buses will travel Koko Head bound in either the Managed Lanes or H-1. In service buses using H-1 will travel to Nimitz, left on Pacific, right on Iwilei Road to King and Hotel to right on Richards, left on King to University and Sinclair Circle. Outbound mid-day trips will travel from Sinclair Circle on University to left on Beretania, left on Richards, right on Hotel to King Street, left on Iwilei, left on Pacific and right on Nimitz to the H-1. Mid-day Managed Lanes operation will follow the combined downtown and UH alignment using Managed Lanes to Hotel Street. The 60-minute mid-day service will be off-set with Route 101X to provide 30-minute service to the park-and-ride facilities.

Route 202X: North-South Road Park-and-Ride Facilities/Waikīkī. Route 202X provides express service on the Managed Lanes facility serving the two identified park-and-ride facilities along the North-South Road. The route will offer 20-minute peak period service (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures). Mid-day service will be provided by Route 102X.

Route 300X: Ka Uka/H-2 Park-and-Ride Facility/Downtown Honolulu Express Service. Route 300X provides express service on the Managed Lanes facility serving the Ka Uka/H-2 Park-and-Ride Facility/transfer facility. The route will offer 10-minute peak period, peak direction service (4:30 AM to 8:00 AM, 21 departures; 3:30 PM to 7:00 PM, 21 departures). Routes serving the Ka Uka/H-2 facility will begin and terminate their travel from the facility traveling H-2 to H-1 and the Managed Lanes. Mid-day service will be provided by Route 302X.

Route 301X: Ka Uka/H-2 Park-and-Ride Facility/UH Mānoa Service. Route 301X provides express service utilizing the Managed Lanes facility serving the park-and-ride/transfer facility. The route will offer 20-minute peak period service (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures). Mid-day service to and from the park-and-ride lot and the University will be provided by Route D.

Route 302X: Ka Uka/H-2 Park-and-Ride Facility/Waikīkī. Route 302X provides express service on the Managed Lanes facility serving the park-and-ride/transfer facility. The route will offer 20-minute peak period service (4:40 AM to 8:00 AM, 10 departures; 3:40 PM to 7:00 PM; 10 departures) and 60-minute mid-day service.

The mid-day alignment will provide service for both Waikīkī and downtown Honolulu passengers via either the Managed Lanes or H-1 depending upon time of day. The H-1, ‘Ewa bound direction alignment will be via the Waikīkī alignment to right on South, left on Beretania, left on Richards, right on Hotel to King, right on Liliha to H-1. The H-1, Koko Head alignment will be via H-1 to the Liliha Exit, left on King to Hotel, right on Richards and right on Punchbowl to left on Ala Moana Boulevard to continue the route to Waikīkī.

Three new peak period express routes would also use the Managed Lane facility: Route 434X (Royal Kunia Extension), 440X (Koa Ridge – Ka Uka) and 441X (Waiawa – Koa Ridge).

Of the 27 existing peak period express routes, 13 of them would be restructured to use the Managed Lane for the portion of the route where possible.

The bus operations for the Managed Lanes Alternative Option 2 are summarized in. Table 5-4. Table 5-4 identifies each route in the bus system and if a change is anticipated from the TSM Alternative Bus Network by a “Yes” or “No” response. The “Comment” column describes the anticipated route change. The Managed Lanes Express Bus System routes are identified as “New” in the “Changed Proposed” column.

In the table, for example, the comment for Route A states the route will provide 10-minute headways in the peak periods. The start for the morning peak period headway change is listed as 5:30 AM. The current inbound service on Route A starts at 4:22 AM from Waipahu. The ten minute headways begin at 5:30 AM. The evening peak period for all routes is 3:00 PM to 7:00 PM. The table identifies the anticipated vehicle size and if the route will operate in the Managed Lanes.

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix E. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Table 5-4: Managed Lane Reversible Option Features of Planned Bus Route Changes

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES		
		Vehicle Size	Operate Managed Lanes	COMMENT
Limited Stop Routes:				
A	Yes	60		10-minute headways in Peak Periods start @ 5:30 AM; 15-minute mid-day; 30 minute evening. Headway change for entire new route alignment UH West Oahu to UH Manoa.
B	No	60		
C	Yes	60		15-minute headways in Peak Periods start @ 5:00 AM. Access/egress H-1 at North-South Road. Reroute to/from Kapolei Transit Center via Kapolei Parkway, left on North-South Road (serving both park-and-ride facilities), to H-1. Operate in HOV system.
D	Yes	60		15-minute headways in Peak Periods start @ 5:00 AM; 30-minute off-peak; serves Ka Uka/H-2 park-and-ride facility.
E	Yes	60	Yes	15-minute headways in Peak Periods start @ 5:00 AM; 30-minute mid-day; 30-minute evening.
1L	No	60		TSM ALT frequency and span of service.
Local Routes and Community Circulators:				
1	No	60		TSM frequency and span of service.
2	No	40		
3	No	60		
4	No	40		TSM changed alignment, frequency and span of service.
5	No	40		
6	No	40		
8	No	60		TSM changed alignment, frequency and span of service.
9	No	40		
11	Yes	40	Yes	Rerouted to access managed lanes at Aloha Stadium. 15-minute peak period service.
13	No	60		TSM changed alignment, frequency and span of service.
15	No	30		TSM changed alignment, frequency and span of service.
17	No	40		TSM changed alignment, frequency and span of service.
18	No	40		TSM changed alignment, frequency and span of service.
19	No	60		
20	No	60		
23	No	40		
30	No	40		TSM changed alignment, frequency and span of service.
31	Yes	40		TSM changed alignment, frequency and span of service.
40	Yes	60		Frequency change 15 minutes peak periods start @ 5 AM; 30 minute off peak; 60-minute owl service. Serves Kalaeloa park-and-ride facility.
41	No	40		
42	Yes	60		Frequency change 15 minutes peak periods start @ 5 AM.; 30-minute off-peak; 60 minute owl service.
43	Yes	40		Operate in HOV system.
50	No	40		TSM headways. Serves Ka Uka park-and-ride.
51	No	60		TSM headways.
52	Yes	60		Operate in HOV system. TSM headways. Serves Ka Uka park-and-ride.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES		
		Vehicle Size	Operate Managed Lanes	COMMENT
54	No	60		TSM alignment, headways and span.
60	No	40		TSM alignment, headways and span.
61	No	40		TSM alignment, headways and span.
62	No	60		TSM alignment, headways and span.
63	No	40		TSM alignment, headways and span.
64	No	40		TSM alignment, headways and span.
65	No	40		TSM alignment, headways and span.
66	No	40		TSM alignment, headways and span.
131	No	30		TSM alignment, headways and span.
132	No	30		TSM alignment, headways and span.
133	No	30		TSM alignment, headways and span.
134	No	30		TSM alignment, headways and span.
231	No	35		TSM alignment, headways and span.
232	No	35		TSM alignment, headways and span.
301	No	35		TSM alignment, headways and span.
302	No	40		TSM alignment, headways and span.
303	No	40		TSM alignment, headways and span.
304	No	30		TSM alignment, headways and span.
305	No	40		TSM alignment, headways and span.
306	No	35		TSM alignment, headways and span.
401	No	35		TSM alignment, headways and span.
402	No	35		TSM alignment, headways and span.
403	No	35		TSM alignment, headways and span.
411	No	40		TSM alignment, headways and span.
412	No	35		TSM alignment, headways and span.
413	No	40		TSM alignment, headways and span.
414	No	CA		Community Access Route - no change.
415	No	40		TSM alignment, headways and span.
416	No	40		TSM alignment, headways and span.
417	No	40		TSM alignment, headways and span.
418	No	40		TSM alignment, headways and span.
419	Yes	40		TSM alignment, headways and span.
421	No	40		TSM alignment, headways and span.
422	No	40		TSM alignment, headways and span.
432	No	40		TSM alignment, headways and span.
433	No	40		TSM alignment, headways and span.
434	No	40		TSM alignment, headways and span.
435	No	40		TSM alignment, headways and span.
440	Yes	40		Serves Ka Uka/H-2 Park-and-Ride Facility.

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES		
		Vehicle Size	Operate Managed Lanes	COMMENT
441	Yes	40		Serves Ka Uka/H-2 Park-and-Ride Facility.
501	No	40		TSM alignment, headways and span.
502	No	35		TSM alignment, headways and span.
503	No	CA		Community Access
504	Yes	35		TSM alignment, headways and span.
505	Yes	35		TSM alignment, headways and span.
511	No	40		TSM alignment, headways and span.
512	No	40		TSM alignment, headways and span.
513	No	40		TSM alignment, headways and span.
521	No	35		TSM alignment, headways and span.
522	No	35		TSM alignment, headways and span.
523	No	35		TSM alignment, headways and span.
541	No	35		TSM alignment, headways and span.
542	No	35		TSM alignment, headways and span.
543	No	35		TSM alignment, headways and span.
544	No	CA		TSM alignment, headways and span.
545	No	35		TSM alignment, headways and span.
546	No	35		TSM alignment, headways and span.
547	No	40		TSM alignment, headways and span.
548	No	40		TSM alignment, headways and span.
549	Yes	40		Alignment change to serve Salt Lake Boulevard, Bougainville. TSM headways.
611	No	35		TSM alignment, headways and span.
612	No	35		TSM alignment, headways and span.
613	No	CA		TSM alignment, headways and span.
614	No	CA		TSM alignment, headways and span.
615	No	35		TSM alignment, headways and span.
Peak Period Express Routes:				
80/82	No	40		
80A	No	40		
80B	No	40		
81	Yes	60	Yes	Operate in Managed Lanes.
83	Yes	60	Yes	Operate in Managed Lanes.
83A	No	40		
84	Yes	60	Yes	Operate in Managed Lanes.
84A	Yes	40	Yes	Operate in Managed Lanes.
85	No	40		
85A	No	40		
86	No	40		
86A	No	40		
88	No	40		
88A	No	40		
89	No	40		

ROUTE	CHANGE PROPOSED	FEATURES OF PLANNED ROUTE CHANGES		
		Vehicle Size	Operate Managed Lanes	COMMENT
90	Yes	40	Yes	Operate in Managed Lanes.
92	Yes	40	Yes	Operate in Managed Lanes.
93	Yes	60	Yes	Operate in Managed Lanes. Add two AM and PM trips. Serves Kalaeloa park-and-ride.
93A	No	40		
95	No	40		
96	Yes	40	Yes	Operate in Managed Lanes. Add two AM and PM trips.
97	Yes	40	Yes	Operate in Managed Lanes. Add two AM and PM trips.
98	Yes	60	Yes	Operate in Managed Lanes.
101	Yes	60	Yes	Operate in Managed Lanes.
102	Yes	60	Yes	Operate in Managed Lanes.
103	Yes	40	Yes	Operate in Managed Lanes. Add two AM and PM trips.
203	No	40		
New Peak Express Routes:				
434X	Yes	40	Yes	Operate in Managed Lanes.
440X	Yes	40	Yes	Operate in Managed Lanes.
441X	Yes	60	Yes	Operate in Managed Lanes.
Managed Lanes Express Bus System:				
100X	New	60	Yes	Kalaeloa Blvd/H-1 Park-and-Ride Lot to Alapai TC.
101X	New	60	Yes	Kalaeloa Blvd/H-1 Park-and-Ride Lot to UH Manoa.
102X	New	60	Yes	Kalaeloa Blvd/H-1 Park-and-Ride Lot to Waikiki.
200X	New	60	Yes	North-South Road/H-1 Park-and-Ride Lot to Alapai TC.
201X	New	60	Yes	North-South Road/H-1 Park-and-Ride Lot to UH Manoa.
202X	New	60	Yes	North-South Road/H-1 Park-and-Ride Lot to Waikiki.
300X	New	60	Yes	Ka Uka/H-2 Park-and-Ride Lot to Alapai TC.
301X	New	60	Yes	Ka Uka/H-2 Park-and-Ride Lot to UH Manoa.
302X	New	60	Yes	Ka Uka/H-2 Park-and-Ride Lot to Waikiki.
Ferry Routes:				
4F	No	40		TSM trips and headways.
8F	No	40		TSM trips and headways.
30F	No	40		TSM trips and headways.
41F	No	40		TSM trips and headways.
93F	No	40		TSM trips and headways.
411F	No	35		TSM trips and headways.
413F	No	40		TSM trips and headways.
415F	No	40		TSM trips and headways.
900F	No	--	--	TSM trips.
901F	No	--	--	TSM trips.
910F	No	--	--	TSM trips.

Chapter 6 ALTERNATIVE 4: Fixed Guideway

Physical Description

The Fixed Guideway Alternative would include the construction and operation of a fixed guideway transit system between Kapolei and the University of Hawai‘i at Mānoa. The system could use any fixed guideway transit technology meeting performance requirements and could either be automated or employ drivers. Supporting facilities would include a vehicle maintenance facility, park-and-ride lots and transit centers. Existing bus service would be reconfigured and enhanced to bring riders on local buses to nearby transit stations. The guideway would be constructed within existing street or highway rights-of-way where possible, but would require the acquisition of additional property in various locations. This alternative would not preclude future extensions of the system within the corridor, or to other parts of O‘ahu.

Technologies Being Considered

A broad range of technologies was considered for application to this alternative, including light rail transit, personal rapid transit, automated people mover, monorail, magnetic levitation (maglev), commuter rail, and emerging technologies that are still in the development stage. Through a screening process, seven transit technologies were selected and will be considered as possible options. Those seven potential technologies include: conventional bus, guided bus, light rail, people mover, monorail, maglev and rapid rail. Technologies that were not carried forward from the screening process include personal rapid transit, commuter rail, and the emerging technologies. The technology screening process and results are documented in the *Honolulu High-Capacity Transit Corridor Project Technology Options Memo.*

Operation, Supporting Facilities and Bus Service

The fixed guideway would operate in both directions from 4 a.m. – 12 p.m. The headways would be 3 minutes during peak hours, 6 minutes for off-peak hours and 10 minutes for night hours. The general headway plan is as follows in Table 6-1.

Table 6-1: Fixed Guideway Headway Plan

Hours	Headway (minutes)
4 a.m. – 6 a.m.	6
6 a.m. – 9 a.m.	3
9 a.m. – 3 p.m.	6
3 p.m. – 6 p.m.	3
6 p.m. – 8 p.m.	6
8 p.m. – 12 a.m.	10

Trains are planned as a two-car consist and they may be expanded in time as needed for demand. Currently, demand forecasting models show that a two-car consist is sufficient to manage expected demand.

Fares are expected to remain consistent with current fare levels for TheBus. Transfers between TheBus and the fixed guideway system would be seamless; both TheBus and the fixed guideway would operate under a unified fare system. As an example of fare rates for TheBus, Table 6-2 shows the current fare structure. The actual rates are subject to change based on inflation. The guiding rate policy is that rates would also be managed to maintain the farebox recovery levels within 27 – 33% of operating costs.

Table 6-2: TheBus Current Fare Structure (as of 2006)

Category	Ticket Type	Fare
Adult	One-way	$2 (+ 1 transfer)
	Monthly Pass	$40
	Annual Pass	$440
Senior / Disability	One-way	$1 (+ 1 transfer)
	One-time Senior / Disability Card purchase	$10
	Monthly Pass	$5
	Annual Pass	$30
Youth	One-way	$1 (+ 1 transfer)
	Monthly Pass	$20
	Annual Pass	$220
U.S. Medicare Card	One-way	$1 (+ 1 transfer)
U-Pass (valid for students of participating Universities)	Academic Year Pass	$100
Visitor Adult	4 – Day Pass	$20
Football Express	One-way	$3
	Round-trip	$6

The fixed guideway system will be a proof-of-payment system. There will be ticket kiosks within the stations, but there will be no barriers to enter the system. Tickets will be checked by transit system monitors on a consistent basis and the penalty for riding without a valid ticket or pass will be high enough to deter riders from riding without a ticket.

Park-and-ride lots are planned at various locations depending on the alignment. Each alignment would have at least 2 park-and-ride facilities planned to support easy access to stations. The western terminal station is consistent across all alignments and will have a 1,200-space park-and-ride facility in the vicinity of Kapolei Parkway and Hanua Street.

The other park-and-ride lot sizes may vary depending on the combination of alignment alternatives. The specific park-and-ride facilities created would depend on the final alignment chosen. Projected lot sizes are listed in Table 6-3. There would be no charge for using the park-and-ride facilities. All park-and-ride facilities would be lighted and would have trees for aesthetic and shade purposes. Certain park-and-ride locations may be multi-level, depending on the space available and projected demand for the facilities.

Table 6-3: Potential Park-and-Ride Locations for Fixed Guideway Combinations

Park-and-Ride Location	Fixed Guideway
Hanua Street and Kapolei Parkway	1,200 Stalls
Saratoga Avenue / Renton Road / North-South Road	1,650 Stalls
UH West O' ahu at North-South Road, south of Farrington Highway	1,700 - 2,100 Stalls
UH West O' ahu at Farrington Highway and Kapolei Golf Course Road	1,700 Stalls
Fort Weaver and Renton Road	1,800 Stalls
Ka Uka Boulevard and H-2 Freeway	1,000 Stalls
Pearl Highlands	1,500 Stalls
Aloha Stadium	1,300 - 1,500 Stalls
Kahuapa'ani Street	1,300 Stalls

All stations would have covered bicycle parking where bicycles can be secured by the rider. Each station will have space for at least 10 bicycles and some may have more depending on the projected bicycle access of the station.

Alignments Being Considered

The study corridor has been divided into five sections to simplify analysis and evaluation of impacts that would be associated with each alignment in the Alternatives Analysis. The various alignments under consideration within each of the sections may be combined with any of the alignments in the adjacent sections.

Each alignment has distinctive characteristics and environmental impacts, and provides different service options; therefore, each alignment will be evaluated individually and compared to the other alignments within that section.

Unless otherwise specified, the alignments proposed below would be on an elevated structure to ensure exclusive right-of-way for the guideway system.

Section I. Kapolei to Fort Weaver Road

Section I extends from a transit terminal facility on the Wai‘anae (west) side of Kalaeloa Boulevard in Kapolei to Fort Weaver Road. Four alignments are under consideration in Section I (

):

- Kamokila Boulevard/Farrington Highway
- Kapolei Parkway/North-South Road
- Saratoga Avenue/North-South Road
- Geiger Road/Fort Weaver Road

Kamokila Boulevard/Farrington Highway

The Kamokila Boulevard/Farrington Highway alignment would follow Kapolei Parkway, turn onto Kamokila Boulevard, and continue along Farrington Highway. Along Farrington Highway, Koko Head of Kapolei Golf Course Road to the intersection of Fort Weaver Road. The guideway could be located either at-grade with limited grade crossings between Kapolei Golf Course Road and Fort Weaver Road or on an elevated structure throughout the alignment. At Fort Weaver Road, the alignment would become elevated through the next section.

Stations on this alignment would be located near the following intersections: Kapolei Parkway and Hanua Street (terminal), Kamokila Boulevard and Wākea Street (integrated with the Kapolei Transit Center), Farrington Highway at UH West O‘ahu, Farrington Highway and North-South Road, and Farrington Highway between North-South Road and Fort Weaver Road.

Park-and-ride facilities along this alignment would be located at the Kapolei Parkway and Hanua Street station (1,200 stalls) and UH West O‘ahu at Farrington Highway and Kapolei Golf Course Road (1,700 stalls).

Kapolei Parkway/North-South Road

The Kapolei Parkway/North-South Road alignment would follow Kapolei Parkway to North-South Road, turn mauka to Farrington Highway, and continue along Farrington Highway as shown on the Public Facilities Map of the ‘Ewa Development Plan. This alignment would be elevated through this entire section.

Stations on this alignment would be located generally near the following intersections: Kapolei Parkway and Hanua Street (terminal), Kapolei Parkway and Wākea Street (integrated with the Kapolei Transit Center), Kapolei Parkway and North-South Road, North-South Road between Kapolei Parkway and Farrington Highway, North-South Road and Farrington Highway, and Farrington Highway between North-South Road and Fort Weaver Road.

Park-and-ride facilities along this alignment would be located at the Kapolei Parkway and Hanua Street station (1,200 stalls) and UH West O‘ahu at North-South Road and Farrington Highway (1,700 or 2,100 stalls).

Saratoga Avenue/North-South Road

The Saratoga Avenue/North-South Road alignment would follow Kapolei Parkway to Wākea Street, and then turn makai to a future extension of Wākea Street to Saratoga Avenue. The guideway would continue on a future extension of Saratoga Avenue and turn mauka to follow North-South Road to Farrington Highway. This alignment could be elevated throughout this section or at-grade with limited grade crossings in two areas. The first at-grade option extends from the intersection of Wākea Street and Saratoga Avenue to North-South Road makai of Kapolei Parkway. The second at-grade option extends from Farrington Highway between North-South Road and Fort Weaver Road. This alignment would be elevated in areas not described as having at-grade options.

Stations on this alignment would be located generally near the following intersections: Kapolei Parkway and Hanua Street (terminal), Kapolei Parkway and Wākea Street (integrated with the Kapolei Transit Center) , Saratoga Avenue and Wākea Street, Saratoga Avenue and Fort Barrette Road, Saratoga Avenue and Renton Road and North-South Road, North-South Road and Kapolei Parkway, North-South Road between Kapolei Parkway and Farrington Highway, North-South Road and Farrington Highway and, Farrington Highway between North-South Road and Fort Weaver Road.

Park-and-ride facilities along this alignment would be located at the Kapolei Parkway and Hanua Street station (1,200 stalls), Saratoga Avenue and Renton Road and North-South Road (1,650 stalls) and UH West O‘ahu at North-South Road and Farrington Highway (1,700 or 2,100 stalls).

Geiger Road/Fort Weaver Road

The Geiger Road/Fort Weaver Road alignment would follow Kapolei Parkway to Wākea Street, and then turn makai to Saratoga Avenue. The guideway would continue on a future extension of Saratoga Avenue and Geiger Road onto Fort Weaver Road. Continuing on Fort Weaver Road, the alignment would turn Koko Head at Farrington Highway. This alignment could be elevated throughout this entire section or at-grade with limited grade crossings in one area. The at-grade options extend from the intersection of Wākea Street and Saratoga Avenue to Geiger Road and the Coral Creek Golf Course. This alignment would be elevated in areas not described as having an at-grade option.

Stations on this alignment would be located generally near the following intersections: Kapolei Parkway and Hanua Street (terminal), Kapolei Parkway and Wākea Avenue (integrated with the Kapolei Transit Center), Saratoga Avenue and Wākea Street, Saratoga Avenue and Fort Barrette Road, Saratoga Avenue and Renton Road and North-South Road, Geiger Road and Fort Weaver Road, and Fort Weaver Road and Renton Road.

Park-and-ride facilities along this alignment would be located at the Kapolei Parkway and Hanua Street station (1,200 stalls), Saratoga Avenue and Renton Road and North-South Road (1,650 stalls) and Fort Weaver Road and Renton Road (1,500 stalls).

Connecting Bus Service Wai'anae to Waipahu

Wai'anae services will be enhanced to connect to the fixed guideway in Kapolei. The major connection point will be the Kapolei Parkway and Wākea Street Station. This location coincides with the relocated Kapolei Transit Center. Wai'anae bus routes will also serve the Hanua Street Station.

Route C will terminate at the Kapolei Transit Center. The route will offer 10-minute peak period service and 20-minute off peak service and will serve both the Hanua Street and Wākea Street Stations. Route 40 will continue to operate to downtown Honolulu via a modified alignment and operating conditions.

Route 403 will provide a direct connection to the Hanua Street and Wākea Street Stations avoiding a double transfer for passengers relying upon the 401, 402 and 403 routes to access Farrington Highway during the peak periods.

Express Routes 92, 93, 93A and 102 will be discontinued as they duplicate the fixed guideway service. Community circulators will operate on the TSM headways and span of service.

Kapolei and 'Ewa services will operate along the no-build alignments with just two minor changes. 'Ewa services will include the extension of Route 418 in 'Ewa to Fort Weaver Road from Kapolei Parkway via left on Kolowaka, right on Fort Weaver and right on Geiger to serve the Geiger Road Station. Route 421 will extend to serve Iroquois Point housing. Community circulators will operate on the TSM headways and span of service.

'Ewa express Routes 91 and 101 are discontinued.

Route 40: Mākaha/Downtown Honolulu/Ala Moana Transit Center Local Route: Route 40 will continue along its present alignment serving the Hanua Street and Wākea Street Stations as well as the Kapolei Transit Center. Route 40 will not operate as a through route in the peak and mid-day periods to better maintain schedule adherence. The route will turn back at the Pearlridge Station and transit center in both directions. Route 40 will operate as a through route during evening, weekend and holiday operations.

Route 40 will provide 20-minute peak period and mid-day service to the fixed guideway stations between Mākaha and Leokū and Farrington Highway in Waipahu. Route 40 will provide 10-minute peak and mid-day period service from Waipahu to the Ala Moana Transit Center.

Route 421: 'Ewa Beach Community Circulator. Route 421 will extend into the Iroquois Point housing area from Fort Weaver Road via Cormorant Avenue. The route will provide 15-minute peak period and 30-minute off-peak service. The route will interline with Route 41.

Connecting Bus Services: Kamokila Boulevard – Farrington Highway Alignment

Community circulators 415 and 413 will alter their alignment to serve the Kamokila and Wākea Street Station. Route 415 will continue from the Kapolei Transit Center mauka on Wākea Street to left on Kamokila, left on Kapolei Parkway to right on Wākea Street to continue the route to Waipahu. Route 413 will continue on Kalaeloa to right on Kapolei Parkway, left on Kamokila Boulevard, right on Wākea Street to the Kapolei Transit Center.

Route 42 will terminate at the Mokuola and Farrington Hwy Station (Waipahu Transit Center) in Waipahu. Route 42 will provide 15-minute peak and 30-minute off-peak period service. The Route 42 is a 24-hour service. Therefore, the entire alignment from Waikīkī to 'Ewa Beach will be retained for owl services when the fixed guideway is closed.

In addition to 'Ewa express Routes 91 and 101, limited stop Route 42L is discontinued.

Route 40: Mākaha/Downtown Honolulu/Ala Moana Transit Center Local Route: The route will be rerouted to operate contra-flow on Beretania in the Koko Head direction from Hotel Street to right on Richards and left on King Street and Beretania Street in the 'Ewa direction.

Route 42: 'Ewa Beach/Waipahu Local Route: Route 42 will connect 'Ewa communities with Waipahu serving both the Leokū and Farrington Hwy and Mokuola and Farrington Hwy Stations. The route will truncate at the Mokuola Station while the fixed guideway is in operation; and operating its complete alignment from Waikīkī to 'Ewa Beach when the fixed guideway is closed. The route will provide 15-minute peak period and 30-minute off-peak service.

Connecting Bus Services: Kapolei Parkway – North-South Road Alignment

Route E will continue offering 15-minute peak, 20-minute mid-day and 30-minute evening service.

Route 42/42L: 'Ewa Beach/Waipahu Local/Limited Stop Route: Route 42L will operate as local Route 42 connecting 'Ewa communities with Waipahu and serving both the Leokū and Farrington Hwy and Mokuola and Farrington Hwy Stations before continuing to H-1. The route will service all stops in Waipahu and 'Ewa. Route 42L will provide 15-minute peak, 20-minute mid-day and 30-minute evening service. The complete Route 42 alignment from Waikīkī to 'Ewa Beach will operate when the fixed guideway is closed.

Connecting Bus Services: Saratoga Avenue – North-South Road Alignment

Kapolei and ʻEwa services will operate along the no-build alignments with minor changes and the TSM alternative headways and span of service. Route 421 will extend to serve Iroquois Point housing. Route 42L will operate as local Route 42 from ʻEwa Beach to the Mokuola and Farrington Highway Station (Waipahu Transit Center) in Waipahu. From the transit center Route 42L will access H-1 and continue to Waikīkī on its regular alignment. Route 42 will not operate when the fixed guideway is operating. The route's alignment from Waikīkī to ʻEwa Beach will be retained for owl services when the fixed guideway is closed.

Route 40: Mākaha/Downtown Honolulu/Ala Moana Transit Center Local Route: The route will be rerouted to operate contra-flow on Beretania in the Koko Head direction from Hotel Street to right on Richards and left on King Street and Beretania Street in the ʻEwa direction.

Route 42/42L: ʻEwa Beach/Waipahu Local/Limited Stop Route: Route 42L will operate as local Route 42 connecting ʻEwa communities with Waipahu and serving both the Leokū and Farrington Highway and Mokuola and Farrington Highway stations before continuing to H-1. The route will service all stops in Waipahu and ʻEwa. Route 42L will provide 15-minute peak, 20-minute mid-day and 30-minute evening service. The complete Route 42 alignment from Waikīkī to ʻEwa Beach will operate when the fixed guideway is closed.

Connecting Bus Services: Geiger Road – Fort Weaver Road Alignment

Routes C and 40 continue to operate to provide a more direct alignment for Waiʻanae residents and provide connections to Dillingham in this option. Both routes will serve the Hanua Street Station prior to the Wākea Street Station and Kapolei Transit Center.

Route C will provide 10-minute morning peak period service from 4:20 AM to 6:40 AM, serving the Hanua Street and Wākea Street Stations, then continuing to downtown Honolulu accessing H-1 at the North-South Road interchange. The base service will be 20 minutes. Afternoon peak services will provide 15-minute headways from downtown Honolulu.

Express Routes 91 and 101 and limited-stop Route 42L are discontinued. Route 42 is truncated at the Mokuola and Farrington Station in Waipahu to provide local service along Fort Weaver. Route 42 is a 24-hour service. Therefore, the entire alignment from Waikīkī to ʻEwa Beach will be retained for owl services when the fixed guideway is closed.

Route 403: Nānākuli Community Circulator. During the peak periods Route 403 will extend from Nānākuli Avenue and Farrington Hwy to Kapolei via Farrington and H-1 serving both the Hanua Street and Wākea Street Street Stations.

Section II. Fort Weaver Road to Aloha Stadium

Section II comprises the corridor from Fort Weaver Road to Aloha Stadium. In this vicinity, the only practical alignment follows Farrington Highway Koko Head on an elevated structure to Kamehameha Highway (

Figure 6-2. Alternative 4: Fixed Guideway Section II). Additionally, this is the preferred transit route the Pearl City and ʻAiea communities have adopted in their community plans. Stations on this alignment would be located generally near the following intersections: Farrington Highway and Leokū Street, Farrington Highway and Mokuola Street (integrated with the Waipahu Transit Center), Leeward Community College, Kamehameha Highway and Kuala Street, and Kamehameha Highway and Kaonohi Street.

There are two park-and-ride facilities that serve this alignment. One is located at Ka Uka Boulevard and H-2 Freeway (1,000 stalls) and the other is at Kamehameha Highway and Kuala Street (1,500 stalls) near the Pearl Highlands Station. To facilitate Central O'ahu access to the Kuala Street park-and-ride lot location, an access ramp will be constructed connecting the right lane of South-bound H-2 Freeway to an overpass that feeds directly into the park-and-ride facility. The access lane will be used by buses feeding into the fixed guideway system and by private autos which will use the park-and-ride facility.

Connecting Bus Services: Kamehameha Hwy (Waipahu/Pearl City/ʻAiea)

Central connections to the fixed guideway occur at the Farrington Highway and Mokuola Station and the Pearl Highlands Station on Kamehameha. Route 50 will terminate at the Mokuola Station. Routes D, 83, 83A, 84, 84A and 98 will all terminate at the Pearl Highlands Station. Routes 440 and 441 will be extended to serve the Pearl Highlands Station via H-2 to Kamehameha during peak periods. Routes 440X and 441X will be discontinued. Route 51 will terminate at the Pearlridge Station.

Route A will operate on a shortened alignment providing service between UH Mānoa and the Kalihi Transit Center offering 10-minute peak and 15-minute off-peak service. Waipahu Routes 43, 81, 96, 97, 103 and 434X are discontinued since they operate along a major portion of the same alignment as the fixed guideway.

All circulators will operate on the TSM headways and span of service. Route 435 is modified to connect Waipahu and Pearl Highlands Stations with Leeward Community College.

Route 435: Waipahu/Pearl Highlands/LCC Community Circulator. Route 435 will be modified to serve the Peal Highlands Station. Eastbound from the Waipahu Transit Center and Mokuola Street Station, the route will travel Farrington Highway to the Kamehameha and Pearl Highlands Station, then left on Waiawa Road, right on Ala Ike and left into the campus. From the Campus the route returns to Kamehameha, left on Acacia following around to right on Waimano Home Road, right on Kamehameha (serving the Mokuola Station) and returning to Waipahu. The route will operate on 30-minute headways all-day.

Saturday and Sunday service will be implemented on 30-minute headways from 7:30AM to 8:00PM.

Few changes will occur in Pearl City and ʻAiea. Routes 11 and 90 express will be discontinued and Route 54 will operate on less frequent headways (15-minute peak and 20-minute off-peak schedule). Route 54 will not be interlined with Routes 547 and 548 in the peak periods.

Route 549 will be realigned to provide shuttle service to Salt Lake shopping and the Arizona Memorial, no longer connecting to the Pearlridge Transit Center and Station. Route 549 will provide service to the Salt Lake Boulevard and Kahuapaʻani Station. It will be renumbered to Route 314 to reflect its orientation toward the Airport and Salt Lake routes.

Section III. Aloha Stadium to Middle Street

Section III extends from Aloha Stadium to the vicinity of Middle Street/. Four alignments are under consideration in Section III
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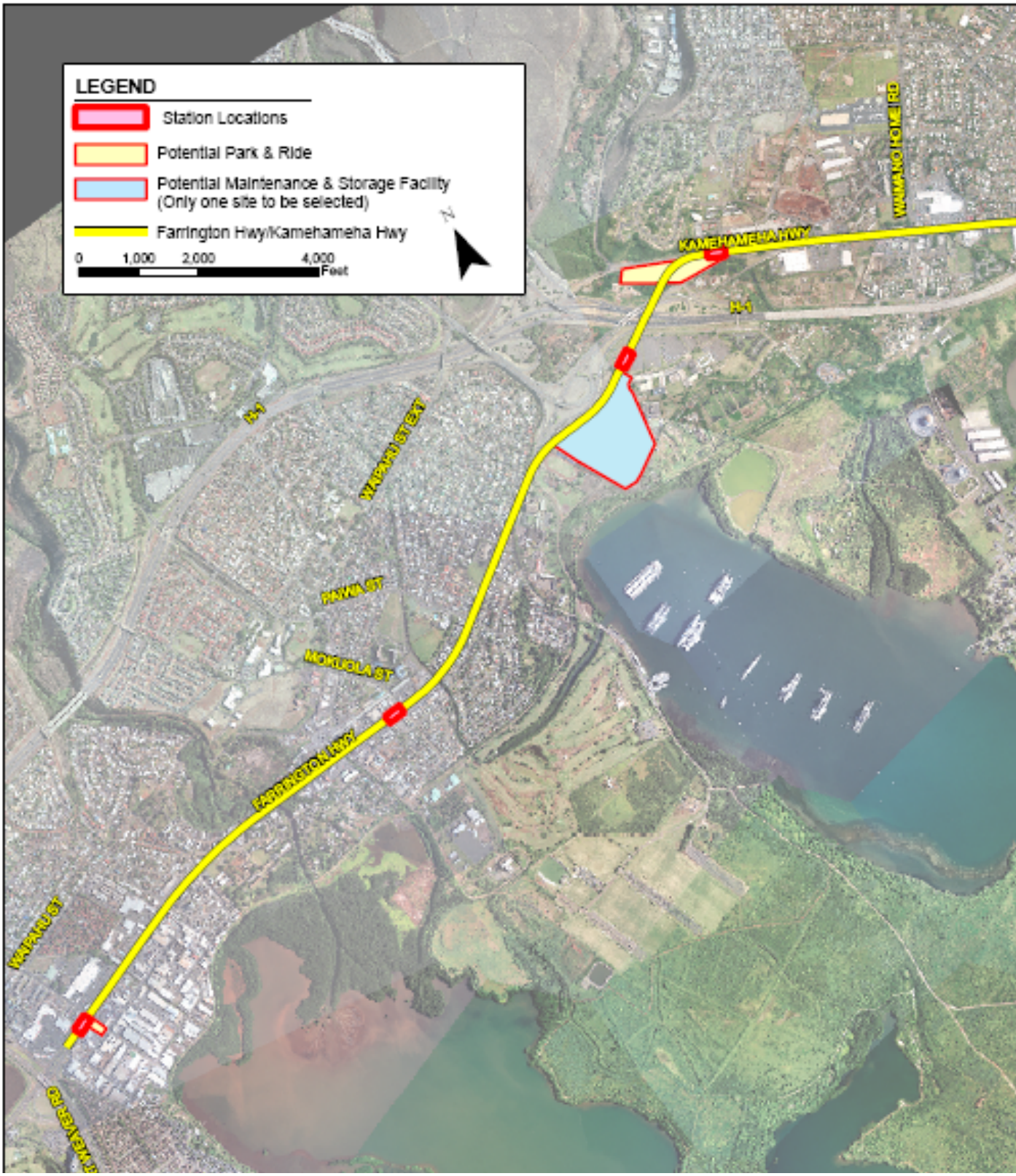

Figure 6-2. Alternative 4: Fixed Guideway Section II

Figure 6-3. Alternative 4: Fixed Guideway Section III):

- Salt Lake Boulevard
- Mauka side of the Airport Viaduct
- Makai of the Airport Viaduct
- Aolele Street

Salt Lake Boulevard

The Salt Lake Boulevard alignment would turn from Kamehameha Highway to follow Salt Lake Boulevard onto Pūkōloa Street, then continue elevated over Moanalua Stream. Stations on this alignment would be located generally near the following intersections: Salt Lake Boulevard and Kahuapa‘ani Street, and Salt Lake Boulevard across from Ala Nīoi Place.

There are two options for connecting this alignment to Section IV alignments. To connect to the North King Street alignment, this alignment would continue adjacent to Moanalua Road. To connect this alignment to Dillingham Boulevard, the alignment would follow the Koko Head bank of Moanalua Stream, and then cross over the H-1 Freeway.

The park-and-ride facility along this alignment is located at Salt Lake Boulevard and Kahuapa‘ani Street (1,300 stalls).

Mauka side of the Airport Viaduct

The Mauka side of the Airport Viaduct alignment would continue along Kamehameha Highway to Nimitz Highway and continue either elevated or at-grade on the mauka side of the H-1 Airport Viaduct to the vicinity of Middle Street. Stations on this alignment would be located generally near the following intersections: Kamehameha Highway and Salt Lake Boulevard, Kamehameha Highway and Radford Drive, and Nimitz Highway and Paiea Street.

There are two options for connecting this alignment to Section IV alignments. It could be connected to Dillingham Boulevard by crossing over portions of Ke‘ehi Interchange. Or it could be connected to North King Street along an alignment between Middle Street and the H-1 Freeway.

The park-and-ride lot for this alignment is at Aloha Stadium. A small portion of the Aloha Stadium parking lot, adjacent to the station at Kamehameha Highway and Salt Lake Boulevard will be used as the park-and-ride lot for access to that station (1,300 or 1,500 stalls).

Makai of the Airport Viaduct

The Makai of the Airport Viaduct alignment would follow Kamehameha Highway to Nimitz Highway and continue elevated on the makai side of the H-1 Airport Viaduct to the vicinity of Middle Street.

Stations on this alignment would be located generally near the following intersections: Kamehameha Highway and Salt Lake Boulevard, Kamehameha Highway and Radford Drive, Kamehameha Highway and Aolele Street, and Kamehameha Highway and Lagoon Drive.

There are two options for connecting this alignment to Section IV alignments. It could be connected to Dillingham Boulevard by crossing over portions of Keʻehi Interchange. Or it could be connected to North King Street along an alignment between Middle Street and the H-1 Freeway.

The park-and-ride lot for this alignment is at Aloha Stadium (1,300 or 1,500 stalls). A small portion of the Aloha Stadium parking lot, adjacent to the station at Kamehameha Highway and Salt Lake Boulevard will be used as the park-and-ride lot for access to that station.

Aolele Street

The Aolele Street alignment would continue along Kamehameha Highway to Nimitz Highway and turn makai onto Aolele Street and then follow Aolele Street Koko Head to reconnect to Nimitz Highway near Keʻehi Interchange. Stations on this alignment would be located generally near the following intersections: Kamehameha Highway and Salt Lake Boulevard, Kamehameha Highway and Radford Drive, at the Honolulu International Airport, and Aolele Street and Lagoon Drive.

There are two options for connecting this alignment to Section IV alignments. It could be connected to Dillingham Boulevard by crossing over portions of Keʻehi Interchange. Or it could be connected to North King Street along an alignment between Middle Street and the H-1 Freeway.

The park-and-ride lot for this alignment is at Aloha Stadium (1,300 or 1,500 stalls). A small portion of the Aloha Stadium parking lot, adjacent to the station at Kamehameha Highway and Salt Lake Boulevard will be used as the park-and-ride lot for access to that station.

Connecting Bus Services: Salt Lake / Pearl Harbor / Airport

Section 3 includes bus route connections in Salt Lake, the airport, Pearl Harbor and Hickam Air Force Base.

Both Pearl Harbor and Hickam Air Force Base will be served by circulators (new Routes 312 and 313) connecting at fixed guideway stations. Pearl Harbor and Hickam bus services will connect from the closest fixed guideway station, depending on the alignment.

Routes 9 and 19 are changed with variations to the changes for each alignment option. Read the specific alignment details for exact changes.

Similarly, Route 3 is redesigned into two separate routes to provide quick and convenient access to the fixed guideway from Salt Lake in the west end and providing local service along Kapi‘olani in the eastern portion of the route.

Route 31: Salt Lake Local Route. Route 31 provides the Salt Lake portion of the current Route 3 alignment terminating at the Middle Street and Dillingham Station and Kalihi Transit Center. Westbound from the Kalihi Transit Center, the route travels right on Middle Street, left on Kaua to Damon, Kikowaena, left on Ahua, right on Pūkōloa to Salt Lake, right on Ala Napunani, to follow its current alignment through Salt Lake neighborhoods. The route returns to the Kalihi Transit Center along the same alignment providing 10-minute peak period service and 20-minute off-peak service.

Route 311: Moanalua Valley/Salt Lake/Airport Community Circulator. Route 311 is a minor revision to TSM Route 301 and is renumbered to reflect its orientation to Salt Lake. Route 311 will not serve the Kalihi Transit Center. The alignment change occurs near the airport where the route turns right onto Nimitz and left on Rogers to serve airport destinations and connect with the fixed guideway traveling through the upper level of the airport. From the airport the route travels right on Aolele to left on Lagoon Drive, then left on Nimitz to right on Camp Catlin to return to Salt Lake and Moanalua Valley. The route will provide 15-minute peak and 30-minute off-peak service.

Route 312: Pearl Harbor Community Circulator. Route 312 will provide all day connections from the Radford Drive Station to Pearl Harbor destinations following the alignment of the current Route 9 from Radford Drive. The route will serve the Navy Supply Center then travel to Landing C along the current alignment returning to Radford Drive directly from Landing C. Fifteen-minute peak period and 30-minute off-peak service will be provided from 5:30 AM to 8:00 PM weekdays.

Route 313: Hickam Air Force Base Community Circulator. Route 313 provides all day connections to Hickam Air Force Base replacing service currently provided by Route 19. The route will follow the Route 19 alignment from Nimitz and Elliott after serving the Nimitz and Radford Street Station providing 15-minute peak and 30-minute off peak service from 5:30 AM to 1:20 AM. Weekend service is provided at reduced levels consistent with current Route 19 trips to Hickam Air Force Base.

Route 314: Ford Island/Aloha Stadium/Arizona Memorial Community Circulator. Route 314 is realigned from Route 549 and will serve the Aloha Stadium Station after circulating through Ford Island, then continue on Salt Lake Boulevard to a right turn on Bougainville, right on Radford Drive (serving the Radford Drive Station), continuing on Kamehameha to the Arizona Memorial parking lot. The route returns to Ford Island along the same alignment. The route will provide 15-minute all day service from Aloha Stadium to the Arizona Memorial, 15-minute peak period service to Ford Island and 30-minute off-peak service to Ford Island.

Connecting Bus Services: Salt Lake Boulevard

Both Pearl Harbor and Hickam Air Force Base will be served by circulators (new Routes 312 and 313) connecting at fixed guideway stations. Route 312 serving Pearl Harbor will connect with the Salt Lake Boulevard and Kahuapaane Street Station. Hickam bus services will connect from the Salt Lake Boulevard and Ala Nioi Place Station or the Radford Drive Station, depending on the alignment.

Connecting Bus Services: Kamehameha/Nimitz (mauka of Airport viaduct)

Both Pearl Harbor and Hickam Air Force Base will be served by circulators (new Routes 312 and 313) connecting at fixed guideway stations. Pearl Harbor bus service will connect from the Radford Station and Hickam bus service will connect at the Paiea Street Station.

Route 9 will no longer serve the area; but will serve its current alignment to the Beretania and Alapa‘i Station in downtown Honolulu. Route 19 will terminate at the Paiea Street Station. Route 20 will be discontinued.

Route 3 is not redesigned in this option, but Route 311 is added as described.

Connecting Bus Services: Kamehameha/Nimitz (makai of the Airport viaduct)

Routes 9 and 19 will no longer serve the area; Route 9 will become a circulator route connecting with the Date and University Station and Route 19 terminating at the Airport.

Connecting Bus Services: Kamehameha/Aolele

Route 9 will no longer serve the area; terminating its current alignment at the Date and University Station. Route 19 will terminate at the Airport Station. Route 20 will be discontinued.

Section IV. Middle Street to Iwilei

Section IV extends from Middle Street to Iwilei. Two alignments are under consideration in Section IV (Figure 6-4. Alternative 4: Fixed Guideway Section IV):

- North King Street
- Dillingham Boulevard

In either alignment, the guideway would continue elevated. Four configurations for connecting the Section III alignments to the Section IV alignments are under consideration:

Connection of the Salt Lake Boulevard alignments to the North King Street alignment would be by an alignment that is adjacent to Moanalua Freeway. Portions of the alignment may be within the freeway right of way and portions may be within U.S. Army

properties. Stations on this alignment would be located generally near the following areas: North King Street and Owen Street, North King Street and Waiakamilo Road, and North King Street and Dillingham Boulevard/Liliha Street.

Connecting Salt Lake Boulevard to Dillingham Boulevard would be along an alignment that follows the Koko Head bank of Moanalua Stream, and then crosses over the H-1 Freeway. Properties on the Koko Head side of Moanalua Stream belong to the U.S. Army. Stations on this alignment would be located generally near the following intersections: Middle Street at the Middle Street Transit Center, Dillingham Boulevard and Mokauea Street, Dillingham and Kōkea Street, and on Kaʻaahi Street.

The Mauka and Makai of the Airport Viaduct alignments and the Aolele Street alignment would be connected to Dillingham Boulevard by crossing over portions of Keʻehi Interchange. Stations on this alignment would be located generally near the following intersections: Middle Street at the Middle Street Transit Center, Dillingham Boulevard and Mokauea Street, Dillingham Boulevard and Kōkea Street, and on Kaʻaahi Street.

Connecting these alignments to North King Street would be along an alignment between Middle Street and the H-1 Freeway. Stations on this alignment would be located generally near the following areas: Middle Street at the Middle Street Transit Center, North King Street and Owen Street, North King Street and Waiakamilo Road, and North King Street and Dillingham Boulevard/Liliha Street.

Connecting Bus Services: Kalihi / Liliha

Dillingham Boulevard services are anchored at the Kalihi Transit Center and the Dillingham and Middle Street Station. North King Street services are anchored at the Middle Street Station and Kalihi Transit Center running along King Street to downtown Honolulu. A number of routes will connect at the transit centers. Mauka/makai services are enhanced along the corridor. The following describes route changes for Middle Street and Kalihi services.

Route 30: Kalihi/Pālama/Pauoa/Kakaʻako Local Route. Route 30 connects the Middle Street Station (for King Street only) and Kalihi Transit Center with Pālama Medical District, Punchbowl, Ward Avenue, Kakaʻako and the Ala Moana Station and Transit Center. Eastbound from the Middle Street Station the route turns left on Middle Street, left on Kamehameha/Dillingham, left on Mokauea, right on King, left on Houghtailing, right on School, left on Lanakila, right on Kuakini, left on Nuʻuanu, right on Pauoa, right on Lusitana, left on ʻIolani to Prospect, right on Ward, left on Auahi to Queen, left on Ala Moana, left on Piʻikoi and right on Kona to the Ala Moana Station.

Route 301: Kalihi/Salt Lake/Foster Village/Aloha Stadium Community Circulator. Route 301 follows a similar alignment of current Route 32 with a couple of modifications. Westbound from the Kalihi Transit Center and Station, the route travels right on Middle Street, left on Kaua to Damon, Kikowaena, left on Ahua, right on Pūkōloa to Salt Lake, right on Ala Napunani, left on Likini, left

on Ala Liliko‘i, right on Salt Lake, right on Likini Place, left Likini, right on Aila, left on Āliamanu, right on Wanaka, left on Miko, right on Ukana, left on Keaka, right on Pakini, right on Punihi, right on Halupa, left on Haloa, right on Ala Oli, right on Salt Lake to the Aloha Stadium Station. The route returns to Kalihi Transit Center and Middle Street Station (for King Street only) along the same alignment. (In the TSM Alternative the route is renumbered 31 and continues to the Pearlridge Transit Center via Kamehameha).

Route 302: Tripler Army Medical Center Community Circulator. Route 302 is a revised alignment of current Route 31. The route services the Kalihi Transit Center and Middle Street Station, Fort Shafter, Moanalua Gardens, the Veterans Affairs Office and Tripler Medical Center. Westbound from the Kalihi Transit Center and Middle Street Station, the route will travel right on Middle, left on Kaua, right on Ala Mahamoe, right on Jarrett-White, left on Ward, right on Krukowski to Tripler Hospital Porte Cochere. The route returns to Kalihi via Tripler Hospital Porte Cochere, left on Krukowski, right on Jarrett-White, left on Kaua, right on Funston, to the Moanalua Freeway on ramp to the Frontage Road and right on Middle to the transit Center. The route will offer 30-minute service.

Route 303: Kalihi Valley Homes Community Circulator. Route 303 provides a direct connection for Kalihi Valley Homes to the Middle Street Station. The alignment along with Route 305 is part of a revised current Route 7. Route 303 provides service from Kalihi Transit Center and Middle Street Station to Fort Shafter, Dole Middle School, Kalihi District Park and Kalihi Valley Homes. Eastbound from Kalihi Transit Center and Middle Street Station, the route travels right on Middle Street to School, left on Kamehameha IV, left on Kalena to Kalena and Alu. The route returns via Kalena and Alu, to Kalena, right on Alu, right on Likelike to Kamehameha IV, right on School to Middle Street to the transit Center. The route will provide 15-minute peak and 30-minute off-peak service.

Route 304: Kalihi/Liliha/‘Ālewa Community Circulator. Route 304 is a revision of current Route 10 providing a connection to the Middle Street Station and Kalihi Transit Center. The route provides service to Gulick Avenue, the Kamehameha Shopping Center, Liliha and ‘Ālewa Heights. This alignment will no longer serve Sand Island, which will be served by Route 305. Eastbound from the Kalihi Transit Center and Middle Street Station, the route travels Middle Street, right on King, left on Gulick, right on School, left on Houghtailing, left on Hillcrest, right on Kealia, right on Makanani to Lolena and Iholena, left on Judd, left on Nu‘uanu, left on Wyllie, left on ‘Ālewa to left on Hoomaikai, right on Kualono, right on Kalikimaka to Kalikimaka and ‘Ālewa. The route returns to the Kalihi Transit Center via Kalikimaka, right on ‘Ālewa, right on Wyllie, right on Nu‘uanu, right on Judd, right on Iholena to Lolena and Makanani, left on Kealia, left on Hillcrest, right on School, left on Gulick, right on King to Kaua, left on Middle to the transit center and Middle Street Station. The route will provide 15-minute peak and 30-minute off-peak service.

Route 305: Kalihi Valley/Sand Island Community Circulator. Route 305 provides all day, frequent service to Sand Island, Kalihi Kai, Farrington High School, Kamehameha Shopping Center and Kalihi Uka. Eastbound from the Kalihi Transit Center and Middle Street Station the route travels left on Middle Street, left on Kamehameha/Dillingham, right on Mokauea, left on Auiki, left on Kalihi to Likelike to Kalihi and Ahuahu. The route returns to the Kalihi Transit Center along the same alignment. The route will provide 30-minute service.

Connecting Bus Services: Dillingham Boulevard

Route 306: Lagoon Drive Community Circulator. Route 306 will provide service from the Kalihi Transit Center to Lagoon Drive via Māpunapuna. From the transit center the route turns right on Middle Street, left on Kaua to Damon and Kikowaena, left on Ahua, right on Pūkōloa, left on Pu‘uloa Road crossing Nimitz to Lagoon Drive to its terminus at Palekona. The route returns to the Kalihi Transit Center along the same alignment. Service will be provided hourly from 5:00 AM to 9:00 PM.

Connecting Bus Services: from Salt Lake Boulevard to North King Street to Hotel Street connection

Route A is discontinued.

Route 306: Lagoon Drive Community Circulator. Route 306 will provide service from the Kalihi Transit Center to Lagoon Drive via Māpunapuna. From the transit center the route turns right on Middle Street, left on Kaua to Damon and Kikowaena, left on Ahua, right on Pūkōloa, left on Pu‘uloa Road crossing Nimitz to Lagoon Drive to its terminus at Palekona. The route returns to the Kalihi Transit Center along the same alignment. Service will be provided hourly from 5:00 AM to 9:00 PM.

Section V. Iwilei to UH Mānoa

Section V extends from Iwilei to the eastern project terminus at the University of Hawai‘i at Mānoa’s Lower Campus. Six alignments and one branch are under consideration in Section V; four of the alignments include an option for a Waikīkī Branch (

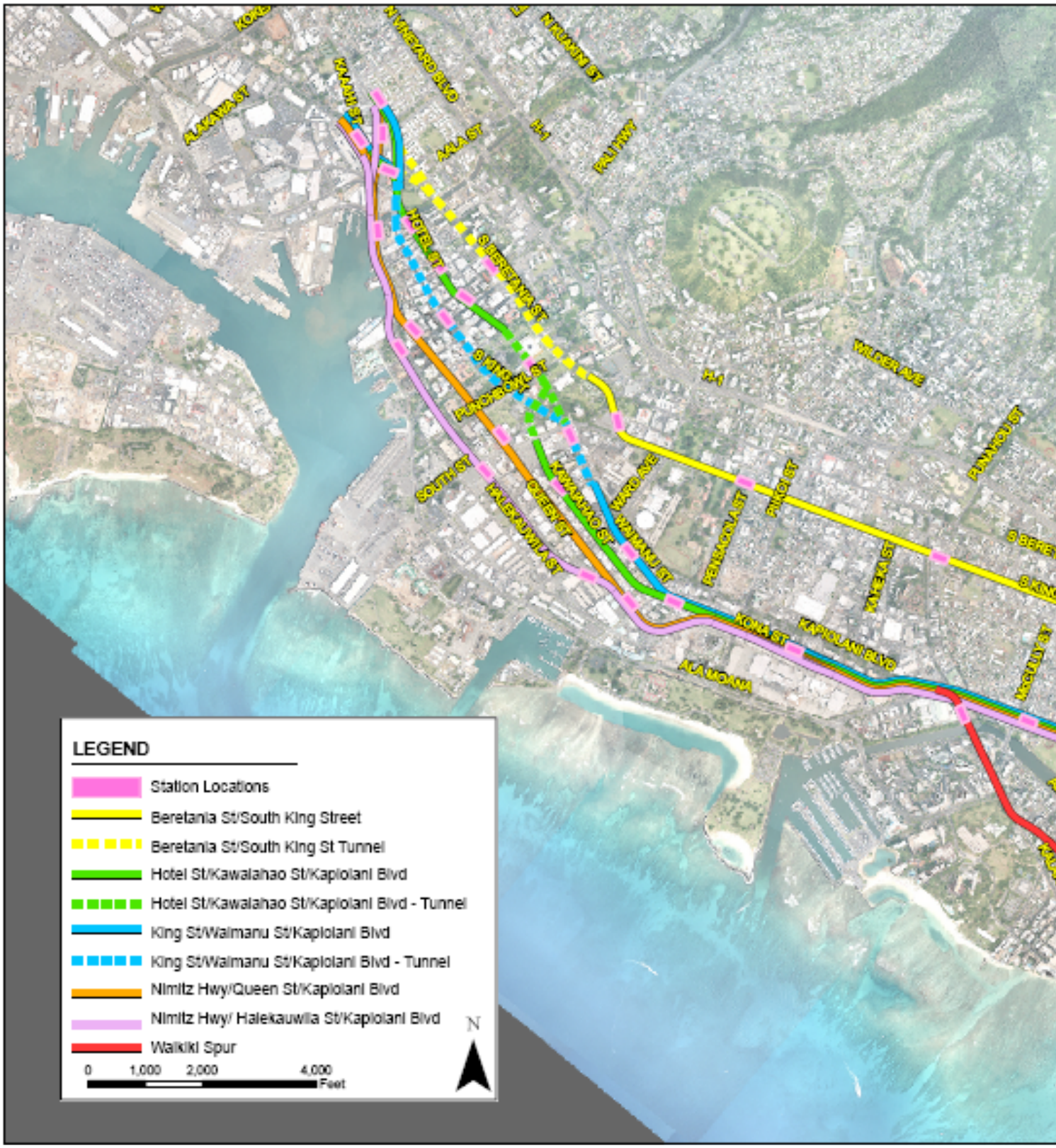

Figure 6-5. Alternative 4: Fixed Guideway Section V):

- Beretania Street/South King Street
- Hotel Street/Kawaiahaʻo Street/Kapiʻolani Boulevard with or without Waikīkī Branch
- Hotel Street/Waimanu Street/Kapiʻolani Boulevard with or without Waikīkī Branch
- South King Street Tunnel/Waimanu Street/Kapiʻolani Boulevard with or without Waikīkī Branch
- Nimitz Highway/Queen Street /Kapiʻolani Boulevard with or without Waikīkī Branch
- Nimitz Highway/Halekauwila Street /Kapiʻolani Boulevard with or without Waikīkī Branch
- Waikīkī Branch

Beretania Street/South King Street

The Beretania Street/South King Street alignment would descend to a tunnel portal in the vicinity of Kaʻaahi Street, continue through a tunnel under ʻAʻala Park and Nuʻuanu Stream, and then follow Beretania Street. It would transition to an elevated structure on the makai side of Beretania Street between Punchbowl Street and Alapaʻi Street. The guideway would cross over Alapaʻi Street, turning makai to continue elevated on South King Street to University Avenue, where it would turn mauka to cross over the H-1 Freeway to a proposed terminal facility in the University of Hawaiʻi at Mānoa's Lower Campus.

Stations on this alignment would be located generally near the following intersections: Beretania Street and Fort Street Mall, Beretania Street and Alapaʻi Street, South King Street and Pensacola Street, South King Street and Kalākaua Avenue, South King Street and McCully Street, South King Street and Hausten Street, and at the UH Lower Campus.

Hotel Street/Kawaiahaʻo Street/Kapiʻolani Boulevard

The Hotel Street/Kawaiahaʻo Street/Kapiʻolani Boulevard alignment would descend to grade from one of the elevated alignments described in Section IV and follow Hotel Street Koko Head of Iwilei Road. The guideway would operate at-grade on Hotel Street, crossing traffic at intersections, with transit signal priority to minimize delays. At Alakea Street the guideway would begin to descend into a tunnel with a portal at Richards Street. The guideway would continue in a tunnel under the government campus past South King Street and follow Kawaiahaʻo Street, where it would transition to an elevated structure past South Street. The guideway would continue on Kawaiahaʻo Street to near Kamakeʻe Street, where property on each side of Kamakeʻe Street would be acquired to allow the alignment to cross over to Kona Street and follow Kona Street to past Ala Moana Center. It would turn mauka just before Atkinson Drive, and follow Kapiʻolani Boulevard to University Avenue. The guideway would then turn mauka and follow University Avenue past the H-1 Freeway, ending at a proposed terminal facility in the University of Hawaiʻi at Mānoa's Lower Campus.

Stations on this alignment would be located generally near the following intersections: Hotel Street and Kekaulike Street, Hotel Street and Nu‘uanu Avenue, Hotel Street and Fort Street Mall, subgrade at Punchbowl Street and Hotel Street (Honolulu Hale), Kawaiaha‘o Street and Cooke Street, Kawaiaha‘o Street and Kamake‘e Street, Kona Street and Ke‘eaumoku Street, the Hawai‘i Convention Center on Kapi‘olani Boulevard or Kapi‘olani Boulevard and McCully Street, University Avenue and Date Street, University Avenue and South King Street, and at the UH Lower Campus.

Hotel Street/Waimanu Street/Kapi‘olani Boulevard

The Hotel Street/ Waimanu Street/Kapi‘olani Boulevard alignment would descend to grade and follow Hotel Street Koko Head of Iwilei Road. The guideway would operate at-grade on Hotel Street and descend into a tunnel past Alapa‘i Street as with the Hotel Street/Kawaiaha‘o Street alignment. However, instead of following Kawaiaha‘o Street, the alignment would follow Kapi‘olani Boulevard to Dreier Street. The guideway would turn makai and transition to an elevated structure on private property on Waimanu Street between Dreier Street and Kamani Street. Following Waimanu Street past Kamake‘e Street, the guideway would turn mauka and follow Kona Street and continue to the UH at Mānoa as with the Hotel Street/Kawaiaha‘o Street alignment.

Stations on this alignment would be located generally near the following intersections: Hotel Street and Kekaulike Street, Hotel Street and Nu‘uanu Avenue, Hotel Street and Fort Street Mall, subgrade at King Street and Kapi‘olani Boulevard (Honolulu Hale), Waimanu Street and Cummins Street, Kona Street and Ke‘eaumoku Street, the Hawai‘i Convention Center on Kapi‘olani Boulevard or Kapi‘olani Boulevard and McCully Street, University Avenue and Date Street, University Avenue and South King Street, and at the UH Lower Campus.

South King Street Tunnel/Waimanu Street/Kapi‘olani Boulevard

The South King Street Tunnel alignment would descend to a tunnel portal on the ‘Ewa side of Ka’aahi Street and would follow under Iwilei Road in a relatively straight line until it could follow South King Street in the vicinity of Nu‘uanu Stream. The alignment would continue underground following South King Street, shift to follow Kapi‘olani Boulevard to Dreier Street. The guideway would turn makai and transition to an elevated structure on private property on Waimanu Street between Dreier Street and Kamani Street. Following Waimanu Street past Kamake‘e Street, the guideway would turn mauka and follow Kona Street and continue to the UH at Mānoa as with the Hotel Street/Kawaiaha‘o Street alignment.

Stations on this alignment would vary based on the connection from Section IV. If the connection is made from Dillingham Boulevard, the stations would be located underground at Ka’aahi Street and Iwilei Road, underground at Fort Street Mall with access from Bethel Street and Fort Street, underground at Punchbowl, Waimanu Street and Cummins Street, Kona Street and Ke‘eaumoku Street, the Hawai‘i Convention Center on Kapi‘olani Boulevard or Kapi‘olani Boulevard and McCully Street, University

Avenue and Date Street, University Avenue and South King Street, and at the UH Lower Campus.

Nimitz Highway/Queen Street /Kapiʻolani Boulevard

The Nimitz Highway/Queen Street /Kapiʻolani Boulevard alignment would allow a continuous elevated guideway from Section III all the way to UH at Mānoa. The alignment would follow Nimitz Highway Koko Head to Queen Street, then along Queen Street past Kamakeʻe Street following the new Queen Street Extension alignment. Property on the mauka side of Waimanu Street would be acquired to allow the alignment to cross over to Kona Street. As in the Hotel Street/Kawaiahaʻo Street alignment, the guideway would run above Kona Street through Ala Moana Center, and then turn mauka to follow Kapiʻolani Boulevard to University Avenue where it would again turn mauka to follow University Avenue over the H-1 Freeway to a proposed terminal facility in the University of Hawaiʻi at Mānoa's Lower Campus.

Stations on this alignment would be located generally near the following intersections: Nimitz Highway and Kekaulike Street, Queen Street and Fort Street Mall, Queen Street and South Street, Queen Street and Cummins Street, Kona Street and Keʻeaumoku Street, the Hawaiʻi Convention Center on Kapiʻolani Boulevard or Kapiʻolani Boulevard and McCully Street, University Avenue and Date Street, University Avenue and South King Street, and at the UH Lower Campus.

Nimitz Highway/Halekauwila Street /Kapiʻolani Boulevard

The Nimitz Highway/Halekauwila Street /Kapiʻolani Boulevard alignment would allow a continuous elevated guideway from Section III all the way to UH at Mānoa. The alignment would follow Nimitz Highway Koko Head to Halekauwila Street, then along Halekauwila Street past Ward Avenue where it would transition to Queen Street and the new Queen Street Extension alignment. Property on the mauka side of Waimanu Street would be acquired to allow the alignment to cross over to Kona Street. As in the Hotel Street/Kawaiahaʻo Street alignment, the guideway would run above Kona Street through Ala Moana Center, and then turn mauka to follow Kapiʻolani Boulevard to University Avenue where it would again turn mauka to follow University Avenue over the H-1 Freeway to a proposed terminal facility in the University of Hawaiʻi at Mānoa's Lower Campus.

Stations on this alignment would be located generally near the following intersections: Nimitz Highway and Kekaulike Street, Nimitz Highway and Fort Street Mall, Halekauwila Street and South Street, Halekauwila Street and Ward Avenue, Kona Street and Keʻeaumoku Street, the Hawaiʻi Convention Center on Kapiʻolani Boulevard or Kapiʻolani Boulevard and McCully Street, University Avenue and Date Street, University Avenue and South King Street, and at the UH Lower Campus.

Waikīkī Branch

The Waikīkī Branch would be a branch line from a transfer point at Ala Moana Center or the Hawai‘i Convention Center, into Waikīkī following Kalākaua Avenue to Kūhiō Avenue, then extend along Kūhiō Avenue to the vicinity of Kapahulu Avenue.

The Kapi‘olani Boulevard and McCully Street station discussed for the above alignments would be used the Hawai‘i Convention Center would be served by a station off of Kalākaua Avenue. Other Waikīkī Branch stations would be located generally near the following intersections: Kūhiō Avenue and Kālaimoku Street, Kūhiō Avenue and Lili‘uokalani Avenue.

Connections between Section IV and Section V

Six configurations for connecting the Section IV alignments to the Section V alignments are under consideration:

Connecting the North King Street alignment at Liliha Street to the Hotel Street alignments would be along an elevated alignment that follows North King Street to Iwilei Road, where it would descend to grade before reaching River Street.

The North King Street connection at Liliha Street to Nimitz Highway would be along an alignment over private property on the makai side on North King Street. It then crosses over Iwilei Road, and continues over private property between the inbound and outbound lanes of Nimitz Highway.

The North King Street connection to Beretania Street would be along an alignment that descends to a tunnel on property on the mauka side of North King Street just Koko Head of Liliha Street.

Connecting the Dillingham Boulevard alignment to the Hotel Street alignments would be along an alignment that follows Ka‘aahi Street then turns mauka onto North King Street just ‘Ewa of the OR&L building. The alignment descends to ground level between Iwilei Road and River Street.

The Dillingham Boulevard alignment connection to the Queen Street alignment follows Ka‘aahi Street then crosses Iwilei Road, and continues over private property between the inbound and outbound lanes of Nimitz Highway.

The connection of the Dillingham Boulevard alignment to the Beretania Street alignment descends into a tunnel on private properties on the makai side of Dillingham Boulevard before Ka‘aahi Street, crosses under North King Street and ‘A‘ala Park, and then continues in tunnel under Beretania Street.

Connecting Bus Services: Iwilei to UH Mānoa

Because of the varied alignments through this densely populated area, the bus networks are very different for each alignment. Therefore, alignments are consolidated as much as possible here, with operating differences described for each alignment.

Three new routes are consistent across all alignments through this section. Routes 133 and 134 are modified to serve the Lower Campus Station at UH. The St. Louis Heights portion of Route 134 has been renamed Route 135 and will terminate at the Lower Campus Station.

Route 133: Upper ʻĀina Haina Community Circulator. Route 133 will not be interlined with Route 134. Instead it will continue along Waiʻalae to Old Waiʻalae, right on Kalele to left to the Lower Campus Station. The route will offer the same span and frequency of service as the TSM Alternative.

Route 134: Maunalani Community Circulator. Route 134 will not be interlined with Route 133. Instead the east end of the route will circle Kāhala Mall via right on Kilauea, right on Pahoa, right on Hunakai to left on Waiʻalae. The route will serve Maunalani via the TSM Alternative alignment to Kapiʻolani. The route will not serve St. Louis Heights. From Kapiʻolani the route will connect to the Lower Campus Station via Waiʻalae, Old Waiʻalae, to right on Kalele and left to the station. The route will offer the same span and frequency of service as the TSM Alternative.

Route 135: St. Louis Heights Community Circulator. Route 135 will provide direct service for St. Louis Heights residents to the fixed guideway at the Lower Campus Station via St. Louis Drive to right on Waiʻalae to Old Waiʻalae, right on Kalele and left to the station. The route will offer the same span and frequency of service as the TSM Alternative.

Connecting Bus Services: Hotel Street based alignments

This fixed guideway alignment will operate along Hotel Street at grade before descending into a tunnel. There are two options for the bus operations, which currently operate along Hotel Street. The buses can be rerouted onto other streets or operate along Hotel Street with the fixed guideway. Operating within the same right-of-way as the fixed-guideway would slow down both operations.

There are a limited number of streets available to reroute the buses from Routes 1, 2, 4, 13, 19, 30F, 40, 52 and 54. A few routes can be realigned to King Street; however, to operate as efficiently as possible some routes will need to travel on alternate roads. Route 4 will remain on Nimitz to Ala Moana no longer serving Iwilei. Routes 1, 13, 19 and 30F will operate along King Street in the Koko Head direction and Beretania in the ʻEwa direction along with Route B. Ideally, Routes 2, 40, 52 and 54 will operate in a contra-flow direction on Beretania to right on Richards and left on King Street to

continue their routing in the Koko Head direction. This will require traffic engineering along a couple blocks of Beretania.

Route 1L: East Honolulu Local Route. Route 1L will connect East Honolulu communities with the fixed guideway at the University and King Station, then continue downtown along Beretania returning to East Honolulu via left on Richards and left on King Street. The route will provide the same headways and span of service as offered in the TSM Alternative.

Route 3: Kaimukī/Downtown Honolulu Local Route. The eastern end of Route 3 will operate on its current alignment serving Kaimukī, providing connections to the fixed guideway at Date and University and continuing on Kapiʻolani to provide local service. The route returns to Kaimukī from Kapiʻolani via right on Alapaʻi, left on Beretania, left on Richards, left on S. King to Kapiʻolani and Kaimukī. The route will provide the same headways and span of service as offered in the TSM Alternative.

Route 4: Inter-Island Ferry Terminal/Makiki Local Route. The eastern end of Route 4 will interline with Route 17 at Wilder and Piʻikoi, continuing as Route 17 via left on Piʻikoi, to Lewalani to right on Nehoa then continuing the Route 17 alignment to Ala Moana Transit Center and Nuʻuanu. Route 4 will no longer serve UH Mānoa or Waikīkī. The western end of Route 4 will be rerouted from the Interisland Ferry Terminal to travel Nimitz to Ala Moana Boulevard and left on Ward, right on Green, left on Thurston, right on Wilder to connect with Route 17 at Wilder and Piʻikoi.

Route 9: Pālolo Valley Community Circulator. Route 9 will terminate at the Date and University Station providing 15-minute and 30-minute off-peak service.

Route 15: Pacific Heights/Papakolea Community Circulator. Route 15 provides all day feeder service to Pacific Heights and Tantalus residents on two branches connecting in downtown Honolulu. The route serves Pacific Heights, Queen's Medical Center, Punchbowl, Punchbowl Cemetery and Papakolea. Eastbound from the route's terminus at 3180 Pacific Heights Road, the route travels Pacific Heights, left on Pauoa, right on Lusitana to Queen Emma, left on Vineyard, right on Punchbowl, left on Ala Moana Blvd, left on South, right on King, left on Piʻikoi, right on Pensacola to ʻAuwaiolimu, left on Hoʻokuʻi, left on Puowaina to Tantalus, right on Makiki Heights, right on Mott-Smith, right on Nehoa to Nehoa and Lewalani.

The route will deviate into Punchbowl Cemetery when it is open: via right on Puowaina to Punchbowl Cemetery, turning around at the Visitors' Center and returning to Tantalus. The route returns to Pacific Heights from Nehoa and Lewalani via left on Pensacola, right on Beretania, left on Ward, right on Ala Moana, right on South, left on Beretania, right on Punchbowl, left on Vineyard, right on Queen Emma to Lusitana, left on Pauoa, right on Pacific Heights to the terminus.

Route17: Nu‘uanu/Ala Moana/Makiki Community Circulator. Route 17 will interline with Route 4 at Wilder and Pi‘ikoi. From Nehoa and Lewalani the route continues makai to Pi‘ikoi turning right on Wilder to continue as Route 4.

Hotel Street without Waikīkī Service

Route 19: Waikīkī/Iwilei/Salt Lake/Airport Local Route. The western end of Route 19 will terminate at the Airport. From the Airport the route travels the upper departure level of the airport returning to Rogers, right on Nimitz, left on Camp Catlin to Arizona, right on Salt Lake Boulevard serving the Salt Lake Boulevard and Ala Nioi Station (providing connections to the Airport and Iwilei), right on Pu‘uloa Road, and left on Nimitz to resume the Route 19 alignment through Iwilei. Hickam Air Force Base will be served by new Route 313. Route 19 will operate along King Street (in lieu of Hotel Street – Beretania Street in ‘Ewa direction) to right on Punchbowl (Alakea in ‘Ewa direction) and left on Ala Moana. The route turns right on Keawe, to serve Kaka‘ako development, left on Ilalo, left on ‘Āhui and right on Ala Moana Boulevard. The route continues across Ala Moana to serve the Ward Warehouse area returning to Ala Moana via Queen to continue to Waikīkī remaining on Ala Moana; and not serving the Kona side of the Ala Moana Transit Center. The route terminates in Waikīkī on Monsarrat. Returning via Pākī and Kapahulu to Kūhiō.

Hotel Street with Waikīkī Service

Route 13: Liliha/Downtown Community Circulator. The western end of Route 13 will terminate at King and Alapa‘i connecting passengers with the fixed guideway at the Honolulu Hale Station. The eastern portion of the route from Kāhala Mall will be operated by Route 19 in Waikīkī.

Route 19: Kāhala Mall/Waikīkī/Iwilei/Airport Local Route. The western end of Route 19 will terminate at Airport. Hickam Air Force Base will be served by new Route 313. Route 19 will operate along King Street (in lieu of Hotel Street – Beretania Street in ‘Ewa direction) to right on Punchbowl (Alakea in ‘Ewa direction) and left on Ala Moana. The route turns right on Keawe, to serve Kaka‘ako development, left on Ilalo, left on ‘Āhui and right on Ala Moana Boulevard. The route continues across Ala Moana to serve the Ward Warehouse area returning to Ala Moana via Queen to continue to Waikīkī remaining on Ala Moana; and not serving the Kona side of the Ala Moana Transit Center. From Waikīkī the route continues to Kāhala Mall along the Route 13 eastern alignment.

Connecting Bus Services: South Beretania / South King Street based alignments

Most of the changes occurring to urban routes have been described in the preceding paragraphs. These include changes to Routes 9 and 19 and the discontinuation of routes that provide competing services to the fixed guideway alignment. The discontinued

routes include Routes 8, 20, 43 and portions of the long local routes originating in Leeward and Central O‘ahu including the 42 and a number of peak period express routes.

Route 1L is modified to serve the Hausten and King Station. Routes 133 and 134 are modified to serve the Lower Campus Station at UH. The St. Louis Heights portion of Route 134 has been renamed Route 135 and will terminate at the Lower Campus Station.

Route 1L: East Honolulu Local Route. Route 1L will connect East Honolulu communities with the fixed guideway at the Hausten and King Station. The route will access the station via Wai‘alae to King to S. Beretania, left on Isenberg and left on King. The route will provide the same headways and span of service as offered in the TSM Alternative.

Route 9: Pālolo Valley Community Circulator. Route 9 will terminate at the King Street and Hausten Station via Kapi‘olani, to right on Date, right on Hausten and returning to Pālolo Valley via right on King, right on University, left on Date to left on Kapi‘olani. The route will provide 15-minute and 30-minute off-peak service.

A number of routes have been modified to provide better mauka/makai connections. These were described in the TSM Alternative and have been carried forward to the fixed guideway alternatives. A change to Route 15 is warranted to continue the improvement in mauka/makai connections described as follows:

Route 15: Pacific Heights/Papakolea Community Circulator. Route 15 provides all day feeder service to Pacific Heights and Tantalus residents on two branches connecting in downtown Honolulu. The route serves Pacific Heights, Queen’s Medical Center, Punchbowl, Punchbowl Cemetery and Papakolea. Eastbound from the route’s terminus at 3180 Pacific Heights Road, the route travels Pacific Heights, left on Pauoa, right on Lusitana to Queen Emma, left on Vineyard, right on Punchbowl, left on Ala Moana Blvd, left on South, right on King, left on Pi‘ikoi, right on Pensacola to ‘Auwaiolimu, left on Ho‘oku‘i, left on Puowaina to Tantalus, right on Makiki Heights, right on Mott-Smith, right on Nehoa to Nehoa and Lewalani.

The route will deviate into Punchbowl Cemetery when it is open: via right on Puowaina to Punchbowl Cemetery, turning around at the Visitors’ Center and returning to Tantalus. The route returns to Pacific Heights from Nehoa and Lewalani via left on Pensacola, right on Beretania, left on Ward, right on Ala Moana, right on South, left on Beretania, right on Punchbowl, left on Vineyard, right on Queen Emma to Lusitana, left on Pauoa, right on Pacific Heights to the terminus.

Connecting Bus Services: Queen Street and Halekauwila Street based alignments

Most of the changes occurring to urban routes have been described in the preceding paragraphs. These include changes to Routes 3, 9 and 19 and the discontinuation of

routes that provide competing services to the fixed guideway alignment. The discontinued routes include Routes A, E, 8 and 20 and a number of peak period express routes.

Route 4 will be modified to connect with Route 17 on Nehoa.

Route 3: Kaimukī/Downtown Honolulu Local Route. The eastern end of Route 3 will operate on its current alignment serving Kaimukī, providing connections to the fixed guideway at Date and University and providing local service along Kapiʻolani. The route returns to Kaimukī from Kapiʻolani via right on Alapaʻi, left on Beretania, left on Richards, left on S. King to Kapiʻolani to Kaimukī. The route will provide the same headways and span of service as offered in the TSM Alternative.

Route 4: Inter-Island Ferry Terminal/Makiki Local Route. The eastern end of Route 4 will interline with Route 17 at Wilder and Piʻikoi, continuing as Route 17 via left on Piʻikoi, to Lewalani to right on Nehoa then continuing the Route 17 alignment to Ala Moana Transit Center and Nuʻuanu. Route 4 will no longer serve UH Mānoa or Waikīkī.

Route 9: Pālolo Valley Community Circulator. Route 9 will terminate at the Date and University Station providing 15-minute and 30-minute off-peak service.

Route 13: Liliha/Downtown Community Circulator. The western end of Route 13 will terminate at the Alapaʻi Transit Center via right on Punchbowl from King Street to left on Ala Moana Boulevard and left on South to Alapaʻi connecting passengers with the fixed guideway at the Halekauwila and South Station. The eastern portion of the route from Waikīkī to Kāhala Mall will become part of Route 19.

Route17: Nuʻuanu/Ala Moana/Makiki Community Circulator. Route 17 will interline with Route 4 at Wilder and Piʻikoi. From Nehoa and Lewalani the route continues makai to Piʻikoi turning right on Wilder to continue as Route 4.

A number of routes have been modified to provide better mauka/makai connections. These were described in the TSM Alternative and have been carried forward to the fixed guideway alternatives. A change to Route 15 is warranted to continue the improvement in mauka/makai connections described as follows:

Route 15: Pacific Heights/Papakolea Community Circulator. Route 15 is the same as described for South King Street but in this alignment, it turns left on South Street from Ala Moana (serving the Halekauwila & South Station), right on King, and follows the rest of the alignment.

The route will deviate into Punchbowl Cemetery when it is open and will serve Halekauwila and Ward Station. (In the TSM Alternative the route connects the

two branches via the Beretania and King couplet and does not travel makai to Ala Moana Boulevard.)

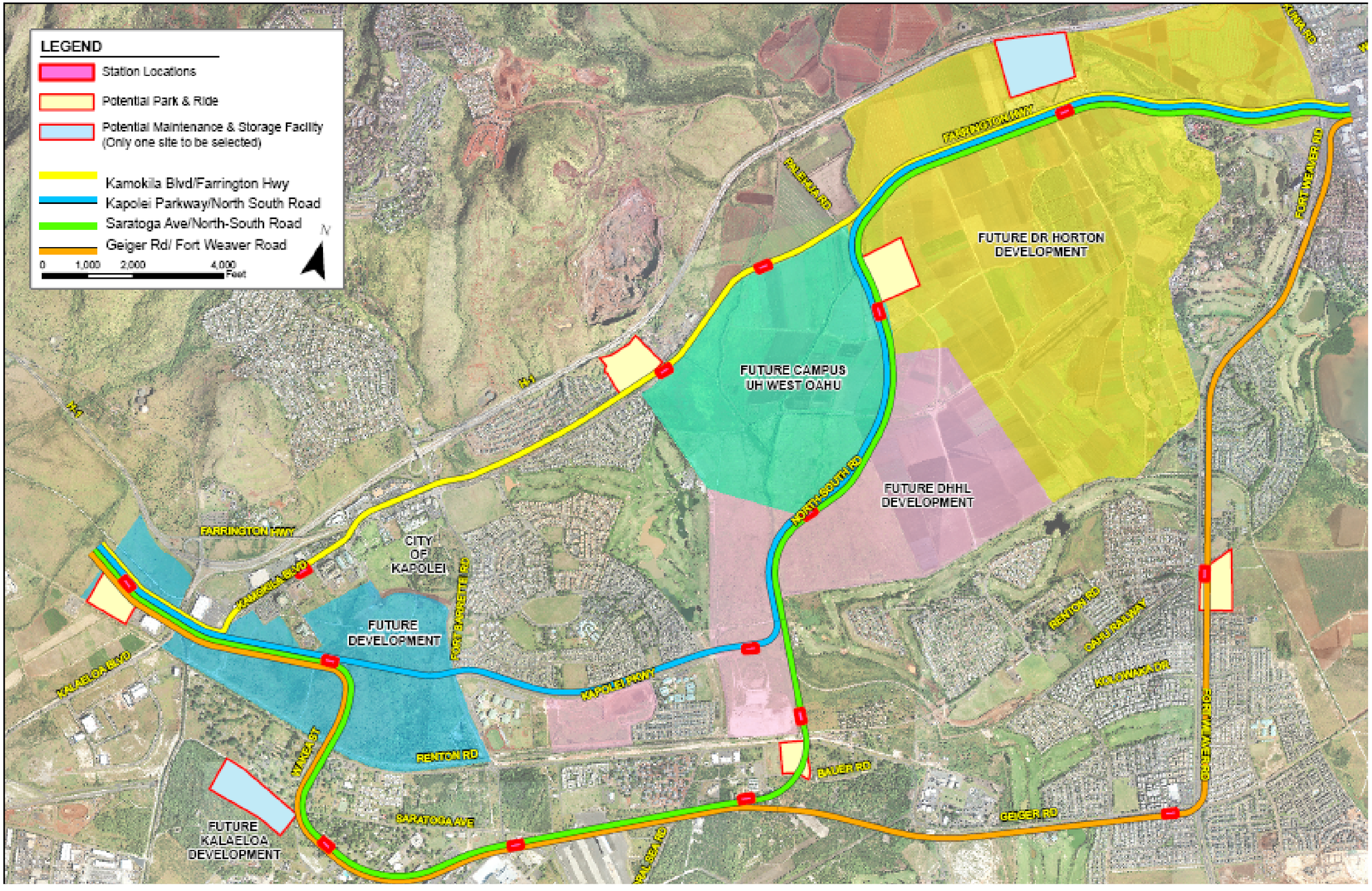

Figure 6-1. Alternative 4: Fixed Guideway Section I

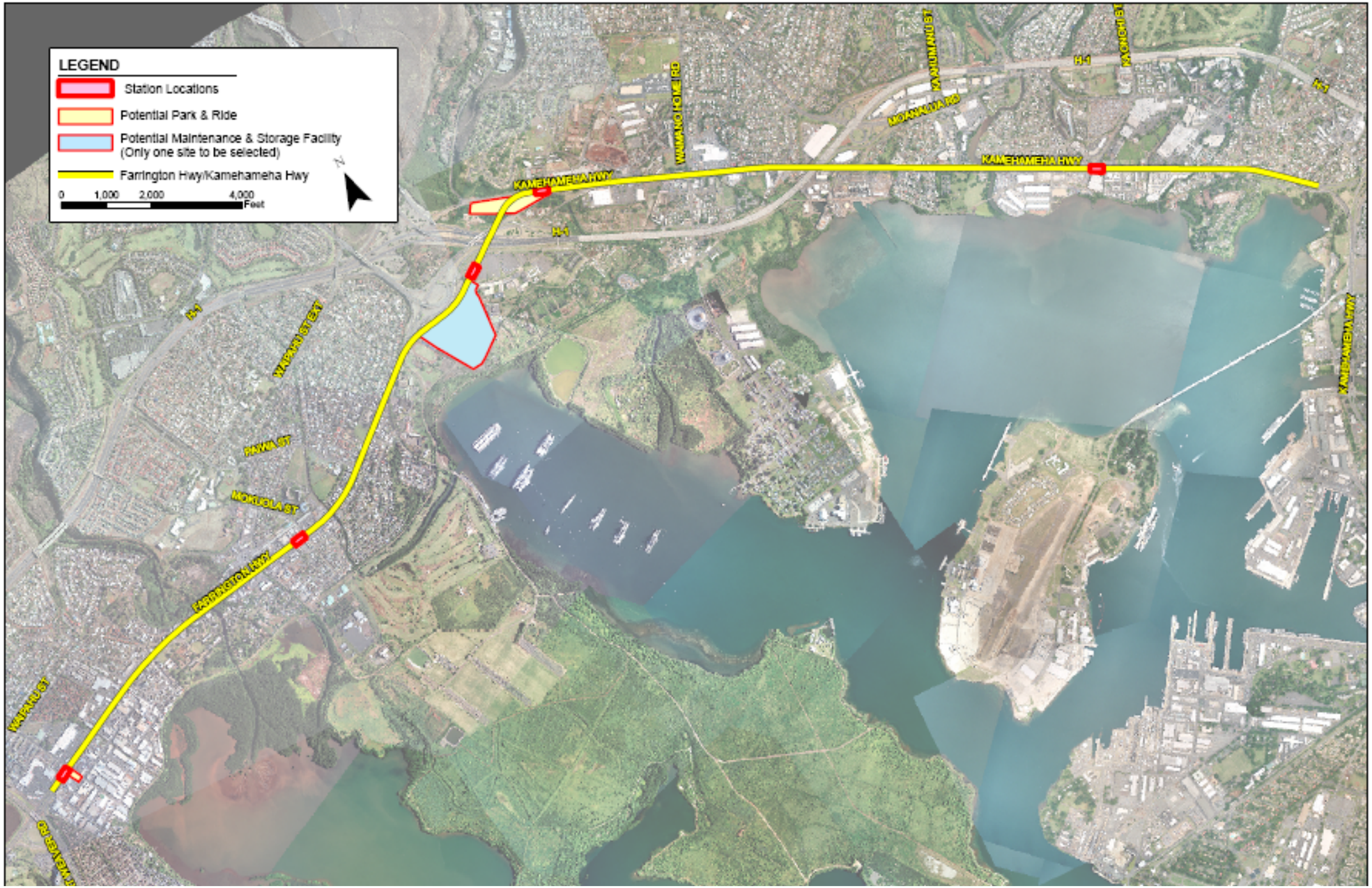

Figure 6-2. Alternative 4: Fixed Guideway Section II

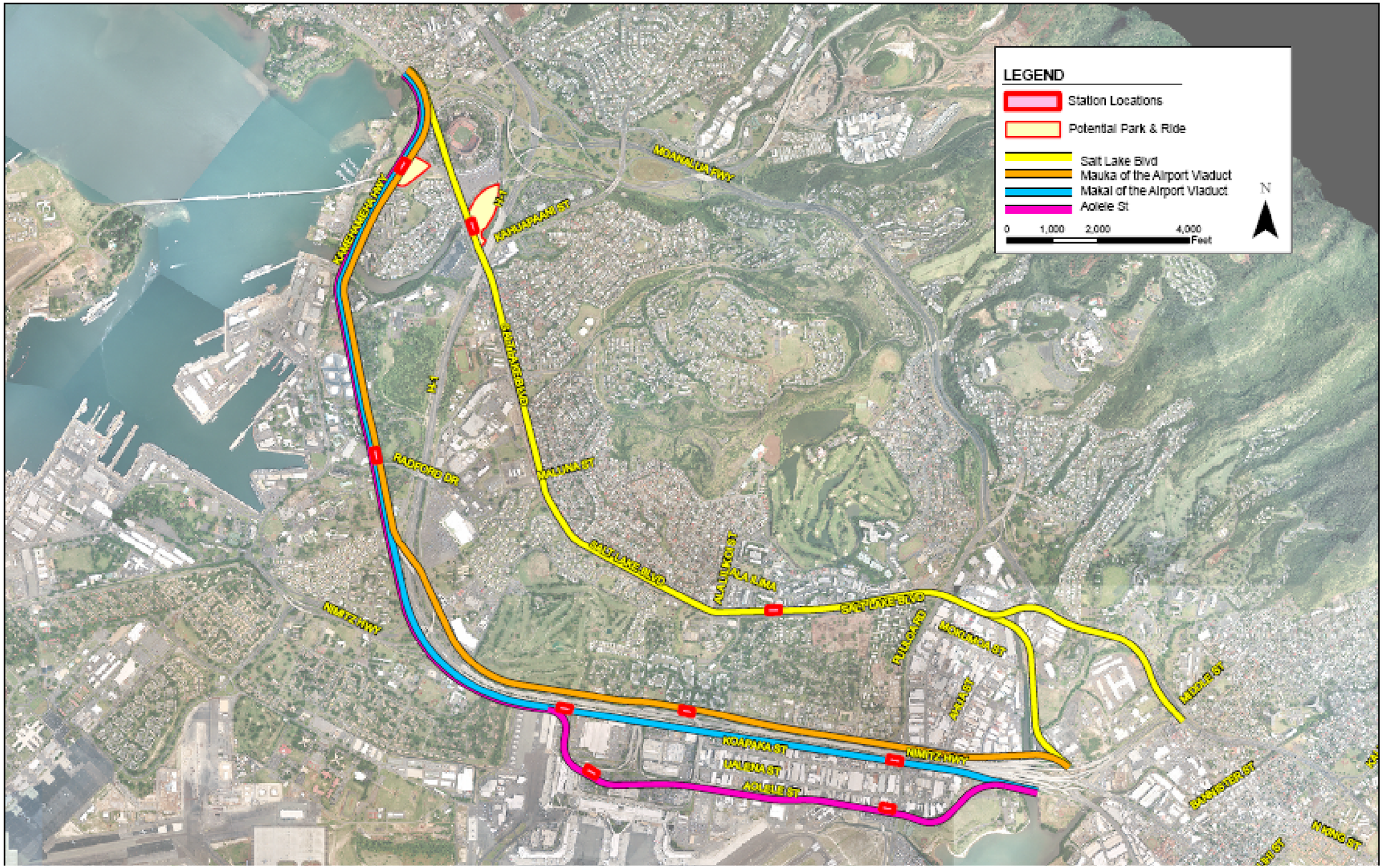

Figure 6-3. Alternative 4: Fixed Guideway Section III

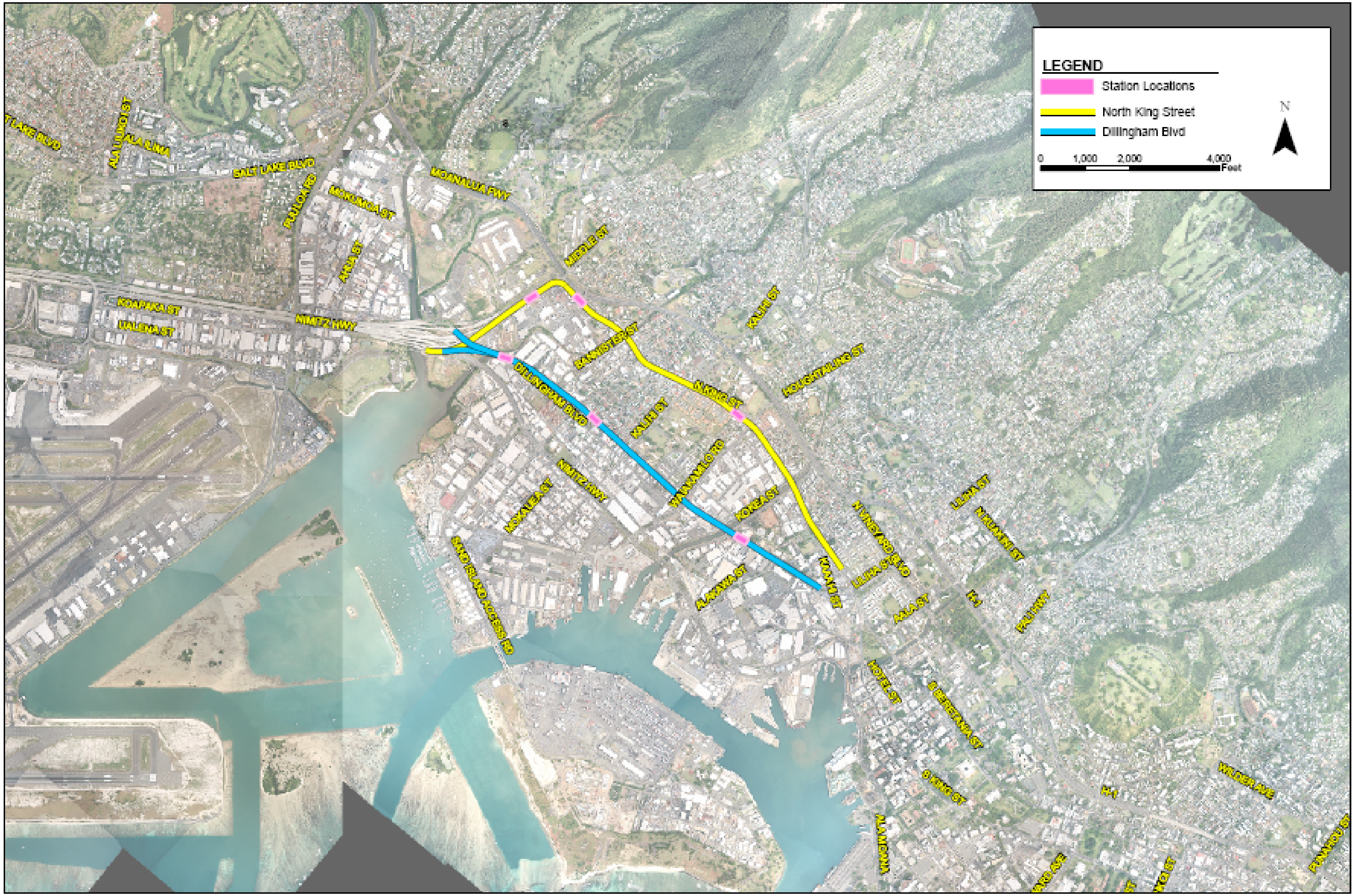

Figure 6-4. Alternative 4: Fixed Guideway Section IV

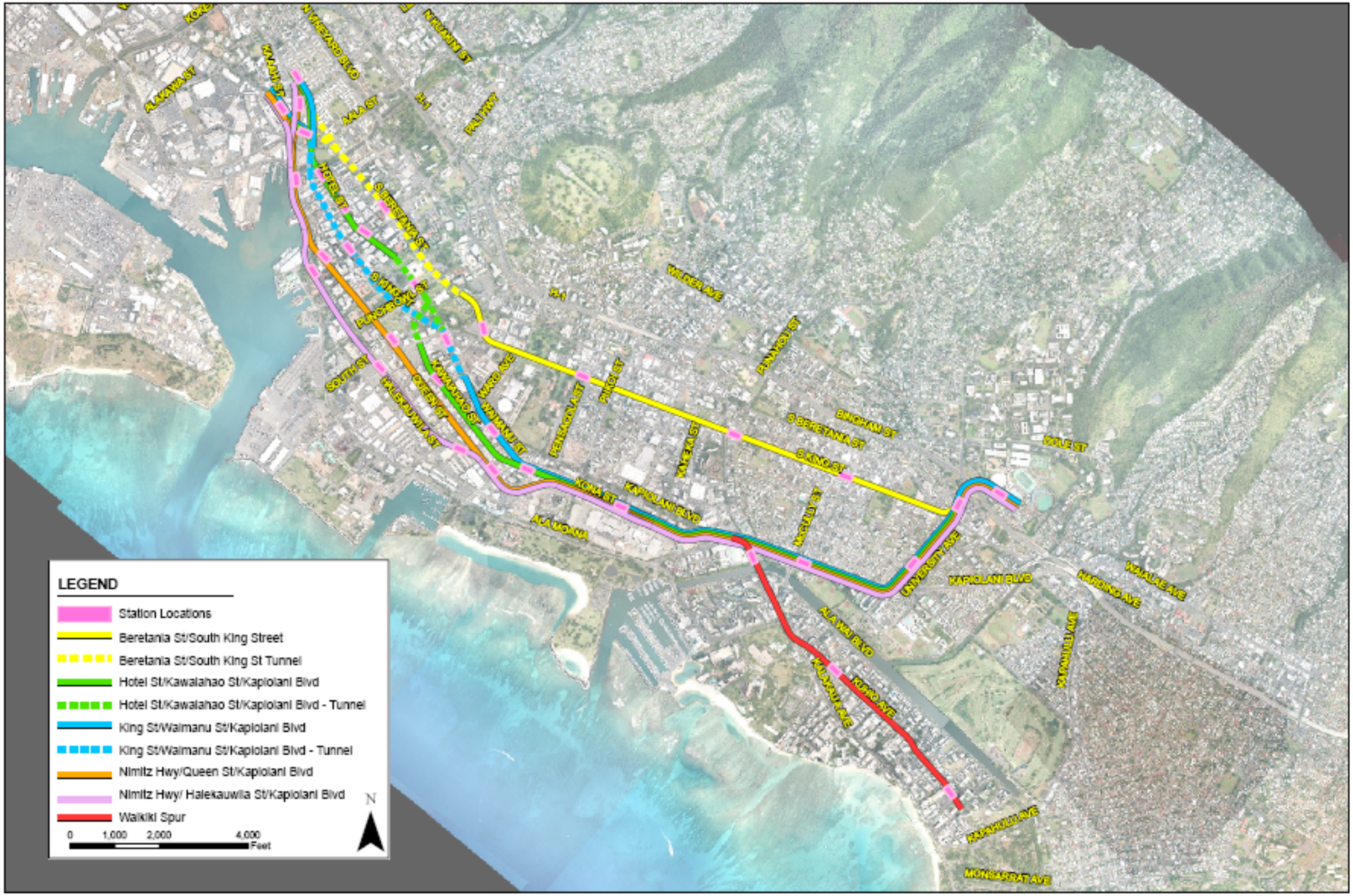

Figure 6-5. Alternative 4: Fixed Guideway Section V

End-to-End Fixed Guideway Alternatives

To perform the detailed analysis of alternatives required for the Honolulu High-Capacity Transit Corridor Project Alternatives Analysis, multiple end-to-end alignments were considered. Each of the alternatives provided slightly different service to specific areas within the corridor and each performed differently with respect to the evaluation measures considered in the analysis. This section details the specific alternatives considered in the Alternatives Analysis.

Initially, end-to-end alignments were combined to highlight performance differences and identify specific areas that generated the best transit performance. The alignments analyzed but not included in the Alternatives Analysis are:

- Saratoga Avenue / Geiger Road / Fort Weaver Road / Kamehameha Highway / Makai of the Airport viaduct / North King Street / Nimitz Highway and Halekauwila Street including a Waikīkī Branch

- Kapolei Parkway / North-South Road / Kamehameha Highway / Mauka of the Airport viaduct / Dillingham Boulevard / South Beretania / South King Street

- Kamokila Boulevard / Farrington Highway / Kamehameha Highway / Nimitz Highway / Aolele Street / Dillingham Boulevard / Hotel Street / Waimanu Street / Kona Street / Kapiʻolani Boulevard / University Avenue with Waikīkī Branch

- Kapolei Parkway / North-South Road / Farrington Highway / Kamehameha Highway / Makai of the Airport Viaduct / Dillingham Boulevard / Nimitz Highway / Halekauwila Street / Kapiʻolani Boulevard / University Avenue

As the analysis developed, revised alignments were defined to capitalize on the high performance interactions within and between sections of the corridor. Based on the interim reviews of the performance criteria three corridor length alignments were defined to be carried through the Alternatives Analysis Report.

In the following sections, details regarding each of these alternatives are defined.

Combination 1: Saratoga Avenue / North-South Road / Farrington Highway / Kamehameha Highway / Salt Lake Boulevard / North King Street / Hotel Street / Kawaiahaʻo Street / Kona Street / Kapiʻolani Boulevard / University Avenue

Overview

This full corridor alignment would provide direct fixed guideway service to the developing Kalaeloa area, the University of Hawaiʻi, West Oʻahu, Leeward Community College, Pearlridge Center, residential neighborhoods in the Salt Lake area, Chinatown, the Central Business District, Kakaʻako, Ala Moana Center, Mo'ili'ili, and the University of Hawaiʻi, Mānoa. This alignment is the shortest of the final combinations and is the only one that provides direct access to the Salt Lake neighborhoods.

Operation

The fixed guideway would operate on the same schedule planned for all fixed guideway alignments. Based on the projected ridership for this alignment, the maximum peak hour operating fleet would be 72 vehicles. Ninety fixed guideway vehicles would be required in total, allowing overhead for maintenance and break-down reserves.

Supporting Facilities

The stations for this alignment combination would be located as listed:

- Hanua Street and Kapolei Parkway (terminal)
- Kapolei Parkway and Wākea Street (integrated with the Kapolei Transit Center)
- Saratoga Avenue and Wākea Street
- Saratoga Avenue and Fort Barrette Road
- Saratoga Avenue and Renton Road, makai of North-South Road
- UH, West Oʻahu at North-South Road between Kapolei Parkway and Farrington Highway
- North-South Road and makai of Farrington Highway
- Farrington Highway between North-South Road and Fort Weaver Road
- Farrington Highway and Leokū Street
- Farrington Highway and Mokuola Street (integrated with the Waipahu Transit Center),
- Leeward Community College,
- Kamehameha Highway and Kuala Street
- Kamehameha Highway and Kaonohi Street.
- Salt Lake Boulevard and Kahuapaʻani Street
- Salt Lake Boulevard across from Ala Nīoi Place
- North King Street and Owen Street
- North King Street and Waiakamilo Road
- North King Street and Dillingham Boulevard/Liliha Street
- Hotel Street and Kekaulike Street
- Hotel Street and Nuʻuanu Avenue
- Hotel Street and Fort Street Mall
- Underground at Punchbowl Street and Hotel Street (Honolulu Hale)
- Kawaiahaʻo Street and Cooke Street
- Kawaiahaʻo Street and Kamakeʻe Street
- Kona Street and Keʻeaumoku Street
- Kapiʻolani Boulevard and McCully Street
- University Avenue and Date Street
- University Avenue and South King Street
- UH Lower Campus

This combination offers park-and-ride lot locations as follows:

Park-and-Ride Location	Kalaeloa – Salt Lake – North King – Hotel
Hanua Street / Kapolei Parkway	1,200 stalls
Saratoga Avenue / Renton Road / North-South Road	1,650 stalls
UH West O' ahu at North-South Road, south of Farrington Highway	1,700 stalls
Ka Uka Boulevard and H-2 Freeway	1,000 stalls
Pearl Highlands (Kamehameha Highway / Kuala Street)	1,500 stalls
Salt Lake Boulevard / Kahuapa'ani Street	1,300 stalls

Bus Service

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix F. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Combination 2: Kamokila Boulevard / Farrington Highway / Kamehameha Highway / Aolele Street / Dillingham Boulevard / King Street / Waimanu Street / Kapi'olani Boulevard with a Waikīkī Branch

Overview

This full corridor alignment would provide direct fixed guideway service to the University of Hawai'i, West O'ahu, Leeward Community College, Pearlridge Center, the Honolulu International Airport, Chinatown, the Central Business District, Kaka'ako, Ala Moana Center, Mo'ili'ili, and the University of Hawai'i, Mānoa. This is the only alignment that serves Waikīkī directly with the fixed guideway alignment.

Operation

The fixed guideway would operate on the same schedule planned for all fixed guideway alignments. Based on the projected ridership for this alignment, the maximum peak hour operating fleet would be 68 vehicles. Ninety-two fixed guideway vehicles would be required in total, allowing overhead for maintenance and break-down reserves.

Supporting Facilities

The stations for this alignment combination would be located as listed:

- Hanua Street and Kapolei Parkway (terminal)

- Kamokila Boulevard and Wākea Street (integrated with the Kapolei Transit Center)
- Farrington Highway and ‘Koko Head of Kapolei Golf Course Road
- Farrington Highway at UH West O‘ahu
- Farrington Highway between North-South Road and Fort Weaver Road
- Farrington Highway and Leokū Street
- Farrington Highway and Mokuola Street (integrated with the Waipahu Transit Center),
- Leeward Community College,
- Kamehameha Highway and Kuala Street
- Kamehameha Highway and Kaonohi Street.
- Kamehameha Highway and Salt Lake Boulevard
- Kamehameha Highway and Radford Drive
- Honolulu International Airport
- Aolele Street and Lagoon Drive
- Middle Street at the Middle Street Transit Center
- Dillingham Boulevard and Mokauea Street
- Dillingham Boulevard and Kōkea Street
- Underground at Ka’aahi Street and Iwilei Road
- Underground at Fort Street Mall with access from Bethel Street and Fort Street
- Underground at Punchbowl Street and Hotel Street (Honolulu Hale)
- Waimanu Street and Cummins Street
- Kona Street and Ke‘eaumoku Street
- Kapi‘olani Boulevard and McCully Street
- University Avenue and Date Street
- University Avenue and South King Street
- UH Lower Campus

This combination offers park-and-ride lot locations as follows:

Park-and-Ride Location	**Kamokila - Airport - Dillingham - King with a Waikīkī Branch**
Hanua Street and Kapolei Parkway	1,200 stalls
UH West O’ ahu at Farrington Highway and Kapolei Golf Course Road	1,700 stalls
Ka Uka Boulevard and H-2 Freeway	1,000 stalls
Pearl Highlands	1,500 stalls
Aloha Stadium	1,300 stalls

Bus Service

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix G. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Combination 3: Saratoga Avenue / North-South Road / Farrington Highway / Kamehameha Highway / Aolele Street / Dillingham Boulevard / Nimitz Highway / Halekauwila Street / Kapi'olani Boulevard / University Avenue

Overview

This full corridor alignment would provide direct fixed guideway service to the developing Kalaeloa area, the University of Hawai'i, West O'ahu, Leeward Community College, Pearlridge Center, Aloha Stadium, the Honolulu International Airport, the Central Business District, Kaka'ako, Ala Moana Center, Mo'ili'ili, and the University of Hawai'i, Mānoa This alignment does not contain a tunnel and is the most makai alignment through the Central Business District and Kaka'ako.

Operation

The fixed guideway would operate on the same schedule planned for all fixed guideway alignments. Based on the projected ridership for this alignment, the maximum peak hour operating fleet would be 74 vehicles. Ninety fixed guideway vehicles would be required in total, allowing overhead for maintenance and break-down reserves.

Supporting Facilities

The stations for this alignment combination would be located as listed:

- Hanua Street and Kapolei Parkway (terminal)
- Kapolei Parkway and Wākea Street (integrated with the Kapolei Transit Center)
- Saratoga Avenue and Wākea Street
- Saratoga Avenue and Fort Barrette Road
- Saratoga Avenue and Renton Road, makai of North-South Road
- UH, West O'ahu at North-South Road between Kapolei Parkway and Farrington Highway
- North-South Road and makai of Farrington Highway
- Farrington Highway between North-South Road and Fort Weaver Road
- Farrington Highway and Leokū Street
- Farrington Highway and Mokuola Street (integrated with the Waipahu Transit Center),
- Leeward Community College,
- Kamehameha Highway and Kuala Street
- Kamehameha Highway and Kaonohi Street.

- Kamehameha Highway and Salt Lake Boulevard
- Kamehameha Highway and Radford Drive
- Honolulu International Airport
- Aolele Street and Lagoon Drive
- Middle Street at the Middle Street Transit Center
- Dillingham Boulevard and Mokauea Street
- Dillingham Boulevard and Kōkea Street
- Dillingham Boulevard and Ka‘aahi Street
- Nimitz Highway and Kekaulike Street
- Nimitz Highway and Fort Street Mall
- Halekauwila Street and South Street
- Halekauwila Street and Ward Avenue
- Kona Street and Ke‘eaumoku Street
- Kapi‘olani Boulevard and McCully Street
- University Avenue and Date Street
- University Avenue and South King Street
- UH Lower Campus

This combination offers park-and-ride lot locations as follows:

Park-and-Ride Location	**Kalaeloa - Airport - Dillingham - Halekauwila**
Hanua Street and Kapolei Parkway	1,200 stalls
Saratoga Avenue / Renton Road / North-South Road	1,650 stalls
UH West O’ ahu at North-South Road, south of Farrington Highway	2,100 stalls
Ka Uka Boulevard and H-2 Freeway	1,000 stalls
Pearl Highlands	1,500 stalls
Aloha Stadium	1,500 stalls

Bus Service

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix H. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

20-mile Alignment: University of Hawai‘i at West O‘ahu / Farrington Highway / Kamehameha Highway / Aolele Street / Dillingham Boulevard / Halekauwila Street / Ala Moana Center

Overview

A series of short alignments were also considered to provide another viable alternative that would not require the same level of capital investment as the other alternatives. This alignment offered the best service overall and is presented as a fiscally prudent alternative to the end-to-end alignments.

This alignment would provide direct fixed guideway service to the University of Hawai‘i, West O‘ahu, Leeward Community College, Pearlridge Center, Aloha Stadium, the Honolulu International Airport, the Central Business District, Kaka‘ako, and the Ala Moana Center. This alignment is approximately 20 miles long, does not contain a tunnel and is the most makai alignment through the Central Business District and Kaka‘ako.

Operation

The fixed guideway would operate on the same schedule planned for all fixed guideway alignments. Based on the projected ridership for this alignment, the maximum peak hour operating fleet would be 52 vehicles. Sixty-three fixed guideway vehicles would be required in total, allowing overhead for maintenance and break-down reserves.

Supporting Facilities

The stations for this alignment combination would be located as listed:

- Kapolei Parkway and North-South Road
- UH, West O‘ahu Campus Wai‘anae of North-South Road between Kapolei Parkway and Farrington Highway
- North-South Road and makai of Farrington Highway
- Farrington Highway between North-South Road and Fort Weaver Road
- Farrington Highway and Leokū Street
- Farrington Highway and Mokuola Street (integrated with the Waipahu Transit Center),
- Leeward Community College,
- Kamehameha Highway and Kuala Street
- Kamehameha Highway and Kaonohi Street.
- Kamehameha Highway and Salt Lake Boulevard
- Kamehameha Highway and Radford Drive
- Honolulu International Airport
- Aolele Street and Lagoon Drive
- Middle Street at the Middle Street Transit Center
- Dillingham Boulevard and Mokauea Street
- Dillingham Boulevard and Kōkea Street

- Dillingham Boulevard and Ka‘aahi Street
- Nimitz Highway and Kekaulike Street
- Nimitz Highway and Fort Street Mall
- Halekauwila Street and South Street
- Halekauwila Street and Ward Avenue
- Kona Street and Ke‘eaumoku Street

This combination offers park-and-ride lot locations as follows:

Park-and-Ride Location	Fixed Guideway – 20-mile Alignment
UH West O’ ahu at North-South Road, south of Farrington Highway	1,700 stalls
Ka Uka Boulevard and H-2 Freeway	1,000 stalls
Pearl Highlands	1,500 stalls
Aloha Stadium	1,500 stalls

Bus Service

Detailed descriptions of the bus service for this specific alignment combination can be found in Appendix I. The bus descriptions include tables that describe weekday operations for TheBus. Route operating details are summarized by period of day, weekday totals, and the maximum vehicle requirements by period of day.

Chapter 7 Conclusion

The alternatives described in this memorandum are the detailed definition of alternatives. These alternatives were analyzed for transportation benefits and impacts, environmental consequences, and financial requirements. Initial estimates of user benefits, cost effectiveness, land use effects, and capital and operating finances will be created. This information will be included in the Alterative Analysis (AA) which will be used by the Honolulu City Council to select a Locally Preferred Alternative.

The Locally Preferred Alternative will define the mode (either bus or rail), the alternative, and the alignment for the fiscally constrained project. This project will be adopted into the fiscally constrained O'ahu Regional Transportation Plan. The design will be advanced to support the development of the Draft Environmental Impact Statement (DEIS) while developing the information needed for a New Starts application to enter Preliminary Engineering. Environmental consequence mitigation plans will be developed and the assessment of user benefits, cost effectiveness, land use, and capital and operating finances will be solidified.

The process described above is a tentative plan and requires further coordination with the Federal Transit Administration (FTA). The process is subject to change and may affect the order of task execution or the details of analysis.

References

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Appendix A: Projects Included in No Build

Facility/Project Title	Project Description
OMPO BASELINE PROJECTS	
Fort Weaver Road Widening, Vicinity of ʻA ʻawa Street to Geiger Road	Widen the roadway to six lanes. Improvements include turning lanes, traffic signal modifications, and additional highway lighting.
Freeway Management System, Interstate H-1, H-2 and Moanalua Freeway	Construct a freeway management system, including intelligent transportation systems (ITS) technologies and interagency coordination to monitor and manage traffic operations.
Interstate Route H-1, AM Contraflow lane, Pearl Harbor Interchange to Keʻehi Interchange, AM Zipper Lane extension	Extend the AM zipper lane from the vicinity of Radford Drive Overpass to Kalihi Stream.
Kamehameha Highway Bikeway, Radford Drive to Arizona Memorial	Construct a bikeway, including drainage improvements, markings, signing, and Americans with Disabilities Act improvements.
North-South Road, Kapolei Parkway to Vicinity of Interstate Route H-1	Construct a three-lane roadway from Kapolei Parkway to Interstate Route H-1.
Computerized Traffic Control System	Upgrade and expand fiber-optic lines, CCTV cameras, data collection, and signal control in urban center and outlying areas for connectivity to the Traffic Control Center.
Kamokila Boulevard Extension	Plan, design and construct an extension of Kamokila Boulevard from Franklin D. Roosevelt Avenue in Kapolei.
Salt Lake Boulevard Widening, Phase 2B	Complete Salt Lake Boulevard Widening project, from Maluna Street to Ala Liliko'i Street.
MID-RANGE PLAN (2006 TO 2015)	
ISLANDWIDE PROJECTS - 2006 to 2015	
Alapaʻi Transit Center & Joint Transportation Management Center	Construct a multi-use facility at Alapaʻi Street to include a transit center, City-State transportation management center, and other operations.
Bike Plan Hawaiʻi - Oʻahu	Implement Oʻahu elements of the State of Hawaiʻi's *Bike Plan Hawaiʻi*. (*Bike Plan Hawaiʻi* includes only "Priority One" projects as identified in the *Honolulu Bicycle Master Plan*).
Enhancement Projects	Implement enhancement projects, including, but not limited to, projects from the *Transportation Enhancement Program for Oʻahu.* Includes development of

	a pedestrian plan for Oʻahu.
Intelligent Transportation Systems (ITS)	Implement ITS projects including, but not limited to, those identified in the *Oʻahu Regional ITS Architecture.*
Rockfall Protection, Various Locations	Install rockfall protection or mitigation measures along various state highways at various locations.
Transportation Demand Management (TDM) Program	Develop an aggressive, TDM program that could include, but is not limited to: 1. Free real-time online carpool matching, 2. Outreach promotion and marketing of alternative transportation, 3. Emergency ride home program, 4. Major special events, 5. Employer based commuter programs, 6. Emerging and innovative strategies (i.e., car sharing).
Van Pool Program	Continue implementation and expansion of the State's Van Pool Program.
SAFETY & INFORMATIONAL MERIT PROJECTS - 2006 - 2015	
Kalaniana'ole Highway, Safety & Operational Improvements, Olomana Golf Course to Waimānalo Beach Park	Construct safety and operational improvements along Kalaniana'ole Highway between the Olomana Golf Course and Waimānalo Beach Park. Specific safety and operational improvements includes construction of turning lanes, sidewalks, wheelchair ramps, bike paths or bike lanes, traffic signal upgrades, utility relocation, and drainage improvements.
Kamehameha Highway, Safety Improvements, Hale'iwa to Kahalu'u	Construct safety improvements along Kamehameha Highway, from Hale'iwa to Kahalu'u. Safety improvements include turn lanes, guardrails, signage, crosswalks, etc. to improve safety. Widening of Kamehameha Highway will only be in areas where needed for storage/turn lanes safety improvements.
Kamehameha Highway, Safety & Operational Improvements, Ka'alaea Stream to Hygienic Store	Construct safety and operational improvements along Kamehameha Highway, between Ka'alaea Stream and Hygienic Store. Safety and operational improvements include passing and turning lanes, modification of signals, installation of signs, flashers, and other warning devices. This project also includes replacement of Ka'alaea Stream Bridge and Haiamoa Stream Bridge with structures that meet current design standards.
CONGESTION RELIEF PROJECTS - 2006 - 2015	
Farrington Highway, Widening, Fort Barrette Road to west of Fort Weaver Road	Widen Farrington Highway from 2 to 4 lanes, from Fort Barrette Road to west of Fort Weaver Road.
Fort Barrette Road, Widening, Farrington Highway to Franklin D. Roosevelt Avenue	Widen Fort Barrette Road from 2 to 4 lanes, from Farrington Highway to Franklin D Roosevelt Avenue.
Hanua Street, Extension, Farrington Highway to Malakole Street; Interstate Route H-1, New On- & Off-Ramps, Pālailai Interchange	● Extend Hanua Street from Malakole Street to Farrington Highway. This new 4-lane roadway will provide access to Kalaeloa Harbor. ● Construct new on- and off-ramps at Interstate Route H-1 Pālailai Interchange to Hanua Street extension.

Interstate Route H-1, New Interchange, Kapolei Interchange	Construct new Interstate Route H-1 Kapolei Interchange for Kapolei between the Pālailai Interchange and Makakilo Interchange.
Interstate Route H-1, Widening, Middle Street to Vineyard Boulevard	Widen the Interstate Route H-1 by 1 lane, in the eastbound direction, from Middle Street to Vineyard Boulevard, as identified below: ● From 2 to 3 lanes from Middle Street to Likelike Highway off-ramp ● From 3 to 4 lanes from Likelike Highway off-ramp to Vineyard Boulevard This project also includes the widening of: ● Gulick Avenue overpass to allow 5 lanes to pass under it ● Kalihi Interchange overcrossings to allow 4 lanes to pass under it
Interstate Route H-1, Operational Improvements, Lunalilo Street to Vineyard Boulevard	Modify the weaving movements on the Interstate Route H-1, in the westbound direction, between the Lunalilo Street on-ramp and the Vineyard Boulevard off-ramp.
Interstate Route H-1, New On-& Off-Ramps, Makakilo Interchange	Construct a new eastbound off-ramp and a new westbound on-ramp to the Interstate Route H-1 at the Makakilo Interchange.
Interstate Route H-1, Widening, Waiau Interchange to Waiawa	Widen Interstate Route H-1 in the westbound direction by 1 lane from the Waiau Interchange to the Waiawa Interchange.
Interstate Route H-1, Widening, Waiawa Interchange	Widen the Interstate Route H-1 by 1 lane, in the westbound direction, through the Waiawa Interchange. This project will begin in the vicinity of the Waiawa Interchange and end at the Paiwa Interchange. ● From 2 to 3 lanes in AM peak ● From 4 to 5 lanes in PM peak
Interstate Route H-1, Zipper Lane (PM), Ke‘ehi Interchange to Kunia Interchange	Construct a Zipper lane on the Interstate Route H-1, in the westbound direction, from Ke‘ehi Interchange to Kunia Interchange. This project would be in use during the PM peak.
Interstate Route H-1, Widening, Waipahu Off-Ramp	Widen the Interstate Route H-1 Waipahu Street off-ramp from 1 to 2 lanes, in the westbound direction, at the Waiawa Interchange.
Interstate Route H-2, Widening, Waipi‘o Interchange	Widen both on- and off-ramps on Interstate Route H-2, at the Waipi‘o Interchange. This project includes the widening of the Ka Uka Boulevard overpass and intersection improvements to facilitate movement to and from the on- and off-ramps.
Interstate Route H-1, Operational Improvements, Ward Avenue On-Ramp to University Avenue Interchange	Improve traffic flow on the Interstate Route H-1, in the eastbound direction, from the Ward Avenue on-ramp to the University Avenue Interchange through operational improvements.
Interstate Routes H-1 & H-2, Operational Improvements, Waiawa Interchange	Modify the Interstate Routes H-1 and H-2 Waiawa Interchange, to improve merging characteristics through operational improvements (e.g., additional transition lanes).

Kamehameha Highway, Widening, Lanikuhana Avenue to Ka Uka Boulevard	Widen Kamehameha Highway from a 3-lane to a 4-lane divided facility between Lanikuhana Avenue and Ka Uka Boulevard. This project includes shoulders for bicycles and disabled vehicles, bridge crossing replacement, bikeways, etc.
Kapolei Parkway, Extension, Kamokila Boulevard to Pāpipi Road	Extend the existing 4-lane Kapolei Parkway by constructing the segments in each of the following areas: ● Kamokila Boulevard to Fort Barrette Road ● ʻEwa Village boundary to Renton Road ● Geiger Road to Pāpipi Road
Kapolei Parkway, Extension and Widening, Aliʻinui Drive to Kalaeloa Boulevard	Extend the existing 4-lane Kapolei Parkway, from Aliʻinui Drive to Hanua Street. This project includes widening of Kapolei Parkway from 4 to 6 lanes from Hanua Street to Kalaeloa Boulevard.
North-South Road, Widening & Extension, Interstate Route H-1 to Franklin D Roosevelt Avenue	Widen and extend North-South Road as follows: ● From 3 to 6 lanes from Kapolei Parkway to Interstate Route H-1 ● Extend from Kapolei Parkway to Franklin D Roosevelt Avenue (6 lanes)
SECOND ACCESS PROJECTS - 2006 to 2015	
Makakilo Drive, Second Access, Makakilo Drive to North-South Road/Interstate Route H-1 Interchange	Extend Makakilo Drive (vicinity Pueonani Street) south to the Interstate Route H-1 Freeway Interchange as 4-lane roadway, connecting Makakilo Drive to North-South Road.
TRANSIT PROJECTS - 2006 - 2015	
Ferry, Intra-Island Express Commuter, in the vicinity of Ocean Pointe Marina to Honolulu Harbor	Implement intra-island passenger ferry in the vicinity of the Ocean Pointe Marina in ʻEwa to Honolulu Harbor.
OPERATIONS, MAINTENANCE & SYSTEM PRESERVATION - 2006- 2015	
City Operations and Maintenance (O&M)	Maintain and operate the City's existing and future roadway and transit operations and routine maintenance. Includes, but is not limited to, operation of the transit system (including bus, rail, and ferry), replacement of existing fleet, resurfacing, guardrail and shoulder improvements, lighting improvements, drainage improvements, sign upgrades and replacement, etc.
State Operations and Maintenance	Maintain and operate the State's existing and future highway operations and routine maintenance. Includes, but is not limited to, resurfacing, guardrail and shoulder improvements, lighting improvements, drainage improvements, sign upgrades and replacement, traffic signal upgrade and retrofit, etc.
System Preservation	Preserve the highway system through projects including, but not limited to, bridge replacement and seismic retrofit, pavement preventative maintenance, etc.
LONG-RANGE PLAN (2016 TO 2030)	
ISLANDWIDE PROJECTS - 2016 to 2030	

Bike Plan Hawai'i - O'ahu	See description in Mid-Range Plan
Enhancement Projects	See description in Mid-Range Plan
Intelligent Transportation Systems	See description in Mid-Range Plan
Transportation Demand Management Program	See description in Mid-Range Plan
SAFETY & OPERATIONAL IMPROVEMENT PROJECTS - 2016 - 2030	
Farrington Highway, Safety Improvements, Mākua Valley Road to Ali'inui Drive	Construct safety improvements on Farrington Highway along the Wai'anae Coast, from Mākua Valley Road (Ka'ena Point) to Ali'inui Drive (Kahe Point). This project includes realignment around Mākaha Beach Park, between Makau Street and Water Street.
CONGESTION RELIEF PROJECTS - 2016 -2030	
Farrington Highway, Widening, west of Fort Weaver Road to Waiawa Interchange	Widen Farrington Highway from Kunia to Waiawa by 1 lane in each direction, from west of Fort Weaver Road to Waiawa Interchange.
Farrington Highway, Widening, Hakimo Road to Kalaeloa Boulevard	Widen Farrington Highway from 4 to 6 lanes, from Hakimo Road to Kalaeloa Boulevard, including intersection of Lualualei Naval Road.
Interstate Route H-1, Widening, Liliha Street to Pali Highway	Widen the Interstate Route H-1 by 1 lane, from 3 to 4 lanes in the eastbound direction, from the Liliha Street on-ramp to Pali Highway off-ramp.
Interstate Route H-1, On- & Off- Ramp Modifications, Various Locations	Modify and/or close various on- and off- ramps on the Interstate Route H-1 from Middle Street to University Avenue. This project includes modification of auxiliary lanes at various exits and other operational changes to Interstate Route H-1. The identification of the precise improvements to be made will require a separate detailed corridor study.
Interstate Route H-1, On- & Off- Ramp Modifications, University Avenue Interchange	Modify on- and off-ramps at the University Avenue Interchange on Interstate Route H-1. This project includes the construction of new ramps to allow all movements, safety improvements, including the closure of the eastbound on-ramp at University Avenue Interchange to Interstate Route H-1 and the construction of a new makai bound off-ramp to University Avenue from Interstate Route H-1.
Interstate Route H-1, Widening, Vineyard Boulevard to Middle Street	Widen the Interstate Route H-1 by 1 lane in the westbound direction, from Vineyard Boulevard to Middle Street.

Interstate Route H-1, HOV Lanes, Waiawa Interchange to Makakilo Interchange	Construct 2 new lanes in the freeway median for HOV use, 1 in the westbound direction and 1 in the eastbound direction, on Interstate Route H-1, from the Waiawa Interchange to the Makakilo Interchange.
Interstate Route H-1, Widening, Waiawa Interchange to Hālawa Interchange	Widen the Interstate Route H-1 by 1 lane in the eastbound direction, from the Waiawa Interchange to the Hālawa Interchange.
Interstate Route H-1, Widening, Ward Avenue to Punahou Street	Widen the existing Interstate Route H-1 by 1 lane in the eastbound direction, from Ward Avenue to Punahou Street.
Interstate Route H-2, New Interchange, Pineapple Road Overpass	Construct a new full-service freeway interchange on Interstate Route H-2, between Meheula Parkway and Ka Uka Boulevard, to accommodate future developments in Central Oʻahu. This project includes the widening of the existing Pineapple Road Overpass from 2 lanes to 4 lanes; and addition of new on- and off-ramps to and from Interstate Route H-2 at Pineapple Road Overpass.
Kahekili Highway, Widening, Kamehameha Highway to Haʻikū Road	Widen Kahekili Highway from 2 to 4 lanes, from Kamehameha Highway to Haʻikū Road. This project also includes the following improvements: ● Contraflow in existing right-of-way between Hui Iwa Street and Haʻikū Road ● Intersection improvements at Hui Iwa Street and Kamehameha Highway
Kunia Road, Widening and Interchange Improvement, Wilikina Drive to Farrington Highway	Widen Kunia Road as follows: ● From 2 to 4 lanes, from Wilikina Drive to Anonui Street. ● From 2 to 4 lanes, Anonui Street to Kupuna loop. ● From 4 to 6 lanes, Kupuna Loop to Farrington Highway. ● Add 1 lane eastbound loop on-ramp at Kunia Road & Interstate Route H-1.
Likelike Highway, Widening, Kamehameha Highway to Kahekili Highway	Widen Likelike Highway from 4 to 6 lanes, from Kamehameha Highway to Kahekili Highway.
Makakilo Mauka Frontage Road, New Roadway, Kalaeloa Boulevard to Makakilo Drive	Construct a new 2-lane Makakilo Mauka Frontage Road, mauka of Interstate Route H-1, from Kalaeloa Boulevard to Makakilo Drive.
Nimitz Highway, High Occupancy Vehicle (HOV) Flyover, Keʻehi Interchange to Pacific Street	Construct a new 2-lane elevated and reversible HOV flyover above Nimitz Highway, from the Keʻehi Interchange to Pacific Street. This project includes the removal of the existing eastbound contraflow lane in the AM peak and restoration of all turning movements on the at-grade portion of Nimitz Highway.
Puʻuloa Road, Widening, Pukuloa Road to Nimitz Highway	Widen Puʻuloa Road, from Pukuloa Road to Nimitz Highway, as follows: ● From 3 lanes (1 lane southbound and 2 lane northbound) to 5 lanes (2 lanes southbound and 3 lanes northbound), from Pukuloa Road to Kamehameha

Pi‘ikoi-Pensacola Couplet Reversal	Reverse the direction of the existing one-way Pi‘ikoi Street and Pensacola Street couplet.
SECOND ACCESS PROJECTS - 2016 - 2030	
Central Mauka Road, Second Access, Mililani Mauka to Waiawa	Construct Central Mauka Road, a new 4-lane, 2.5-mile road from Mililani Mauka to Waiawa. Road connects Meheula Parkway to Kamehameha Highway in Pearl City; parallel to & mauka of Interstate Route H-2. The new 4-lane north-south road includes connections to Interstate Route H-2 interchanges.
Wahiawā, Second Access, Whitmore Avenue to Meheula Parkway	Construct a new 2-lane second access road between Whitmore Village and Wahiawā, from Whitmore Avenue to California Avenue. Continue the new 2-lane second access road to Mililani Mauka, from California Avenue to Meheula Parkway.
Wai‘anae, Second Access, Farrington Highway to Kunia Road	Construct a new 2-lane second access road to Wai‘anae from Farrington Highway in the vicinity of Mā‘ili, over the Wai‘anae Mountain Range, to Kunia Road.
OPERATIONS, MAINTENANCE & SYSTEM PRESERVATION - 2016 TO 2030	
City Operations and Maintenance (O&M)	See description in Mid-Range Plan
State Operations and Maintenance	See description in Mid-Range Plan
System Preservation	See description in Mid-Range Plan
RIGHT-OF-WAY PRESERVATION	
CONGESTION RELIEF PROJECTS - ROW PRESERVATION	
Kalaeloa East-West Spine Road, New Roadway, Kalaeloa Boulevard to Geiger Road	Establish and preserve right-of-way (ROW) for Kalaeloa East-West Spine Road (see project description on illustrative project list).
Keone‘ula Boulevard, Extension, Kapolei Parkway to Franklin D. Roosevelt Avenue	Establish and preserve right-of-way (ROW) for Keone‘ula Boulevard Extension (see project description on illustrative project list).

Appendix B: Bus Operating Details for No Build Alternative

Appendix C: Bus Operating Details for Transportation System Management Alternative

Appendix D: Bus Operating Details for Managed Lane Option 1 Alternative

Appendix E: Bus Operating Details for Managed Lane Option 2 Alternative

Appendix F: Bus Operating Details for Fixed Guideway Alternative Combination 1

Appendix G: Bus Operating Details for Fixed Guideway Alternative Combination 2

Appendix H: Bus Operating Details for Fixed Guideway Alternative Combination 3

Appendix I: Bus Operating Details for Fixed Guideway Alternative 20-mile Alignment

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	461	56	7	144	2,947	280	38	739
B	LS	150	30	3	24	1,259	96	27	215
C	LS	1,154	124	16	510	2,954	232	31	1,184
D	LS	280	20	4	101	1,050	75	15	380
E	LS	640	80	8	196	2,240	280	28	685
1	L	880	80	16	142	1,980	180	36	320
1L	LS	420	30	6	101	1,050	75	15	253
2	L	507	41	9	66	2,848	223	46	422
3	L	590	48	11	128	2,342	246	33	419
4	L	400	50	5	60	2,240	280	28	333
5	CC	0	0	0	0	392	42	15	76
6	L	65	4	3	12	1,287	154	21	180
7	CC	84	18	4	19	719	43	24	126
8	L	0	0	0	0	354	60	6	44
9	L	83	7	3	21	2,205	304	35	451
10	CC	53	1	3	10	341	15	10	64
11	L	0	0	0	0	448	52	8	123
13	L	760	80	8	86	3,800	400	40	432
15	CC	28	2	1	7	214	16	9	51
16	CC	0	0	0	0	100	20	4	30
17	CC	0	0	0	0	137	41	11	20
18	CC	0	0	0	0	660	60	12	86
19	L	429	55	8	100	1,614	180	22	316
20	L	72	25	1	16	875	220	10	171
23	L	0	0	0	0	1,140	120	12	247
31	CC	86	3	4	26	356	12	11	92
32	L	43	2	1	15	587	40	11	168
40	L	1,411	96	10	402	3,790	242	24	966
41	L	84	22	4	31	316	71	13	117
42	L	826	68	8	213	3,144	240	24	650
43	L	0	0	0	0	604	60	8	175
50	L	160	20	2	31	1,120	140	14	217
51	L	408	42	5	122	1,798	302	18	440
52	L	525	75	5	187	1,680	240	16	599
53	L	198	10	5	59	1,651	105	21	317
54	L	267	0	7	70	1,429	76	21	292
55	L	304	30	2	111	1,824	180	12	666
56	L	175	18	3	68	963	100	12	288
57	L	204	20	6	77	1,154	129	23	380
57A	L	0	0	0	0	444	70	9	143
65	L	100	13	2	38	718	68	11	226
70	CC	0	0	0	0	153	6	5	59
71	CC	0	0	0	0	144	13	8	43
73	CC	0	0	0	0	120	48	12	52
74	CC	0	0	0	0	147	29	7	33
77	CC	0	0	0	0	189	22	5	65
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	25	5	1	7	150	30	6	41

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
134	CC	55	5	1	16	330	30	6	94
231	CC	50	10	2	20	150	30	6	59
232	CC	50	10	2	15	150	30	6	45
401	CC	48	12	2	18	78	12	3	27
402	CC	42	18	2	14	69	21	3	21
403	CC	74	17	3	28	156	24	6	51
411	CC	56	4	4	14	196	14	14	48
412	CC	46	24	5	14	116	84	13	36
413	CC	15	0	1	6	123	42	11	50
414	CA	37	53	3	11	72	108	6	22
415	CC	72	13	1	21	570	60	6	129
416	CC	25	5	1	5	150	30	6	31
417	CC	50	10	2	22	150	30	6	65
418	CC	110	10	2	22	330	30	6	65
419	CC	50	10	2	14	150	30	6	43
421	CC	110	10	2	27	440	40	8	107
422	CC	110	10	2	32	330	30	6	97
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	214	26	12	50
434	CC	101	8	5	24	381	28	20	90
440	CC	50	10	2	11	150	30	6	34
441	CC	110	10	2	22	330	30	6	67
501	CC	0	0	0	0	175	35	7	55
502	CC	0	0	0	0	175	35	7	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	165	15	3	34
505	CC	0	0	0	0	45	15	3	12
511	CC	75	15	3	19	150	30	6	37
512	CC	50	10	2	12	150	30	6	36
513	CC	50	10	2	9	150	30	6	27
521	CC	25	5	1	9	75	15	3	27
522	CC	25	5	1	14	75	15	3	43
FERRY ROUTES									
4F	F	0	0	0	0	193	18	4	32
8F	F	0	0	0	0	245	18	4	43
30F	F	0	0	0	0	140	18	4	25
41F	F	0	0	0	0	83	8	2	18
93F	F	0	0	0	0	180	0	2	48
411F	F	0	0	0	0	83	8	2	20
413F	F	0	0	0	0	90	0	3	21

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
80A	X	0	0	0	0	354	0	5	99
80B	X	0	0	0	0	40	0	1	11
81	X	220	0	4	80	464	0	8	159
82	X	45	0	1	16	144	0	3	47
83	X	457	0	6	174	316	0	4	114
83A	X	124	0	2	53	0	0	0	0
84	X	130	0	2	55	153	0	2	57
84A	X	69	0	1	26	222	0	3	81
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
86	X	65	0	1	26	0	0	0	0
86A	X	70	0	1	28	0	0	0	0
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
90	X	0	0	0	0	114	0	2	37
92	X	144	0	2	52	72	0	1	26
93	X	648	0	8	287	698	0	11	285
93A	X	75	0	1	38	0	0	0	0
95	X	76	0	1	31	0	0	0	0
96	X	0	0	0	0	88	0	2	36
97	X	47	0	1	20	141	0	3	59
98	X	47	0	1	23	110	0	2	47
101	X	120	0	2	45	180	0	3	67
102	X	56	0	1	25	112	0	2	51
103	X	0	0	0	0	88	0	2	32
203	X	0	0	0	0	110	0	2	19
TOTALS		16,264	1,507	289	4,781	69,427	7,096	1,163	16,797

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	3,767	416	53	1,160	2,509	216	30	625
B	LS	2,182	163	47	374	1,116	84	24	191
C	LS	4,633	614	50	1,889	2,616	294	27	1,053
D	LS	1,680	120	24	608	1,050	75	15	380
E	LS	3,840	480	48	1,174	1,920	240	24	587
1	L	2,640	240	48	427	2,420	220	44	392
1L	LS	1,680	120	24	404	1,050	75	15	253
2	L	2,752	152	43	401	1,978	73	31	290
3	L	3,168	410	44	607	1,791	252	29	337
4	L	2,880	360	36	428	2,400	300	30	357
5	CC	486	54	18	92	306	30	11	58
6	L	2,340	162	36	343	1,143	66	17	166
7	CC	737	101	21	128	465	114	13	81
8	L	1,440	192	24	178	1,080	144	18	133
9	L	1,709	312	23	333	1,624	192	19	310
10	CC	317	35	9	59	327	43	9	59
11	L	703	72	13	203	461	36	8	126
13	L	6,840	720	72	778	3,420	360	36	389
15	CC	336	24	12	83	252	18	12	59
16	CC	0	0	0	0	150	30	6	45
17	CC	403	117	26	48	231	45	15	28
18	CC	1,320	120	24	173	660	60	12	86
19	L	2,842	375	37	536	1,337	195	17	272
20	L	1,662	441	18	304	730	88	8	138
23	L	2,280	240	24	493	1,140	120	12	247
31	CC	394	18	11	94	271	9	8	60
32	L	676	104	13	198	610	48	11	169
40	L	3,414	240	24	972	4,354	294	28	1,133
41	L	588	132	24	219	294	66	12	109
42	L	3,367	260	26	704	2,488	260	20	538
43	L	1,644	180	24	524	755	55	10	219
50	L	1,920	240	24	372	960	120	12	186
51	L	2,280	240	24	588	985	165	10	245
52	L	2,205	315	21	786	1,365	195	13	487
53	L	1,400	105	21	349	1,060	85	13	211
54	L	1,596	144	25	372	1,597	90	22	328
55	L	3,344	330	22	1,221	1,520	150	10	555
56	L	1,708	168	21	515	1,154	112	14	340
57	L	1,555	355	23	530	1,028	170	15	340
57A	L	624	90	12	205	290	40	6	89
65	L	741	51	12	203	829	166	13	245
70	CC	356	12	8	126	174	9	6	62
71	CC	7	3	1	2	100	8	4	30
73	CC	234	126	24	99	105	55	11	46
74	CC	0	0	0	0	140	18	6	30
77	CC	296	68	8	107	150	37	4	55
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	300	60	12	83	150	30	6	41

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
134	CC	660	60	12	188	330	30	6	94
231	CC	125	25	5	49	150	30	6	59
232	CC	125	25	5	38	150	30	6	45
401	CC	156	24	6	54	78	12	3	27
402	CC	138	42	6	43	69	21	3	21
403	CC	350	30	13	109	165	15	6	51
411	CC	336	24	24	82	168	12	12	41
412	CC	216	144	24	66	108	72	12	33
413	CC	138	42	12	56	150	30	12	56
414	CA	144	216	12	44	72	108	6	22
415	CC	864	156	12	258	570	60	6	129
416	CC	300	60	12	62	150	30	6	31
417	CC	300	60	12	129	150	30	6	65
418	CC	660	60	12	131	330	30	6	65
419	CC	300	60	12	85	150	30	6	43
421	CC	660	60	12	160	330	30	6	80
422	CC	660	60	12	194	330	30	6	97
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	330	30	12	70
434	CC	657	44	35	155	351	28	19	85
440	CC	300	60	12	67	150	30	6	34
441	CC	660	60	12	134	330	30	6	67
501	CC	300	60	12	95	150	30	6	47
502	CC	300	60	12	78	150	30	6	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	5	56	110	10	2	22
505	CC	75	25	5	21	30	10	2	8
511	CC	300	60	12	74	150	30	6	37
512	CC	300	60	12	72	150	30	6	36
513	CC	300	60	12	53	150	30	6	27
521	CC	150	30	6	55	75	15	3	27
522	CC	150	30	6	86	75	15	3	43
FERRY ROUTES									
4F	F	0	0	0	0	193	18	4	32
8F	F	0	0	0	0	245	18	4	43
30F	F	0	0	0	0	140	18	4	25
41F	F	0	0	0	0	83	8	2	18
93F	F	0	0	0	0	180	0	2	48
411F	F	0	0	0	0	83	8	2	20
413F	F	0	0	0	0	90	0	3	21

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
80A	X	60	0	1	15	225	0	3	53
80B	X	0	0	0	0	39	0	1	11
81	X	0	0	0	0	540	0	9	192
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	593	0	7	201
83A	X	0	0	0	0	129	0	2	53
84	X	0	0	0	0	300	0	4	107
84A	X	0	0	0	0	292	0	4	100
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
86	X	0	0	0	0	63	0	1	25
86A	X	0	0	0	0	66	0	1	29
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
90	X	0	0	0	0	96	0	2	27
92	X	0	0	0	0	246	0	3	76
93	X	0	0	0	0	920	0	10	398
93A	X	0	0	0	0	77	0	1	37
95	X	0	0	0	0	93	0	1	31
96	X	0	0	0	0	94	0	2	34
97	X	0	0	0	0	192	0	4	75
98	X	0	0	0	0	165	0	3	67
101	X	0	0	0	0	250	0	5	110
102	X	0	0	0	0	222	0	3	74
103	X	0	0	0	0	118	0	2	34
203	X	0	0	0	0	122	0	2	22
TOTALS		93,093	11,315	1,607	22,594	66,258	6,671	1,091	16,322

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,034	104	15	331	0	0	0	0
B	LS	1,140	120	28	223	0	0	0	0
C	LS	2,032	240	26	899	0	0	0	0
D	LS	1,120	80	16	405	0	0	0	0
E	LS	2,240	280	28	685	0	0	0	0
1	L	1,650	150	30	267	990	90	18	160
1L	LS	1,470	105	21	354	700	50	10	169
2	L	1,536	380	26	242	155	20	3	28
3	L	1,221	199	21	282	274	12	5	64
4	L	1,120	140	14	167	320	40	4	48
5	CC	299	31	11	56	0	0	0	0
6	L	667	51	16	129	43	0	2	9
7	CC	392	29	16	88	0	0	0	0
8	L	1,000	160	20	148	0	0	0	0
9	L	725	133	11	168	128	12	4	33
10	CC	259	12	9	55	0	0	0	0
11	L	214	12	4	64	0	0	0	0
13	L	3,040	320	32	346	950	100	10	108
15	CC	252	18	9	62	0	0	0	0
16	CC	0	0	0	0	0	0	0	0
17	CC	136	39	13	24	0	0	0	0
18	CC	1,100	100	20	144	220	20	4	29
19	L	1,355	285	20	386	266	30	5	88
20	L	78	0	1	16	0	0	0	0
23	L	1,520	160	16	329	0	0	0	0
31	CC	226	9	8	65	0	0	0	0
32	L	352	49	8	123	0	0	0	0
40	L	4,552	320	32	1,295	2,150	210	20	810
41	L	358	90	15	135	0	0	0	0
42	L	2,940	254	26	706	1,764	126	18	489
43	L	0	0	0	0	0	0	0	0
50	L	1,600	200	20	310	0	0	0	0
51	L	665	70	7	172	380	40	4	98
52	L	1,050	150	10	375	1,050	150	10	375
53	L	638	45	11	162	17	0	1	6
54	L	695	56	12	166	0	0	0	0
55	L	2,128	210	14	777	1,216	120	8	444
56	L	528	56	8	190	0	0	0	0
57	L	671	100	11	244	0	0	0	0
57A	L	14	0	1	3	0	0	0	0
65	L	359	35	7	136	0	0	0	0
70	CC	88	6	4	34	0	0	0	0
71	CC	7	0	1	2	0	0	0	0
73	CC	0	0	0	0	0	0	0	0
74	CC	8	0	1	2	0	0	0	0
77	CC	0	0	0	0	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	100	20	4	28	0	0	0	0

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
134	CC	220	20	4	63	0	0	0	0
231	CC	175	35	7	69	100	20	4	39
232	CC	100	20	4	30	0	0	0	0
401	CC	96	24	4	36	0	0	0	0
402	CC	92	28	4	28	0	0	0	0
403	CC	218	32	9	82	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	11	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	7	0	0	0	0
415	CC	576	104	8	172	0	0	0	0
416	CC	175	35	7	36	0	0	0	0
417	CC	250	50	10	108	50	10	2	22
418	CC	440	40	8	87	0	0	0	0
419	CC	200	40	8	57	0	0	0	0
421	CC	440	40	8	107	55	5	1	13
422	CC	550	50	10	162	110	10	2	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
440	CC	175	35	7	39	0	0	0	0
441	CC	385	35	7	78	0	0	0	0
501	CC	200	40	8	63	0	0	0	0
502	CC	200	40	8	52	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	0	0	0	0	0	0	0	0
505	CC	0	0	0	0	0	0	0	0
511	CC	250	50	10	62	25	5	1	6
512	CC	100	20	4	24	0	0	0	0
513	CC	100	20	4	18	100	20	4	18
521	CC	50	10	2	18	0	0	0	0
522	CC	50	10	2	29	0	0	0	0
FERRY ROUTES									
4F	F	0	0	0	0	0	0	0	0
8F	F	0	0	0	0	0	0	0	0
30F	F	0	0	0	0	0	0	0	0
41F	F	0	0	0	0	0	0	0	0
93F	F	0	0	0	0	0	0	0	0
411F	F	0	0	0	0	0	0	0	0
413F	F	0	0	0	0	0	0	0	0

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
80A	X	0	0	0	0	0	0	0	0
80B	X	0	0	0	0	0	0	0	0
81	X	64	0	1	21	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
86	X	0	0	0	0	0	0	0	0
86A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
90	X	0	0	0	0	0	0	0	0
92	X	0	0	0	0	0	0	0	0
93	X	0	0	0	0	0	0	0	0
93A	X	0	0	0	0	0	0	0	0
95	X	0	0	0	0	0	0	0	0
96	X	0	0	0	0	0	0	0	0
97	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
101	X	0	0	0	0	0	0	0	0
102	X	0	0	0	0	0	0	0	0
103	X	0	0	0	0	0	0	0	0
203	X	0	0	0	0	0	0	0	0
TOTALS		49,064	5,816	860	12,568	11,367	1,124	161	3,161

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	143	10,718	1,072	11,790	196.5	2,998.5	4:15 AM to 10:37 PM
B	LS	129	5,847	493	6,340	105.7	1,026.8	4:55 AM to 11:02 PM
C	LS	150	13,389	1,504	14,893	248.2	5,534.9	3:07 AM to 10:53 PM
D	LS	74	5,180	370	5,550	92.5	1,873.7	5:00 AM to 10:00 PM
E	LS	136	10,880	1,360	12,240	204.0	3,325.2	4:30 AM to 10:00 PM
1	L	192	10,560	960	11,520	192.0	1,708.8	4:00 AM to 2:00 AM
1L	LS	91	6,370	455	6,825	113.8	1,533.3	4:00 AM to 1:30 AM
2	L	158	9,776	889	10,665	177.8	1,449.7	4:10 AM to 1:44 AM
3	L	143	9,386	1,167	10,553	175.9	1,836.6	4:15 AM to 1:26 AM
4	L	117	9,360	1,170	10,530	175.5	1,392.3	5:00 AM to 12:30 AM
5	CC	55	1,483	157	1,640	27.3	281.3	5:36 AM to 10:02 PM
6	L	95	5,545	437	5,982	99.7	838.2	5:03 AM to 11:58 PM
7	CC	80	2,448	305	2,753	45.9	480.3	4:39 AM to 11:07 PM
8	L	136	3,874	556	4,430	73.8	503.2	7:24 AM to 10:43 PM
9	L	95	6,474	960	7,434	123.9	1,316.0	5:10 AM to 12:56 AM
10	CC	40	1,569	106	1,675	27.9	419.4	4:53 AM to 10:41 PM
11	L	33	1,826	172	1,998	33.3	515.9	5:48 AM to 10:14 PM
13	L	198	18,810	1,980	20,790	346.5	2,138.4	5:00 AM to 1:00 AM
15	CC	56	1,082	78	1,160	19.3	508.7	5:30 AM to 10:23 PM
16	CC	10	250	50	300	5.0	74.2	Peak Period
17	CC	65	907	242	1,149	19.2	120.5	6:00 AM to 9:48 PM
18	CC	72	3,960	360	4,320	72.0	518.4	6:00 AM to 12:00 AM
19	L	109	7,843	1,120	8,963	149.4	1,698.4	4:13 AM to 1:48 AM
20	L	38	3,417	774	4,191	69.9	645.4	5:14 AM to 7:33 PM
23	L	64	6,080	640	6,720	112.0	1,315.2	6:00 AM to 10:00 PM
31	CC	42	1,333	51	1,384	23.1	336.6	4:30 AM to 10:11 PM
32	L	45	2,314	243	2,557	42.6	692.3	5:10 AM to 9:50 PM
40	L	138	19,671	1,402	21,073	351.2	5,577.7	4:00 AM to 3:59 AM
41	L	75	1,698	381	2,079	34.7	744.5	4:47 AM to 10:10 PM
42	L	122	14,529	1,208	15,737	262.3	3,300.6	4:00 AM to 3:59 AM
43	L	42	3,003	295	3,298	55.0	917.7	7:00 AM to 6:27 PM
50	L	72	5,760	720	6,480	108.0	1,116.7	5:00 AM to 11:00 PM
51	L	68	6,516	859	7,375	122.9	1,666.2	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
53	L	72	4,964	350	5,314	88.6	1,102.6	4:49 AM to 11:26 PM
54	L	91	5,711	366	6,077	101.3	1,303.6	5:00 AM to 11:11 PM
55	L	68	10,336	1,020	11,356	189.3	3,775.0	4:00 AM to 3:59 AM
56	L	60	4,626	454	5,080	84.7	1,440.0	4:48 AM to 10:37 PM
57	L	78	4,612	774	5,386	89.8	1,571.5	4:58 AM to 11:30 PM
57A	L	28	1,372	200	1,572	26.2	440.6	5:32 AM to 6:25 PM
65	L	46	2,776	333	3,109	51.8	866.9	5:12 AM to 10:15 PM
70	CC	25	840	33	873	14.6	318.7	6:09 AM to 7:45 PM
71	CC	14	258	24	282	4.7	77.8	Peak Period
73	CC	47	459	229	688	11.5	197.8	6:14 AM to 5:47 PM
74	CC	14	295	47	342	5.7	65.6	Peak Period
77	CC	17	635	127	762	12.7	226.7	5:32 AM to 6:22 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	58	725	145	870	14.5	200.1	5:30 AM to 10:00 PM

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
134	CC	58	1,595	145	1,740	29.0	455.3	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	293.7	5:00 AM to 1:00 AM
232	CC	46	575	115	690	11.5	174.1	5:00 AM to 8:00 PM
401	CC	36	456	84	540	9.0	161.5	3:50 AM to 9:34 PM
402	CC	36	410	130	540	9.0	127.8	4:20 AM to 9:58 PM
403	CC	37	963	118	1,081	18.0	322.0	4:15 AM to 10:22 PM
411	CC	74	1,044	90	1,134	18.9	268.6	4:30 AM to 12:49 AM
412	CC	58	522	348	870	14.5	158.9	4:30 AM to 6:48 PM
413	CC	36	426	114	540	9.0	167.2	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	106.6	4:30 AM to 6:43 PM
415	CC	66	2,652	393	3,045	50.8	708.2	5:30 AM to 11:00 PM
416	CC	64	800	160	960	16.0	166.4	5:30 AM to 10:00 PM
417	CC	76	950	190	1,140	19.0	408.5	5:00 AM to 12:30 AM
418	CC	68	1,870	170	2,040	34.0	370.9	5:00 AM to 11:00 PM
419	CC	68	850	170	1,020	17.0	241.4	5:00 AM to 11:00 PM
421	CC	37	2,035	185	2,220	37.0	494.7	4:33 AM to 12:03 AM
422	CC	76	2,090	190	2,280	38.0	614.8	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	67	1,480	153	1,633	27.2	328.0	5:00 AM to 11:26 PM
434	CC	107	2,007	136	2,143	35.7	474.2	4:41 AM to 12:52 AM
440	CC	66	825	165	990	16.5	184.8	5:00 AM to 10:00 PM
441	CC	66	1,815	165	1,980	33.0	369.6	5:00 AM to 10:00 PM
501	CC	66	825	165	990	16.5	260.7	5:30 AM to 10:00 PM
502	CC	66	825	165	990	16.5	214.5	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	20	550	50	600	10.0	112.0	5:30 AM to 7:00 PM
505	CC	20	150	50	200	3.3	41.0	5:30 AM to 7:00 PM
511	CC	76	950	190	1,140	19.0	235.6	4:30 AM to 11:30 PM
512	CC	60	750	150	900	15.0	180.0	5:00 AM to 8:00 PM
513	CC	68	850	170	1,020	17.0	151.3	5:00 AM to 1:00 AM
521	CC	30	375	75	450	7.5	136.7	5:00 AM to 8:00 PM
522	CC	30	375	75	450	7.5	216.0	5:00 AM to 8:00 PM
FERRY ROUTES								
4F	F	7	385	35	420	7.0	64.4	Peak Period
8F	F	7	490	35	525	8.8	86.8	Peak Period
30F	F	7	280	35	315	5.3	50.4	Peak Period
41F	F	3	165	15	180	3.0	36.3	Peak Period
93F	F	3	360	0	360	6.0	96.9	Peak Period
411F	F	3	165	15	180	3.0	40.8	Peak Period
413F	F	6	180	0	180	3.0	42.6	Peak Period

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
80A	X	9	639	0	639	10.7	166.1	Peak Period
80B	X	2	79	0	79	1.3	22.3	Peak Period
81	X	22	1,288	0	1,288	21.5	452.4	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	17	1,366	0	1,366	22.8	489.3	Peak Period
83A	X	4	253	0	253	4.2	106.2	Peak Period
84	X	8	583	0	583	9.7	219.6	Peak Period
84A	X	8	583	0	583	9.7	206.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
86	X	2	128	0	128	2.1	51.8	Peak Period
86A	X	2	136	0	136	2.3	56.7	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
90	X	4	210	0	210	3.5	63.8	Peak Period
92	X	6	462	0	462	7.7	153.6	Peak Period
93	X	29	2,266	0	2,266	37.8	969.5	Peak Period
93A	X	2	152	0	152	2.5	74.2	Peak Period
95	X	2	169	0	169	2.8	62.0	Peak Period
96	X	4	182	0	182	3.0	70.3	Peak Period
97	X	8	380	0	380	6.3	153.6	Peak Period
98	X	6	322	0	322	5.4	137.0	Peak Period
101	X	10	550	0	550	9.2	221.4	Peak Period
102	X	6	390	0	390	6.5	150.5	Peak Period
103	X	4	206	0	206	3.4	66.7	Peak Period
203	X	4	232	0	232	3.9	40.4	Peak Period
TOTALS		5,911	306,222	33,528	339,750	5,662.5	77,003.7	

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	12	18	13	17	11	0	60
B	LS	3	7	7	7	6	0	60
C	LS	10	16	15	18	17	0	60
D	LS	8	8	5	8	8	0	60
E	LS	9	12	12	12	12	0	60
1	L	12	12	8	12	12	6	60
1L	LS	7	7	5	7	7	5	60
2	L	9	13	10	12	8	3	40
3	L	8	18	11	14	6	2	60
4	L	5	12	9	12	12	4	40
5	CC	0	3	2	3	2	0	40
6	L	3	10	7	10	3	0	40
7	CC	2	7	2	5	2	0	40
8	L	0	4	7	6	7	0	60
9	L	2	13	5	12	4	2	40
10	CC	1	2	1	3	1	0	30
11	L	0	4	2	4	2	0	40
13	L	8	21	21	21	10	10	60
15	CC	0	2	1	2	1	0	30
16	CC	0	1	0	1	0	0	35
17	CC	0	1	1	2	1	0	40
18	CC	0	4	4	4	4	4	40
19	L	5	18	17	20	10	5	60
20	L	1	5	6	5	1	0	60
23	L	0	7	7	7	7	0	40
31	CC	1	2	1	2	1	0	35
32	L	1	4	2	4	2	0	35
40	L	10	17	10	22	20	8	60
41	L	2	2	2	2	2	0	40
42	L	8	19	9	19	12	7	60
43	L	0	5	5	5	0	0	40
50	L	2	6	6	6	6	0	40
51	L	5	15	7	15	4	4	60
52	L	5	10	8	10	8	4	60
53	L	4	9	4	9	4	0	60
54	L	0	8	5	8	5	0	60
55	L	2	11	11	11	11	4	60
56	L	3	7	5	10	4	0	40
57	L	2	7	5	5	5	0	40
57A	L	0	3	2	3	0	0	40
65	L	2	8	3	8	2	0	40
70	CC	0	1	1	1	1	0	35
71	CC	0	1	0	1	0	0	35
73	CC	0	1	1	1	0	0	35
74	CC	0	1	0	1	0	0	35
77	CC	0	1	1	1	0	0	35
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	1	1	1	1	1	0	30

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
134	CC	2	2	2	2	1	0	30
231	CC	1	1	0.5	1	0.5	0.5	35
232	CC	1	1	0.5	1	0.5	0	35
401	CC	0.5	0.5	0.5	0.5	0.5	0	35
402	CC	0.5	0.5	0.5	0.5	0.5	0	35
403	CC	1	1	1	1	1	0	35
411	CC	1	1	1	1	1	1	40
412	CC	1	1	1	1	1	0	35
413	CC	1	1	1	1	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	3	4	3	4	3	0	40
416	CC	1	1	1	1	1	0	40
417	CC	1	1	1	1	1	1	40
418	CC	2	2	1	2	2	0	40
419	CC	1	1	1	1	1	0	40
421	CC	2	2	2	2	2	0	40
422	CC	2	2	2	2	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	2	2	2	1	1	40
434	CC	2	2	2	2	2	1	40
440	CC	1	1	1	1	1	0	40
441	CC	2	2	2	2	2	0	40
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0	0.75	0.75	0.75	0.00	0	35
505	CC	0	0.25	0.25	0.25	0.00	0	35
511	CC	1	1	1	1	1	1	40
512	CC	1	1	1	1	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	0.5	0.5	0.5	0.5	0.5	0	35
522	CC	0.5	0.5	0.5	0.5	0.5	0	35
FERRY ROUTES								
4F	F	0	4	0	4	0	0	40
8F	F	0	5	0	5	0	0	40
30F	F	0	3	0	3	0	0	40
41F	F	0	2	0	2	0	0	40
93F	F	0	4	0	4	0	0	40
411F	F	0	2	0	2	0	0	35
413F	F	0	1	0	1	0	0	40

TheBus Weekday Operations Summary Table No-Build Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
EXPRESS ROUTES								
80	X	0	4	0	2	0	0	40
80A	X	0	3	0	2	0	0	40
80B	X	0	1	0	1	0	0	40
81	X	0	6	0	6	0	0	60
82	X	0	3	0	1	0	0	40
83	X	0	6	0	6	0	0	60
83A	X	0	2	0	2	0	0	60
84	X	0	4	0	4	0	0	60
84A	X	0	4	0	4	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
86	X	0	1	0	1	0	0	40
86A	X	0	1	0	1	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
90	X	0	2	0	2	0	0	40
92	X	0	2	0	3	0	0	40
93	X	0	9	0	9	0	0	60
93A	X	0	1	0	1	0	0	40
95	X	0	1	0	1	0	0	40
96	X	0	1	0	2	0	0	40
97	X	0	1	0	3	0	0	40
98	X	0	2	0	3	0	0	60
101	X	0	2	0	5	0	0	60
102	X	0	2	0	3	0	0	60
103	X	0	2	0	2	0	0	40
203	X	0	2	0	2	0	0	40
TOTALS		188	502	305	511	276	77	

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	495	48	6	131	4,767	392	49	1,080
B	LS	126	33	3	23	1,095	295	27	211
C	LS	694	78	8	312	5,010	674	75	2,150
D	LS	280	20	4	101	1,960	140	28	709
E	LS	640	80	8	196	2,800	350	35	856
1	L	880	80	16	149	1,980	180	36	335
1L	LS	420	30	6	89	2,450	175	35	519
2	L	507	41	9	66	2,848	223	46	422
3	L	590	48	11	122	2,342	246	33	394
4	L	250	50	5	45	1,400	280	28	249
5	CC	0	0	0	0	308	49	15	76
6	L	65	4	3	12	1,166	154	21	180
8	L	0	0	0	0	560	70	7	62
9	L	83	7	3	21	2,205	304	35	451
11	L	0	0	0	0	448	52	8	123
13	L	760	80	8	86	3,800	400	40	432
15	CC	28	2	1	7	214	16	9	51
17	CC	200	40	4	35	2,100	420	42	365
18	CC	0	0	0	0	660	60	12	86
19	L	429	55	8	100	1,614	180	22	316
20	L	72	25	1	16	875	220	10	171
23	L	0	0	0	0	1,140	120	12	247
30	L	100	20	2	15	700	140	14	103
31	L	43	2	1	15	587	40	11	168
40	L	1,580	150	10	402	3,780	360	24	966
41	L	84	22	4	31	588	132	24	219
42	L	826	68	8	213	3,144	240	24	650
43	L	0	0	0	0	620	60	8	175
50	L	240	30	3	47	2,240	280	28	434
51	L	475	50	5	122	1,798	180	18	440
52	L	525	75	5	187	1,680	240	16	599
54	L	385	110	11	126	1,834	380	38	443
60	L	130	20	2	38	1,560	240	24	451
61	L	100	20	2	29	700	140	14	202
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	49	1,050	210	14	340
64	L	165	15	3	37	990	90	18	221
65	L	80	10	2	24	480	60	12	142
66	L	100	20	4	54	350	70	14	188
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	25	5	1	7	150	30	6	41
134	CC	55	5	1	16	330	30	6	94
231	CC	50	10	2	18	150	30	6	54
232	CC	50	10	2	13	150	30	6	40
301	CC	80	10	2	19	560	70	14	131
302	CC	25	5	1	4	350	70	14	49
303	CC	75	15	3	11	325	65	13	47
304	CC	25	5	1	7	350	70	14	92

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
305	CC	100	20	4	23	650	130	26	148
401	CC	48	12	2	18	156	24	6	54
402	CC	42	18	2	14	138	42	6	43
403	CC	74	17	3	28	312	48	12	103
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	14	242	168	27	74
413	CC	15	0	1	6	246	84	22	100
414	CA	37	53	3	11	72	108	6	22
415	CC	55	5	1	16	660	60	12	187
416	CC	25	5	1	5	300	60	12	62
417	CC	50	10	2	15	300	60	12	91
418	CC	110	10	2	20	660	60	12	117
419	CC	50	10	2	14	300	60	12	85
421	CC	110	10	2	27	1,320	120	24	321
422	CC	110	10	2	32	1,155	105	21	340
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	250	50	10	65
440	CC	50	10	2	11	300	60	12	67
441	CC	110	10	2	22	660	60	12	134
501	CC	0	0	0	0	175	35	7	55
502	CC	0	0	0	0	175	35	7	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	5	56
505	CC	0	0	0	0	75	25	5	21
511	CC	75	15	3	19	300	60	12	74
512	CC	50	10	2	12	150	30	6	36
513	CC	50	10	2	9	150	30	6	27
521	CC	25	5	1	9	150	30	6	55
522	CC	25	5	1	14	150	30	6	86
523	CC	50	10	2	17	150	30	6	52
541	CC	50	10	2	14	650	130	26	176
542	CC	25	5	2	7	150	30	12	44
543	CC	25	5	2	5	325	65	26	68
544	CA	25	5	2	6	175	35	14	44
545	CC	25	5	2	7	175	35	14	49
546	CC	25	5	2	8	150	30	12	46
547	CC	200	25	10	64	520	65	26	166
548	CC	200	25	10	40	520	65	26	103
549	CC	25	5	1	7	175	35	7	50
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	13	150	30	6	40

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
80A	X	0	0	0	0	354	0	5	99
80B	X	0	0	0	0	40	0	1	11
81	X	220	0	4	80	464	0	8	159
82	X	45	0	1	16	144	0	3	47
83	X	457	0	6	174	316	0	4	114
83A	X	124	0	2	53	0	0	0	0
84	X	130	0	2	55	153	0	2	57
84A	X	69	0	1	26	222	0	3	81
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
86	X	65	0	1	26	0	0	0	0
86A	X	70	0	1	28	0	0	0	0
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
90	X	0	0	0	0	114	0	2	37
92	X	144	0	2	52	72	0	1	26
93	X	648	0	8	287	698	0	11	285
93A	X	75	0	1	38	0	0	0	0
95	X	76	0	1	31	0	0	0	0
96	X	0	0	0	0	88	0	2	36
97	X	47	0	1	20	141	0	3	59
98	X	94	0	2	47	220	0	4	93
101	X	120	0	2	45	180	0	3	67
102	X	56	0	1	25	112	0	2	51
103	X	0	0	0	0	88	0	2	32
203	X	0	0	0	0	110	0	2	19
434X	X	0	0	0	0	208	0	4	86
440X	X	0	0	0	0	184	0	4	76
441X	X	0	0	0	0	172	0	4	66
TOTALS		17,744	1,937	338	5,012	91,792	11,191	1,796	23,127

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	4,560	384	48	1,060	4,278	336	42	929
B	LS	1,902	565	47	367	972	228	24	187
C	LS	4,584	600	48	1,885	4,716	744	72	2,037
D	LS	1,680	120	24	608	1,680	120	24	608
E	LS	3,840	480	48	1,174	2,400	300	30	734
1	L	2,640	240	48	447	1,980	180	36	335
1L	LS	2,520	180	36	533	2,100	150	30	444
2	L	2,752	152	43	401	1,978	73	31	290
3	L	3,168	410	44	579	1,791	252	29	322
4	L	1,800	360	36	320	1,500	300	30	267
5	CC	387	63	18	92	286	45	11	58
6	L	2,340	162	36	343	1,103	66	17	166
8	L	2,880	360	36	320	1,440	180	18	160
9	L	1,709	312	23	333	1,624	192	19	310
11	L	703	72	13	203	461	36	8	126
13	L	6,840	720	72	778	3,420	360	36	389
15	CC	336	24	12	83	252	18	12	59
17	CC	1,800	360	36	313	1,200	240	24	209
18	CC	1,320	120	24	173	660	60	12	86
19	L	2,842	375	37	536	1,337	195	17	272
20	L	1,662	441	18	304	730	88	8	138
23	L	2,280	240	24	493	1,140	120	12	247
30	L	1,200	240	24	176	600	120	12	88
31	L	676	104	13	198	610	48	11	169
40	L	3,720	360	24	972	4,340	420	28	1,133
41	L	588	132	24	219	588	132	24	219
42	L	3,367	260	26	704	2,488	260	20	538
43	L	1,644	180	24	524	725	55	10	219
50	L	1,920	240	24	372	1,920	240	24	372
51	L	2,280	240	24	588	985	100	10	245
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,680	480	48	561	1,728	360	36	421
60	L	1,690	260	26	489	1,950	300	30	564
61	L	1,300	260	26	374	900	180	18	259
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	631	1,350	270	18	437
64	L	1,430	130	26	320	990	90	18	221
65	L	480	60	12	142	480	60	12	142
66	L	300	60	12	161	300	60	12	161
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	300	60	12	83	150	30	6	41
134	CC	660	60	12	188	330	30	6	94
231	CC	125	25	5	45	150	30	6	54
232	CC	125	25	5	34	150	30	6	40
301	CC	960	120	24	224	480	60	12	112
302	CC	300	60	12	42	300	60	12	42
303	CC	325	65	13	47	300	60	12	43
304	CC	300	60	12	79	300	60	12	79

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
305	CC	600	120	24	137	600	120	24	137
401	CC	156	24	6	54	156	24	6	54
402	CC	138	42	6	43	138	42	6	43
403	CC	350	30	13	109	330	30	12	103
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	66	216	144	24	66
413	CC	138	42	12	56	300	60	24	111
414	CA	144	216	12	44	72	108	6	22
415	CC	660	60	12	187	660	60	12	187
416	CC	300	60	12	62	300	60	12	62
417	CC	300	60	12	91	300	60	12	91
418	CC	660	60	12	117	660	60	12	117
419	CC	300	60	12	85	300	60	12	85
421	CC	660	60	12	160	1,320	120	24	321
422	CC	660	60	12	194	990	90	18	291
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	600	120	24	156	300	60	12	78
440	CC	300	60	12	67	300	60	12	67
441	CC	660	60	12	134	660	60	12	134
501	CC	300	60	12	95	150	30	6	47
502	CC	300	60	12	78	150	30	6	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	5	56	275	25	5	56
505	CC	75	25	5	21	75	25	5	21
511	CC	300	60	12	74	300	60	12	74
512	CC	300	60	12	72	150	30	6	36
513	CC	300	60	12	53	150	30	6	27
521	CC	150	30	6	55	150	30	6	55
522	CC	150	30	6	86	150	30	6	86
523	CC	300	60	12	103	150	30	6	52
541	CC	650	130	26	176	600	120	24	162
542	CC	325	65	26	95	150	30	12	44
543	CC	325	65	26	68	300	60	24	62
544	CA	300	60	24	75	150	30	12	38
545	CC	325	65	26	91	150	30	12	42
546	CC	300	60	24	91	150	30	12	46
547	CC	520	65	26	166	480	60	24	154
548	CC	520	65	26	103	480	60	24	96
549	CC	300	60	12	86	150	30	6	43
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	80	150	30	6	40

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
80A	X	60	0	1	15	225	0	3	53
80B	X	0	0	0	0	39	0	1	11
81	X	0	0	0	0	540	0	9	192
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	593	0	7	201
83A	X	0	0	0	0	129	0	2	53
84	X	0	0	0	0	300	0	4	107
84A	X	0	0	0	0	292	0	4	100
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
86	X	0	0	0	0	63	0	1	25
86A	X	0	0	0	0	66	0	1	29
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
90	X	0	0	0	0	96	0	2	27
92	X	0	0	0	0	246	0	3	76
93	X	0	0	0	0	920	0	10	398
93A	X	0	0	0	0	77	0	1	37
95	X	0	0	0	0	93	0	1	31
96	X	0	0	0	0	94	0	2	34
97	X	0	0	0	0	192	0	4	75
98	X	0	0	0	0	330	0	6	134
101	X	0	0	0	0	250	0	5	110
102	X	0	0	0	0	222	0	3	74
103	X	0	0	0	0	118	0	2	34
203	X	0	0	0	0	122	0	2	22
434X	X	0	0	0	0	208	0	4	83
440X	X	0	0	0	0	188	0	4	77
441X	X	0	0	0	0	180	0	4	68
TOTALS		104,868	14,229	2,037	25,055	87,612	10,301	1,696	22,522

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,066	104	13	287	0	0	0	0
B	LS	1,128	280	28	218	0	0	0	0
C	LS	2,388	294	27	1,062	0	0	0	0
D	LS	1,120	80	16	405	0	0	0	0
E	LS	2,240	280	28	685	0	0	0	0
1	L	1,650	150	30	279	990	90	18	168
1L	LS	1,470	105	21	311	700	50	10	148
2	L	1,536	380	26	242	155	20	3	28
3	L	1,221	199	21	268	274	12	5	60
4	L	700	140	14	125	200	40	4	36
5	CC	226	17	11	56	0	0	0	0
6	L	667	51	16	129	43	0	2	9
8	L	1,920	240	24	214	320	40	4	36
9	L	725	133	11	168	128	12	4	33
11	L	214	12	4	64	0	0	0	0
13	L	3,040	320	32	346	950	100	10	108
15	CC	252	18	9	62	0	0	0	0
17	CC	1,200	240	24	209	200	40	4	35
18	CC	1,100	100	20	144	220	20	4	29
19	L	1,355	285	20	386	266	30	5	88
20	L	78	0	1	16	0	0	0	0
23	L	1,520	160	16	329	0	0	0	0
30	L	800	160	16	118	100	20	2	15
31	L	352	49	8	123	0	0	0	0
40	L	3,100	300	20	810	2,150	210	20	810
41	L	358	90	15	135	0	0	0	0
42	L	2,940	254	26	706	1,764	126	18	489
43	L	0	0	0	0	0	0	0	0
50	L	1,920	240	24	372	0	0	0	0
51	L	665	70	7	172	380	40	4	98
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,400	400	40	468	280	80	8	94
60	L	780	120	12	226	130	20	2	38
61	L	800	160	16	230	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	388	150	30	2	49
64	L	880	80	16	197	0	0	0	0
65	L	160	20	4	47	0	0	0	0
66	L	200	40	8	107	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	100	20	4	28	0	0	0	0
134	CC	220	20	4	63	0	0	0	0
231	CC	175	35	7	63	100	20	4	36
232	CC	100	20	4	27	0	0	0	0
301	CC	200	25	5	47	0	0	0	0
302	CC	200	40	8	28	0	0	0	0
303	CC	300	60	12	43	25	5	1	4
304	CC	200	40	8	52	0	0	0	0

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
305	CC	500	100	20	114	0	0	0	0
401	CC	96	24	4	36	0	0	0	0
402	CC	92	28	4	28	0	0	0	0
403	CC	218	32	9	82	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	11	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	7	0	0	0	0
415	CC	440	40	8	125	0	0	0	0
416	CC	175	35	7	36	0	0	0	0
417	CC	250	50	10	76	50	10	2	15
418	CC	440	40	8	78	0	0	0	0
419	CC	200	40	8	57	0	0	0	0
421	CC	440	40	8	107	55	5	1	13
422	CC	550	50	10	162	110	10	2	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	400	80	16	104	0	0	0	0
440	CC	175	35	7	39	0	0	0	0
441	CC	385	35	7	78	0	0	0	0
501	CC	175	35	7	55	0	0	0	0
502	CC	175	35	7	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	3	34	0	0	0	0
505	CC	45	15	3	12	0	0	0	0
511	CC	250	50	10	62	25	5	1	6
512	CC	250	50	10	60	0	0	0	0
513	CC	100	20	4	18	100	20	4	18
521	CC	50	10	2	18	0	0	0	0
522	CC	50	10	2	29	0	0	0	0
523	CC	200	40	8	69	0	0	0	0
541	CC	500	100	20	135	0	0	0	0
542	CC	250	50	20	73	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	38	0	0	0	0
545	CC	200	40	16	56	0	0	0	0
546	CC	150	30	12	46	0	0	0	0
547	CC	480	60	24	154	100	10	5	32
548	CC	480	60	24	96	120	15	6	24
549	CC	275	55	11	79	25	5	1	7
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	54	0	0	0	0

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
80A	X	0	0	0	0	0	0	0	0
80B	X	0	0	0	0	0	0	0	0
81	X	64	0	1	21	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
86	X	0	0	0	0	0	0	0	0
86A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
90	X	0	0	0	0	0	0	0	0
92	X	0	0	0	0	0	0	0	0
93	X	0	0	0	0	0	0	0	0
93A	X	0	0	0	0	0	0	0	0
95	X	0	0	0	0	0	0	0	0
96	X	0	0	0	0	0	0	0	0
97	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
101	X	0	0	0	0	0	0	0	0
102	X	0	0	0	0	0	0	0	0
103	X	0	0	0	0	0	0	0	0
203	X	0	0	0	0	0	0	0	0
434X	X	0	0	0	0	0	0	0	0
440X	X	0	0	0	0	0	0	0	0
441X	X	0	0	0	0	0	0	0	0
TOTALS		59,570	8,270	1,212	14,829	12,680	1,389	195	3,448

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	15,166	1,264	16,430	273.8	3,487.6	4:15 AM to 10:37 PM
B	LS	129	5,223	1,401	6,624	110.4	1,006.2	4:55 AM to 11:02 PM
C	LS	230	17,392	2,390	19,782	329.7	7,446.2	3:07 AM to 10:53 PM
D	LS	96	6,720	480	7,200	120.0	2,430.7	5:00 AM to 10:00 PM
E	LS	149	11,920	1,490	13,410	223.5	3,643.1	4:30 AM to 10:00 PM
1	L	184	10,120	920	11,040	184.0	1,713.0	4:00 AM to 2:00 AM
1L	LS	138	9,660	690	10,350	172.5	2,044.5	4:00 AM to 1:30 AM
2	L	158	9,776	889	10,665	177.8	1,449.7	4:10 AM to 1:44 AM
3	L	143	9,386	1,167	10,553	175.9	1,744.2	4:15 AM to 1:26 AM
4	L	117	5,850	1,170	7,020	117.0	1,041.3	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	281.3	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	838.2	5:03 AM to 11:58 PM
8	L	178	7,120	890	8,010	133.5	792.1	7:15 AM to 12:00 AM
9	L	95	6,474	960	7,434	123.9	1,316.0	5:10 AM to 12:56 AM
11	L	33	1,826	172	1,998	33.3	515.9	5:48 AM to 10:14 PM
13	L	198	18,810	1,980	20,790	346.5	2,138.4	5:00 AM to 1:00 AM
15	CC	56	1,082	78	1,160	19.3	508.7	5:30 AM to 10:23 PM
17	CC	134	6,700	1,340	8,040	134.0	1,165.8	5:00 AM to 12:00 AM
18	CC	72	3,960	360	4,320	72.0	518.4	6:00 AM to 12:00 AM
19	L	109	7,843	1,120	8,963	149.4	1,698.4	4:13 AM to 1:48 AM
20	L	38	3,417	774	4,191	69.9	645.4	5:14 AM to 7:33 PM
23	L	64	6,080	640	6,720	112.0	1,315.2	6:00 AM to 10:00 PM
30	L	70	3,500	700	4,200	70.0	514.5	5:00 AM to 12:00 AM
31	L	45	2,314	243	2,557	42.6	692.3	5:10 AM to 9:50 PM
40	L	126	18,670	1,800	20,470	341.2	5,091.9	4:00 AM to 3:59 AM
41	L	98	2,264	508	2,772	46.2	955.0	4:47 AM to 10:10 PM
42	L	122	14,529	1,208	15,737	262.3	3,300.6	4:00 AM to 3:59 AM
43	L	42	2,989	295	3,284	54.7	917.7	7:00 AM to 6:27 PM
50	L	103	8,240	1,030	9,270	154.5	1,597.5	5:00 AM to 11:00 PM
51	L	68	6,583	680	7,263	121.1	1,666.2	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	181	7,307	1,810	9,117	152.0	2,112.3	4:30 AM to 1:00 AM
60	L	96	6,240	960	7,200	120.0	1,804.8	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,094.4	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,850	1,170	7,020	117.0	1,891.5	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	996.3	5:00 AM to 10:00 PM
65	L	42	1,680	210	1,890	31.5	497.7	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	669.8	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	58	725	145	870	14.5	200.1	5:30 AM to 10:00 PM
134	CC	58	1,595	145	1,740	29.0	455.3	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	270.0	5:00 AM to 1:00 AM
232	CC	46	575	115	690	11.5	154.1	5:00 AM to 8:00 PM
301	CC	57	2,387	285	2,672	44.5	590.1	5:00 AM to 8:00 PM
302	CC	47	1,175	235	1,410	23.5	164.5	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	47	1,282	235	1,517	25.3	365.0	5:00 AM to 11:00 PM

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
305	CC	99	2,485	490	2,975	49.6	577.7	5:00 AM to 11:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	49	1,284	157	1,441	24.0	424.8	4:15 AM to 10:22 PM
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	230.2	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	273.2	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	106.6	4:30 AM to 6:43 PM
415	CC	90	2,475	225	2,700	45.0	702.0	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	380.0	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	71	3,905	355	4,260	71.0	949.3	4:33 AM to 12:03 AM
422	CC	130	3,575	325	3,900	65.0	1,051.7	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	1,550	310	1,860	31.0	403.0	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	252.0	5:00 AM to 10:00 PM
441	CC	90	2,475	225	2,700	45.0	504.0	5:00 AM to 10:00 PM
501	CC	64	800	160	960	16.0	252.8	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	72	900	180	1,080	18.0	216.0	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	151.3	5:00 AM to 1:00 AM
521	CC	42	525	105	630	10.5	191.3	5:00 AM to 8:00 PM
522	CC	42	525	105	630	10.5	302.4	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	292.4	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	661.5	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	262.1	5:30 AM to 10:00 PM
543	CC	94	1,175	235	1,410	23.5	244.4	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	201.0	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	245.0	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	235.9	5:30 AM to 9:00 PM
547	CC	115	2,300	285	2,585	43.1	736.5	4:30 AM to 12:30 AM
548	CC	116	2,320	290	2,610	43.5	461.7	4:30 AM to 12:30 AM
549	CC	76	950	190	1,140	19.0	273.6	6:30 AM to 10:00 PM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	227.8	5:00 AM to 9:00 PM

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
80A	X	9	639	0	639	10.7	166.1	Peak Period
80B	X	2	79	0	79	1.3	22.3	Peak Period
81	X	22	1,288	0	1,288	21.5	452.4	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	17	1,366	0	1,366	22.8	489.3	Peak Period
83A	X	4	253	0	253	4.2	106.2	Peak Period
84	X	8	583	0	583	9.7	219.6	Peak Period
84A	X	8	583	0	583	9.7	206.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
86	X	2	128	0	128	2.1	51.8	Peak Period
86A	X	2	136	0	136	2.3	56.7	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
90	X	4	210	0	210	3.5	63.8	Peak Period
92	X	6	462	0	462	7.7	153.6	Peak Period
93	X	29	2,266	0	2,266	37.8	969.5	Peak Period
93A	X	2	152	0	152	2.5	74.2	Peak Period
95	X	2	169	0	169	2.8	62.0	Peak Period
96	X	4	182	0	182	3.0	70.3	Peak Period
97	X	8	380	0	380	6.3	153.6	Peak Period
98	X	12	644	0	644	10.7	274.0	Peak Period
101	X	10	550	0	550	9.2	221.4	Peak Period
102	X	6	390	0	390	6.5	150.5	Peak Period
103	X	4	206	0	206	3.4	66.7	Peak Period
203	X	4	232	0	232	3.9	40.4	Peak Period
434X	X	8	416	0	416	6.9	169.6	Peak Period
440X	X	8	372	0	372	6.2	152.8	Peak Period
441X	X	8	352	0	352	5.9	134.4	Peak Period
TOTALS		8,332	374,619	47,317	421,936	7,032.3	94,526.9	

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	6	25	14	26	12	0	60
B	LS	3	7	7	7	7	0	60
C	LS	8	30	15	30	13	0	60
D	LS	4	10	5	10	8	0	60
E	LS	8	15	12	15	12	0	60
1	L	12	12	8	12	12	6	60
1L	LS	6	13	8	13	6	5	60
2	L	9	13	10	12	7	3	40
3	L	8	18	11	14	6	2	60
4	L	5	8	6	8	8	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
8	L	0	6	9	9	9	0	60
9	L	2	13	5	12	4	2	40
11	L	0	4	2	4	2	0	40
13	L	8	21	21	21	10	10	60
15	CC	0	2	1	2	1	0	30
17	CC	4	12	6	8	8	4	40
18	CC	0	4	4	4	4	4	40
19	L	5	18	17	20	10	5	60
20	L	1	5	6	5	1	0	60
23	L	0	7	7	7	7	0	40
30	L	2	4	4	4	4	2	40
31	L	1	4	2	4	2	0	35
40	L	17	22	11	22	11	8	60
41	L	2	4	2	4	2	0	40
42	L	8	19	9	19	12	7	60
43	L	0	5	5	5	0	0	40
50	L	3	12	6	12	6	0	40
51	L	5	14	7	14	4	4	60
52	L	5	10	8	10	8	4	60
54	L	6	11	6	11	6	3	60
60	L	2	10	5	10	5	3	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	9	6	9	6	2	40
64	L	3	6	4	6	4	0	40
65	L	2	3	2	3	2	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	1.0	1.0	1.0	1.0	0.5	0.0	30
134	CC	2.0	2.0	2.0	2.0	1.0	0.0	30
231	CC	1.0	1.0	0.5	1.0	0.5	0.5	35
232	CC	1.0	1.0	0.5	1.0	0.5	0.0	35
301	CC	3	3	3	3	2	0	35
302	CC	1	2	1	2	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	2	1	2	1	0	30

TheBus Weekday Operations Summary Table TSM Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
305	CC	4	4	2	4	2	0	40
401	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
402	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
403	CC	1	2	1	2	1	0	35
411	CC	1	2	1	2	1	1.0	40
412	CC	1	2	1	2	1	0	35
413	CC	1	2	1.0	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	2	4	2	4	2	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	1.0	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	2	8	2	8	2	0	40
422	CC	2	6	2	6	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	1	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	2	2	2	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	4	2	4	2	0	40
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0.00	1.50	0.75	1.50	0.75	0.00	35
505	CC	0.00	0.50	0.25	0.50	0.25	0.00	35
511	CC	1	2	1	2	1	1	40
512	CC	1	1	1	1	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
522	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
523	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
541	CC	2.0	4.0	2.0	4.0	2.0	0.0	35
542	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
543	CC	2.0	2.0	1.0	2.0	1.0	0.0	35
544	CA	1.0	1.0	1.0	1.0	1.0	0.0	Handi-Van Vehicle
545	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
546	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
547	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
548	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
549	CC	2.0	1.0	1.0	1.0	1.0	1.0	40
611	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
612	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
615	CC	1.0	1.0	1.0	1.0	1.0	0.0	35

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	35
413F	F	1	1	0	1	1	0	40
EXPRESS ROUTES								
80	X	0	4	0	1	0	0	40
80A	X	0	3	0	2	0	0	40
80B	X	0	1	0	1	0	0	40
81	X	0	6	0	6	0	0	60
82	X	0	3	0	1	0	0	40
83	X	0	6	0	6	0	0	60
83A	X	0	2	0	2	0	0	40
84	X	0	4	0	4	0	0	60
84A	X	0	4	0	4	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
86	X	0	1	0	1	0	0	40
86A	X	0	1	0	1	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
90	X	0	2	0	2	0	0	40
92	X	0	2	0	3	0	0	40
93	X	0	9	0	9	0	0	60
93A	X	0	1	0	1	0	0	40
95	X	0	1	0	1	0	0	40
96	X	0	1	0	2	0	0	40
97	X	0	1	0	3	0	0	40
98	X	2	4	0	6	0	0	60
101	X	0	2	0	5	0	0	60
102	X	0	2	0	3	0	0	60
103	X	0	2	0	2	0	0	40
203	X	0	2	0	2	0	0	40
434X	X	0	4	0	4	0	0	40
440X	X	0	4	0	4	0	0	40
441X	X	0	4	0	4	0	0	60
TOTALS		229	638	339	638	320	98	

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	495	48	6	131	4,767	392	49	1,080
B	LS	126	33	3	23	1,095	295	27	211
C	LS	694	78	8	312	2,700	270	27	1,060
D	LS	280	20	4	101	1,960	140	28	709
E	LS	640	80	8	196	2,800	350	35	856
1	L	880	80	16	149	1,980	180	36	335
1L	LS	420	30	6	89	2,450	175	35	519
2	L	507	41	9	66	2,848	223	46	422
3	L	590	48	11	122	2,342	246	33	394
4	L	250	50	5	45	1,400	280	28	249
5	CC	0	0	0	0	308	49	15	76
6	L	65	4	3	12	1,166	154	21	180
8	L	0	0	0	0	560	70	7	62
9	L	83	7	3	21	2,205	304	35	451
11	L	114	6	2	31	1,214	106	22	341
13	L	760	80	8	86	3,800	400	40	432
15	CC	28	2	1	7	214	16	9	51
17	CC	200	40	4	35	2,100	420	42	365
18	CC	0	0	0	0	660	60	12	86
19	L	429	55	8	100	1,614	180	22	316
20	L	72	25	1	16	875	220	10	171
23	L	0	0	0	0	1,140	120	12	247
30	L	100	20	2	15	700	140	14	103
31	L	43	2	1	15	1,484	196	28	427
40	L	1,580	150	10	402	3,780	360	24	966
41	L	84	22	4	31	588	132	24	219
42	L	826	68	8	213	3,144	240	24	650
43	L	0	0	0	0	620	60	8	175
50	L	240	30	3	47	2,240	280	28	434
51	L	475	50	5	122	1,798	180	18	440
52	L	525	75	5	187	1,680	240	16	599
54	L	385	110	11	126	1,834	380	38	443
60	L	130	20	2	38	1,560	240	24	451
61	L	100	20	2	29	700	140	14	202
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	49	1,050	210	14	340
64	L	165	15	3	37	990	90	18	221
65	L	80	10	2	24	480	60	12	142
66	L	100	20	4	54	350	70	14	188
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	25	5	1	7	150	30	6	41
134	CC	55	5	1	16	330	30	6	94
231	CC	50	10	2	18	150	30	6	54
232	CC	50	10	2	13	150	30	6	40
301	CC	80	10	2	19	560	70	14	131
302	CC	25	5	1	4	350	70	14	49
303	CC	75	15	3	11	325	65	13	47
304	CC	25	5	1	7	350	70	14	92
305	CC	100	20	4	23	650	130	26	148
401	CC	48	12	2	18	156	24	6	54
402	CC	42	18	2	14	138	42	6	43
403	CC	74	17	3	28	312	48	12	103

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	14	242	168	27	74
413	CC	15	0	1	6	246	84	22	100
414	CA	37	53	3	11	72	108	6	22
415	CC	55	5	1	16	660	60	12	187
416	CC	25	5	1	5	300	60	12	62
417	CC	50	10	2	15	300	60	12	91
418	CC	110	10	2	20	660	60	12	117
419	CC	50	10	2	14	300	60	12	85
421	CC	110	10	2	27	1,320	120	24	321
422	CC	110	10	2	32	1,155	105	21	340
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	250	50	10	65
440	CC	50	10	2	11	300	60	12	67
441	CC	110	10	2	22	660	60	12	134
501	CC	0	0	0	0	175	35	7	55
502	CC	0	0	0	0	175	35	7	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	5	56
505	CC	0	0	0	0	75	25	5	21
511	CC	75	15	3	19	300	60	12	74
512	CC	50	10	2	12	150	30	6	36
513	CC	50	10	2	9	150	30	6	27
521	CC	25	5	1	9	150	30	6	55
522	CC	25	5	1	14	150	30	6	86
523	CC	50	10	2	17	150	30	6	52
541	CC	50	10	2	14	650	130	26	176
542	CC	25	5	2	7	150	30	12	44
543	CC	25	5	2	5	325	65	26	68
544	CA	25	5	2	6	175	35	14	44
545	CC	25	5	2	7	175	35	14	49
546	CC	25	5	2	8	150	30	12	46
547	CC	200	25	10	64	520	65	26	166
548	CC	200	25	10	40	520	65	26	103
549	CC	25	5	1	7	325	65	13	94
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	13	150	30	6	40
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
80A	X	0	0	0	0	354	0	5	99
80B	X	0	0	0	0	40	0	1	11
81	X	220	0	4	80	464	0	8	159
82	X	45	0	1	16	144	0	3	47
83	X	457	0	6	174	316	0	4	114
83A	X	124	0	2	53	0	0	0	0
84	X	130	0	2	55	153	0	2	57
84A	X	69	0	1	26	222	0	3	81
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
86	X	65	0	1	26	0	0	0	0
86A	X	70	0	1	28	0	0	0	0
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
90	X	0	0	0	0	114	0	2	37
92	X	144	0	2	52	72	0	1	26
93	X	648	0	8	287	900	0	13	369
93A	X	75	0	1	38	0	0	0	0
95	X	76	0	1	31	0	0	0	0
96	X	0	0	0	0	176	0	4	72
97	X	47	0	1	20	235	0	5	98
98	X	94	0	2	47	220	0	4	93
101	X	120	0	2	45	180	0	3	67
102	X	56	0	1	25	112	0	2	51
103	X	0	0	0	0	176	0	4	65
203	X	0	0	0	0	110	0	2	19
434X	X	0	0	0	0	208	0	4	86
440X	X	0	0	0	0	184	0	4	76
441X	X	0	0	0	0	172	0	4	66
100X	X	330	30	6	132	825	75	15	330
101X	X	225	15	3	74	525	35	7	173
102X	X	225	15	3	75	525	35	7	176
200X	X	270	30	6	116	675	75	15	291
201X	X	225	15	3	66	525	35	7	155
202X	X	225	15	3	68	525	35	7	158
300X	X	210	30	6	91	525	75	15	228
301X	X	195	15	3	54	455	35	7	125
302X	X	195	15	3	55	455	35	7	129
TOTALS		19,958	2,123	376	5,774	96,802	11,462	1,880	24,514

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	4,560	384	48	1,060	4,278	336	42	929
B	LS	1,902	565	47	367	972	228	24	187
C	LS	4,872	552	48	1,885	2,400	240	24	943
D	LS	1,680	120	24	608	1,680	120	24	608
E	LS	3,840	480	48	1,174	2,400	300	30	734
1	L	2,640	240	48	447	1,980	180	36	335
1L	LS	2,520	180	36	533	2,100	150	30	444
2	L	2,752	152	43	401	1,978	73	31	290
3	L	3,168	410	44	579	1,791	252	29	322
4	L	1,800	360	36	320	1,500	300	30	267
5	CC	387	63	18	92	286	45	11	58
6	L	2,340	162	36	343	1,103	66	17	166
8	L	2,880	360	36	320	1,440	180	18	160
9	L	1,709	312	23	333	1,624	192	19	310
11	L	703	72	13	203	1,478	84	26	405
13	L	6,840	720	72	778	3,420	360	36	389
15	CC	336	24	12	83	252	18	12	59
17	CC	1,800	360	36	313	1,200	240	24	209
18	CC	1,320	120	24	173	660	60	12	86
19	L	2,842	375	37	536	1,337	195	17	272
20	L	1,662	441	18	304	730	88	8	138
23	L	2,280	240	24	493	1,140	120	12	247
30	L	1,200	240	24	176	600	120	12	88
31	L	676	104	13	198	1,320	120	24	366
40	L	3,720	360	24	972	4,340	420	28	1,133
41	L	588	132	24	219	588	132	24	219
42	L	3,367	260	26	704	2,488	260	20	538
43	L	1,644	180	24	524	725	55	10	219
50	L	1,920	240	24	372	1,920	240	24	372
51	L	2,280	240	24	588	985	100	10	245
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,680	480	48	561	1,728	360	36	421
60	L	1,690	260	26	489	1,950	300	30	564
61	L	1,300	260	26	374	900	180	18	259
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	631	1,350	270	18	437
64	L	1,430	130	26	320	990	90	18	221
65	L	480	60	12	142	480	60	12	142
66	L	300	60	12	161	300	60	12	161
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	300	60	12	83	150	30	6	41
134	CC	660	60	12	188	330	30	6	94
231	CC	125	25	5	45	150	30	6	54
232	CC	125	25	5	34	150	30	6	40
301	CC	960	120	24	224	480	60	12	112
302	CC	300	60	12	42	300	60	12	42
303	CC	325	65	13	47	300	60	12	43
304	CC	300	60	12	79	300	60	12	79
305	CC	600	120	24	137	600	120	24	137
401	CC	156	24	6	54	156	24	6	54
402	CC	138	42	6	43	138	42	6	43
403	CC	350	30	13	109	330	30	12	103

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	66	216	144	24	66
413	CC	138	42	12	56	300	60	24	111
414	CA	144	216	12	44	72	108	6	22
415	CC	660	60	12	187	660	60	12	187
416	CC	300	60	12	62	300	60	12	62
417	CC	300	60	12	91	300	60	12	91
418	CC	660	60	12	117	660	60	12	117
419	CC	300	60	12	85	300	60	12	85
421	CC	660	60	12	160	1,320	120	24	321
422	CC	660	60	12	194	990	90	18	291
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	600	120	24	156	300	60	12	78
440	CC	300	60	12	67	300	60	12	67
441	CC	660	60	12	134	660	60	12	134
501	CC	300	60	12	95	150	30	6	47
502	CC	300	60	12	78	150	30	6	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	5	56	275	25	5	56
505	CC	75	25	5	21	75	25	5	21
511	CC	300	60	12	74	300	60	12	74
512	CC	300	60	12	72	150	30	6	36
513	CC	300	60	12	53	150	30	6	27
521	CC	150	30	6	55	150	30	6	55
522	CC	150	30	6	86	150	30	6	86
523	CC	300	60	12	103	150	30	6	52
541	CC	650	130	26	176	600	120	24	162
542	CC	325	65	26	95	150	30	12	44
543	CC	325	65	26	68	300	60	24	62
544	CA	300	60	24	75	150	30	12	38
545	CC	325	65	26	91	150	30	12	42
546	CC	300	60	24	91	150	30	12	46
547	CC	520	65	26	166	480	60	24	154
548	CC	520	65	26	103	480	60	24	96
549	CC	300	60	12	86	300	60	12	86
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	80	150	30	6	40
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
80A	X	60	0	1	15	225	0	3	53
80B	X	0	0	0	0	39	0	1	11
81	X	0	0	0	0	540	0	9	192
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	593	0	7	201
83A	X	0	0	0	0	129	0	2	53
84	X	0	0	0	0	300	0	4	107
84A	X	0	0	0	0	292	0	4	100
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
86	X	0	0	0	0	63	0	1	25
86A	X	0	0	0	0	66	0	1	29
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
90	X	0	0	0	0	96	0	2	27
92	X	0	0	0	0	246	0	3	76
93	X	0	0	0	0	1,104	0	12	478
93A	X	0	0	0	0	77	0	1	37
95	X	0	0	0	0	93	0	1	31
96	X	0	0	0	0	188	0	4	69
97	X	0	0	0	0	288	0	6	113
98	X	0	0	0	0	330	0	6	134
101	X	0	0	0	0	250	0	5	110
102	X	0	0	0	0	222	0	3	74
103	X	0	0	0	0	236	0	4	69
203	X	0	0	0	0	122	0	2	22
434X	X	0	0	0	0	208	0	4	83
440X	X	0	0	0	0	188	0	4	77
441X	X	0	0	0	0	180	0	4	68
100X	X	770	70	14	308	825	75	15	330
101X	X	1,050	70	14	346	525	35	7	173
102X	X	1,050	70	14	351	525	35	7	176
200X	X	630	70	14	272	675	75	15	291
201X	X	1,050	70	14	309	525	35	7	155
202X	X	1,050	70	14	315	525	35	7	158
300X	X	490	70	14	213	525	75	15	228
301X	X	770	70	14	251	455	35	7	125
302X	X	770	70	14	258	455	35	7	129
TOTALS		112,786	14,811	2,163	27,677	92,700	10,382	1,780	23,898

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,066	104	13	287	0	0	0	0
B	LS	1,128	280	28	218	0	0	0	0
C	LS	2,601	339	27	1,062	0	0	0	0
D	LS	1,120	80	16	405	0	0	0	0
E	LS	2,240	280	28	685	0	0	0	0
1	L	1,650	150	30	279	990	90	18	168
1L	LS	1,470	105	21	311	700	50	10	148
2	L	1,536	380	26	242	155	20	3	28
3	L	1,221	199	21	268	274	12	5	60
4	L	700	140	14	125	200	40	4	36
5	CC	226	17	11	56	0	0	0	0
6	L	667	51	16	129	43	0	2	9
8	L	1,920	240	24	214	320	40	4	36
9	L	725	133	11	168	128	12	4	33
11	L	322	24	6	95	0	0	0	0
13	L	3,040	320	32	346	950	100	10	108
15	CC	252	18	9	62	0	0	0	0
17	CC	1,200	240	24	209	200	40	4	35
18	CC	1,100	100	20	144	220	20	4	29
19	L	1,355	285	20	386	266	30	5	88
20	L	78	0	1	16	0	0	0	0
23	L	1,520	160	16	329	0	0	0	0
30	L	800	160	16	118	100	20	2	15
31	L	352	49	8	123	0	0	0	0
40	L	3,100	300	20	810	2,150	210	20	810
41	L	358	90	15	135	0	0	0	0
42	L	2,940	254	26	706	1,764	126	18	489
43	L	0	0	0	0	0	0	0	0
50	L	1,920	240	24	372	0	0	0	0
51	L	665	70	7	172	380	40	4	98
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,400	400	40	468	280	80	8	94
60	L	780	120	12	226	130	20	2	38
61	L	800	160	16	230	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	388	150	30	2	49
64	L	880	80	16	197	0	0	0	0
65	L	160	20	4	47	0	0	0	0
66	L	200	40	8	107	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	100	20	4	28	0	0	0	0
134	CC	220	20	4	63	0	0	0	0
231	CC	175	35	7	63	100	20	4	36
232	CC	100	20	4	27	0	0	0	0
301	CC	200	25	5	47	0	0	0	0
302	CC	200	40	8	28	0	0	0	0
303	CC	300	60	12	43	25	5	1	4
304	CC	200	40	8	52	0	0	0	0
305	CC	500	100	20	114	0	0	0	0
401	CC	96	24	4	36	0	0	0	0
402	CC	92	28	4	28	0	0	0	0
403	CC	218	32	9	82	0	0	0	0

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	11	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	7	0	0	0	0
415	CC	440	40	8	125	0	0	0	0
416	CC	175	35	7	36	0	0	0	0
417	CC	250	50	10	76	50	10	2	15
418	CC	440	40	8	78	0	0	0	0
419	CC	200	40	8	57	0	0	0	0
421	CC	440	40	8	107	55	5	1	13
422	CC	550	50	10	162	110	10	2	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	400	80	16	104	0	0	0	0
440	CC	175	35	7	39	0	0	0	0
441	CC	385	35	7	78	0	0	0	0
501	CC	175	35	7	55	0	0	0	0
502	CC	175	35	7	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	3	34	0	0	0	0
505	CC	45	15	3	12	0	0	0	0
511	CC	250	50	10	62	25	5	1	6
512	CC	250	50	10	60	0	0	0	0
513	CC	100	20	4	18	100	20	4	18
521	CC	50	10	2	18	0	0	0	0
522	CC	50	10	2	29	0	0	0	0
523	CC	200	40	8	69	0	0	0	0
541	CC	500	100	20	135	0	0	0	0
542	CC	250	50	20	73	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	38	0	0	0	0
545	CC	200	40	16	56	0	0	0	0
546	CC	150	30	12	46	0	0	0	0
547	CC	480	60	24	154	100	10	5	32
548	CC	480	60	24	96	120	15	6	24
549	CC	275	55	11	79	25	5	1	7
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	54	0	0	0	0
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
80A	X	0	0	0	0	0	0	0	0
80B	X	0	0	0	0	0	0	0	0
81	X	64	0	1	21	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
86	X	0	0	0	0	0	0	0	0
86A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
90	X	0	0	0	0	0	0	0	0
92	X	0	0	0	0	0	0	0	0
93	X	0	0	0	0	0	0	0	0
93A	X	0	0	0	0	0	0	0	0
95	X	0	0	0	0	0	0	0	0
96	X	0	0	0	0	0	0	0	0
97	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
101	X	0	0	0	0	0	0	0	0
102	X	0	0	0	0	0	0	0	0
103	X	0	0	0	0	0	0	0	0
203	X	0	0	0	0	0	0	0	0
434X	X	0	0	0	0	0	0	0	0
440X	X	0	0	0	0	0	0	0	0
441X	X	0	0	0	0	0	0	0	0
100X	X	330	30	6	132	0	0	0	0
101X	X	225	15	3	74	0	0	0	0
102X	X	225	15	3	75	0	0	0	0
200X	X	270	30	6	116	0	0	0	0
201X	X	225	15	3	66	0	0	0	0
202X	X	225	15	3	68	0	0	0	0
300X	X	210	30	6	91	0	0	0	0
301X	X	195	15	3	54	0	0	0	0
302X	X	195	15	3	55	0	0	0	0
TOTALS		61,991	8,507	1,250	15,592	12,680	1,389	195	3,448

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	15,166	1,264	16,430	273.8	3,487.6	4:15 AM to 10:37 PM
B	LS	129	5,223	1,401	6,624	110.4	1,006.2	4:55 AM to 11:02 PM
C	LS	134	13,267	1,479	14,746	245.8	5,262.4	3:07 AM to 10:53 PM
D	LS	96	6,720	480	7,200	120.0	2,430.7	5:00 AM to 10:00 PM
E	LS	149	11,920	1,490	13,410	223.5	3,643.1	4:30 AM to 10:00 PM
1	L	184	10,120	920	11,040	184.0	1,713.0	4:00 AM to 2:00 AM
1L	LS	138	9,660	690	10,350	172.5	2,044.5	4:00 AM to 1:30 AM
2	L	158	9,776	889	10,665	177.8	1,449.7	4:10 AM to 1:44 AM
3	L	143	9,386	1,167	10,553	175.9	1,744.2	4:15 AM to 1:26 AM
4	L	117	5,850	1,170	7,020	117.0	1,041.3	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	281.3	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	838.2	5:03 AM to 11:58 PM
8	L	178	7,120	890	8,010	133.5	792.1	7:15 AM to 12:00 AM
9	L	95	6,474	960	7,434	123.9	1,316.0	5:10 AM to 12:56 AM
11	L	69	3,831	292	4,123	68.7	1,074.6	5:48 AM to 10:14 PM
13	L	198	18,810	1,980	20,790	346.5	2,138.4	5:00 AM to 1:00 AM
15	CC	56	1,082	78	1,160	19.3	508.7	5:30 AM to 10:23 PM
17	CC	134	6,700	1,340	8,040	134.0	1,165.8	5:00 AM to 12:00 AM
18	CC	72	3,960	360	4,320	72.0	518.4	6:00 AM to 12:00 AM
19	L	109	7,843	1,120	8,963	149.4	1,698.4	4:13 AM to 1:48 AM
20	L	38	3,417	774	4,191	69.9	645.4	5:14 AM to 7:33 PM
23	L	64	6,080	640	6,720	112.0	1,315.2	6:00 AM to 10:00 PM
30	L	70	3,500	700	4,200	70.0	514.5	5:00 AM to 12:00 AM
31	L	75	3,921	471	4,392	73.2	1,148.8	5:10 AM to 9:50 PM
40	L	126	18,670	1,800	20,470	341.2	5,091.9	4:00 AM to 3:59 AM
41	L	98	2,264	508	2,772	46.2	955.0	4:47 AM to 10:10 PM
42	L	122	14,529	1,208	15,737	262.3	3,300.6	4:00 AM to 3:59 AM
43	L	42	2,989	295	3,284	54.7	917.7	7:00 AM to 6:27 PM
50	L	103	8,240	1,030	9,270	154.5	1,597.5	5:00 AM to 11:00 PM
51	L	68	6,583	680	7,263	121.1	1,666.2	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	181	7,307	1,810	9,117	152.0	2,112.3	4:30 AM to 1:00 AM
60	L	96	6,240	960	7,200	120.0	1,804.8	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,094.4	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,850	1,170	7,020	117.0	1,891.5	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	996.3	5:00 AM to 10:00 PM
65	L	42	1,680	210	1,890	31.5	497.7	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	669.8	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	58	725	145	870	14.5	200.1	5:30 AM to 10:00 PM
134	CC	58	1,595	145	1,740	29.0	455.3	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	270.0	5:00 AM to 1:00 AM
232	CC	46	575	115	690	11.5	154.1	5:00 AM to 8:00 PM
301	CC	57	2,387	285	2,672	44.5	590.1	5:00 AM to 8:00 PM
302	CC	47	1,175	235	1,410	23.5	164.5	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	47	1,282	235	1,517	25.3	365.0	5:00 AM to 11:00 PM
305	CC	99	2,485	490	2,975	49.6	577.7	5:00 AM to 11:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	49	1,284	157	1,441	24.0	424.8	4:15 AM to 10:22 PM

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	230.2	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	273.2	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	106.6	4:30 AM to 6:43 PM
415	CC	90	2,475	225	2,700	45.0	702.0	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	380.0	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	71	3,905	355	4,260	71.0	949.3	4:33 AM to 12:03 AM
422	CC	130	3,575	325	3,900	65.0	1,051.7	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	1,550	310	1,860	31.0	403.0	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	252.0	5:00 AM to 10:00 PM
441	CC	90	2,475	225	2,700	45.0	504.0	5:00 AM to 10:00 PM
501	CC	64	800	160	960	16.0	252.8	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	72	900	180	1,080	18.0	216.0	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	151.3	5:00 AM to 1:00 AM
521	CC	42	525	105	630	10.5	191.3	5:00 AM to 8:00 PM
522	CC	42	525	105	630	10.5	302.4	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	292.4	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	661.5	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	262.1	5:30 AM to 10:00 PM
543	CC	94	1,175	235	1,410	23.5	244.4	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	201.0	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	245.0	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	235.9	5:30 AM to 9:00 PM
547	CC	115	2,300	285	2,585	43.1	736.5	4:30 AM to 12:30 AM
548	CC	116	2,320	290	2,610	43.5	461.7	4:30 AM to 12:30 AM
549	CC	76	1,250	250	1,500	25.0	360.0	6:30 AM to 10:00 PM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	227.8	5:00 AM to 9:00 PM
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
80A	X	9	639	0	639	10.7	166.1	Peak Period
80B	X	2	79	0	79	1.3	22.3	Peak Period
81	X	22	1,288	0	1,288	21.5	452.4	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	17	1,366	0	1,366	22.8	489.3	Peak Period
83A	X	4	253	0	253	4.2	106.2	Peak Period
84	X	8	583	0	583	9.7	219.6	Peak Period
84A	X	8	583	0	583	9.7	206.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
86	X	2	128	0	128	2.1	51.8	Peak Period
86A	X	2	136	0	136	2.3	56.7	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
90	X	4	210	0	210	3.5	63.8	Peak Period
92	X	6	462	0	462	7.7	153.6	Peak Period
93	X	33	2,652	0	2,652	44.2	1,133.6	Peak Period
93A	X	2	152	0	152	2.5	74.2	Peak Period
95	X	2	169	0	169	2.8	62.0	Peak Period
96	X	8	364	0	364	6.1	140.6	Peak Period
97	X	12	570	0	570	9.5	230.4	Peak Period
98	X	12	644	0	644	10.7	274.0	Peak Period
101	X	10	550	0	550	9.2	221.4	Peak Period
102	X	6	390	0	390	6.5	150.5	Peak Period
103	X	8	412	0	412	6.9	133.4	Peak Period
203	X	4	232	0	232	3.9	40.4	Peak Period
434X	X	8	416	0	416	6.9	169.6	Peak Period
440X	X	8	372	0	372	6.2	152.8	Peak Period
441X	X	8	352	0	352	5.9	134.4	Peak Period
100X	X	56	3,080	280	3,360	56.0	1,232.0	4:30 AM to 7:00 PM
101X	X	34	2,550	170	2,720	45.3	839.8	4:40 AM to 7:00 PM
102X	X	34	2,550	170	2,720	45.3	853.4	4:40 AM to 7:00 PM
200X	X	56	2,520	280	2,800	46.7	1,086.4	4:30 AM to 7:00 PM
201X	X	34	2,550	170	2,720	45.3	751.4	4:40 AM to 7:00 PM
202X	X	34	2,550	170	2,720	45.3	765.0	4:40 AM to 7:00 PM
300X	X	56	1,960	280	2,240	37.3	851.2	4:30 AM to 7:00 PM
301X	X	34	2,070	170	2,240	37.3	608.6	4:40 AM to 7:00 PM
302X	X	34	2,070	170	2,240	37.3	625.6	4:40 AM to 7:00 PM
TOTALS		8,690	397,270	48,674	445,944	7,432.4	101,436.0	

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	6	25	14	26	12	0	60
B	LS	3	7	7	7	7	0	60
C	LS	8	15	15	15	15	0	60
D	LS	4	10	5	10	8	0	60
E	LS	8	15	12	15	12	0	60
1	L	12	12	8	12	12	6	60
1L	LS	6	13	8	13	6	5	60
2	L	9	13	10	12	7	3	40
3	L	8	18	11	14	6	2	60
4	L	5	8	6	8	8	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
8	L	0	6	9	9	9	0	60
9	L	2	13	5	12	4	2	40
11	L	2	8	2	8	4	0	40
13	L	8	21	21	21	10	10	60
15	CC	0	2	1	2	1	0	30
17	CC	4	12	6	8	8	4	40
18	CC	0	4	4	4	4	4	40
19	L	5	18	17	20	10	5	60
20	L	1	5	6	5	1	0	60
23	L	0	7	7	7	7	0	40
30	L	2	4	4	4	4	2	40
31	L	1	8	2	8	2	0	35
40	L	17	22	11	22	11	8	60
41	L	2	4	2	4	2	0	40
42	L	8	19	9	19	12	7	60
43	L	0	5	5	5	0	0	40
50	L	3	12	6	12	6	0	40
51	L	5	14	7	14	4	4	60
52	L	5	10	8	10	8	4	60
54	L	6	11	6	11	6	3	60
60	L	2	10	5	10	5	3	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	9	6	9	6	2	40
64	L	3	6	4	6	4	0	40
65	L	2	3	2	3	2	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	1.0	1.0	1.0	1.0	0.5	0.0	30
134	CC	2.0	2.0	2.0	2.0	1.0	0.0	30
231	CC	1.0	1.0	0.5	1.0	0.5	0.5	35
232	CC	1.0	1.0	0.5	1.0	0.5	0.0	35
301	CC	3	3	3	3	2	0	35
302	CC	1	2	1	2	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	2	1	2	1	0	30
305	CC	4	4	2	4	2	0	40
401	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
402	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
403	CC	1	2	1	2	1	0	35

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
411	CC	1	2	1	2	1	1.0	40
412	CC	1	2	1	2	1	0	35
413	CC	1	2	1.0	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	2	4	2	4	2	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	1.0	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	2	8	2	8	2	0	40
422	CC	2	6	2	6	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	1	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	2	2	2	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	4	2	4	2	0	40
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0.00	1.50	0.75	1.50	0.75	0.00	35
505	CC	0.00	0.50	0.25	0.50	0.25	0.00	35
511	CC	1	2	1	2	1	1	40
512	CC	1	1	1	1	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
522	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
523	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
541	CC	2.0	4.0	2.0	4.0	2.0	0.0	35
542	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
543	CC	2.0	2.0	1.0	2.0	1.0	0.0	35
544	CA	1.0	1.0	1.0	1.0	1.0	0.0	Handi-Van Vehicle
545	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
546	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
547	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
548	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
549	CC	2.0	2.0	1.0	2.0	1.0	1.0	40
611	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
612	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
615	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	35
413F	F	1	1	0	1	1	0	40

TheBus Weekday Operations Summary Table Managed Lanes Option 1 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
EXPRESS ROUTES								
80	X	0	4	0	4	0	0	40
80A	X	0	3	0	3	0	0	40
80B	X	0	1	0	1	0	0	40
81	X	0	6	0	6	0	0	60
82	X	1	3	0	3	0	0	40
83	X	0	6	0	6	0	0	60
83A	X	0	2	0	2	0	0	40
84	X	0	4	0	4	0	0	60
84A	X	0	4	0	4	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
86	X	0	1	0	1	0	0	40
86A	X	0	1	0	1	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
90	X	0	2	0	2	0	0	40
92	X	0	2	0	3	0	0	40
93	X	0	11	0	11	0	0	60
93A	X	0	1	0	1	0	0	40
95	X	0	1	0	1	0	0	40
96	X	0	4	0	4	0	0	40
97	X	0	5	0	5	0	0	40
98	X	2	4	0	6	0	0	60
101	X	2	3	0	5	0	0	60
102	X	1	2	0	3	0	0	60
103	X	0	4	0	4	0	0	40
203	X	0	2	0	2	0	0	40
434X	X	0	4	0	4	0	0	40
440X	X	0	4	0	4	0	0	40
441X	X	0	4	0	4	0	0	60
100X	X	6	9	2	9	6	0	60
101X	X	3	6	3	6	3	0	60
102X	X	3	6	3	6	3	0	60
200X	X	6	8	2	8	6	0	60
201X	X	3	6	3	6	3	0	60
202X	X	3	6	3	6	3	0	60
300X	X	6	7	2	7	6	0	60
301X	X	3	5	2	5	3	0	60
302X	X	3	5	2	5	3	0	60
TOTALS		271	702	361	704	360	98	

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	495	48	6	131	4,767	392	49	1,080
B	LS	126	33	3	23	1,095	295	27	211
C	LS	694	78	8	312	5,010	674	75	2,150
D	LS	280	20	4	101	1,960	140	28	709
E	LS	640	80	8	196	2,800	350	35	856
1	L	880	80	16	149	1,980	180	36	335
1L	LS	420	30	6	89	2,450	175	35	519
2	L	507	41	9	66	2,848	223	46	422
3	L	590	48	11	122	2,342	246	33	394
4	L	250	50	5	45	1,400	280	28	249
5	CC	0	0	0	0	308	49	15	76
6	L	65	4	3	12	1,166	154	21	180
8	L	0	0	0	0	560	70	7	62
9	L	83	7	3	21	2,205	304	35	451
11	L	114	6	2	31	1,214	106	22	341
13	L	760	80	8	86	3,800	400	40	432
15	CC	28	2	1	7	214	16	9	51
17	CC	200	40	4	35	2,100	420	42	365
18	CC	0	0	0	0	660	60	12	86
19	L	429	55	8	100	1,614	180	22	316
20	L	72	25	1	16	875	220	10	171
23	L	0	0	0	0	1,140	120	12	247
30	L	100	20	2	15	700	140	14	103
31	L	43	2	1	15	1,484	196	28	427
40	L	1,580	150	10	402	3,780	360	24	966
41	L	84	22	4	31	588	132	24	219
42	L	826	68	8	213	3,144	240	24	650
43	L	0	0	0	0	620	60	8	175
50	L	240	30	3	47	2,240	280	28	434
51	L	475	50	5	122	1,798	180	18	440
52	L	525	75	5	187	1,680	240	16	599
54	L	385	110	11	126	1,834	380	38	443
60	L	130	20	2	38	1,560	240	24	451
61	L	100	20	2	29	700	140	14	202
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	49	1,050	210	14	340
64	L	165	15	3	37	990	90	18	221
65	L	80	10	2	24	480	60	12	142
66	L	100	20	4	54	350	70	14	188
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	25	5	1	7	150	30	6	41
134	CC	55	5	1	16	330	30	6	94
231	CC	50	10	2	18	150	30	6	54
232	CC	50	10	2	13	150	30	6	40
301	CC	80	10	2	19	560	70	14	131
302	CC	25	5	1	4	350	70	14	49
303	CC	75	15	3	11	325	65	13	47
304	CC	25	5	1	7	350	70	14	92
305	CC	100	20	4	23	650	130	26	148
401	CC	48	12	2	18	156	24	6	54
402	CC	42	18	2	14	138	42	6	43

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
403	CC	74	17	3	28	312	48	12	103
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	14	242	168	27	74
413	CC	15	0	1	6	246	84	22	100
414	CA	37	53	3	11	72	108	6	22
415	CC	55	5	1	16	660	60	12	187
416	CC	25	5	1	5	300	60	12	62
417	CC	50	10	2	15	300	60	12	91
418	CC	110	10	2	20	660	60	12	117
419	CC	50	10	2	14	300	60	12	85
421	CC	110	10	2	27	1,320	120	24	321
422	CC	110	10	2	32	1,155	105	21	340
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	250	50	10	65
440	CC	50	10	2	11	300	60	12	67
441	CC	110	10	2	22	660	60	12	134
501	CC	0	0	0	0	175	35	7	55
502	CC	0	0	0	0	175	35	7	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	5	56
505	CC	0	0	0	0	75	25	5	21
511	CC	75	15	3	19	300	60	12	74
512	CC	50	10	2	12	150	30	6	36
513	CC	50	10	2	9	150	30	6	27
521	CC	25	5	1	9	150	30	6	55
522	CC	25	5	1	14	150	30	6	86
523	CC	50	10	2	17	150	30	6	52
541	CC	50	10	2	14	650	130	26	176
542	CC	25	5	2	7	150	30	12	44
543	CC	25	5	2	5	325	65	26	68
544	CA	25	5	2	6	175	35	14	44
545	CC	25	5	2	7	175	35	14	49
546	CC	25	5	2	8	150	30	12	46
547	CC	200	25	10	64	520	65	26	166
548	CC	200	25	10	40	520	65	26	103
549	CC	25	5	1	7	325	65	13	94
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	13	150	30	6	40
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
80A	X	0	0	0	0	354	0	5	99
80B	X	0	0	0	0	40	0	1	11
81	X	220	0	4	80	464	0	8	159
82	X	45	0	1	16	144	0	3	47
83	X	457	0	6	174	316	0	4	114
83A	X	124	0	2	53	0	0	0	0
84	X	130	0	2	55	153	0	2	57
84A	X	69	0	1	26	222	0	3	81
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
86	X	65	0	1	26	0	0	0	0
86A	X	70	0	1	28	0	0	0	0
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
90	X	0	0	0	0	114	0	2	37
92	X	144	0	2	52	72	0	1	26
93	X	648	0	8	287	900	0	13	369
93A	X	75	0	1	38	0	0	0	0
95	X	76	0	1	31	0	0	0	0
96	X	0	0	0	0	176	0	4	72
97	X	47	0	1	20	235	0	5	98
98	X	94	0	2	47	220	0	4	93
101	X	120	0	2	45	180	0	3	67
102	X	56	0	1	25	112	0	2	51
103	X	0	0	0	0	176	0	4	65
203	X	0	0	0	0	110	0	2	19
434X	X	0	0	0	0	208	0	4	86
440X	X	0	0	0	0	184	0	4	76
441X	X	0	0	0	0	172	0	4	66
100X	X	330	30	6	132	1,400	100	20	440
101X	X	225	15	3	74	525	35	7	173
102X	X	225	15	3	75	525	35	7	176
200X	X	330	30	6	116	825	75	15	291
201X	X	225	15	3	66	525	35	7	155
202X	X	225	15	3	68	525	35	7	158
300X	X	210	30	6	91	675	75	15	228
301X	X	195	15	3	54	525	35	7	125
302X	X	195	15	3	55	525	35	7	129
TOTALS		20,018	2,123	376	5,774	100,127	11,891	1,933	25,713

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	4,560	384	48	1,060	4,278	336	42	929
B	LS	1,902	565	47	367	972	228	24	187
C	LS	4,584	600	48	1,885	4,716	744	72	2,037
D	LS	1,680	120	24	608	1,680	120	24	608
E	LS	3,840	480	48	1,174	2,400	300	30	734
1	L	2,640	240	48	447	1,980	180	36	335
1L	LS	2,520	180	36	533	2,100	150	30	444
2	L	2,752	152	43	401	1,978	73	31	290
3	L	3,168	410	44	579	1,791	252	29	322
4	L	1,800	360	36	320	1,500	300	30	267
5	CC	387	63	18	92	286	45	11	58
6	L	2,340	162	36	343	1,103	66	17	166
8	L	2,880	360	36	320	1,440	180	18	160
9	L	1,709	312	23	333	1,624	192	19	310
11	L	703	72	13	203	1,478	84	26	405
13	L	6,840	720	72	778	3,420	360	36	389
15	CC	336	24	12	83	252	18	12	59
17	CC	1,800	360	36	313	1,200	240	24	209
18	CC	1,320	120	24	173	660	60	12	86
19	L	2,842	375	37	536	1,337	195	17	272
20	L	1,662	441	18	304	730	88	8	138
23	L	2,280	240	24	493	1,140	120	12	247
30	L	1,200	240	24	176	600	120	12	88
31	L	676	104	13	198	1,320	120	24	366
40	L	3,720	360	24	972	4,340	420	28	1,133
41	L	588	132	24	219	588	132	24	219
42	L	3,367	260	26	704	2,488	260	20	538
43	L	1,644	180	24	524	725	55	10	219
50	L	1,920	240	24	372	1,920	240	24	372
51	L	2,280	240	24	588	985	100	10	245
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,680	480	48	561	1,728	360	36	421
60	L	1,690	260	26	489	1,950	300	30	564
61	L	1,300	260	26	374	900	180	18	259
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	631	1,350	270	18	437
64	L	1,430	130	26	320	990	90	18	221
65	L	480	60	12	142	480	60	12	142
66	L	300	60	12	161	300	60	12	161
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	300	60	12	83	150	30	6	41
134	CC	660	60	12	188	330	30	6	94
231	CC	125	25	5	45	150	30	6	54
232	CC	125	25	5	34	150	30	6	40
301	CC	960	120	24	224	480	60	12	112
302	CC	300	60	12	42	300	60	12	42
303	CC	325	65	13	47	300	60	12	43
304	CC	300	60	12	79	300	60	12	79
305	CC	600	120	24	137	600	120	24	137
401	CC	156	24	6	54	156	24	6	54
402	CC	138	42	6	43	138	42	6	43

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
403	CC	350	30	13	109	330	30	12	103
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	66	216	144	24	66
413	CC	138	42	12	56	300	60	24	111
414	CA	144	216	12	44	72	108	6	22
415	CC	660	60	12	187	660	60	12	187
416	CC	300	60	12	62	300	60	12	62
417	CC	300	60	12	91	300	60	12	91
418	CC	660	60	12	117	660	60	12	117
419	CC	300	60	12	85	300	60	12	85
421	CC	660	60	12	160	1,320	120	24	321
422	CC	660	60	12	194	990	90	18	291
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	600	120	24	156	300	60	12	78
440	CC	300	60	12	67	300	60	12	67
441	CC	660	60	12	134	660	60	12	134
501	CC	300	60	12	95	150	30	6	47
502	CC	300	60	12	78	150	30	6	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	5	56	275	25	5	56
505	CC	75	25	5	21	75	25	5	21
511	CC	300	60	12	74	300	60	12	74
512	CC	300	60	12	72	150	30	6	36
513	CC	300	60	12	53	150	30	6	27
521	CC	150	30	6	55	150	30	6	55
522	CC	150	30	6	86	150	30	6	86
523	CC	300	60	12	103	150	30	6	52
541	CC	650	130	26	176	600	120	24	162
542	CC	325	65	26	95	150	30	12	44
543	CC	325	65	26	68	300	60	24	62
544	CA	300	60	24	75	150	30	12	38
545	CC	325	65	26	91	150	30	12	42
546	CC	300	60	24	91	150	30	12	46
547	CC	520	65	26	166	480	60	24	154
548	CC	520	65	26	103	480	60	24	96
549	CC	300	60	12	86	300	60	12	86
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	80	150	30	6	40
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
80A	X	60	0	1	15	225	0	3	53
80B	X	0	0	0	0	39	0	1	11
81	X	0	0	0	0	540	0	9	192
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	593	0	7	201
83A	X	0	0	0	0	129	0	2	53
84	X	0	0	0	0	300	0	4	107
84A	X	0	0	0	0	292	0	4	100
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
86	X	0	0	0	0	63	0	1	25
86A	X	0	0	0	0	66	0	1	29
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
90	X	0	0	0	0	96	0	2	27
92	X	0	0	0	0	246	0	3	76
93	X	0	0	0	0	1,104	0	12	478
93A	X	0	0	0	0	77	0	1	37
95	X	0	0	0	0	93	0	1	31
96	X	0	0	0	0	188	0	4	69
97	X	0	0	0	0	288	0	6	113
98	X	0	0	0	0	330	0	6	134
101	X	0	0	0	0	250	0	5	110
102	X	0	0	0	0	222	0	3	74
103	X	0	0	0	0	236	0	4	69
203	X	0	0	0	0	122	0	2	22
434X	X	0	0	0	0	208	0	4	83
440X	X	0	0	0	0	188	0	4	77
441X	X	0	0	0	0	180	0	4	68
100X	X	770	70	14	308	1,400	100	20	440
101X	X	1,050	140	14	346	525	35	7	173
102X	X	1,050	140	14	351	525	35	7	176
200X	X	770	70	14	272	825	75	15	291
201X	X	1,050	70	14	309	525	35	7	155
202X	X	1,050	70	14	315	525	35	7	158
300X	X	770	70	14	213	675	75	15	228
301X	X	1,610	70	14	251	525	35	7	125
302X	X	1,610	70	14	258	525	35	7	129
TOTALS		114,598	14,999	2,163	27,677	96,031	10,911	1,833	25,102

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,066	104	13	287	0	0	0	0
B	LS	1,128	280	28	218	0	0	0	0
C	LS	2,388	294	27	1,062	0	0	0	0
D	LS	1,120	80	16	405	0	0	0	0
E	LS	2,240	280	28	685	0	0	0	0
1	L	1,650	150	30	279	990	90	18	168
1L	LS	1,470	105	21	311	700	50	10	148
2	L	1,536	380	26	242	155	20	3	28
3	L	1,221	199	21	268	274	12	5	60
4	L	700	140	14	125	200	40	4	36
5	CC	226	17	11	56	0	0	0	0
6	L	667	51	16	129	43	0	2	9
8	L	1,920	240	24	214	320	40	4	36
9	L	725	133	11	168	128	12	4	33
11	L	322	24	6	95	0	0	0	0
13	L	3,040	320	32	346	950	100	10	108
15	CC	252	18	9	62	0	0	0	0
17	CC	1,200	240	24	209	200	40	4	35
18	CC	1,100	100	20	144	220	20	4	29
19	L	1,355	285	20	386	266	30	5	88
20	L	78	0	1	16	0	0	0	0
23	L	1,520	160	16	329	0	0	0	0
30	L	800	160	16	118	100	20	2	15
31	L	352	49	8	123	0	0	0	0
40	L	3,100	300	20	810	2,150	210	20	810
41	L	358	90	15	135	0	0	0	0
42	L	2,940	254	26	706	1,764	126	18	489
43	L	0	0	0	0	0	0	0	0
50	L	1,920	240	24	372	0	0	0	0
51	L	665	70	7	172	380	40	4	98
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,400	400	40	468	280	80	8	94
60	L	780	120	12	226	130	20	2	38
61	L	800	160	16	230	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	388	150	30	2	49
64	L	880	80	16	197	0	0	0	0
65	L	160	20	4	47	0	0	0	0
66	L	200	40	8	107	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	100	20	4	28	0	0	0	0
134	CC	220	20	4	63	0	0	0	0
231	CC	175	35	7	63	100	20	4	36
232	CC	100	20	4	27	0	0	0	0
301	CC	200	25	5	47	0	0	0	0
302	CC	200	40	8	28	0	0	0	0
303	CC	300	60	12	43	25	5	1	4
304	CC	200	40	8	52	0	0	0	0
305	CC	500	100	20	114	0	0	0	0
401	CC	96	24	4	36	0	0	0	0
402	CC	92	28	4	28	0	0	0	0

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
403	CC	218	32	9	82	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	11	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	7	0	0	0	0
415	CC	440	40	8	125	0	0	0	0
416	CC	175	35	7	36	0	0	0	0
417	CC	250	50	10	76	50	10	2	15
418	CC	440	40	8	78	0	0	0	0
419	CC	200	40	8	57	0	0	0	0
421	CC	440	40	8	107	55	5	1	13
422	CC	550	50	10	162	110	10	2	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	400	80	16	104	0	0	0	0
440	CC	175	35	7	39	0	0	0	0
441	CC	385	35	7	78	0	0	0	0
501	CC	175	35	7	55	0	0	0	0
502	CC	175	35	7	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	3	34	0	0	0	0
505	CC	45	15	3	12	0	0	0	0
511	CC	250	50	10	62	25	5	1	6
512	CC	250	50	10	60	0	0	0	0
513	CC	100	20	4	18	100	20	4	18
521	CC	50	10	2	18	0	0	0	0
522	CC	50	10	2	29	0	0	0	0
523	CC	200	40	8	69	0	0	0	0
541	CC	500	100	20	135	0	0	0	0
542	CC	250	50	20	73	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	38	0	0	0	0
545	CC	200	40	16	56	0	0	0	0
546	CC	150	30	12	46	0	0	0	0
547	CC	480	60	24	154	100	10	5	32
548	CC	480	60	24	96	120	15	6	24
549	CC	275	55	11	79	25	5	1	7
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	54	0	0	0	0
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
80A	X	0	0	0	0	0	0	0	0
80B	X	0	0	0	0	0	0	0	0
81	X	64	0	1	21	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
86	X	0	0	0	0	0	0	0	0
86A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
90	X	0	0	0	0	0	0	0	0
92	X	0	0	0	0	0	0	0	0
93	X	0	0	0	0	0	0	0	0
93A	X	0	0	0	0	0	0	0	0
95	X	0	0	0	0	0	0	0	0
96	X	0	0	0	0	0	0	0	0
97	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
101	X	0	0	0	0	0	0	0	0
102	X	0	0	0	0	0	0	0	0
103	X	0	0	0	0	0	0	0	0
203	X	0	0	0	0	0	0	0	0
434X	X	0	0	0	0	0	0	0	0
440X	X	0	0	0	0	0	0	0	0
441X	X	0	0	0	0	0	0	0	0
100X	X	445	35	7	154	0	0	0	0
101X	X	225	15	3	74	0	0	0	0
102X	X	225	15	3	75	0	0	0	0
200X	X	330	30	6	116	0	0	0	0
201X	X	225	15	3	66	0	0	0	0
202X	X	225	15	3	68	0	0	0	0
300X	X	210	30	6	91	0	0	0	0
301X	X	225	15	3	54	0	0	0	0
302X	X	225	15	3	55	0	0	0	0
TOTALS		62,013	8,467	1,251	15,614	12,680	1,389	195	3,448

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	15,166	1,264	16,430	273.8	3,487.6	4:15 AM to 10:37 PM
B	LS	129	5,223	1,401	6,624	110.4	1,006.2	4:55 AM to 11:02 PM
C	LS	230	17,392	2,390	19,782	329.7	7,446.2	3:07 AM to 10:53 PM
D	LS	96	6,720	480	7,200	120.0	2,430.7	5:00 AM to 10:00 PM
E	LS	149	11,920	1,490	13,410	223.5	3,643.1	4:30 AM to 10:00 PM
1	L	184	10,120	920	11,040	184.0	1,713.0	4:00 AM to 2:00 AM
1L	LS	138	9,660	690	10,350	172.5	2,044.5	4:00 AM to 1:30 AM
2	L	158	9,776	889	10,665	177.8	1,449.7	4:10 AM to 1:44 AM
3	L	143	9,386	1,167	10,553	175.9	1,744.2	4:15 AM to 1:26 AM
4	L	117	5,850	1,170	7,020	117.0	1,041.3	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	281.3	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	838.2	5:03 AM to 11:58 PM
8	L	178	7,120	890	8,010	133.5	792.1	7:15 AM to 12:00 AM
9	L	95	6,474	960	7,434	123.9	1,316.0	5:10 AM to 12:56 AM
11	L	69	3,831	292	4,123	68.7	1,074.6	5:48 AM to 10:14 PM
13	L	198	18,810	1,980	20,790	346.5	2,138.4	5:00 AM to 1:00 AM
15	CC	56	1,082	78	1,160	19.3	508.7	5:30 AM to 10:23 PM
17	CC	134	6,700	1,340	8,040	134.0	1,165.8	5:00 AM to 12:00 AM
18	CC	72	3,960	360	4,320	72.0	518.4	6:00 AM to 12:00 AM
19	L	109	7,843	1,120	8,963	149.4	1,698.4	4:13 AM to 1:48 AM
20	L	38	3,417	774	4,191	69.9	645.4	5:14 AM to 7:33 PM
23	L	64	6,080	640	6,720	112.0	1,315.2	6:00 AM to 10:00 PM
30	L	70	3,500	700	4,200	70.0	514.5	5:00 AM to 12:00 AM
31	L	75	3,921	471	4,392	73.2	1,148.8	5:10 AM to 9:50 PM
40	L	126	18,670	1,800	20,470	341.2	5,091.9	4:00 AM to 3:59 AM
41	L	98	2,264	508	2,772	46.2	955.0	4:47 AM to 10:10 PM
42	L	122	14,529	1,208	15,737	262.3	3,300.6	4:00 AM to 3:59 AM
43	L	42	2,989	295	3,284	54.7	917.7	7:00 AM to 6:27 PM
50	L	103	8,240	1,030	9,270	154.5	1,597.5	5:00 AM to 11:00 PM
51	L	68	6,583	680	7,263	121.1	1,666.2	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	181	7,307	1,810	9,117	152.0	2,112.3	4:30 AM to 1:00 AM
60	L	96	6,240	960	7,200	120.0	1,804.8	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,094.4	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,850	1,170	7,020	117.0	1,891.5	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	996.3	5:00 AM to 10:00 PM
65	L	42	1,680	210	1,890	31.5	497.7	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	669.8	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	58	725	145	870	14.5	200.1	5:30 AM to 10:00 PM
134	CC	58	1,595	145	1,740	29.0	455.3	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	270.0	5:00 AM to 1:00 AM
232	CC	46	575	115	690	11.5	154.1	5:00 AM to 8:00 PM
301	CC	57	2,387	285	2,672	44.5	590.1	5:00 AM to 8:00 PM
302	CC	47	1,175	235	1,410	23.5	164.5	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	47	1,282	235	1,517	25.3	365.0	5:00 AM to 11:00 PM
305	CC	99	2,485	490	2,975	49.6	577.7	5:00 AM to 11:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
403	CC	49	1,284	157	1,441	24.0	424.8	4:15 AM to 10:22 PM
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	230.2	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	273.2	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	106.6	4:30 AM to 6:43 PM
415	CC	90	2,475	225	2,700	45.0	702.0	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	380.0	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	71	3,905	355	4,260	71.0	949.3	4:33 AM to 12:03 AM
422	CC	130	3,575	325	3,900	65.0	1,051.7	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	1,550	310	1,860	31.0	403.0	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	252.0	5:00 AM to 10:00 PM
441	CC	90	2,475	225	2,700	45.0	504.0	5:00 AM to 10:00 PM
501	CC	64	800	160	960	16.0	252.8	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	72	900	180	1,080	18.0	216.0	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	151.3	5:00 AM to 1:00 AM
521	CC	42	525	105	630	10.5	191.3	5:00 AM to 8:00 PM
522	CC	42	525	105	630	10.5	302.4	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	292.4	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	661.5	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	262.1	5:30 AM to 10:00 PM
543	CC	94	1,175	235	1,410	23.5	244.4	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	201.0	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	245.0	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	235.9	5:30 AM to 9:00 PM
547	CC	115	2,300	285	2,585	43.1	736.5	4:30 AM to 12:30 AM
548	CC	116	2,320	290	2,610	43.5	461.7	4:30 AM to 12:30 AM
549	CC	76	1,250	250	1,500	25.0	360.0	6:30 AM to 10:00 PM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	227.8	5:00 AM to 9:00 PM
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
80A	X	9	639	0	639	10.7	166.1	Peak Period
80B	X	2	79	0	79	1.3	22.3	Peak Period
81	X	22	1,288	0	1,288	21.5	452.4	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	17	1,366	0	1,366	22.8	489.3	Peak Period
83A	X	4	253	0	253	4.2	106.2	Peak Period
84	X	8	583	0	583	9.7	219.6	Peak Period
84A	X	8	583	0	583	9.7	206.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
86	X	2	128	0	128	2.1	51.8	Peak Period
86A	X	2	136	0	136	2.3	56.7	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
90	X	4	210	0	210	3.5	63.8	Peak Period
92	X	6	462	0	462	7.7	153.6	Peak Period
93	X	33	2,652	0	2,652	44.2	1,133.6	Peak Period
93A	X	2	152	0	152	2.5	74.2	Peak Period
95	X	2	169	0	169	2.8	62.0	Peak Period
96	X	8	364	0	364	6.1	140.6	Peak Period
97	X	12	570	0	570	9.5	230.4	Peak Period
98	X	12	644	0	644	10.7	274.0	Peak Period
101	X	10	550	0	550	9.2	221.4	Peak Period
102	X	6	390	0	390	6.5	150.5	Peak Period
103	X	8	412	0	412	6.9	133.4	Peak Period
203	X	4	232	0	232	3.9	40.4	Peak Period
434X	X	8	416	0	416	6.9	169.6	Peak Period
440X	X	8	372	0	372	6.2	152.8	Peak Period
441X	X	8	352	0	352	5.9	134.4	Peak Period
100X	X	67	4,345	335	4,680	78.0	1,474.0	4:30 AM to 7:00 PM
101X	X	34	2,550	240	2,790	46.5	839.8	4:40 AM to 7:00 PM
102X	X	34	2,550	240	2,790	46.5	853.4	4:40 AM to 7:00 PM
200X	X	56	3,080	280	3,360	56.0	1,086.4	4:30 AM to 7:00 PM
201X	X	34	2,550	170	2,720	45.3	751.4	4:40 AM to 7:00 PM
202X	X	34	2,550	170	2,720	45.3	765.0	4:40 AM to 7:00 PM
300X	X	56	2,540	280	2,820	47.0	851.2	4:30 AM to 7:00 PM
301X	X	34	3,080	170	3,250	54.2	608.6	4:40 AM to 7:00 PM
302X	X	34	3,080	170	3,250	54.2	625.6	4:40 AM to 7:00 PM
TOTALS		8,797	405,820	49,780	455,600	7,593.3	103,861.8	

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	6	25	14	26	12	0	60
B	LS	3	7	7	7	7	0	60
C	LS	8	30	15	30	13	0	60
D	LS	4	10	5	10	8	0	60
E	LS	8	15	12	15	12	0	60
1	L	12	12	8	12	12	6	60
1L	LS	6	13	8	13	6	5	60
2	L	9	13	10	12	7	3	40
3	L	8	18	11	14	6	2	60
4	L	5	8	6	8	8	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
8	L	0	6	9	9	9	0	60
9	L	2	13	5	12	4	2	40
11	L	2	8	2	8	4	0	40
13	L	8	21	21	21	10	10	60
15	CC	0	2	1	2	1	0	30
17	CC	4	12	6	8	8	4	40
18	CC	0	4	4	4	4	4	40
19	L	5	18	17	20	10	5	60
20	L	1	5	6	5	1	0	60
23	L	0	7	7	7	7	0	40
30	L	2	4	4	4	4	2	40
31	L	1	8	2	8	2	0	35
40	L	17	22	11	22	11	8	60
41	L	2	4	2	4	2	0	40
42	L	8	19	9	19	12	7	60
43	L	0	5	5	5	0	0	40
50	L	3	12	6	12	6	0	40
51	L	5	14	7	14	4	4	60
52	L	5	10	8	10	8	4	60
54	L	6	11	6	11	6	3	60
60	L	2	10	5	10	5	3	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	9	6	9	6	2	40
64	L	3	6	4	6	4	0	40
65	L	2	3	2	3	2	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	1.0	1.0	1.0	1.0	0.5	0.0	30
134	CC	2.0	2.0	2.0	2.0	1.0	0.0	30
231	CC	1.0	1.0	0.5	1.0	0.5	0.5	35
232	CC	1.0	1.0	0.5	1.0	0.5	0.0	35
301	CC	3	3	3	3	2	0	35
302	CC	1	2	1	2	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	2	1	2	1	0	30
305	CC	4	4	2	4	2	0	40
401	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
402	CC	0.5	1.0	0.5	1.0	0.5	0.0	35

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
403	CC	1	2	1	2	1	0	35
411	CC	1	2	1	2	1	1.0	40
412	CC	1	2	1	2	1	0	35
413	CC	1	2	1.0	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	2	4	2	4	2	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	1.0	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	2	8	2	8	2	0	40
422	CC	2	6	2	6	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	1	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	2	2	2	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	4	2	4	2	0	40
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0.00	1.50	0.75	1.50	0.75	0.00	35
505	CC	0.00	0.50	0.25	0.50	0.25	0.00	35
511	CC	1	2	1	2	1	1	40
512	CC	1	1	1	1	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
522	CC	0.5	1.0	0.5	1.0	0.5	0.0	35
523	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
541	CC	2.0	4.0	2.0	4.0	2.0	0.0	35
542	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
543	CC	2.0	2.0	1.0	2.0	1.0	0.0	35
544	CA	1.0	1.0	1.0	1.0	1.0	0.0	Handi-Van Vehicle
545	CC	2.0	1.0	1.0	1.0	1.0	0.0	35
546	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
547	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
548	CC	3.0	3.0	1.5	3.0	1.5	1.5	40
549	CC	2.0	2.0	1.0	2.0	1.0	1.0	40
611	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
612	CC	1.5	1.5	0.8	1.5	0.8	0.0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0.0	Handi-Van Vehicle
615	CC	1.0	1.0	1.0	1.0	1.0	0.0	35
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	35
413F	F	1	1	0	1	1	0	40

TheBus Weekday Operations Summary Table Managed Lanes Option 2 Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
EXPRESS ROUTES								
80	X	0	4	0	4	0	0	40
80A	X	0	3	0	3	0	0	40
80B	X	0	1	0	1	0	0	40
81	X	0	6	0	6	0	0	60
82	X	1	3	0	3	0	0	40
83	X	0	6	0	6	0	0	60
83A	X	0	2	0	2	0	0	40
84	X	0	4	0	4	0	0	60
84A	X	0	4	0	4	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
86	X	0	1	0	1	0	0	40
86A	X	0	1	0	1	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
90	X	0	2	0	2	0	0	40
92	X	0	2	0	3	0	0	40
93	X	0	11	0	11	0	0	60
93A	X	0	1	0	1	0	0	40
95	X	0	1	0	1	0	0	40
96	X	0	4	0	4	0	0	40
97	X	0	5	0	5	0	0	40
98	X	2	4	0	6	0	0	60
101	X	2	3	0	5	0	0	60
102	X	1	2	0	3	0	0	60
103	X	0	4	0	4	0	0	40
203	X	0	2	0	2	0	0	40
434X	X	0	4	0	4	0	0	40
440X	X	0	4	0	4	0	0	40
441X	X	0	4	0	4	0	0	60
100X	X	6	18	2	18	7	0	60
101X	X	3	9	3	9	3	0	60
102X	X	3	9	3	9	3	0	60
200X	X	6	18	2	18	6	0	60
201X	X	3	9	3	9	3	0	60
202X	X	3	9	3	9	3	0	60
300X	X	6	15	2	15	6	0	60
301X	X	3	10	4	10	3	0	60
302X	X	3	10	4	10	3	0	60
TOTALS		271.00	766.00	365.00	768.00	359.00	98.00	

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
C	LS	750	110	13	260	1,680	250	29	579
D	LS	96	24	4	43	700	140	28	301
1	L	590	90	17	99	1,449	231	42	246
1L	LS	365	35	10	113	1,479	136	34	384
2	L	414	86	14	67	1,218	252	42	202
3	L	420	30	10	82	1,764	126	42	343
4	L	250	50	5	42	1,540	140	28	230
5	CC	0	0	0	0	308	49	15	62
6	L	65	4	3	12	1,166	154	21	185
9	L	50	10	2	9	532	98	28	100
13	L	219	15	6	40	2,800	140	70	461
14	CC	53	7	4	10	525	105	42	102
15	CC	0	0	0	0	430	44	13	68
17	CC	200	40	4	34	1,974	126	42	361
18	CC	0	0	0	0	1,260	210	28	185
19	L	605	45	10	114	1,350	150	20	227
23	L	0	0	0	0	990	90	12	265
30	L	100	20	2	15	1,400	280	28	214
31	CC	162	33	8	31	798	147	42	155
40	L	1,532	288	22	441	3,045	295	40	808
41	L	183	42	3	45	1,464	336	24	367
42	L	390	60	12	85	910	140	28	199
50	L	91	15	3	27	938	112	28	251
51	L	240	30	6	70	1,120	140	28	327
52	L	525	75	5	187	1,680	240	16	599
54	L	350	100	10	100	980	280	28	279
60	L	110	10	2	35	1,320	120	24	426
61	L	100	20	2	29	700	140	14	202
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	39	849	131	14	280
64	L	165	15	3	37	990	90	18	221
65	L	80	10	2	24	480	60	12	142
66	L	100	20	4	54	350	70	14	188
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	0	0	0	0	440	40	16	101
134	CC	0	0	0	0	616	24	16	110
135	CC	0	0	0	0	440	40	16	85
231	CC	50	10	4	18	150	30	12	54
232	CC	50	10	4	15	150	30	12	45
301	CC	69	11	2	13	966	154	28	179
302	CC	24	6	2	5	168	42	14	34
303	CC	75	15	6	11	325	65	26	47
304	CC	25	5	1	5	700	140	28	151
305	CC	100	20	4	22	350	70	14	76
306	CC	27	3	2	5	81	9	6	14
311	CC	150	15	3	20	1,330	140	28	185
312	CC	0	0	0	0	364	56	28	88
313	CC	0	0	0	0	742	98	28	182

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	40	5	2	11	520	65	26	144
401	CC	48	12	4	18	156	24	12	54
402	CC	42	18	4	14	138	42	12	43
403	CC	129	22	4	40	642	78	18	177
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	18	242	168	27	96
413	CC	15	0	1	3	246	84	22	75
414	CA	37	53	3	9	72	108	6	18
415	CC	72	13	2	21	1,140	120	24	258
416	CC	25	5	2	5	300	60	24	62
417	CC	50	10	4	22	300	60	24	129
418	CC	110	10	4	20	660	60	24	117
419	CC	50	10	4	14	300	60	24	85
421	CC	Included with Route 41							
422	CC	110	10	4	32	1,155	105	42	340
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	185	40	10	38
440	CC	50	10	4	18	300	60	24	111
441	CC	50	10	4	22	300	60	24	134
501	CC	0	0	0	0	175	35	14	55
502	CC	0	0	0	0	175	35	14	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	10	56
505	CC	0	0	0	0	75	25	10	21
511	CC	75	15	6	19	300	60	24	74
512	CC	50	10	4	15	300	60	24	88
513	CC	50	10	4	9	150	30	12	27
521	CC	55	5	2	10	330	30	12	58
522	CC	55	5	2	19	330	30	12	112
523	CC	50	10	2	17	150	30	6	52
541	CC	50	10	2	14	650	130	26	176
542	CC	25	5	2	7	150	30	12	44
543	CC	25	5	2	5	325	65	26	68
544	CA	25	5	2	6	175	35	14	44
545	CC	25	5	2	7	175	35	14	49
546	CC	25	5	2	8	150	30	12	46
547	CC	250	50	10	64	650	130	26	166
548	CC	550	50	10	95	1,430	130	26	248
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	13	150	30	6	40

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
82	X	45	0	1	16	144	0	3	47
83	X	147	0	3	51	188	0	4	63
83A	X	40	0	2	20	0	0	0	0
84	X	61	0	2	27	62	0	2	27
84A	X	38	0	1	11	115	0	3	32
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
98	X	30	0	2	17	60	0	4	35
TOTALS		12,980	1,951	371	3,470	67,394	8,914	2,067	16,407

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
C	LS	2,052	108	36	720	1,566	234	27	541
D	LS	600	120	24	258	600	120	24	258
1	L	1,560	240	48	281	1,242	198	36	211
1L	LS	1,314	126	36	407	1,290	210	30	339
2	L	1,300	100	50	240	1,044	216	36	173
3	L	3,024	216	72	588	1,512	108	36	294
4	L	1,800	360	36	296	1,320	120	24	198
5	CC	387	63	18	74	286	45	11	48
6	L	2,340	162	36	353	1,103	66	17	169
9	L	468	72	24	86	456	84	24	86
13	L	2,628	252	72	474	2,400	120	60	395
14	CC	810	90	60	145	450	90	36	87
15	CC	360	42	12	64	408	42	12	64
17	CC	1,800	360	36	310	1,692	108	36	310
18	CC	1,920	240	48	317	1,080	180	24	159
19	L	2,178	162	36	409	1,215	135	18	205
23	L	1,872	288	24	530	990	90	12	265
30	L	1,200	240	24	183	1,200	240	24	183
31	CC	684	126	36	133	684	126	36	133
40	L	5,112	1,008	72	1,383	4,095	405	54	1,083
41	L	1,464	336	24	367	1,464	336	24	367
42	L	600	120	24	171	780	120	24	171
50	L	804	96	24	215	804	96	24	215
51	L	1,920	240	48	560	960	120	24	280
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,260	360	36	359	840	240	24	239
60	L	1,430	130	26	462	1,650	150	30	533
61	L	1,300	260	26	374	900	180	18	259
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	523	1,089	171	18	362
64	L	1,430	130	26	320	990	90	18	221
65	L	480	60	12	142	480	60	12	142
66	L	300	60	12	161	300	60	12	161
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	660	60	24	152	330	30	12	76
134	CC	864	36	24	165	462	18	12	82
135	CC	660	60	24	128	330	30	12	64
231	CC	125	25	10	45	150	30	12	54
232	CC	125	25	10	38	150	30	12	45
301	CC	828	132	24	154	828	132	24	154
302	CC	288	72	24	58	144	36	12	29
303	CC	325	65	26	47	300	60	24	43
304	CC	600	120	24	129	600	120	24	129
305	CC	600	120	24	131	300	60	12	65
306	CC	144	36	12	28	81	9	6	14
311	CC	960	120	24	159	1,140	120	24	159
312	CC	168	12	24	75	312	48	24	75
313	CC	636	84	24	156	636	84	24	156

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	960	120	48	266	480	60	24	133
401	CC	156	24	12	54	156	24	12	54
402	CC	138	42	12	43	138	42	12	43
403	CC	350	30	13	109	660	60	18	177
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	86	216	144	24	86
413	CC	138	42	12	41	300	60	24	82
414	CA	144	216	12	35	72	108	6	18
415	CC	864	156	24	258	1,140	120	24	258
416	CC	300	60	24	62	300	60	24	62
417	CC	300	60	24	129	300	60	24	129
418	CC	660	60	24	117	660	60	24	117
419	CC	300	60	24	85	300	60	24	85
421	CC	Included with Route 41							
422	CC	660	60	24	194	990	90	36	291
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	324	36	24	91	222	48	12	46
440	CC	300	60	24	67	300	60	24	111
441	CC	300	60	24	134	300	60	24	134
501	CC	300	60	24	95	150	30	12	47
502	CC	300	60	24	78	150	30	12	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	10	56	275	25	10	56
505	CC	75	25	10	21	75	25	10	21
511	CC	300	60	24	74	300	60	24	74
512	CC	300	60	24	88	300	60	24	88
513	CC	300	60	24	54	150	30	12	27
521	CC	330	30	12	58	330	30	12	58
522	CC	330	30	12	112	330	30	12	112
523	CC	300	60	12	103	150	30	6	52
541	CC	650	130	26	176	600	120	24	162
542	CC	325	65	26	95	150	30	12	44
543	CC	325	65	26	68	300	60	24	62
544	CA	300	60	24	75	150	30	12	38
545	CC	325	65	26	91	150	30	12	42
546	CC	300	60	24	91	150	30	12	46
547	CC	520	130	26	166	600	120	24	154
548	CC	1,430	130	26	248	1,320	120	24	229
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	80	150	30	6	40

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	335	0	7	114
83A	X	0	0	0	0	40	0	2	20
84	X	0	0	0	0	120	0	4	54
84A	X	0	0	0	0	152	0	4	44
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
98	X	0	0	0	0	90	0	6	52
TOTALS		76,511	11,164	2,383	19,004	64,509	8,348	1,936	16,006

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
C	LS	1,026	54	18	360	120	0	2	40
D	LS	400	80	16	172	0	0	0	0
1	L	975	225	30	176	585	135	18	105
1L	LS	949	91	26	294	365	35	10	113
2	L	1,248	192	48	230	468	72	18	86
3	L	2,068	242	44	359	420	30	10	82
4	L	1,200	240	24	198	200	40	4	33
5	CC	226	17	11	45	0	0	0	0
6	L	667	51	16	131	43	0	2	9
9	L	390	60	20	71	0	0	0	0
13	L	1,752	168	48	316	438	42	12	79
14	CC	350	70	28	68	100	20	8	19
15	CC	321	37	11	57	0	0	0	0
17	CC	1,200	240	24	207	200	40	4	34
18	CC	800	100	20	132	160	20	4	26
19	L	1,815	135	30	341	726	54	12	136
23	L	1,248	192	16	353	0	0	0	0
30	L	800	160	16	122	100	20	2	15
31	CC	684	126	36	133	228	42	12	44
40	L	3,124	616	44	849	1,584	276	24	461
41	L	915	210	15	230	488	112	8	122
42	L	780	120	24	171	884	76	12	245
50	L	804	96	24	215	0	0	0	0
51	L	960	120	24	280	160	20	4	47
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,120	320	32	319	280	80	8	80
60	L	660	60	12	213	110	10	2	36
61	L	800	160	16	230	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	322	150	30	2	40
64	L	880	80	16	197	0	0	0	0
65	L	160	20	4	47	0	0	0	0
66	L	200	40	8	107	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	220	20	8	51	0	0	0	0
134	CC	288	12	8	55	0	0	0	0
135	CC	220	20	8	43	0	0	0	0
231	CC	175	35	14	63	100	20	8	36
232	CC	100	20	8	30	100	20	8	30
301	CC	345	55	10	64	0	0	0	0
302	CC	96	24	8	19	0	0	0	0
303	CC	300	60	24	43	25	5	2	4
304	CC	200	40	8	43	0	0	0	0
305	CC	250	50	10	55	0	0	0	0
306	CC	72	18	6	14	0	0	0	0
311	CC	480	60	12	79	0	0	0	0
312	CC	70	5	10	31	0	0	0	0
313	CC	530	70	20	130	265	35	10	65

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	400	50	20	111	0	0	0	0
401	CC	96	24	8	36	0	0	0	0
402	CC	92	28	8	28	0	0	0	0
403	CC	200	32	8	69	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	14	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	6	0	0	0	0
415	CC	576	104	16	172	0	0	0	0
416	CC	175	35	14	36	0	0	0	0
417	CC	250	50	20	108	50	10	4	22
418	CC	440	40	16	78	0	0	0	0
419	CC	200	40	16	57	0	0	0	0
421	CC	Included with Route 41							
422	CC	550	50	20	162	110	10	4	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	216	24	16	61	0	0	0	0
440	CC	175	35	14	39	0	0	0	0
441	CC	175	35	14	78	0	0	0	0
501	CC	175	35	14	55	0	0	0	0
502	CC	175	35	14	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	6	34	0	0	0	0
505	CC	45	15	6	12	0	0	0	0
511	CC	250	50	20	62	25	5	2	6
512	CC	250	50	20	73	0	0	0	0
513	CC	100	20	8	18	100	20	8	18
521	CC	110	10	4	19	0	0	0	0
522	CC	110	10	4	37	0	0	0	0
523	CC	200	40	8	69	0	0	0	0
541	CC	500	100	20	135	0	0	0	0
542	CC	250	50	20	73	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	38	0	0	0	0
545	CC	200	40	16	56	0	0	0	0
546	CC	150	30	12	46	0	0	0	0
547	CC	480	120	24	154	100	25	5	32
548	CC	1,320	120	24	229	330	30	6	57
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	54	0	0	0	0

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
TOTALS		48,577	7,233	1,491	12,010	11,584	1,638	274	3,048

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
C	LS	125	7,194	756	7,950	132.5	2,500.1	3:07 AM to 10:53 PM
D	LS	96	2,396	484	2,880	48.0	1,030.6	5:00 AM to 10:00 PM
1	L	191	6,401	1,119	7,520	125.3	1,117.4	4:00 AM to 2:00 AM
1L	LS	146	5,762	633	6,395	106.6	1,649.8	4:00 AM to 1:30 AM
2	L	208	5,692	918	6,610	110.2	998.5	4:10 AM to 1:44 AM
3	L	214	9,208	752	9,960	166.0	1,746.2	4:15 AM to 1:26 AM
4	L	121	6,310	950	7,260	121.0	996.9	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	229.0	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	857.1	5:03 AM to 11:58 PM
9	L	98	1,896	324	2,220	37.0	351.2	5:00 AM to 10:20 PM
13	L	268	10,237	737	10,974	182.9	1,764.8	5:00 AM to 1:00 AM
14	CC	178	2,288	382	2,670	44.5	431.3	5:00 AM to 1:00 AM
15	CC	48	1,519	165	1,684	28.1	252.8	5:30 AM to 10:23 PM
17	CC	146	7,066	914	7,980	133.0	1,256.3	5:00 AM to 12:00 AM
18	CC	124	5,220	750	5,970	99.5	819.0	6:00 AM to 12:00 AM
19	L	126	7,889	681	8,570	142.8	1,432.0	4:13 AM to 1:48 AM
23	L	64	5,100	660	5,760	96.0	1,412.2	6:00 AM to 10:00 PM
30	L	96	4,800	960	5,760	96.0	733.0	5:00 AM to 12:00 AM
31	CC	170	3,240	600	3,840	64.0	628.9	4:45 AM to 12:25 AM
40	L	256	18,492	2,888	21,380	356.3	5,026.0	4:00 AM to 3:59 AM
41	L	98	5,978	1,372	7,350	122.5	1,497.4	4:47 AM to 10:10 PM
42	L	116	3,560	580	4,140	69.0	824.2	4:00 AM to 3:59 AM
50	L	103	3,441	415	3,856	64.3	922.6	5:00 AM to 11:00 PM
51	L	134	5,360	670	6,030	100.5	1,563.9	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	138	4,830	1,380	6,210	103.5	1,376.7	4:30 AM to 1:00 AM
60	L	96	5,280	480	5,760	96.0	1,704.5	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,094.4	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,388	992	6,380	106.3	1,566.9	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	996.3	5:00 AM to 10:00 PM
65	L	42	1,680	210	1,890	31.5	497.7	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	669.8	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	60	1,650	150	1,800	30.0	380.4	5:30 AM to 10:00 PM
134	CC	60	2,230	90	2,320	38.7	411.9	5:30 AM to 10:00 PM
135	CC	60	1,650	150	1,800	30.0	319.5	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	270.0	5:00 AM to 1:00 AM
232	CC	54	675	135	810	13.5	204.4	5:00 AM to 8:00 PM
301	CC	88	3,036	484	3,520	58.7	563.6	5:10 AM to 9:50 PM
302	CC	60	720	180	900	15.0	145.8	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	85	2,125	425	2,550	42.5	457.0	5:00 AM to 11:00 PM
305	CC	64	1,600	320	1,920	32.0	349.1	5:00 AM to 11:00 PM
306	CC	32	405	75	480	8.0	75.4	5:00 AM to 9:00 PM
311	CC	91	4,060	455	4,515	75.3	601.4	5:00 AM to 8:00 PM
312	CC	86	914	121	1,035	17.3	269.6	5:30 AM to 8:00 PM
313	CC	106	2,809	371	3,180	53.0	687.4	5:30 AM to 1:20 AM

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
314	CC	120	2,400	300	2,700	45.0	664.8	6:30 AM to 10:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	61	1,981	222	2,203	36.7	572.3	4:15 AM to 10:22 PM
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	299.5	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	200.6	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	85.6	4:30 AM to 6:43 PM
415	CC	90	3,792	513	4,305	71.8	965.7	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	537.5	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	Included with Route 41						
422	CC	130	3,575	325	3,900	65.0	1,051.7	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	947	148	1,095	18.3	236.2	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	346.6	5:00 AM to 10:00 PM
441	CC	90	1,125	225	1,350	22.5	504.0	5:00 AM to 10:00 PM
501	CC	64	800	160	960	16.0	252.8	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	96	1,200	240	1,440	24.0	352.3	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	154.4	5:00 AM to 1:00 AM
521	CC	42	1,155	105	1,260	21.0	202.4	5:00 AM to 8:00 PM
522	CC	42	1,155	105	1,260	21.0	393.5	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	292.4	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	661.5	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	262.1	5:30 AM to 10:00 PM
543	CC	94	1,175	235	1,410	23.5	244.4	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	201.0	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	245.0	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	235.9	5:30 AM to 9:00 PM
547	CC	115	2,600	575	3,175	52.9	736.5	4:30 AM to 12:30 AM
548	CC	116	6,380	580	6,960	116.0	1,105.5	4:30 AM to 12:30 AM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	227.8	5:00 AM to 9:00 PM

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	14	670	0	670	11.2	227.7	Peak Period
83A	X	4	80	0	80	1.3	39.6	Peak Period
84	X	8	243	0	243	4.1	107.2	Peak Period
84A	X	8	305	0	305	5.1	86.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
98	X	12	180	0	180	3.0	104.8	Peak Period
TOTALS		8,562	280,771	39,192	319,963	5,332.7	69,727.9	

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
C	LS	10	10	6	10	6	2	60
D	LS	3	4	2	4	3	0	60
1	L	8	8	5	8	8	4	60
1L	LS	4	8	4	8	4	4	60
2	L	7	7	4	7	6	4	40
3	L	6	9	9	9	7	3	60
4	L	5	8	6	8	8	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
9	L	2	3	2	3	2	0	40
13	L	6	14	8	14	8	4	60
14	CC	3	3	3	3	2	1	40
15	CC	0	3	1	3	1	0	30
17	CC	4	10	6	10	8	4	40
18	CC	0	7	6	7	3	3	40
19	L	6	8	7	8	7	4	60
23	L	0	6	6	6	6	0	40
30	L	2	8	4	8	4	2	40
31	CC	5	5	2	5	2	2	40
40	L	21	25	17	25	17	5	60
41	L	5	10	5	10	5	5	40
42	L	5	5	2	5	5	6	60
50	L	3	5	3	5	3	0	40
51	L	5	6	6	6	3	2	60
52	L	5	10	8	10	8	4	60
54	L	5	6	5	6	6	3	60
60	L	2	8	4	8	4	2	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	7	6	7	6	2	40
64	L	3	6	4	6	4	0	40
65	L	2	3	1.5	3	1.5	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	0	2	2	2	1	0	30
134	CC	0	3	3	3	2	0	30
135	CC	0	2	2	2	1	0	30
231	CC	1	1	0.5	1	0.5	0.5	35
232	CC	1	1	0.5	1	0.5	0.5	35
301	CC	3	6	2	6	3	0	35
302	CC	1	1	1	1	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	4	2	4	1	0	30
305	CC	2	2	2	2	2	0	40
306	CC	1	1	1	1	1	0	40
311	CC	3	7	3	7	3	0	35
312	CC	0	2	1	2	1	0	40
313	CC	0	4	2	4	2	2	40

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
314	CC	1	3	3	3	2	0	35
401	CC	0.5	1	0.5	1	0.5	0	35
402	CC	0.5	1	0.5	1	0.5	0	35
403	CC	2	4	1	4	1	0	35
411	CC	1	2	1	2	1	0.5	40
412	CC	1	2	1	2	1	0	30
413	CC	1	2	1	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	3	7	3	7	3	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	1	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	Included with Route 41						
422	CC	2	6	2	6	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	0.5	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	1	2	1	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	2	1	2	1	0	40
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0	1.5	0.75	1.5	0.75	0	35
505	CC	0	0.5	0.25	0.5	0.25	0	35
511	CC	1	2	1	2	1	1	40
512	CC	1	2	1	2	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	1	2	1	2	1	0	35
522	CC	1	2	1	2	1	0	35
523	CC	1	1	1	1	1	0	35
541	CC	2	4	2	4	2	0	35
542	CC	2	1	1	1	1	0	35
543	CC	2	2	1	2	1	0	35
544	CA	1	1	1	1	1	0	Handi-Van Vehicle
545	CC	2	1	1	1	1	0	35
546	CC	1	1	1	1	1	0	35
547	CC	4	4	2	4	3	2	40
548	CC	8	8	4	8	4	4	40
611	CC	1.5	1.5	0.75	1.5	0.75	0	35
612	CC	1.5	1.5	0.75	1.5	0.75	0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
615	CC	1	1	1	1	1	0	35

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 1

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	30
413F	F	1	1	0	1	1	0	40
EXPRESS ROUTES								
80	X	0	4	0	1	0	0	40
82	X	0	3	0	1	0	0	40
83	X	3	4	0	5	0	0	60
83A	X	2	0	0	2	0	0	40
84	X	2	2	0	2	0	0	60
84A	X	1	2	0	2	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
98	X	1	2	0	2	0	0	40
TOTALS		223.00	441.00	245.00	439.00	263.00	94.00	

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	205	30	6	41	1,547	203	49	337
C	LS	510	75	13	193	1,140	165	29	430
D	LS	96	24	4	43	700	140	28	301
1	L	590	90	17	102	1,449	231	42	252
1L	LS	365	35	10	113	1,479	136	34	384
2	L	414	86	14	67	1,218	252	42	202
3	L	420	30	10	75	1,764	126	42	316
4	L	250	50	5	42	1,540	140	28	230
5	CC	0	0	0	0	308	49	15	62
6	L	65	4	3	12	1,166	154	21	185
9	L	50	10	2	9	532	98	28	100
13	L	219	15	6	40	1,360	68	34	224
14	CC	94	16	4	16	924	126	42	158
15	CC	0	0	0	0	430	44	13	68
17	CC	200	40	4	34	1,974	126	42	361
18	CC	0	0	0	0	1,260	210	28	185
19	L	605	45	10	114	1,350	150	20	227
23	L	0	0	0	0	990	90	12	265
30	L	100	20	2	15	1,400	280	28	214
31	CC	162	33	8	27	798	147	42	134
40	L	1,532	288	22	441	3,045	295	40	808
41	L	183	42	3	45	1,464	336	24	367
42	L	390	60	12	85	910	140	28	199
50	L	91	15	3	27	469	56	14	125
51	L	240	30	6	70	1,120	140	28	327
52	L	525	75	5	187	1,680	240	16	599
54	L	350	100	10	100	980	280	28	279
60	L	110	10	2	35	1,320	120	24	426
61	L	100	20	2	29	700	140	14	226
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	39	849	131	14	280
64	L	165	15	3	36	990	90	18	215
65	L	50	10	2	21	300	60	12	126
66	L	100	20	4	56	350	70	14	195
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	0	0	0	0	440	40	16	101
134	CC	0	0	0	0	616	24	16	110
135	CC	0	0	0	0	200	40	16	38
231	CC	110	10	4	20	330	30	12	59
232	CC	50	10	4	15	150	30	12	45
301	CC	69	11	2	13	966	154	28	179
302	CC	24	6	2	5	168	42	14	34
303	CC	75	15	6	11	325	65	26	47
304	CC	25	5	1	5	700	140	28	151
305	CC	100	20	4	22	350	70	14	76
306	CC	27	3	2	5	81	9	6	14
311	CC	150	15	3	20	1,330	140	28	185
312	CC	0	0	0	0	364	56	28	88

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	0	0	0	0	742	98	28	182
314	CC	40	5	2	11	520	65	26	144
401	CC	48	12	4	18	156	24	12	54
402	CC	42	18	4	14	138	42	12	43
403	CC	129	22	4	40	642	78	18	177
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	18	242	168	27	96
413	CC	15	0	1	3	246	84	22	75
414	CA	37	53	3	9	72	108	6	18
415	CC	72	13	2	21	1,140	120	24	258
416	CC	25	5	2	5	300	60	24	62
417	CC	50	10	4	22	300	60	24	129
418	CC	110	10	4	20	660	60	24	117
419	CC	50	10	4	14	300	60	24	85
421	CC	Included with Route 41							
422	CC	110	10	4	32	1,155	105	42	340
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	185	40	10	38
440	CC	50	10	4	18	300	60	24	111
441	CC	50	10	4	22	300	60	24	134
501	CC	0	0	0	0	350	70	28	111
502	CC	0	0	0	0	175	35	14	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	10	56
505	CC	0	0	0	0	75	25	10	21
511	CC	75	15	6	19	300	60	24	74
512	CC	50	10	4	15	300	60	24	88
513	CC	50	10	4	9	150	30	12	27
521	CC	55	5	2	10	330	30	12	58
522	CC	55	5	2	19	330	30	12	112
523	CC	50	10	2	14	150	30	6	41
541	CC	50	10	2	14	650	130	26	181
542	CC	25	5	2	7	150	30	12	41
543	CC	25	5	2	5	325	65	26	67
544	CA	25	5	2	5	175	35	14	33
545	CC	25	5	2	7	175	35	14	51
546	CC	25	5	2	5	150	30	12	33
547	CC	200	50	10	52	780	130	26	136
548	CC	550	50	10	95	1,430	130	26	248
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	11	150	30	6	32

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
82	X	45	0	1	16	144	0	3	47
83	X	147	0	3	51	188	0	4	63
83A	X	40	0	2	20	0	0	0	0
84	X	61	0	2	27	62	0	2	27
84A	X	38	0	1	11	115	0	3	32
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
98	X	30	0	2	17	60	0	4	35
TOTALS		12,966	1,955	377	3,420	66,956	8,960	2,080	16,202

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,560	240	48	332	1,278	162	42	291
C	LS	1,404	216	36	534	1,044	171	27	402
D	LS	600	120	24	258	600	120	24	258
1	L	1,560	360	48	288	1,242	198	36	216
1L	LS	1,314	126	36	407	1,290	210	30	339
2	L	1,300	100	50	240	1,044	216	36	173
3	L	3,024	216	72	541	1,512	108	36	271
4	L	1,800	360	36	296	1,320	120	24	198
5	CC	387	63	18	74	286	45	11	48
6	L	2,340	162	36	353	1,103	66	17	169
9	L	468	72	24	86	456	84	24	86
13	L	2,190	210	60	395	1,200	60	30	198
14	CC	1,320	180	60	226	792	108	36	136
15	CC	360	42	12	64	408	42	12	64
17	CC	1,800	360	36	310	1,692	108	36	310
18	CC	1,920	240	48	317	1,080	180	24	159
19	L	2,178	162	36	409	1,215	135	18	205
23	L	1,872	288	24	530	990	90	12	265
30	L	1,200	240	24	183	1,200	240	24	183
31	CC	684	126	36	115	684	126	36	115
40	L	5,112	1,008	72	1,383	4,095	405	54	1,083
41	L	1,464	336	24	367	1,464	336	24	367
42	L	600	120	24	171	780	120	24	171
50	L	804	96	24	215	402	48	12	107
51	L	1,920	240	48	560	960	120	24	280
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,260	360	36	359	840	240	24	239
60	L	1,430	130	26	462	1,650	150	30	533
61	L	1,300	260	26	436	900	180	18	302
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	523	1,089	171	18	362
64	L	1,430	130	26	310	990	90	18	215
65	L	300	60	12	126	300	60	12	126
66	L	300	60	12	167	300	60	12	167
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	660	60	24	152	330	30	12	76
134	CC	864	36	24	165	462	18	12	82
135	CC	300	60	24	58	150	30	12	29
231	CC	275	25	10	49	330	30	12	59
232	CC	125	25	10	38	150	30	12	45
301	CC	828	132	24	154	828	132	24	154
302	CC	288	72	24	58	144	36	12	29
303	CC	325	65	26	47	300	60	24	43
304	CC	600	120	24	129	600	120	24	129
305	CC	600	120	24	131	300	60	12	65
306	CC	144	36	12	28	81	9	6	14
311	CC	960	120	24	159	1,140	120	24	159
312	CC	168	12	24	75	312	48	24	75

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	636	84	24	156	636	84	24	156
314	CC	960	120	48	266	480	60	24	133
401	CC	156	24	12	54	156	24	12	54
402	CC	138	42	12	43	138	42	12	43
403	CC	350	30	13	109	660	60	18	177
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	86	216	144	24	86
413	CC	138	42	12	41	300	60	24	82
414	CA	144	216	12	35	72	108	6	18
415	CC	864	156	24	258	1,140	120	24	258
416	CC	300	60	24	62	300	60	24	62
417	CC	300	60	24	129	300	60	24	129
418	CC	660	60	24	117	660	60	24	117
419	CC	300	60	24	85	300	60	24	85
421	CC	Included with Route 41							
422	CC	660	60	24	194	990	90	36	291
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	324	36	24	91	222	48	12	46
440	CC	300	60	24	67	300	60	24	111
441	CC	300	60	24	134	300	60	24	134
501	CC	300	60	24	95	300	60	24	95
502	CC	300	60	24	78	150	30	12	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	10	56	275	25	10	56
505	CC	75	25	10	21	75	25	10	21
511	CC	300	60	24	74	300	60	24	74
512	CC	300	60	24	88	300	60	24	88
513	CC	300	60	24	54	150	30	12	27
521	CC	330	30	12	58	330	30	12	58
522	CC	330	30	12	112	330	30	12	112
523	CC	300	60	12	82	150	30	6	41
541	CC	650	130	26	181	600	120	24	167
542	CC	325	65	26	90	150	30	12	41
543	CC	325	65	26	67	300	60	24	62
544	CA	300	60	24	57	150	30	12	28
545	CC	325	65	26	95	150	30	12	44
546	CC	300	60	24	66	150	30	12	33
547	CC	520	130	26	136	720	120	24	126
548	CC	1,430	130	26	248	1,320	120	24	229
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	64	150	30	6	32

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	335	0	7	114
83A	X	0	0	0	0	40	0	2	20
84	X	0	0	0	0	120	0	4	54
84A	X	0	0	0	0	152	0	4	44
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
98	X	0	0	0	0	90	0	6	52
TOTALS		77,105	11,680	2,419	18,962	64,095	8,387	1,948	15,844

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	425	65	13	90	0	0	0	0
C	LS	702	108	18	267	80	10	2	29
D	LS	400	80	16	172	0	0	0	0
1	L	975	225	30	180	585	135	18	108
1L	LS	949	91	26	294	365	35	10	113
2	L	1,248	192	48	230	468	72	18	86
3	L	2,068	242	44	331	420	30	10	75
4	L	1,200	240	24	198	200	40	4	33
5	CC	226	17	11	45	0	0	0	0
6	L	667	51	16	131	43	0	2	9
9	L	390	60	20	71	0	0	0	0
13	L	1,825	175	50	329	438	42	12	79
14	CC	616	84	28	106	176	24	8	30
15	CC	321	37	11	57	0	0	0	0
17	CC	1,200	240	24	207	200	40	4	34
18	CC	800	100	20	132	160	20	4	26
19	L	1,815	135	30	341	726	54	12	136
23	L	1,248	192	16	353	0	0	0	0
30	L	800	160	16	122	100	20	2	15
31	CC	684	126	36	115	228	42	12	38
40	L	3,124	616	44	849	1,584	276	24	461
41	L	915	210	15	230	488	112	8	122
42	L	780	120	24	171	884	76	12	245
50	L	804	96	24	215	0	0	0	0
51	L	960	120	24	280	160	20	4	47
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,120	320	32	319	280	80	8	80
60	L	660	60	12	213	110	10	2	36
61	L	800	160	16	268	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	322	150	30	2	40
64	L	880	80	16	191	0	0	0	0
65	L	100	20	4	42	0	0	0	0
66	L	200	40	8	111	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	220	20	8	51	0	0	0	0
134	CC	288	12	8	55	0	0	0	0
135	CC	100	20	8	19	0	0	0	0
231	CC	385	35	14	69	100	20	8	39
232	CC	100	20	8	30	100	20	8	30
301	CC	345	55	10	64	0	0	0	0
302	CC	96	24	8	19	0	0	0	0
303	CC	300	60	24	43	25	5	2	4
304	CC	200	40	8	43	0	0	0	0
305	CC	250	50	10	55	0	0	0	0
306	CC	72	18	6	14	0	0	0	0
311	CC	480	60	12	79	0	0	0	0
312	CC	70	5	10	31	0	0	0	0

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	530	70	20	130	265	35	10	65
314	CC	400	50	20	111	0	0	0	0
401	CC	96	24	8	36	0	0	0	0
402	CC	92	28	8	28	0	0	0	0
403	CC	200	32	8	69	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	14	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	6	0	0	0	0
415	CC	576	104	16	172	0	0	0	0
416	CC	175	35	14	36	0	0	0	0
417	CC	250	50	20	108	50	10	4	22
418	CC	440	40	16	78	0	0	0	0
419	CC	200	40	16	57	0	0	0	0
421	CC	Included with Route 41							
422	CC	550	50	20	162	110	10	4	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	216	24	16	61	0	0	0	0
440	CC	175	35	14	39	0	0	0	0
441	CC	175	35	14	78	0	0	0	0
501	CC	175	35	14	55	0	0	0	0
502	CC	175	35	14	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	6	34	0	0	0	0
505	CC	45	15	6	12	0	0	0	0
511	CC	250	50	20	62	25	5	2	6
512	CC	250	50	20	73	0	0	0	0
513	CC	100	20	8	18	100	20	8	18
521	CC	110	10	4	19	0	0	0	0
522	CC	110	10	4	37	0	0	0	0
523	CC	200	40	8	55	0	0	0	0
541	CC	500	100	20	139	0	0	0	0
542	CC	250	50	20	69	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	28	0	0	0	0
545	CC	200	40	16	58	0	0	0	0
546	CC	150	30	12	33	0	0	0	0
547	CC	480	120	24	126	100	25	5	26
548	CC	1,320	120	24	229	330	30	6	57
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	43	0	0	0	0

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
TOTALS		49,047	7,373	1,506	11,956	11,620	1,652	274	3,036

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	5,015	700	5,715	95.3	1,090.8	4:15 AM to 10:37 PM
C	LS	125	4,880	745	5,625	93.8	1,855.1	3:07 AM to 10:53 PM
D	LS	96	2,396	484	2,880	48.0	1,030.6	5:00 AM to 10:00 PM
1	L	191	6,401	1,239	7,640	127.3	1,147.9	4:00 AM to 2:00 AM
1L	LS	146	5,762	633	6,395	106.6	1,649.8	4:00 AM to 1:30 AM
2	L	208	5,692	918	6,610	110.2	998.5	4:10 AM to 1:44 AM
3	L	214	9,208	752	9,960	166.0	1,608.2	4:15 AM to 1:26 AM
4	L	121	6,310	950	7,260	121.0	996.9	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	229.0	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	857.1	5:03 AM to 11:58 PM
9	L	98	1,896	324	2,220	37.0	351.2	5:00 AM to 10:20 PM
13	L	192	7,232	570	7,802	130.0	1,264.3	5:00 AM to 1:00 AM
14	CC	178	3,922	538	4,460	74.3	671.8	5:00 AM to 1:00 AM
15	CC	48	1,519	165	1,684	28.1	252.8	5:30 AM to 10:23 PM
17	CC	146	7,066	914	7,980	133.0	1,256.3	5:00 AM to 12:00 AM
18	CC	124	5,220	750	5,970	99.5	819.0	6:00 AM to 12:00 AM
19	L	126	7,889	681	8,570	142.8	1,432.0	4:13 AM to 1:48 AM
23	L	64	5,100	660	5,760	96.0	1,412.2	6:00 AM to 10:00 PM
30	L	96	4,800	960	5,760	96.0	733.0	5:00 AM to 12:00 AM
31	CC	170	3,240	600	3,840	64.0	542.5	4:45 AM to 12:25 AM
40	L	256	18,492	2,888	21,380	356.3	5,026.0	4:00 AM to 3:59 AM
41	L	98	5,978	1,372	7,350	122.5	1,497.4	4:47 AM to 10:10 PM
42	L	116	3,560	580	4,140	69.0	824.2	4:00 AM to 3:59 AM
50	L	77	2,570	311	2,881	48.0	689.8	5:00 AM to 11:00 PM
51	L	134	5,360	670	6,030	100.5	1,563.9	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	138	4,830	1,380	6,210	103.5	1,376.7	4:30 AM to 1:00 AM
60	L	96	5,280	480	5,760	96.0	1,704.5	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,260.7	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,388	992	6,380	106.3	1,566.9	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	966.7	5:00 AM to 10:00 PM
65	L	42	1,050	210	1,260	21.0	442.3	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	695.5	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	60	1,650	150	1,800	30.0	380.4	5:30 AM to 10:00 PM
134	CC	60	2,230	90	2,320	38.7	411.9	5:30 AM to 10:00 PM
135	CC	60	750	150	900	15.0	144.0	5:30 AM to 10:00 PM
231	CC	60	1,530	150	1,680	28.0	293.7	5:00 AM to 1:00 AM
232	CC	54	675	135	810	13.5	204.4	5:00 AM to 8:00 PM
301	CC	88	3,036	484	3,520	58.7	563.6	5:10 AM to 9:50 PM
302	CC	60	720	180	900	15.0	145.8	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	85	2,125	425	2,550	42.5	457.0	5:00 AM to 11:00 PM
305	CC	64	1,600	320	1,920	32.0	349.1	5:00 AM to 11:00 PM
306	CC	32	405	75	480	8.0	75.4	5:00 AM to 9:00 PM
311	CC	91	4,060	455	4,515	75.3	601.4	5:00 AM to 8:00 PM
312	CC	86	914	121	1,035	17.3	269.6	5:30 AM to 8:00 PM

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
313	CC	106	2,809	371	3,180	53.0	687.4	5:30 AM to 1:20 AM
314	CC	120	2,400	300	2,700	45.0	664.8	6:30 AM to 10:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	61	1,981	222	2,203	36.7	572.3	4:15 AM to 10:22 PM
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	299.5	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	200.6	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	85.6	4:30 AM to 6:43 PM
415	CC	90	3,792	513	4,305	71.8	965.7	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	537.5	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	Included with Route 41						
422	CC	130	3,575	325	3,900	65.0	1,051.7	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	947	148	1,095	18.3	236.2	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	346.6	5:00 AM to 10:00 PM
441	CC	90	1,125	225	1,350	22.5	504.0	5:00 AM to 10:00 PM
501	CC	90	1,125	225	1,350	22.5	355.5	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	96	1,200	240	1,440	24.0	352.3	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	154.4	5:00 AM to 1:00 AM
521	CC	42	1,155	105	1,260	21.0	202.4	5:00 AM to 8:00 PM
522	CC	42	1,155	105	1,260	21.0	393.5	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	233.2	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	681.6	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	248.8	5:30 AM to 10:00 PM
543	CC	94	1,175	235	1,410	23.5	243.9	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	150.7	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	255.5	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	169.9	5:30 AM to 9:00 PM
547	CC	115	2,800	575	3,375	56.3	601.4	4:30 AM to 12:30 AM
548	CC	116	6,380	580	6,960	116.0	1,105.5	4:30 AM to 12:30 AM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	180.9	5:00 AM to 9:00 PM

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	14	670	0	670	11.2	227.7	Peak Period
83A	X	4	80	0	80	1.3	39.6	Peak Period
84	X	8	243	0	243	4.1	107.2	Peak Period
84A	X	8	305	0	305	5.1	86.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
98	X	12	180	0	180	3.0	104.8	Peak Period
TOTALS		8,644	281,005	39,951	320,956	5,349.3	69,204.5	

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	5	3	5	7	5	0	60
C	LS	7	7	5	7	5	2	60
D	LS	3	4	2	4	3	0	60
1	L	8	8	5	8	8	4	60
1L	LS	4	8	4	8	4	4	60
2	L	7	7	4	7	6	4	40
3	L	6	9	9	9	7	3	60
4	L	5	8	6	8	8	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
9	L	2	3	2	3	2	0	40
13	L	6	7	7	7	5	4	60
14	CC	5	5	5	5	3	2	40
15	CC	0	3	1	3	1	0	30
17	CC	4	10	6	10	8	4	40
18	CC	0	7	6	7	3	3	40
19	L	6	8	7	8	7	4	60
23	L	0	6	6	6	6	0	40
30	L	2	8	4	8	4	2	40
31	CC	5	5	2	5	2	2	40
40	L	21	25	17	25	17	5	60
41	L	5	10	5	10	5	5	40
42	L	5	5	2	5	5	6	60
50	L	3	3	3	3	3	0	40
51	L	5	6	6	6	3	2	60
52	L	5	10	8	10	8	4	60
54	L	5	6	5	6	6	3	60
60	L	2	8	4	8	4	2	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	7	6	7	6	2	40
64	L	3	4	4	4	4	0	40
65	L	2	2	1	2	1	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	0	2	2	2	1	0	30
134	CC	0	3	3	3	1.5	0	30
135	CC	0	1	1	1	0.5	0	30
231	CC	2	2	1	2	1	0.5	35
232	CC	1	1	1	1	1	0.5	35
301	CC	3	6	2	6	3	0	35
302	CC	1	1	1	1	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	4	2	4	1	0	30
305	CC	2	2	2	2	2	0	40
306	CC	1	1	1	1	1	0	40
311	CC	3	7	3	7	3	0	35
312	CC	0	2	1	2	1	0	40

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
313	CC	0	4	2	4	2	2	40
314	CC	1	3	3	3	2	0	35
401	CC	0.5	1	0.5	1	0.5	0	35
402	CC	0.5	1	0.5	1	0.5	0	35
403	CC	2	4	1	4	1	0	35
411	CC	1	2	1	2	1	0.5	40
412	CC	1	2	1	2	1	0	30
413	CC	1	2	1	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	3	7	3	7	3	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	1	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	Included with Route 41						
422	CC	2	6	2	6	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	0.5	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	1	2	1	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	2	1	2	1	0	40
501	CC	0	2	1	2	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0	1.5	0.75	1.5	0.75	0	35
505	CC	0	0.5	0.25	0.5	0.25	0	35
511	CC	1	2	1	2	1	1	40
512	CC	1	2	1	2	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	1	2	1	2	1	0	35
522	CC	1	2	1	2	1	0	35
523	CC	1	1	1	1	1	0	35
541	CC	2	4	2	4	2	0	35
542	CC	2	1	1	1	1	0	35
543	CC	2	2	1	2	1	0	35
544	CA	1	1	1	1	1	0	Handi-Van Vehicle
545	CC	2	1	1	1	1	0	35
546	CC	1	1	1	1	1	0	35
547	CC	4	5	2	5	3	2	40
548	CC	8	8	4	8	4	4	40
611	CC	1.5	1.5	1	1.5	1	0	35
612	CC	1.5	1.5	1	1.5	1	0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
615	CC	1	1	1	1	1	0	35

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 2

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	30
413F	F	1	1	0	1	1	0	40
EXPRESS ROUTES								
80	X	0	4	0	1	0	0	40
82	X	0	3	0	1	0	0	40
83	X	3	4	0	5	0	0	60
83A	X	2	0	0	2	0	0	40
84	X	2	2	0	2	0	0	60
84A	X	1	2	0	2	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
98	X	1	2	0	2	0	0	40
TOTALS		228.00	433.00	250.00	435.00	265.00	95.00	

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	205	30	6	41	1,547	203	49	337
C	LS	510	75	13	193	1,140	165	29	430
D	LS	96	24	4	43	700	140	28	301
1	L	748	102	17	115	1,848	252	42	286
1L	LS	365	35	10	113	1,479	136	34	384
2	L	414	86	14	74	1,218	252	42	218
3	L	420	30	10	75	1,764	126	42	316
4	L	300	60	6	49	2,310	210	42	346
5	CC	0	0	0	0	308	49	15	62
6	L	65	4	3	12	1,166	154	21	185
9	L	50	10	2	9	532	98	28	100
13	L	219	15	6	40	2,640	132	66	435
14	CC	94	16	4	16	924	126	42	158
15	CC	0	0	0	0	860	88	26	136
17	CC	200	40	4	34	1,974	126	42	361
18	CC	0	0	0	0	1,260	210	28	185
19	L	605	45	10	114	1,350	150	20	227
23	L	0	0	0	0	990	90	12	265
30	L	100	20	2	15	1,400	280	28	214
31	CC	162	33	8	27	798	147	42	134
40	L	1,532	288	22	441	3,045	295	40	808
41	L	183	42	3	45	1,464	336	24	367
42	L	390	60	12	85	910	140	28	199
50	L	91	15	3	27	938	112	28	251
51	L	240	30	6	70	1,120	140	28	327
52	L	525	75	5	187	1,680	240	16	599
54	L	350	100	10	100	980	280	28	279
60	L	110	10	2	35	1,320	120	24	426
61	L	100	20	2	29	700	140	14	226
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	39	849	131	14	280
64	L	165	15	3	36	990	90	18	215
65	L	50	10	2	21	300	60	12	126
66	L	100	20	4	56	350	70	14	195
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	0	0	0	0	440	40	16	101
134	CC	0	0	0	0	616	24	16	110
135	CC	0	0	0	0	200	40	16	38
231	CC	110	10	4	20	330	30	12	59
232	CC	50	10	4	15	150	30	12	45
301	CC	69	11	2	13	966	154	28	179
302	CC	24	6	2	5	168	42	14	34
303	CC	75	15	6	11	325	65	26	47
304	CC	25	5	1	5	700	140	28	151
305	CC	100	20	4	22	350	70	14	76
306	CC	27	3	2	5	81	9	6	14
311	CC	150	15	3	20	1,330	140	28	185
312	CC	0	0	0	0	364	56	28	88

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	0	0	0	0	532	98	28	93
314	CC	40	5	2	11	520	65	26	144
401	CC	48	12	4	18	156	24	12	54
402	CC	42	18	4	14	138	42	12	43
403	CC	129	22	4	40	642	78	18	177
411	CC	56	4	4	14	392	28	28	95
412	CC	46	24	5	18	242	168	27	96
413	CC	15	0	1	3	246	84	22	75
414	CA	37	53	3	9	72	108	6	18
415	CC	72	13	2	21	1,140	120	24	258
416	CC	25	5	2	5	300	60	24	62
417	CC	50	10	4	22	300	60	24	129
418	CC	110	10	4	20	660	60	24	117
419	CC	50	10	4	14	300	60	24	85
421	CC	Included with Route 41							
422	CC	110	10	4	32	660	60	24	194
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
435	CC	0	0	0	0	185	40	10	38
440	CC	50	10	4	18	300	60	24	111
441	CC	50	10	4	22	300	60	24	134
501	CC	0	0	0	0	350	70	28	111
502	CC	0	0	0	0	175	35	14	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	10	56
505	CC	0	0	0	0	75	25	10	21
511	CC	75	15	6	19	300	60	24	74
512	CC	50	10	4	15	300	60	24	88
513	CC	50	10	4	9	150	30	12	27
521	CC	55	5	2	10	330	30	12	58
522	CC	55	5	2	19	330	30	12	112
523	CC	50	10	2	14	150	30	6	41
541	CC	50	10	2	14	650	130	26	181
542	CC	25	5	2	7	150	30	12	41
543	CC	25	5	2	5	150	30	12	31
544	CA	25	5	2	5	175	35	14	33
545	CC	25	5	2	7	175	35	14	51
546	CC	25	5	2	5	150	30	12	33
547	CC	200	50	10	52	780	130	26	136
548	CC	550	50	10	95	1,430	130	26	248
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	11	150	30	6	32

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
82	X	45	0	1	16	144	0	3	47
83	X	147	0	3	51	188	0	4	63
83A	X	40	0	2	20	0	0	0	0
84	X	61	0	2	27	62	0	2	27
84A	X	38	0	1	11	115	0	3	32
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
98	X	30	0	2	17	60	0	4	35
TOTALS		13,174	1,977	378	3,447	69,424	9,135	2,121	16,501

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,560	240	48	332	1,278	162	42	291
C	LS	1,404	216	36	534	1,044	171	27	402
D	LS	600	120	24	258	600	120	24	258
1	L	2,112	288	48	326	1,584	216	36	245
1L	LS	1,314	126	36	407	1,290	210	30	339
2	L	1,300	100	50	260	1,044	216	36	187
3	L	3,024	216	72	541	1,512	108	36	271
4	L	1,800	360	36	296	1,980	180	36	296
5	CC	387	63	18	74	286	45	11	48
6	L	2,340	162	36	353	1,103	66	17	169
9	L	468	72	24	86	456	84	24	86
13	L	2,628	252	72	474	2,400	120	60	395
14	CC	1,320	180	60	226	792	108	36	136
15	CC	360	42	12	64	816	84	24	128
17	CC	1,800	360	36	310	1,692	108	36	310
18	CC	1,920	240	48	317	1,080	180	24	159
19	L	2,178	162	36	409	1,215	135	18	205
23	L	1,872	288	24	530	990	90	12	265
30	L	1,200	240	24	183	1,200	240	24	183
31	CC	684	126	36	115	684	126	36	115
40	L	5,112	1,008	72	1,383	4,095	405	54	1,083
41	L	1,464	336	24	367	1,464	336	24	367
42	L	600	120	24	171	780	120	24	171
50	L	1,608	192	48	430	804	96	24	215
51	L	1,920	240	48	560	960	120	24	280
52	L	2,205	315	21	786	1,365	195	13	487
54	L	1,260	360	36	359	840	240	24	239
60	L	1,430	130	26	462	1,650	150	30	533
61	L	1,300	260	26	436	900	180	18	302
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	523	1,089	171	18	362
64	L	1,430	130	26	310	990	90	18	215
65	L	300	60	12	126	300	60	12	126
66	L	300	60	12	167	300	60	12	167
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	660	60	24	152	330	30	12	76
134	CC	864	36	24	165	462	18	12	82
135	CC	300	60	24	58	150	30	12	29
231	CC	275	25	10	49	330	30	12	59
232	CC	125	25	10	38	150	30	12	45
301	CC	828	132	24	154	828	132	24	154
302	CC	288	72	24	58	144	36	12	29
303	CC	325	65	26	47	300	60	24	43
304	CC	600	120	24	129	600	120	24	129
305	CC	600	120	24	131	300	60	12	65
306	CC	144	36	12	28	81	9	6	14
311	CC	960	120	24	159	1,140	120	24	159
312	CC	168	12	24	75	312	48	24	75

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	456	84	24	80	456	84	24	80
314	CC	960	120	48	266	480	60	24	133
401	CC	156	24	12	54	156	24	12	54
402	CC	138	42	12	43	138	42	12	43
403	CC	350	30	13	109	660	60	18	177
411	CC	336	24	24	82	336	24	24	82
412	CC	216	144	24	86	216	144	24	86
413	CC	138	42	12	41	300	60	24	82
414	CA	144	216	12	35	72	108	6	18
415	CC	864	156	24	258	1,140	120	24	258
416	CC	300	60	24	62	300	60	24	62
417	CC	300	60	24	129	300	60	24	129
418	CC	660	60	24	117	660	60	24	117
419	CC	300	60	24	85	300	60	24	85
421	CC	Included with Route 41							
422	CC	660	60	24	194	660	60	24	194
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
435	CC	324	36	24	91	222	48	12	46
440	CC	300	60	24	67	300	60	24	111
441	CC	300	60	24	134	300	60	24	134
501	CC	300	60	24	95	300	60	24	95
502	CC	300	60	24	78	150	30	12	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	10	56	275	25	10	56
505	CC	75	25	10	21	75	25	10	21
511	CC	300	60	24	74	300	60	24	74
512	CC	300	60	24	88	300	60	24	88
513	CC	300	60	24	54	150	30	12	27
521	CC	330	30	12	58	330	30	12	58
522	CC	330	30	12	112	330	30	12	112
523	CC	300	60	12	82	150	30	6	41
541	CC	650	130	26	181	600	120	24	167
542	CC	325	65	26	90	150	30	12	41
543	CC	325	65	26	67	150	30	12	31
544	CA	300	60	24	57	150	30	12	28
545	CC	325	65	26	95	150	30	12	44
546	CC	300	60	24	66	150	30	12	33
547	CC	520	130	26	136	720	120	24	126
548	CC	1,430	130	26	248	1,320	120	24	229
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	64	150	30	6	32

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	335	0	7	114
83A	X	0	0	0	0	40	0	2	20
84	X	0	0	0	0	120	0	4	54
84A	X	0	0	0	0	152	0	4	44
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
98	X	0	0	0	0	90	0	6	52
TOTALS		78,719	11,746	2,455	19,238	66,447	8,555	1,990	16,151

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	425	65	13	90	0	0	0	0
C	LS	702	108	18	267	80	10	2	29
D	LS	400	80	16	172	0	0	0	0
1	L	1,320	180	30	204	792	108	18	122
1L	LS	949	91	26	294	365	35	10	113
2	L	1,248	192	48	250	468	72	18	94
3	L	2,068	242	44	331	420	30	10	75
4	L	2,200	440	44	362	200	40	4	33
5	CC	226	17	11	45	0	0	0	0
6	L	667	51	16	131	43	0	2	9
9	L	390	60	20	71	0	0	0	0
13	L	2,190	210	60	395	438	42	12	79
14	CC	616	84	28	106	176	24	8	30
15	CC	321	37	11	57	0	0	0	0
17	CC	1,200	240	24	207	200	40	4	34
18	CC	800	100	20	132	160	20	4	26
19	L	1,815	135	30	341	726	54	12	136
23	L	1,248	192	16	353	0	0	0	0
30	L	800	160	16	122	100	20	2	15
31	CC	684	126	36	115	228	42	12	38
40	L	3,124	616	44	849	1,584	276	24	461
41	L	915	210	15	230	488	112	8	122
42	L	780	120	24	171	884	76	12	245
50	L	804	96	24	215	0	0	0	0
51	L	960	120	24	280	160	20	4	47
52	L	1,050	150	10	375	1,050	150	10	375
54	L	1,120	320	32	319	280	80	8	80
60	L	660	60	12	213	110	10	2	36
61	L	800	160	16	268	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	322	150	30	2	40
64	L	880	80	16	191	0	0	0	0
65	L	100	20	4	42	0	0	0	0
66	L	200	40	8	111	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	220	20	8	51	0	0	0	0
134	CC	288	12	8	55	0	0	0	0
135	CC	100	20	8	19	0	0	0	0
231	CC	385	35	14	69	100	20	8	39
232	CC	100	20	8	30	100	20	8	30
301	CC	345	55	10	64	0	0	0	0
302	CC	96	24	8	19	0	0	0	0
303	CC	300	60	24	43	25	5	2	4
304	CC	200	40	8	43	0	0	0	0
305	CC	250	50	10	55	0	0	0	0
306	CC	72	18	6	14	0	0	0	0
311	CC	480	60	12	79	0	0	0	0
312	CC	70	5	10	31	0	0	0	0

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
313	CC	380	70	20	67	190	35	10	33
314	CC	400	50	20	111	0	0	0	0
401	CC	96	24	8	36	0	0	0	0
402	CC	92	28	8	28	0	0	0	0
403	CC	200	32	8	69	0	0	0	0
411	CC	220	28	16	63	68	8	4	22
412	CC	36	24	4	14	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	6	0	0	0	0
415	CC	576	104	16	172	0	0	0	0
416	CC	175	35	14	36	0	0	0	0
417	CC	250	50	20	108	50	10	4	22
418	CC	440	40	16	78	0	0	0	0
419	CC	200	40	16	57	0	0	0	0
421	CC	Included with Route 41							
422	CC	550	50	20	162	110	10	4	32
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
435	CC	216	24	16	61	0	0	0	0
440	CC	175	35	14	39	0	0	0	0
441	CC	175	35	14	78	0	0	0	0
501	CC	175	35	14	55	0	0	0	0
502	CC	175	35	14	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	6	34	0	0	0	0
505	CC	45	15	6	12	0	0	0	0
511	CC	250	50	20	62	25	5	2	6
512	CC	250	50	20	73	0	0	0	0
513	CC	100	20	8	18	100	20	8	18
521	CC	110	10	4	19	0	0	0	0
522	CC	110	10	4	37	0	0	0	0
523	CC	200	40	8	55	0	0	0	0
541	CC	500	100	20	139	0	0	0	0
542	CC	250	50	20	69	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	28	0	0	0	0
545	CC	200	40	16	58	0	0	0	0
546	CC	150	30	12	33	0	0	0	0
547	CC	480	120	24	126	100	25	5	26
548	CC	1,320	120	24	229	330	30	6	57
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	43	0	0	0	0

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
TOTALS		50,607	7,563	1,536	12,166	11,752	1,625	274	3,026

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	5,015	700	5,715	95.3	1,090.8	4:15 AM to 10:37 PM
C	LS	125	4,880	745	5,625	93.8	1,855.1	3:07 AM to 10:53 PM
D	LS	96	2,396	484	2,880	48.0	1,030.6	5:00 AM to 10:00 PM
1	L	191	8,404	1,146	9,550	159.2	1,298.4	4:00 AM to 2:00 AM
1L	LS	146	5,762	633	6,395	106.6	1,649.8	4:00 AM to 1:30 AM
2	L	208	5,692	918	6,610	110.2	1,082.5	4:10 AM to 1:44 AM
3	L	214	9,208	752	9,960	166.0	1,608.2	4:15 AM to 1:26 AM
4	L	168	8,790	1,290	10,080	168.0	1,382.6	5:00 AM to 12:00 AM
5	CC	55	1,207	174	1,381	23.0	229.0	5:36 AM to 10:02 PM
6	L	95	5,384	437	5,821	97.0	857.1	5:03 AM to 11:58 PM
9	L	98	1,896	324	2,220	37.0	351.2	5:00 AM to 10:20 PM
13	L	276	10,515	771	11,286	188.1	1,817.5	5:00 AM to 1:00 AM
14	CC	178	3,922	538	4,460	74.3	671.8	5:00 AM to 1:00 AM
15	CC	73	2,357	251	2,608	43.5	384.5	5:30 AM to 10:23 PM
17	CC	146	7,066	914	7,980	133.0	1,256.3	5:00 AM to 12:00 AM
18	CC	124	5,220	750	5,970	99.5	819.0	6:00 AM to 12:00 AM
19	L	126	7,889	681	8,570	142.8	1,432.0	4:13 AM to 1:48 AM
23	L	64	5,100	660	5,760	96.0	1,412.2	6:00 AM to 10:00 PM
30	L	96	4,800	960	5,760	96.0	733.0	5:00 AM to 12:00 AM
31	CC	170	3,240	600	3,840	64.0	542.5	4:45 AM to 12:25 AM
40	L	256	18,492	2,888	21,380	356.3	5,026.0	4:00 AM to 3:59 AM
41	L	98	5,978	1,372	7,350	122.5	1,497.4	4:47 AM to 10:10 PM
42	L	116	3,560	580	4,140	69.0	824.2	4:00 AM to 3:59 AM
50	L	127	4,245	511	4,756	79.3	1,137.5	5:00 AM to 11:00 PM
51	L	134	5,360	670	6,030	100.5	1,563.9	4:30 AM to 1:37 AM
52	L	75	7,875	1,125	9,000	150.0	2,808.8	4:00 AM to 3:59 AM
54	L	138	4,830	1,380	6,210	103.5	1,376.7	4:30 AM to 1:00 AM
60	L	96	5,280	480	5,760	96.0	1,704.5	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,260.7	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,388	992	6,380	106.3	1,566.9	5:00 AM to 12:00 AM
64	L	81	4,455	405	4,860	81.0	966.7	5:00 AM to 10:00 PM
65	L	42	1,050	210	1,260	21.0	442.3	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	695.5	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	60	1,650	150	1,800	30.0	380.4	5:30 AM to 10:00 PM
134	CC	60	2,230	90	2,320	38.7	411.9	5:30 AM to 10:00 PM
135	CC	60	750	150	900	15.0	144.0	5:30 AM to 10:00 PM
231	CC	60	1,530	150	1,680	28.0	293.7	5:00 AM to 1:00 AM
232	CC	54	675	135	810	13.5	204.4	5:00 AM to 8:00 PM
301	CC	88	3,036	484	3,520	58.7	563.6	5:10 AM to 9:50 PM
302	CC	60	720	180	900	15.0	145.8	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	85	2,125	425	2,550	42.5	457.0	5:00 AM to 11:00 PM
305	CC	64	1,600	320	1,920	32.0	349.1	5:00 AM to 11:00 PM
306	CC	32	405	75	480	8.0	75.4	5:00 AM to 9:00 PM
311	CC	91	4,060	455	4,515	75.3	601.4	5:00 AM to 8:00 PM
312	CC	86	914	121	1,035	17.3	269.6	5:30 AM to 8:00 PM

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
313	CC	106	2,014	371	2,385	39.8	352.5	5:30 AM to 1:20 AM
314	CC	120	2,400	300	2,700	45.0	664.8	6:30 AM to 10:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	61	1,981	222	2,203	36.7	572.3	4:15 AM to 10:22 PM
411	CC	100	1,408	116	1,524	25.4	357.3	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	299.5	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	200.6	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	85.6	4:30 AM to 6:43 PM
415	CC	90	3,792	513	4,305	71.8	965.7	5:30 AM to 11:00 PM
416	CC	88	1,100	220	1,320	22.0	228.8	5:30 AM to 10:00 PM
417	CC	100	1,250	250	1,500	25.0	537.5	5:00 AM to 12:30 AM
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	1,150	230	1,380	23.0	326.6	5:00 AM to 11:00 PM
421	CC	Included with Route 41						
422	CC	100	2,750	250	3,000	50.0	809.0	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
435	CC	62	947	148	1,095	18.3	236.2	6:30 AM to 10:00 PM
440	CC	90	1,125	225	1,350	22.5	346.6	5:00 AM to 10:00 PM
441	CC	90	1,125	225	1,350	22.5	504.0	5:00 AM to 10:00 PM
501	CC	90	1,125	225	1,350	22.5	355.5	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	96	1,200	240	1,440	24.0	352.3	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	154.4	5:00 AM to 1:00 AM
521	CC	42	1,155	105	1,260	21.0	202.4	5:00 AM to 8:00 PM
522	CC	42	1,155	105	1,260	21.0	393.5	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	233.2	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	681.6	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	248.8	5:30 AM to 10:00 PM
543	CC	68	850	170	1,020	17.0	176.5	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	150.7	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	255.5	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	169.9	5:30 AM to 9:00 PM
547	CC	115	2,800	575	3,375	56.3	601.4	4:30 AM to 12:30 AM
548	CC	116	6,380	580	6,960	116.0	1,105.5	4:30 AM to 12:30 AM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	180.9	5:00 AM to 9:00 PM

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	14	670	0	670	11.2	227.7	Peak Period
83A	X	4	80	0	80	1.3	39.6	Peak Period
84	X	8	243	0	243	4.1	107.2	Peak Period
84A	X	8	305	0	305	5.1	86.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
98	X	12	180	0	180	3.0	104.8	Peak Period
TOTALS		8,794	289,339	40,545	329,884	5,498.1	70,312.1	

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	5	3	5	7	5	0	60
C	LS	7	7	5	7	5	2	60
D	LS	3	4	2	4	3	0	60
1	L	10	10	5	10	10	5	60
1L	LS	4	8	4	8	4	4	60
2	L	7	9	4	9	6	4	40
3	L	6	9	9	9	7	3	60
4	L	6	12	6	12	12	4	40
5	CC	0	2	1	2	1	0	40
6	L	1	10	7	10	3	0	40
9	L	2	3	2	3	2	0	40
13	L	6	14	8	14	8	4	60
14	CC	5	5	5	5	3	2	40
15	CC	0	5	1	5	1	0	30
17	CC	4	10	6	10	8	4	40
18	CC	0	7	6	7	3	3	40
19	L	6	8	7	8	7	4	60
23	L	0	6	6	6	6	0	40
30	L	2	8	4	8	4	2	40
31	CC	5	5	2	5	2	2	40
40	L	21	25	17	25	17	5	60
41	L	5	10	5	10	5	5	40
42	L	5	5	2	5	5	6	60
50	L	3	5	5	5	3	0	40
51	L	5	6	6	6	3	2	60
52	L	5	10	8	10	8	4	60
54	L	5	6	5	6	6	3	60
60	L	2	8	4	8	4	2	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	7	6	7	6	2	40
64	L	3	4	4	4	4	0	40
65	L	2	2	1	2	1	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	0	2	2	2	1	0	30
134	CC	0	3	3	3	1.5	0	30
135	CC	0	1	1	1	0.5	0	30
231	CC	2	2	1	2	1	0.5	35
232	CC	1	1	1	1	1	0.5	35
301	CC	3	6	2	6	3	0	35
302	CC	1	1	1	1	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	4	2	4	1	0	30
305	CC	2	2	2	2	2	0	40
306	CC	1	1	1	1	1	0	40
311	CC	3	7	3	7	3	0	35
312	CC	0	2	1	2	1	0	40

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
313	CC	0	3	2	3	2	2	40
314	CC	1	3	3	3	2	0	35
401	CC	0.5	1	0.5	1	0.5	0	35
402	CC	0.5	1	0.5	1	0.5	0	35
403	CC	2	4	1	4	1	0	35
411	CC	1	2	1	2	1	0.5	40
412	CC	1	2	1	2	1	0	30
413	CC	1	2	1	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	3	7	3	7	3	0	40
416	CC	1	2	1	2	1	0	40
417	CC	1	2	1	2	1	1	40
418	CC	2	4	2	4	2	0	40
419	CC	1	2	1	2	1	0	40
421	CC	Included with Route 41						
422	CC	2	4	2	4	2	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	0.5	40
434	CC	2	4	2	4	2	1	40
435	CC	0	2	1	2	1	0	40
440	CC	2	2	1	2	1	0	40
441	CC	2	2	1	2	1	0	40
501	CC	0	2	1	2	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0	1.5	0.75	1.5	0.75	0	35
505	CC	0	0.5	0.25	0.5	0.25	0	35
511	CC	1	2	1	2	1	1	40
512	CC	1	2	1	2	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	1	2	1	2	1	0	35
522	CC	1	2	1	2	1	0	35
523	CC	1	1	1	1	1	0	35
541	CC	2	4	2	4	2	0	35
542	CC	2	1	1	1	1	0	35
543	CC	1	1	1	1	1	0	35
544	CA	1	1	1	1	1	0	Handi-Van Vehicle
545	CC	2	1	1	1	1	0	35
546	CC	1	1	1	1	1	0	35
547	CC	4	5	2	5	3	2	40
548	CC	8	8	4	8	4	4	40
611	CC	1.5	1.5	1	1.5	1	0	35
612	CC	1.5	1.5	1	1.5	1	0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
615	CC	1	1	1	1	1	0	35

TheBus Weekday Operations Summary Table Fixed Guideway Alternative Combination 3

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	30
413F	F	1	1	0	1	1	0	40
EXPRESS ROUTES								
80	X	0	4	0	1	0	0	40
82	X	0	3	0	1	0	0	40
83	X	3	4	0	5	0	0	60
83A	X	2	0	0	2	0	0	40
84	X	2	2	0	2	0	0	60
84A	X	1	2	0	2	0	0	40
85	X	0	6	0	5	0	0	40
85A	X	0	3	0	2	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	1	0	2	0	0	40
98	X	1	2	0	2	0	0	40
TOTALS		230.00	448.00	254.00	450.00	274.00	96.00	

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	205	30	6	41	1,547	203	49	337
B	LS	126	33	3	24	1,095	295	27	215
C	LS	685	102	13	243	1,532	237	29	540
D	LS	96	24	4	43	700	140	28	301
1	L	386	44	17	68	945	105	42	168
1L	LS	655	45	10	148	2,227	153	34	504
2	L	798	112	14	128	2,394	336	42	385
3	L	315	35	10	57	1,323	147	42	238
4	L	250	50	5	43	2,310	210	42	366
5	CC	0	0	0	0	440	40	16	66
6	L	179	31	6	30	1,737	293	58	296
8	L	82	8	4	14	3,248	322	119	574
9	L	40	10	2	8	658	182	28	131
13	L	129	21	6	23	924	126	42	158
15	CC	0	0	0	0	760	40	20	121
17	CC	200	40	4	34	1,974	126	42	361
18	CC	0	0	0	0	1,260	210	28	185
19	L	605	45	10	114	1,350	150	20	227
23	L	0	0	0	0	990	90	12	265
30	L	100	20	2	15	700	140	14	107
31	CC	162	33	8	31	798	147	42	155
40	L	1,532	288	22	441	3,045	295	40	808
41	L	132	8	3	34	1,068	72	24	270
42	L	863	52	13	191	2,667	168	42	618
50	L	190	26	3	48	1,736	196	28	448
51	L	240	30	6	70	1,120	140	28	327
52	L	525	75	5	187	2,100	300	20	749
54	L	350	100	10	100	980	280	28	279
60	L	110	10	2	35	1,320	120	24	426
61	L	100	20	2	30	700	140	14	203
62	L	660	60	4	222	2,970	270	18	999
63	L	150	30	2	39	849	131	14	280
64	L	110	10	2	24	770	70	14	167
65	L	80	10	2	21	480	60	12	126
66	L	100	20	4	56	350	70	14	195
131	CC	0	0	0	0	50	10	4	11
132	CC	0	0	0	0	50	10	4	12
133	CC	0	0	0	0	200	40	16	55
134	CC	0	0	0	0	440	40	16	126
231	CC	50	10	4	18	150	30	12	54
232	CC	50	10	4	15	150	30	12	45
301	CC	69	11	2	13	966	154	28	179
302	CC	24	6	2	6	168	42	14	41
303	CC	75	15	6	11	325	65	26	47
304	CC	25	5	1	5	700	140	28	151
305	CC	100	20	4	22	350	70	14	76
306	CC	27	3	2	5	81	9	6	14
311	CC	150	15	3	25	1,330	140	28	221
312	CC	0	0	0	0	252	28	28	55
313	CC	0	0	0	0	392	28	28	104

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	40	5	2	11	520	65	26	144
401	CC	48	12	4	18	156	24	12	54
402	CC	42	18	4	14	138	42	12	43
403	CC	129	22	4	37	642	78	18	171
411	CC	144	16	4	35	1,008	112	28	246
412	CC	46	24	5	18	242	168	27	96
413	CC	15	0	1	3	246	84	22	75
414	CA	37	53	3	9	72	108	6	18
415	CC	104	16	2	24	1,248	192	24	289
416	CC	55	5	2	12	660	60	24	144
417	CC	Included with Route 411							
418	CC	110	10	4	20	660	60	24	117
419	CC	110	10	4	23	660	60	24	138
421	CC	Included with Route 41							
422	CC	156	24	4	38	1,638	252	42	395
432	CC	100	20	8	21	325	70	26	69
433	CC	39	4	3	10	428	52	24	100
434	CC	101	8	5	24	672	48	36	160
440	CC	50	10	4	18	300	60	24	111
441	CC	110	10	4	27	660	60	24	164
501	CC	0	0	0	0	175	35	14	55
502	CC	0	0	0	0	175	35	14	46
503	CA	64	14	5	15	141	42	6	29
504	CC	0	0	0	0	275	25	10	56
505	CC	0	0	0	0	75	25	10	21
511	CC	75	15	6	19	300	60	24	74
512	CC	50	10	4	15	300	60	24	88
513	CC	50	10	4	9	150	30	12	27
521	CC	55	5	2	10	330	30	12	58
522	CC	55	5	2	19	330	30	12	112
523	CC	50	10	2	17	150	30	6	52
541	CC	50	10	2	14	650	130	26	181
542	CC	25	5	2	7	150	30	12	41
543	CC	25	5	2	5	150	30	12	31
544	CA	25	5	2	5	175	35	14	33
545	CC	25	5	2	7	175	35	14	51
546	CC	25	5	2	5	150	30	12	33
547	CC	250	50	10	52	650	130	26	136
548	CC	550	50	10	95	1,430	130	26	248
611	CC	40	5	2	24	280	35	14	166
612	CC	40	5	2	13	280	35	14	91
613	CA	25	5	2	5	75	15	6	16
614	CA	25	5	2	6	75	15	6	17
615	CC	50	10	2	13	150	30	6	40

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		4:00 AM to 5:29 AM				5:30 AM to 8:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	440	40	8	74
8F	F	0	0	0	0	560	40	8	99
30F	F	0	0	0	0	320	40	8	58
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	150	0	5	36
EXPRESS ROUTES									
80	X	0	0	0	0	353	0	6	111
80A	X	0	0	0	0	354	0	5	99
80B	X	0	0	0	0	40	0	1	11
82	X	45	0	1	16	144	0	3	47
83	X	147	0	3	51	188	0	4	63
83A	X	40	0	2	20	0	0	0	0
84	X	61	0	2	27	62	0	2	27
84A	X	38	0	1	11	115	0	3	32
85	X	0	0	0	0	240	0	3	67
85A	X	0	0	0	0	159	0	3	50
88	X	0	0	0	0	102	0	2	31
88A	X	310	0	2	141	0	0	0	0
89	X	0	0	0	0	116	0	2	36
93	X	412	0	6	155	275	0	4	103
98	X	30	0	2	17	60	0	4	35
TOTALS		14,726	2,011	385	3,809	76,153	9,655	2,197	18,173

CA	Community Access	L	Local Routes
CC	Community Circulator	LS	Limited Stop
F	Ferry Routes	X	Peak Period Express

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	1,560	240	48	332	1,278	162	42	291
B	LS	1,902	565	47	374	972	228	24	191
C	LS	1,880	252	36	673	1,398	155	27	506
D	LS	600	120	24	258	600	120	24	258
1	L	1,032	168	48	192	810	90	36	144
1L	LS	2,106	234	36	533	1,965	135	30	444
2	L	2,424	216	48	440	2,052	288	36	330
3	L	2,340	180	72	407	1,134	126	36	204
4	L	1,800	360	36	313	1,980	180	36	313
5	CC	564	156	24	99	531	45	19	81
6	L	2,232	393	75	378	1,372	238	46	240
8	L	4,662	558	180	781	2,820	300	102	498
9	L	624	96	24	112	564	156	24	112
13	L	1,584	216	72	271	792	108	36	136
15	CC	680	20	20	121	684	36	18	109
17	CC	1,800	360	36	310	1,692	108	36	310
18	CC	1,920	240	48	317	1,080	180	24	159
19	L	2,178	162	36	409	1,215	135	18	205
23	L	1,872	288	24	530	990	90	12	265
30	L	1,200	240	24	183	600	120	12	92
31	CC	684	126	36	133	684	126	36	133
40	L	5,112	1,008	72	1,383	4,095	405	54	1,083
41	L	1,068	72	24	270	1,068	72	24	270
42	L	2,088	72	36	530	2,286	144	36	530
50	L	2,760	120	48	767	1,488	168	24	384
51	L	1,920	240	48	560	960	120	24	280
52	L	3,780	540	36	1,348	1,890	270	18	674
54	L	1,260	360	36	359	840	240	24	239
60	L	1,430	130	26	462	1,650	150	30	533
61	L	1,300	260	26	373	900	180	18	258
62	L	3,960	360	24	1,332	2,970	270	18	999
63	L	1,950	390	26	523	1,089	171	18	362
64	L	1,320	120	24	286	660	60	12	143
65	L	480	60	12	126	480	60	12	126
66	L	300	60	12	167	300	60	12	167
131	CC	150	30	12	34	100	20	8	22
132	CC	150	30	12	35	100	20	8	24
133	CC	300	60	24	83	150	30	12	41
134	CC	660	60	24	188	330	30	12	94
231	CC	125	25	10	45	150	30	12	54
232	CC	125	25	10	38	150	30	12	45
301	CC	828	132	24	154	828	132	24	154
302	CC	288	72	24	70	144	36	12	35
303	CC	325	65	26	47	300	60	24	43
304	CC	600	120	24	129	600	120	24	129
305	CC	600	120	24	131	300	60	12	65
306	CC	144	36	12	28	81	9	6	14
311	CC	960	120	24	189	1,140	120	24	189
312	CC	216	24	24	47	216	24	24	47
313	CC	336	24	24	89	336	24	24	89

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	960	120	48	266	480	60	24	133
401	CC	156	24	12	54	156	24	12	54
402	CC	138	42	12	43	138	42	12	43
403	CC	350	30	13	97	660	60	18	171
411	CC	864	96	24	211	864	96	24	211
412	CC	216	144	24	86	216	144	24	86
413	CC	138	42	12	41	300	60	24	82
414	CA	144	216	12	35	72	108	6	18
415	CC	960	120	24	289	1,248	192	24	289
416	CC	660	60	24	144	660	60	24	144
417	CC	Included with Route 411							
418	CC	660	60	24	117	660	60	24	117
419	CC	660	60	24	138	660	60	24	138
421	CC	Included with Route 41							
422	CC	852	108	24	226	1,404	216	36	338
432	CC	600	120	48	128	300	60	24	64
433	CC	660	60	24	140	660	60	24	140
434	CC	657	44	35	155	672	48	36	160
440	CC	300	60	24	35	300	60	24	111
441	CC	660	60	24	164	660	60	24	164
501	CC	300	60	24	95	150	30	12	47
502	CC	300	60	24	78	150	30	12	39
503	CA	288	72	12	58	160	33	8	32
504	CC	275	25	10	56	275	25	10	56
505	CC	75	25	10	21	75	25	10	21
511	CC	300	60	24	74	300	60	24	74
512	CC	300	60	24	88	300	60	24	88
513	CC	300	60	24	54	150	30	12	27
521	CC	330	30	12	58	330	30	12	58
522	CC	330	30	12	112	330	30	12	112
523	CC	300	60	12	103	150	30	6	52
541	CC	650	130	26	181	600	120	24	167
542	CC	325	65	26	90	150	30	12	41
543	CC	325	65	26	68	150	30	12	31
544	CA	300	60	24	57	150	30	12	28
545	CC	325	65	26	95	150	30	12	44
546	CC	300	60	24	66	150	30	12	33
547	CC	520	130	26	136	600	120	24	126
548	CC	1,430	130	26	248	1,320	120	24	229
611	CC	240	30	12	142	240	30	12	142
612	CC	240	30	12	78	240	30	12	78
613	CA	150	30	12	31	75	15	6	16
614	CA	150	30	12	34	75	15	6	17
615	CC	300	60	12	80	150	30	6	40

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		9:00 AM to 2:59 PM				3:00 PM to 5:59 PM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	0	0	0	0	330	30	6	55
8F	F	0	0	0	0	420	30	6	74
30F	F	0	0	0	0	240	30	6	43
41F	F	0	0	0	0	165	15	3	36
93F	F	0	0	0	0	480	0	4	129
411F	F	0	0	0	0	220	20	4	54
413F	F	0	0	0	0	120	0	4	28
EXPRESS ROUTES									
80	X	0	0	0	0	265	0	5	92
80A	X	60	0	1	15	225	0	3	53
80B	X	0	0	0	0	39	0	1	11
82	X	0	0	0	0	165	0	3	47
83	X	0	0	0	0	335	0	7	114
83A	X	0	0	0	0	40	0	2	20
84	X	0	0	0	0	120	0	4	54
84A	X	0	0	0	0	152	0	4	44
85	X	0	0	0	0	373	0	5	115
85A	X	0	0	0	0	150	0	3	45
88	X	0	0	0	0	92	0	2	33
88A	X	0	0	0	0	392	0	2	161
89	X	0	0	0	0	100	0	2	36
93	X	0	0	0	0	687	0	10	260
98	X	0	0	0	0	90	0	6	52
TOTALS		88,093	12,800	2,627	21,396	72,405	8,838	2,052	17,680

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
A	LS	425	65	13	90	0	0	0	0
B	LS	1,128	280	28	223	0	0	0	0
C	LS	940	126	18	336	108	22	2	37
D	LS	400	80	16	172	0	0	0	0
1	L	645	105	30	120	387	63	18	72
1L	LS	1,521	169	26	385	585	65	10	148
2	L	2,424	216	48	440	909	81	18	165
3	L	1,512	168	48	271	315	35	10	57
4	L	1,200	240	24	209	200	40	4	35
5	CC	305	25	11	45	0	0	0	0
6	L	1,799	301	60	310	299	51	10	51
8	L	1,653	147	54	298	225	15	6	42
9	L	470	130	20	93	0	0	0	0
13	L	1,056	144	48	181	264	36	12	45
15	CC	476	14	14	85	0	0	0	0
17	CC	1,200	240	24	207	200	40	4	34
18	CC	800	100	20	132	160	20	4	26
19	L	1,815	135	30	341	726	54	12	136
23	L	1,248	192	16	353	0	0	0	0
30	L	800	160	16	122	100	20	2	15
31	CC	684	126	36	133	228	42	12	44
40	L	3,124	616	44	849	1,584	276	24	461
41	L	669	46	15	169	356	24	8	90
42	L	1,740	60	30	441	1,016	64	12	275
50	L	1,150	50	20	320	0	0	0	0
51	L	960	120	24	280	160	20	4	47
52	L	3,150	450	30	1,124	1,050	150	10	375
54	L	1,120	320	32	319	280	80	8	80
60	L	660	60	12	213	110	10	2	36
61	L	800	160	16	229	0	0	0	0
62	L	2,640	240	16	888	1,216	120	8	444
63	L	1,200	240	16	322	150	30	2	40
64	L	880	80	16	191	0	0	0	0
65	L	160	20	4	42	0	0	0	0
66	L	200	40	8	111	0	0	0	0
131	CC	0	0	0	0	0	0	0	0
132	CC	0	0	0	0	0	0	0	0
133	CC	100	20	8	28	0	0	0	0
134	CC	220	20	8	63	0	0	0	0
231	CC	175	35	14	63	100	20	8	36
232	CC	100	20	8	30	100	20	8	30
301	CC	345	55	10	64	0	0	0	0
302	CC	96	24	8	23	0	0	0	0
303	CC	300	60	24	43	25	5	2	4
304	CC	200	40	8	43	0	0	0	0
305	CC	250	50	10	55	0	0	0	0
306	CC	72	18	6	14	0	0	0	0
311	CC	480	60	12	95	0	0	0	0
312	CC	90	10	10	20	0	0	0	0
313	CC	280	20	20	74	140	10	10	37

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
314	CC	400	50	20	111	0	0	0	0
401	CC	96	24	8	36	0	0	0	0
402	CC	92	28	8	28	0	0	0	0
403	CC	200	32	8	60	0	0	0	0
411	CC	144	16	4	35	360	40	10	88
412	CC	36	24	4	14	0	0	0	0
413	CC	0	0	0	0	0	0	0	0
414	CA	24	17	2	6	0	0	0	0
415	CC	640	80	16	193	0	0	0	0
416	CC	385	35	14	84	0	0	0	0
417	CC	Included with Route 411							
418	CC	440	40	16	78	0	0	0	0
419	CC	440	40	16	92	0	0	0	0
421	CC	Included with Route 41							
422	CC	710	90	20	188	142	18	4	38
432	CC	386	78	31	83	126	22	10	26
433	CC	211	29	14	52	26	4	2	7
434	CC	433	28	23	102	84	0	5	19
440	CC	175	35	14	20	0	0	0	0
441	CC	385	35	14	96	0	0	0	0
501	CC	175	35	14	55	0	0	0	0
502	CC	175	35	14	46	0	0	0	0
503	CA	69	16	3	14	0	0	0	0
504	CC	165	15	6	34	0	0	0	0
505	CC	45	15	6	12	0	0	0	0
511	CC	250	50	20	62	25	5	2	6
512	CC	250	50	20	73	0	0	0	0
513	CC	100	20	8	18	100	20	8	18
521	CC	110	10	4	19	0	0	0	0
522	CC	110	10	4	37	0	0	0	0
523	CC	200	40	8	69	0	0	0	0
541	CC	500	100	20	139	0	0	0	0
542	CC	250	50	20	69	0	0	0	0
543	CC	200	40	16	42	0	0	0	0
544	CA	150	30	12	28	0	0	0	0
545	CC	200	40	16	58	0	0	0	0
546	CC	150	30	12	33	0	0	0	0
547	CC	480	120	24	126	100	25	5	26
548	CC	1,320	120	24	229	330	30	6	57
611	CC	160	20	8	95	0	0	0	0
612	CC	160	20	8	52	0	0	0	0
613	CA	100	20	8	21	0	0	0	0
614	CA	100	20	8	22	0	0	0	0
615	CC	200	40	8	54	0	0	0	0

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS							
		6:00 PM to 10:59 PM				11:00 PM to 3:59 AM			
Number	Function	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage	Running Time (Minutes)	Layover (minutes)	Number of Trips	Mileage
FERRY ROUTES									
4F	F	275	25	5	46	0	0	0	0
8F	F	350	25	5	62	0	0	0	0
30F	F	200	25	5	36	0	0	0	0
41F	F	110	10	2	24	0	0	0	0
93F	F	240	0	2	65	0	0	0	0
411F	F	110	10	2	27	0	0	0	0
413F	F	60	0	2	14	0	0	0	0
EXPRESS ROUTES									
80	X	0	0	0	0	0	0	0	0
80A	X	0	0	0	0	0	0	0	0
80B	X	0	0	0	0	0	0	0	0
82	X	0	0	0	0	0	0	0	0
83	X	0	0	0	0	0	0	0	0
83A	X	0	0	0	0	0	0	0	0
84	X	0	0	0	0	0	0	0	0
84A	X	0	0	0	0	0	0	0	0
85	X	0	0	0	0	0	0	0	0
85A	X	0	0	0	0	0	0	0	0
88	X	0	0	0	0	0	0	0	0
88A	X	0	0	0	0	0	0	0	0
89	X	0	0	0	0	0	0	0	0
93	X	0	0	0	0	0	0	0	0
98	X	0	0	0	0	0	0	0	0
TOTALS		55,756	7,810	1,575	13,594	12,278	1,575	282	3,146

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
A	LS	158	5,015	700	5,715	95.3	1,090.8	4:15 AM to 10:37 PM
B	LS	129	5,223	1,401	6,624	110.4	1,026.8	4:55 AM to 11:02 PM
C	LS	125	6,543	894	7,437	124.0	2,335.0	3:07 AM to 10:53 PM
D	LS	96	2,396	484	2,880	48.0	1,030.6	5:00 AM to 10:00 PM
1	L	191	4,205	575	4,780	79.7	766.0	4:00 AM to 2:00 AM
1L	LS	146	9,059	801	9,860	164.3	2,163.0	4:00 AM to 1:30 AM
2	L	206	11,001	1,249	12,250	204.2	1,889.0	4:10 AM to 1:44 AM
3	L	218	6,939	691	7,630	127.2	1,232.8	4:15 AM to 1:26 AM
4	L	147	7,740	1,080	8,820	147.0	1,278.7	5:00 AM to 12:00 AM
5	CC	70	1,840	266	2,106	35.1	290.4	5:36 AM to 10:02 PM
6	L	255	7,618	1,307	8,925	148.8	1,305.5	5:03 AM to 11:58 PM
8	L	465	12,690	1,350	14,040	234.0	2,206.8	7:15 AM to 12:00 AM
9	L	98	2,356	574	2,930	48.8	455.4	5:00 AM to 10:20 PM
13	L	216	4,749	651	5,400	90.0	814.3	5:00 AM to 1:00 AM
15	CC	72	2,600	110	2,710	45.2	436.7	5:30 AM to 10:23 PM
17	CC	146	7,066	914	7,980	133.0	1,256.3	5:00 AM to 12:00 AM
18	CC	124	5,220	750	5,970	99.5	819.0	6:00 AM to 12:00 AM
19	L	126	7,889	681	8,570	142.8	1,432.0	4:13 AM to 1:48 AM
23	L	64	5,100	660	5,760	96.0	1,412.2	6:00 AM to 10:00 PM
30	L	70	3,500	700	4,200	70.0	534.5	5:00 AM to 12:00 AM
31	CC	170	3,240	600	3,840	64.0	628.9	4:45 AM to 12:25 AM
40	L	256	18,492	2,888	21,380	356.3	5,026.0	4:00 AM to 3:59 AM
41	L	98	4,361	294	4,655	77.6	1,104.5	4:47 AM to 10:10 PM
42	L	161	9,876	504	10,380	173.0	2,368.2	4:00 AM to 3:59 AM
50	L	123	7,324	560	7,884	131.4	1,966.4	5:00 AM to 11:00 PM
51	L	134	5,360	670	6,030	100.5	1,563.9	4:30 AM to 1:37 AM
52	L	119	12,495	1,785	14,280	238.0	4,456.6	4:00 AM to 3:59 AM
54	L	138	4,830	1,380	6,210	103.5	1,376.7	4:30 AM to 1:00 AM
60	L	96	5,280	480	5,760	96.0	1,704.5	5:00 AM to 12:00 AM
61	L	76	3,800	760	4,560	76.0	1,092.3	5:00 AM to 11:00 PM
62	L	88	14,416	1,320	15,736	262.3	4,885.3	4:00 AM to 3:59 AM
63	L	78	5,388	992	6,380	106.3	1,566.9	5:00 AM to 12:00 AM
64	L	68	3,740	340	4,080	68.0	811.6	5:00 AM to 10:00 PM
65	L	42	1,680	210	1,890	31.5	442.3	5:00 AM to 8:00 PM
66	L	50	1,250	250	1,500	25.0	695.5	4:30 AM to 10:00 PM
131	CC	24	300	60	360	6.0	67.2	6:00 AM to 6:35 PM
132	CC	24	300	60	360	6.0	70.8	6:20 AM to 6:45 PM
133	CC	60	750	150	900	15.0	207.0	5:30 AM to 10:00 PM
134	CC	60	1,650	150	1,800	30.0	471.0	5:30 AM to 10:00 PM
231	CC	60	750	150	900	15.0	270.0	5:00 AM to 1:00 AM
232	CC	54	675	135	810	13.5	204.4	5:00 AM to 8:00 PM
301	CC	88	3,036	484	3,520	58.7	563.6	5:10 AM to 9:50 PM
302	CC	60	720	180	900	15.0	174.3	4:30 AM to 10:11 PM
303	CC	108	1,350	270	1,620	27.0	194.4	4:30 AM to 12:00 AM
304	CC	85	2,125	425	2,550	42.5	457.0	5:00 AM to 11:00 PM
305	CC	64	1,600	320	1,920	32.0	349.1	5:00 AM to 11:00 PM
306	CC	32	405	75	480	8.0	75.4	5:00 AM to 9:00 PM
311	CC	91	4,060	455	4,515	75.3	719.0	5:00 AM to 8:00 PM
312	CC	86	774	86	860	14.3	169.0	5:30 AM to 8:00 PM
313	CC	106	1,484	106	1,590	26.5	392.7	5:30 AM to 1:20 AM

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
314	CC	120	2,400	300	2,700	45.0	664.8	6:30 AM to 10:00 PM
401	CC	48	612	108	720	12.0	215.3	3:50 AM to 9:34 PM
402	CC	48	548	172	720	12.0	170.4	4:20 AM to 9:58 PM
403	CC	61	1,981	222	2,203	36.7	535.8	4:15 AM to 10:22 PM
411	CC	94	3,384	376	3,760	62.7	825.8	4:30 AM to 12:49 AM
412	CC	84	756	504	1,260	21.0	299.5	4:30 AM to 6:48 PM
413	CC	59	699	186	885	14.8	200.6	5:30 AM to 5:55 PM
414	CA	29	349	502	851	14.2	85.6	4:30 AM to 6:43 PM
415	CC	90	4,200	600	4,800	80.0	1,083.6	5:30 AM to 11:00 PM
416	CC	88	2,420	220	2,640	44.0	526.2	5:30 AM to 10:00 PM
417	CC	Included with Route 411						
418	CC	92	2,530	230	2,760	46.0	449.9	5:00 AM to 11:00 PM
419	CC	92	2,530	230	2,760	46.0	527.2	5:00 AM to 11:00 PM
421	CC	Included with Route 41						
422	CC	130	4,902	708	5,610	93.5	1,222.0	5:00 AM to 12:30 AM
432	CC	147	1,837	370	2,207	36.8	391.0	4:41 AM to 1:28 AM
433	CC	91	2,024	209	2,233	37.2	448.0	5:00 AM to 11:26 PM
434	CC	140	2,619	176	2,795	46.6	618.2	4:41 AM to 12:52 AM
440	CC	90	1,125	225	1,350	22.5	295.3	5:00 AM to 10:00 PM
441	CC	90	2,475	225	2,700	45.0	615.6	5:00 AM to 10:00 PM
501	CC	64	800	160	960	16.0	252.8	5:30 AM to 10:00 PM
502	CC	64	800	160	960	16.0	208.0	5:30 AM to 10:00 PM
503	CA	34	722	177	899	15.0	148.4	4:33 AM to 7:53 PM
504	CC	36	990	90	1,080	18.0	201.6	5:30 AM to 10:00 PM
505	CC	36	270	90	360	6.0	73.8	5:30 AM to 10:00 PM
511	CC	100	1,250	250	1,500	25.0	310.0	4:30 AM to 11:30 PM
512	CC	96	1,200	240	1,440	24.0	352.3	5:00 AM to 11:00 PM
513	CC	68	850	170	1,020	17.0	154.4	5:00 AM to 1:00 AM
521	CC	42	1,155	105	1,260	21.0	202.4	5:00 AM to 8:00 PM
522	CC	42	1,155	105	1,260	21.0	393.5	5:00 AM to 8:00 PM
523	CC	34	850	170	1,020	17.0	292.4	5:00 AM to 9:00 PM
541	CC	98	2,450	490	2,940	49.0	681.6	5:30 AM to 10:00 PM
542	CC	72	900	180	1,080	18.0	248.8	5:30 AM to 10:00 PM
543	CC	68	850	170	1,020	17.0	176.8	5:30 AM to 9:00 PM
544	CA	64	800	160	960	16.0	150.7	5:30 AM to 9:00 PM
545	CC	70	875	175	1,050	17.5	255.5	5:30 AM to 9:00 PM
546	CC	62	775	155	930	15.5	169.9	5:30 AM to 9:00 PM
547	CC	115	2,600	575	3,175	52.9	601.4	4:30 AM to 12:30 AM
548	CC	116	6,380	580	6,960	116.0	1,105.5	4:30 AM to 12:30 AM
611	CC	48	960	120	1,080	18.0	568.8	5:00 AM to 10:00 PM
612	CC	48	960	120	1,080	18.0	312.0	5:00 AM to 10:00 PM
613	CA	34	425	85	510	8.5	88.4	5:00 AM to 9:30 PM
614	CA	34	425	85	510	8.5	95.2	5:00 AM to 9:00 PM
615	CC	34	850	170	1,020	17.0	227.8	5:00 AM to 9:00 PM

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Weekday Totals						
Number	Function	Weekday Trips	Running Time (Minutes)	Layover (minutes)	Total Time (minutes)	Total Time Hours	Total Weekday Mileage	Span of Service
FERRY ROUTES								
4F	F	32	1,045	95	1,140	19.0	174.8	Peak Period
8F	F	32	1,330	95	1,425	23.8	235.6	Peak Period
30F	F	32	760	95	855	14.3	136.8	Peak Period
41F	F	12	440	40	480	8.0	96.8	Peak Period
93F	F	12	1,200	0	1,200	20.0	323.0	Peak Period
411F	F	12	550	50	600	10.0	136.0	Peak Period
413F	F	12	330	0	330	5.5	78.1	Peak Period
EXPRESS ROUTES								
80	X	11	618	0	618	10.3	203.7	Peak Period
80A	X	9	639	0	639	10.7	166.1	Peak Period
80B	X	2	79	0	79	1.3	22.3	Peak Period
82	X	7	354	0	354	5.9	109.8	Peak Period
83	X	14	670	0	670	11.2	227.7	Peak Period
83A	X	4	80	0	80	1.3	39.6	Peak Period
84	X	8	243	0	243	4.1	107.2	Peak Period
84A	X	8	305	0	305	5.1	86.6	Peak Period
85	X	8	613	0	613	10.2	181.3	Peak Period
85A	X	6	309	0	309	5.2	95.0	Peak Period
88	X	4	194	0	194	3.2	64.7	Peak Period
88A	X	4	702	0	702	11.7	301.9	Peak Period
89	X	4	216	0	216	3.6	71.8	Peak Period
93	X	20	1,374	0	1,374	22.9	518.0	Peak Period
98	X	12	180	0	180	3.0	104.8	Peak Period
TOTALS		9,158	319,174	42,697	361,871	6,031.2	77,778.2	

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
A	LS	5	7	5	7	5	0	40
B	LS	3	7	7	7	7	0	40
C	LS	9	9	6	9	6	2	40
D	LS	3	4	2	4	3	0	40
1	L	5	5	4	5	5	3	40
1L	LS	10	12	7	12	7	7	60
2	L	13	13	8	13	11	7	60
3	L	5	7	7	7	7	3	40
4	L	5	12	6	12	8	4	60
5	CC	0	3	2	3	2	0	40
6	L	6	10	8	10	10	6	40/60
8	L	4	17	15	17	7	4	40/60
9	L	2	4	2	4	2	0	60
13	L	5	5	5	5	5	3	40
15	CC	0	4	2	4	2	0	30
17	CC	4	10	6	10	8	4	40
18	CC	0	7	6	7	3	3	40
19	L	7	8	7	8	7	4	40
23	L	0	6	6	6	6	0	40
30	L	2	4	4	4	4	2	40
31	CC	5	5	2	5	2	2	40
40	L	21	25	17	25	17	5	60
41	L	3	6	3	6	3	3	40
42	L	13	14	6	14	6	6	60
50	L	3	9	8	9	4	0	40
51	L	5	6	6	6	3	2	40
52	L	5	12	12	12	12	4	60
54	L	5	6	5	6	6	3	40
60	L	2	8	4	8	4	2	40
61	L	2	6	4	6	4	0	40
62	L	4	18	12	18	12	6	60
63	L	2	7	6	7	6	2	40
64	L	2	4	4	4	4	0	40
65	L	2	3	1.5	3	1.5	0	40
66	L	2	2	1	2	1	0	40
131	CC	0	0.5	0.5	0.5	0	0	30
132	CC	0	0.5	0.5	0.5	0	0	30
133	CC	0	1	1	1	1	0	30
134	CC	0	2	2	2	1	0	30
231	CC	1	1	0.5	1	0.5	0.5	35
232	CC	1	1	0.5	1	0.5	0.5	35
301	CC	3	6	2	6	3	0	35
302	CC	1	1	1	1	1	0	40
303	CC	1	2	1	2	2	1	40
304	CC	1	4	2	4	1	0	30
305	CC	2	2	2	2	2	0	40
306	CC	1	1	1	1	1	0	40
311	CC	3	7	3	7	3	0	35
312	CC	0	2	1	2	1	0	40
313	CC	0	2	1	2	1	1	40

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
314	CC	1	3	3	3	2	0	35
401	CC	0.5	1	0.5	1	0.5	0	35
402	CC	0.5	1	0.5	1	0.5	0	35
403	CC	2	4	1	3	1	0	35
411	CC	3	6	3	6	3	3	40
412	CC	1	2	1	2	1	0	30
413	CC	1	2	1	2	0	0	40
414	CA	1	1	1	1	1	0	Handi-Van Vehicle
415	CC	1	8	3	8	3	0	40
416	CC	2	4	2	4	2	0	40
417	CC	Included with Route 411						
418	CC	2	4	1	4	2	0	40
419	CC	2	4	2	4	2	0	40
421	CC	Included with Route 41						
422	CC	2	9	3	9	3	2	40
432	CC	2	2	2	2	2	1	40
433	CC	1	4	2	4	1	1	40
434	CC	2	4	2	4	2	1	40
440	CC	2	2	1	2	1	0	40
441	CC	2	4	2	4	2	0	60
501	CC	0	1	1	1	1	0	40
502	CC	0	1	1	1	1	0	35
503	CA	1	1	1	1	1	0	Handi-Van Vehicle
504	CC	0	1.5	0.75	1.5	0.75	0	35
505	CC	0	0.5	0.25	0.5	0.25	0	35
511	CC	1	2	1	2	1	1	40
512	CC	1	2	1	2	1	0	40
513	CC	1	1	1	1	1	1	40
521	CC	1	2	1	2	1	0	35
522	CC	1	2	1	2	1	0	35
523	CC	1	1	1	1	1	0	35
541	CC	2	4	2	4	2	0	35
542	CC	1	1	1	1	1	0	35
543	CC	1	1	1	1	1	0	35
544	CA	1	1	1	1	1	0	Handi-Van Vehicle
545	CC	1	1	1	1	1	0	35
546	CC	1	1	1	1	1	0	35
547	CC	4	4	2	4	3	2	40
548	CC	8	8	4	8	4	4	40
611	CC	1.5	1.5	0.75	1.5	0.75	0	35
612	CC	1.5	1.5	0.75	1.5	0.75	0	35
613	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
614	CA	0.5	0.5	0.5	0.5	0.5	0	Handi-Van Vehicle
615	CC	1	1	1	1	1	0	35

TheBus Weekday Operations Summary Table Fixed Guideway 20-mile Alternative

ROUTE		WEEKDAY OPERATIONS						
		Maximum Vehicles Required						
Number	Function	4:00 AM to 5:29 AM	5:30 AM to 8:59 AM	9:00 AM to 2:59 PM	3:00 PM to 5:59 PM	6:00 PM to 10:59 PM	11:00 PM to 3:59 AM	Vehicle Size
FERRY ROUTES								
4F	F	0	4	0	4	4	0	40
8F	F	0	5	0	5	5	0	40
30F	F	0	3	0	3	3	0	40
41F	F	0	4	0	4	4	0	40
93F	F	0	4	0	4	2	0	40
411F	F	0	3	0	3	2	0	30
413F	F	1	1	0	1	1	0	40
EXPRESS ROUTES								
80	X	0	4	0	5	0	0	40
80A	X	0	3	0	3	0	0	40
80B	X	0	1	0	1	0	0	40
82	X	1	3	0	3	0	0	40
83	X	3	4	0	5	0	0	60
83A	X	2	0	0	2	0	0	40
84	X	2	2	0	2	0	0	40
84A	X	1	2	0	2	0	0	40
85	X	0	3	0	5	0	0	40
85A	X	0	3	0	3	0	0	40
88	X	0	2	0	3	0	0	40
88A	X	0	2	0	2	0	0	40
89	X	0	2	0	2	0	0	40
93	X	6	4	0	9	0	0	60
98	X	1	2	0	2	0	0	60
TOTALS		254.00	485.00	283.00	496.00	296.00	106.00	