DRAFT CIRCULATION ELEMENT
reflects all TSC recommended modifications, adopted 05.30.23

2.7 INTRODUCTION

Circulation and mobility consider how people and goods move through and around the City. The circulation element addresses how a comprehensive, integrated transportation network can be planned to achieve maximum individual mobility in a manner consistent with community character and environmental protection. The City is committed to providing a complete, connected, multimodal transportation network. California law requires that transportation and land use policies be closely correlated. The Arcata General Plan accomplishes this correlation in two ways. First, travel demand has been forecasted based on the amount and distribution of growth allowed by the land use plan. Second, the policies of the transportation, land use and air quality elements have been interwoven to provide a balance between land uses and the transportation facilities that serve them. The overall theme of this element is achieving a balanced transportation system that is safe, accessible, comfortable, accommodating, and welcoming to all users.

Overview of Existing Transportation Conditions

Existing Roadway System. Arcata's pattern of highways and streets is similar to many small and rural communities. The central business district has a traditional grid pattern of streets, with a one-way couplet system comprising the primary arterial. A non-grid series of arterial and collector streets surrounds the central business district and serves outlying residential subdivisions, neighborhood shopping centers, Cal Poly Humboldt, and industrial areas. On the outer edges of Arcata, the transportation system is comprised of rural roads and highways serving isolated farms and residences. Arcata is bisected by the State Route 101 freeway, the main state route serving the North Coast of California from San Francisco to Oregon.

Functional Classifications of the Street System. Arcata's existing and planned primary streets and their functional classifications are shown in Figure T-a. The functional classification system is described in the following paragraphs.

Freeways and Highways. Freeways are high speed facilities with restricted access that move traffic on an intercity or regional basis. Access to freeways is limited to grade-separated interchanges. Routes 101 and 299 are designated as freeways. Highways are also high-speed facilities, but with fewer restrictions on access and at-grade intersections. Route 255 is designated as a highway.

Arterial Streets. The primary function of arterial streets is to provide intracity mobility as efficiently as possible. In addition to interconnecting the various parts of the city, arterial streets also provide some access to abutting lands. Compared to other communities, arterials in Arcata have fewer traffic control devices at intersections. All of the traffic signals in Arcata are located on Samoa Boulevard, which is State Route 255. Examples of arterials include the "G" and "H" Street one-way couplet, Alliance Road, Samoa Boulevard and L.K. Wood Boulevard.

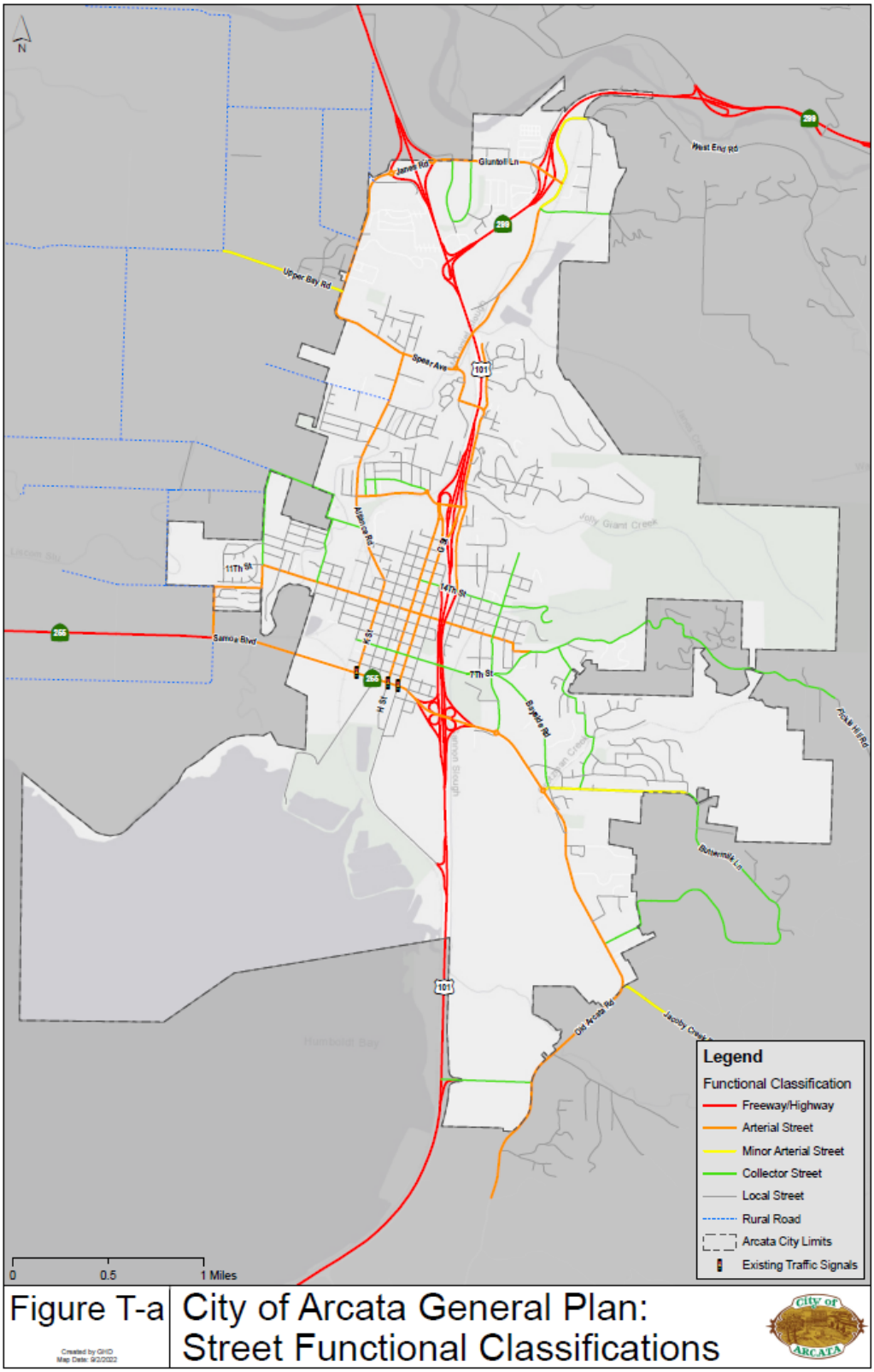
Minor Arterials. Local streets, while providing access to development on adjacent lands, primarily provide mobility between arterial and collector streets. Examples include Buttermilk Lane and West End Road within the City Limits, and Jacoby Creek Road and Upper Bay Road within the sphere of influence.

Collector Streets. Collector streets provide both mobility and access to land in about equal proportions. These roadways move vehicular, pedestrian, and bicycle traffic within and between residential, commercial, and industrial areas. As the name implies, collector streets are intended to collect traffic from local streets and channel it to the arterial street system. Examples of collector streets include 7th Street, 14th Street, Union Street, Buttermilk Lane, and Fickle Hill Road.

Local Streets. Local streets mainly serve to provide access to development on abutting parcels of land. These low-speed roadways provide access between land uses and collector streets. Local streets serve all types of land use including residential, commercial, and industrial. Often, local streets in residential areas are utilized by through traffic, resulting in complaints from residents about speeding and high traffic noise volumes.

Rural Roads. Rural roads are generally two-lane unimproved facilities located on the outer edges of the community, not within the City. Their primary function is to provide connection and access to farms, isolated residential areas, and industrial uses. Rural roads usually do not have typical urban improvements such as underground drainage, lighting, sidewalks, or curbs and gutters. Examples of rural roads in the Arcata area include Mad River Road, Upper Bay Road, Jackson Ranch Road, the western portion of Foster Avenue, and Jacoby Creek Road.

FIGURE T - a STREET FUNCTIONAL CLASSIFICATIONS



Operational analysis and intersection level of service (LOS) Summary. ~~Appe~~ Element describes existing and projected traffic volumes and LOS for key City Although several unsignalized locations are projected to operate at LOS C or I which experience higher volumes such as US 101/Sunset Avenue interchange Foster Avenue, Alliance Road at "M" Street/15th Street, and locations on 14th Street at "G" and "H" Street couplets are projected to operate at LOS D, E or F. Improvements anticipated by this plan (see Figure T-k) are expected to improve the LOS to acceptable levels for all intersections while balancing the priorities of active transportation goals. See appendix A for the complete analysis.

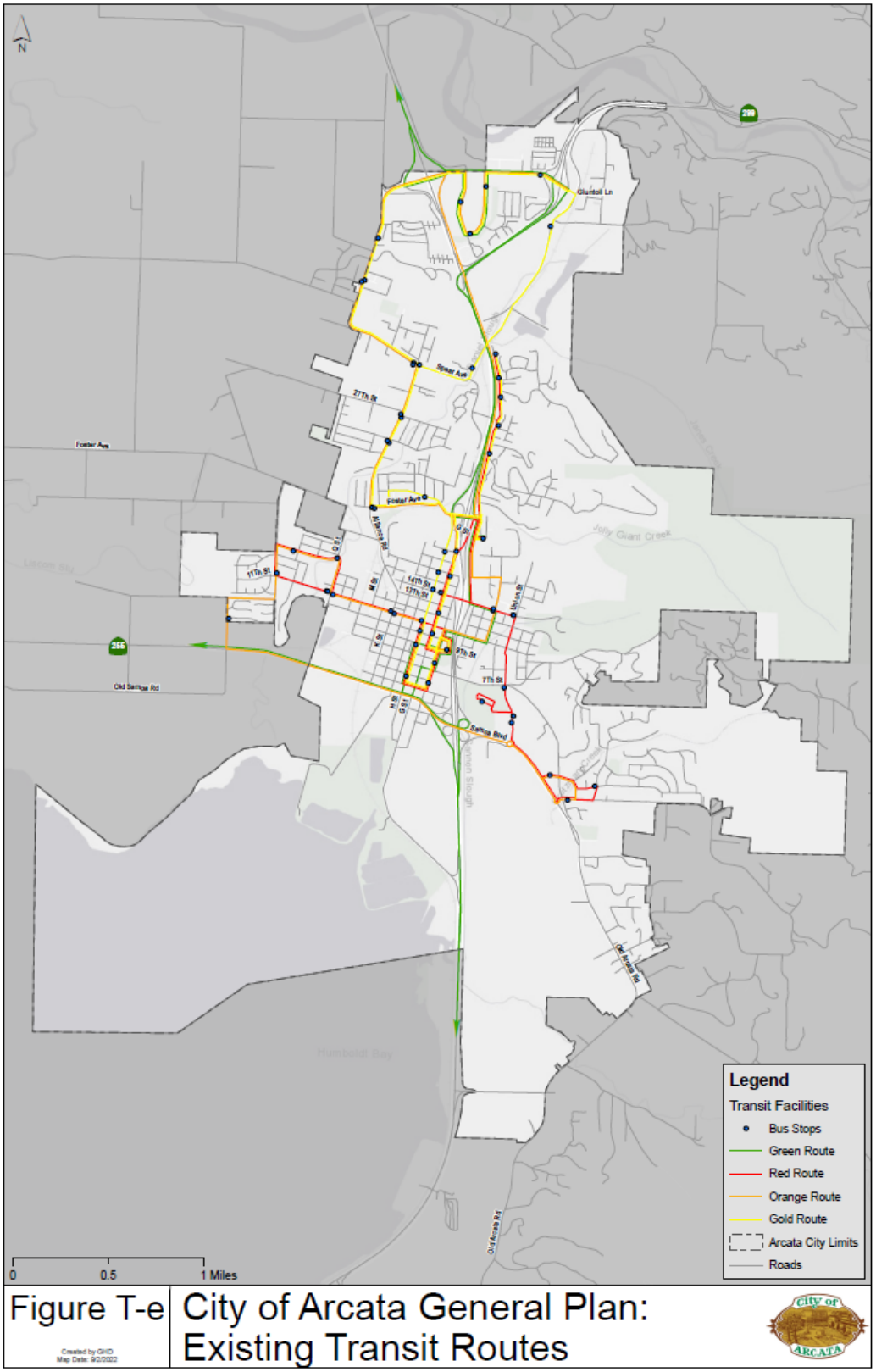
Use VMT as opposed to LOS per SB 743 (effective 2020)

General note: SB 743, which was signed into law in 2013, initiated an update to CEQA Guidelines to change how cities, counties and other transportation agencies evaluate transportation-related environmental impacts under CEQA, with the goal of better measuring the actual transportation-related environmental impacts of any given project. Traditionally, transportation impacts have been evaluated by examining whether the project is likely to cause automobile delay at intersections and congestion on nearby individual streets and highways, and whether this delay will exceed a certain amount (this is known as Level of Service or LOS analysis, resulting in a good grade or bad grade based on waiting time at intersections.) Cities, counties, and transportation agencies throughout California have been adopting a different metric, called VMY (vehicle miles traveled) for analyzing transportation impacts. As of July 1, 2020, VMT has become the Caltrans standard, replacing LOS.

Existing T ler of the Humbold erated by their Pub e Route(s) running a Shopping Center, a Arcata Transit C the commun egional public tra edwood Transit Sy or from Trinidad he Arcata Transit C Streets, provides , and Amtrak.

Cal Poly Humboldt student ridership is significant during the school season. Cal Poly Humboldt provides unlimited free ride access on several HTA routes, including A&MRTS, through the Jack Pass program. The Jack Pass program aims to encourage mass transit and reduced travel via single-occupant vehicles. Staff, faculty, and Extended Education participants are also granted unlimited rides on these HTA routes for $60 a semester. A&MRTS ridership over the past several years is included in Figure T-e of Circulation Element Appendix A. Figure T-f presents the existing transit routes and stops.

FIGURE T - f Existing Transit Routes



The Humboldt County 2017-2022 Transit Development Plan (TDP) was prepared for the Humboldt County Association of Governments (HCAOG) to help provide guidance to local agencies on service programs, capital improvements and financial strategies to improve the public transit services in Humboldt County over a five-year period. Recommended alternatives in the TDP include:

- *Adjust Schedule to Better Match University Class Schedules / Increase Trip Choices* – The TDP identified adjustments to transit schedules that allowed more time for students to get to class from campus stops would encourage more transit use.
- *Make the Community Center and "On Demand" Stop* – Low ridership at the Community Center stop was identified and recommended for "on demand" service. Procedures include passengers telling operators at boarding to be dropped off and to call a service helpline in advance for pick-up.
- *Extend Transit Service to South G Street* – Higher density housing and commercial activities are identified south of Samoa Boulevard on H and G Streets and potentially capture additional ridership for the Red Route.
- *A&MRTS Services Recommended Contingent on Funding: Provide a High Frequency Shuttle* between *Cal Poly Humboldt and Downtown in Peak Periods.* The TDP also recommended considering new shuttle service during peak periods so that students and university staff would be better served as highest transit demand was noted between Downtown Arcata and Cal Poly Humboldt.

Existing Bicycle and Pedestrian Facilities. Arcata's bicycle transportation system consists of Class I off-street shared use paths, Class II bike lanes, Class III bike routes, and bicycle boulevards on public streets. Class I facilities are multi-use paths that provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized. Class II bike lanes provide a striped and signed lane for one-way bicycle travel on a street or highway within the paved area of a roadway. Class III bike routes are specially designated corridors in which the travel lanes are shared by motor vehicles and bicycles and are usually marked with on-street pavement stencils. Bicycle boulevards are a type of Class III facility on low-volume roadways which prioritize the use of bicycles with traffic controls, signage, roadway markings, and traffic calming measures, including bicyclists having the right-of-way.

Arcata currently provides a comprehensive bikeway network connecting most major areas of the City on primary arterial streets. The primary Class I shared use path along the L Street rail alignment provides a north-south connection from the southern City limits and to the Humboldt Bay Trail south to Eureka, connecting to Alliance Road north of the Gateway area, and connects to Foster Avenue at Sunset Avenue. Additional Class I facilities provide brief connections between existing roadways and on-street bicycle facilities. Most Class II bike lanes are located on north-south streets, while Class III bike routes and bicycle boulevards provide east-west connection on key streets. The western portion of the City (west of Alliance Road) is least served by bike lanes, providing an opportunity to expand the bike lane system to encompass more residential areas. Figure T-h presents the existing bicycle and trail facilities. The City of Arcata adopted a *Pedestrian and Bicycle Master Plan*, last updated in 2010 that

identifies pedestrian and bicycle conditions and various proposed improvements.

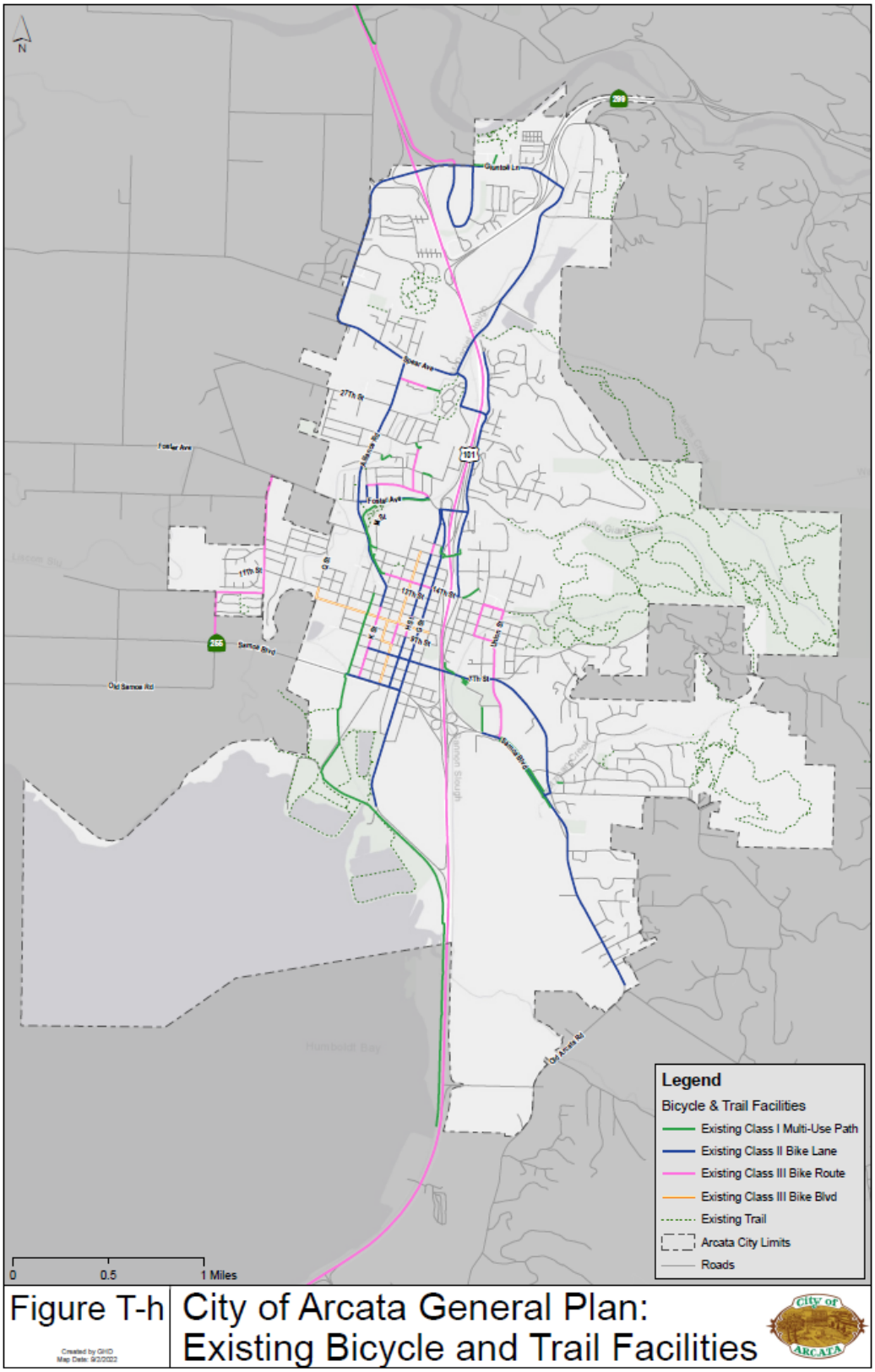
Regional trail needs are assessed when HCAOG updates the Regional Bike Plan and the Regional Transportation Plan (RPT). The 2018 Regional Bike Plan identifies the following proposed bikeways for short-term regional priority projects (not yet completed):

- 11th Street Corridor (Janes Road to Bayview Street) – Class II / Class III
- F Street (7th Street to 14th Street) – Class I / II
- Sunset Avenue east (L.K. Wood Boulevard to Jay Street) – Class I

Improvements since 2020 General Plan. Below is a list of bikeway and trail improvements which have been implemented since the last update of the General Plan and since the 2010 Pedestrian and Bicycle Master Plan:

- Class I Shared-Use Paths/Trails:
  - Humboldt Bay Trail – Arcata Segment, Arcata Skate Park to Bracut Marsh
- Class II Bike Lanes:
  - Foster Avenue Extension (east) – from Alliance Road to Sunset Avenue (also includes adjacent Class I trail)
  - G and H Streets
  - Old Arcata Road – Hyland Street south city limit
  - Samoa Boulevard – Union Street to Crescent Way
- Class III Bicycle Boulevards:
  - Q Street – 11th to 10th
- Class III Bicycle Routes:
  - 11th Street – B Street to Union Street
  - 14th Street – K Street to L.K. Wood Boulevard
  - Baldwin Street – Cahill Park to Sunset Avenue
  - Union Street – Samoa Boulevard to 14th Street
  - Westside Corridor (includes Janes Road, Vaissade Road, V St.) from Foster Avenue to Samoa Boulevard

FIGURE T - h Existing Bicycle and Trail Facilities



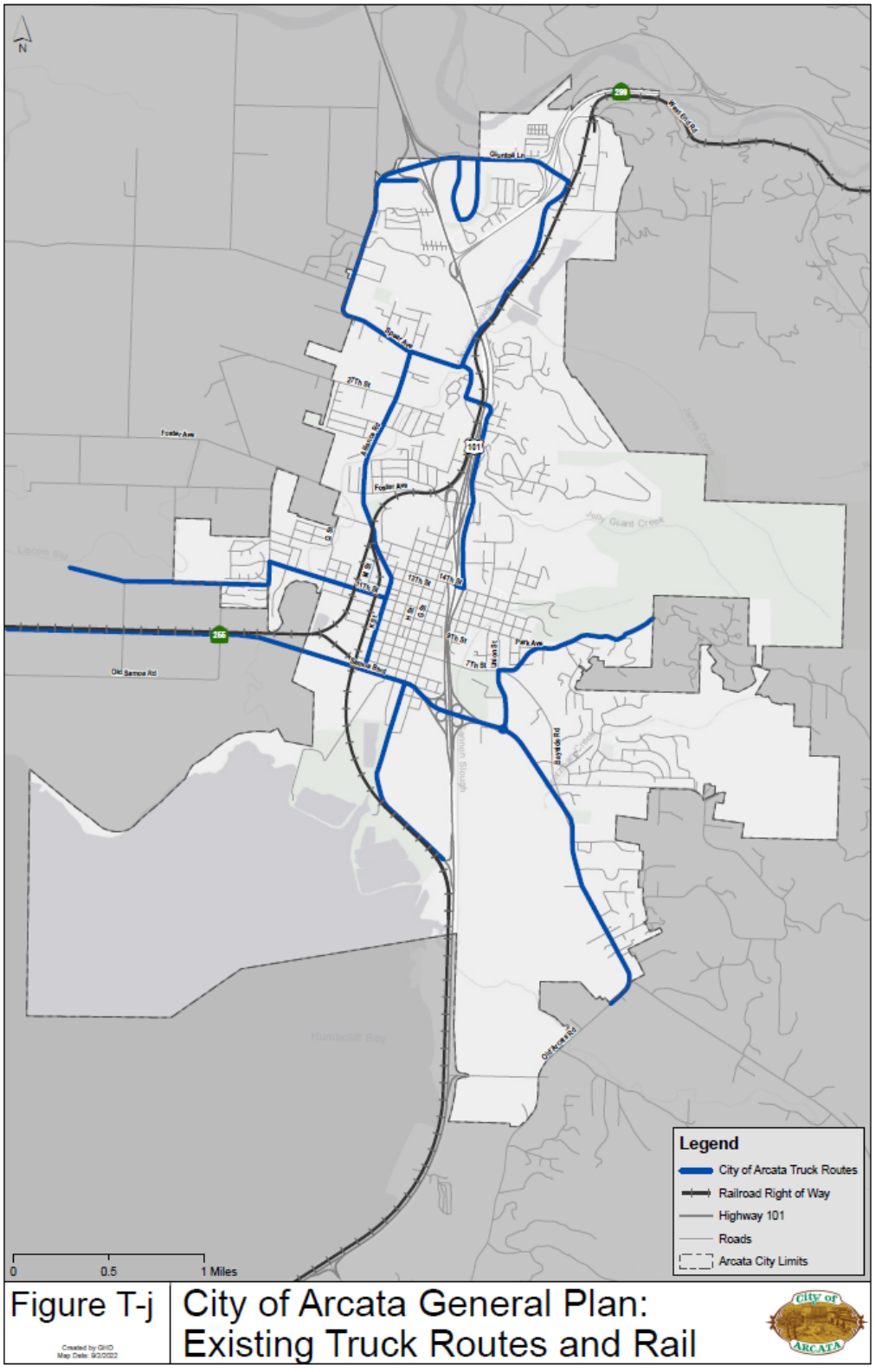
Pedestrian facilities are provided throughout Arcata in the form of sidewalks on public streets and along Class I shared use paths which also accommodate bicyclists. Refer to the City's design standards for sidewalk widths and right of way. Many streets, particularly local, collector, and rural roads, do not have curb and gutters or sidewalks – forcing pedestrians to walk on unpaved shoulders or within the travel lanes. While the downtown and areas surrounding Cal Poly Humboldt provide a continuous sidewalk system in other areas of the City, there are many gaps in the sidewalk system. The City's standard sidewalk meets the minimum Americans with Disabilities Act (ADA) requirements, but wider sidewalks are desirable for high-traffic pedestrian locations and to encourage walking. Narrow sidewalks are often obstructed with utility poles, signs, and street furniture, further reducing their effectiveness. In addition, the City's street standards lack sufficient width for a planting strip or street trees, which are important elements in promoting walking as an alternative mode of transportation. Opportunities exist, however, within the standard fifty-foot wide right of way to provide street trees in planter boxes located in the parking lane, or to add a planting strip between the sidewalk and travel lanes when new development projects are considered.

Existing Freight Transportation Systems. Arcata has designated truck routes on several key arterial and collector streets including Giuntoli Lane, Valley West/Valley East Boulevard, West End Road, Alliance Road, "K" Street, Spear Avenue, L. K. Wood Boulevard, 11th Street, Fickle Hill Road, Union Street, Old Arcata Road, Vaissade Road, Heindon Road, South G Street, Janes Road, and Samoa Boulevard. These streets provide intracity connections for freight travel and serve most of the industrial areas of the City. All state facilities including Routes 101, 299, and 255 are designated truck routes. US Highway 101 is considered an STAA Terminal Access Route within Humboldt County, apart from Richardson Grove at the southern border with Mendocino County where access is limited as a California Legal Truck Route. SR 299 is considered an STAA Terminal Access Route between US Highway 101 in Arcata and Interstate 5 in Redding, and SR 255 is considered a California Legal Truck Route between Eureka and Arcata.

Railroad Right of Way Transportation Systems. Arcata has railroad right-of-way formerly managed by the North Coast Railroad Authority (NCRA), with spurs into several industrial properties. Although most rail service was suspended following damage to tracks caused by storms in 1997, the mainline and many spurs in Arcata were active prior to that time. They served several industrial uses in the northeast and southwest areas of the City and were used to move freight between Arcata and Eureka. The Great Redwood Trail Agency, established in March 2022, took over railroad corridor management from NCRA. The Great Redwood Trail is a proposed multi-use rail-to-trail project connecting San Francisco to the Humboldt Bay area.

Several rail corridors in Arcata have already been converted into Class I trails with others planned. The Arcata Rails with Trails Project was completed connecting Foster Avenue and Alliance Road south to SR 255 along the L Street rail alignment (Phase 1 of the Humboldt Bay Trail).

FIGURE T - i Existing Truck Routes & Rail Right of Way

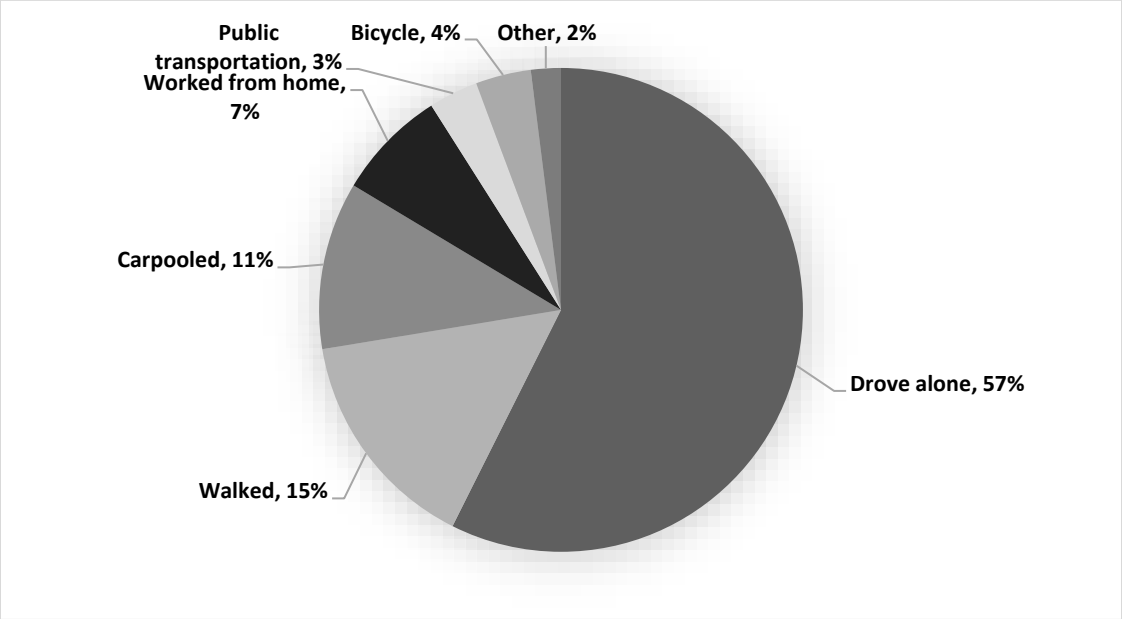


The rail to trail corridor south of SR 255 at this location to US 101/Bracut has also been constructed (City of Arcata Rail with Trail Connectivity Project) and is part of the Humboldt Bay Trail connecting to Eureka. The Annie and Mary Rail Trail and Trial Connectivity Project are planned trails that will connect Sunset Avenue to the Aldergrove Indust nd Road in Arcata, and then continue east to the City of Blue Lake along th .

Can the data be broken down to in city vs out of city (driving alone category)?

Existing Modes of Travel. Based on 2020 census data, the majority of A alone to work (57%) as shown in the accompanying figure. Walking an e up 15% and 4% respectively. About 7% of Arcatans work at home and 3% commute via public transportation. While low on a citywide basis, public transit usage is higher in some areas of the City when examined at the census block level using Replica. In the downtown area, the split for walking increases to up to 37%.

Figure T-j Existing Modal Split



Source: US Census, 2020 ACS 5-Year Estimates.

Existing Travel Demand Management. The most comprehensive use of Transportation Demand Management (TDM) measures is by the City's largest employer, Cal Poly Humboldt which has the following programs offered by the

To include additional (new) locations

- *Jack Pass* – utilizes student ID cards and r and faculty to ride local bus system.
- *Zipcar* – car-sharing program offered to students as alternative to car ownership or rental with two cars on campus.
- *Humboldt Bikeshare* – bike-sharing program with two stations on campus and two in Downtown Arcata.
- *Bicycle Learning Center* -campus bike shop run by students offering parts, tools and instruction on bike repair, maintenance, and safety.

- *Carpool Preferential Parking* - allows commuters by car with additional passengers between designated hours (7am and 11am) to receive permission to park in preferred locations for the day.
- *Homeward Bound Bus Charter* – Program offered during school year that provides students discounted round-trip fare for travel between Arcata and San Francisco or Los Angeles. (Note program offered for free during 2022 school year supported by funding to meet students with basic needs, subject to funding availability in the future.)

Proposed Circulation Network

Arterial, collector, and local roads will provide access to new and established residential, commercial, and industrial areas, connecting those areas with the existing local and regional transportation system. Buildout of the General Plan land uses to year 2045 will increase multimodal, access and parking demands and will result in areas already under stress to exceed acceptable limits for safety and delay. As presented in Appendix A Table T-3, forecasted traffic operations at several intersections are projected to degrade to LOS D, E, or F.

This Committee opposes the L St Couplet and would like to see any reference to it to be removed.

In order to accommodate t d land uses within the City, a robust network of multimodal capacity imp ded. Several improvements are planned for most of the intersections p ficiently, mainly installation of roundabouts. At the US 101/Sunset Aven y is currently undergoing the Project Approval and Environmental Docume he interchange improvement, which proposes to install two roundabouts at the interchange in

A small amount of vehicular inconvenience may be necessary to achieve the HCAOG mode shift goals.

Additionally, implementation of the mobility imp including the "K" and "L" Streets couplets, and t alleviate traffic congestion within the Gateway and will ensure all transportation modes remain comfortable, convenient, safe, and attractive to residents, workers, students, and visitors.

Table T-5 presents the proposed circulation improvements identified to meet City goals. Figure T-k presents the proposed Vehicular Circulation Plan o

Alternatives?

Table T-5 Proposed Vehicular Circulation Improvements

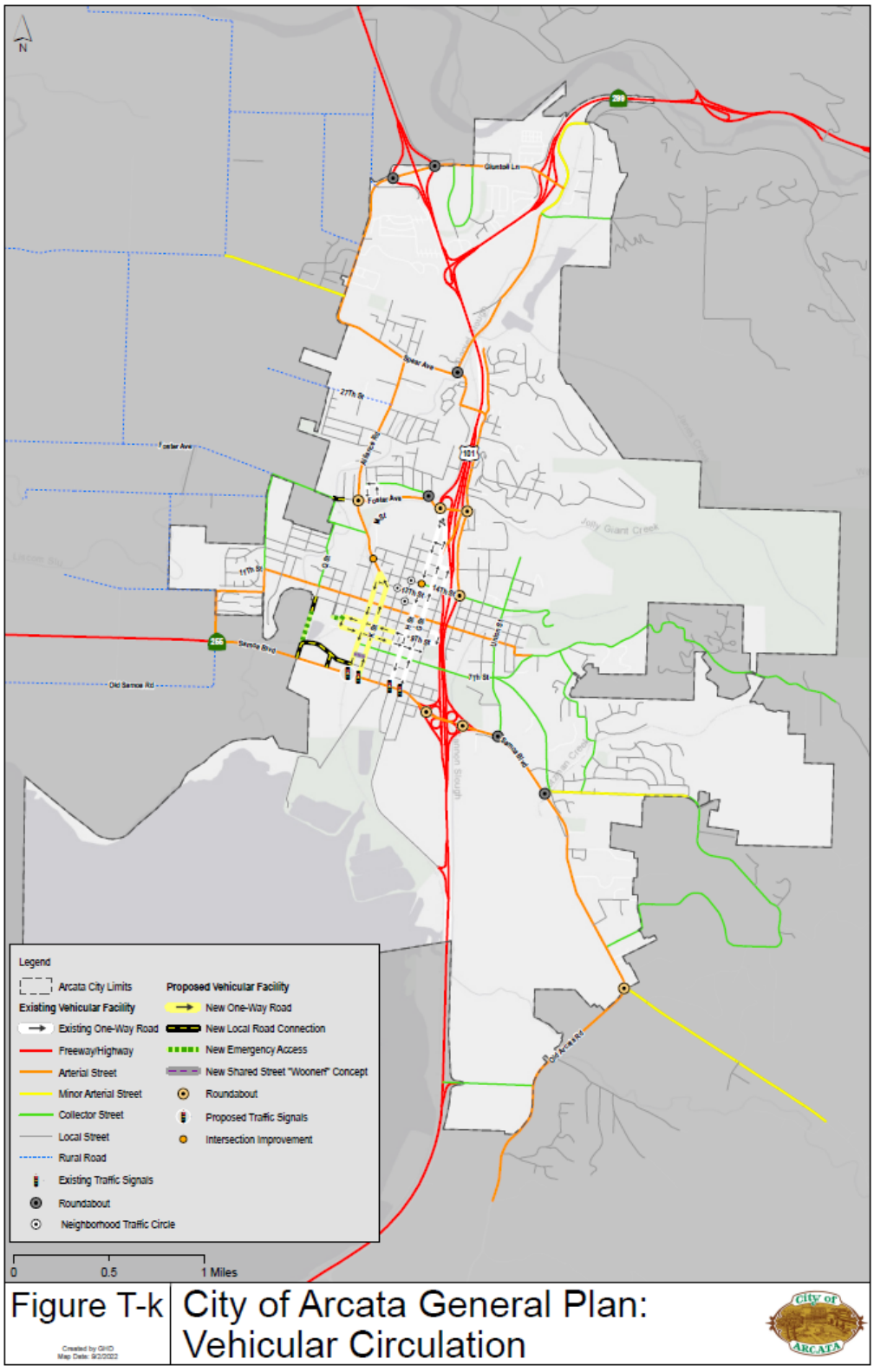
Location	Improvement	Notes
Sunset Avenue Interchange	Dual Roundabouts at both ramp termini. Easternmost roundabout will be 5-legged combined with ramps and L.K. Wood Boulevard. Class I path on south side of overpass.	Traffic operation improvements (LOS deficiency). Safety improvements for all modes.
Samoa Boulevard (SR 255) at US 101	Full Interchange redesign with two roundabouts via "diamond" ramp	Improved pedestrian and bicycle connections across

Location	Improvement	Notes
Interchange	configuration.	US 101 overpass. Improve interchange access.
14th Street at L.K. Wood Boulevard	Roundabout	Large intersection, will provide safer access for all modes. Entry feature for campus and City at US 101.
14th Street at H Street	Restripe southbound left lane to be dedicated left turn lane. Also provide improved bicycle access.	Traffic operation improvements (LOS deficiency).
Alliance Road at M Street/15th Street	Intersection improvements including channelization.	Traffic operation improvements (LOS deficiency).
Alliance Road at Foster Avenue	Roundabout (or mini-roundabout)	Traffic operation improvements (LOS deficiency).
Foster Avenue Connection	Connect Foster Avenue west of Alliance	Circulation improvement. Traffic will be diverted from 17th Street and some from M Street at Alliance Road.
Gateway Area Plan Improvements	**Improvement**	**Notes**
K Street & L Street One-Way Couplets	Redesign "K" and "L" Streets to be one-way couplets south of 14th Street. Traffic Signal coordination at Samoa Boul Class et retained as m Class or Class II Buff treet.	Improve traffic flow through the Gateway Area while providing safer pedestrian crossings at intersections, and enhanced access
Barrell District Roadways	New hrough Barr New ds along sout nd between N Street and O Street west of 9th Street.	
8th Street and 9th Street One-Way Couplet	Extend existing couplets west to N Street.	

Ensure bikes and peds are a priority in the design.

Removal of couplet in favor of a linear park through the L St corridor. Remove parking on K, add class IV bike lanes and consider additional stop control.

FIGURE T - k GENERAL PLAN VEHICULAR CIRCULATION



As part of the Gateway Area Plan, the City is exploring mobility concepts and proposing circulation patterns to convert two-way streets into one-way couplets on K Street, L street, 8th Street and 9th Street (continuation west of I Street). This would allow new opportunities for implementing Active Transportation (bicycling and walking) elements as part of the Gateway Area Plan including the addition of Class IV separated bikeways. Class IV bikeways facilities are designed within the roadway using barriers such as bollards, raise[d] parking and other devices creating a physical separation between vehicle[s] and bicycles. For example, K Street, between 13th Street and Samoa Boulevard, is characterized as a two-way street with one lane in each direction, parking on both sides and designated as a Class III bike route. Changing K Street to a one-way couplet maintains a travel lane and parking but would then allow the street to be upgraded with a Class IV facility through implementation of the Gateway Area Plan.

Eliminate all references to the K & L St couplet

Additional Active Transportation ideas included in the Gateway Area Plan include the Shared Street, "Woonerf" concept proposed on 6th Street between K Street and L Street. Through this concept walking and bicycling are the primary modes emphasized and vehicle traffic is de-emphasized. Through traffic calming, lowered speed limits and enhanced streetscapes, Shared Streets allow more public space opportunities that prioritize people over vehicles. The potential to apply these concepts outside of the Gateway Area depends on context but the City should consider context-specific implementation via Policy.

Table T-6 presents the proposed bikeway improvements identified to meet City goals and are consistent with the Gateway Area Plan and the City of Arcata Pedestrian and Bicycle Master Plan (2010). This list may be superseded based on subsequent updates of the Pedestrian and Bicycle Master Plan or a similar planning document. Figure T-l presents the proposed Active Transportation Circulation Plan on the following page.

Table T-6 Proposed Bikeway and Trail Improvements

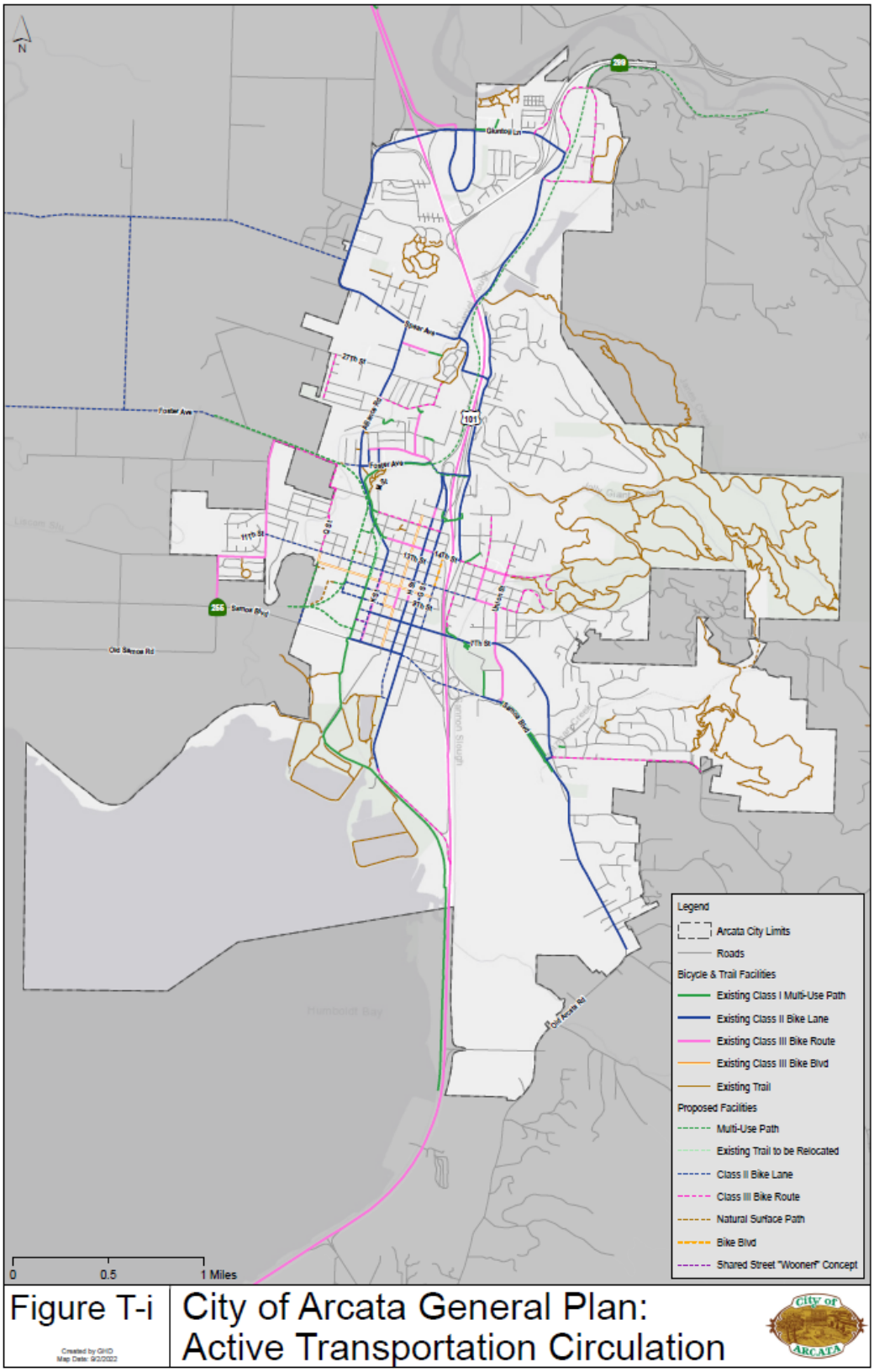
Bicycle Facility	Roadway/Name	Location
Class I Trail / Shared-Use Path		
	Annie & Mary Rail Trail	West End Road to Arcata Skate Park
	Hammond Trail	Arcata Bottoms to west of Foster Avenue Extension
	Sunset Avenue	L.K. Wood Blvd to Jay Street (south side of 101 overpass)
	Giuntoli Lane	West End Road to Janes Road
	[B]vd.	Union to G street K Street to V Street (and eventually to
	[1]0th and/or 11th Streets	Bayview to Janes Road
	Spear and St. Louis	Janes Road to L.K. Wood Blvd.
	Class I Paths in Gateway Area Plan:	South of Q Street alignment to Barrell District Roadway Along Barrell District Roadway Along rail line southwest of 9th Street Along N Street alignment from 9th St to Alliance Road

Add an additional table for class IV locations

General note:Table to match the map. Confirm Class I is possible where shown.

Bicycle Facility	Roadway/Name	Location
		Along L Street north along rail line to M Street then north to Alliance Road 14th Street west of M Street to proposed trail along N Street alignment Pedestrian path along 12th Street west of M Street to proposed Class I path Pedestrian path south of O Street to proposed Class I path
Class II Bike Lanes		
	11th Street	Janes Road to B Street
	7th Street	Between L Street and K Street
	8th Street	N Street to J Street (Gateway Area Plan)
	9th Street	J Street to N Street (Gateway Area Plan)
	F Street	7th to 11th Streets
	Foster Avenue Extension (west)	West of Alliance Road to Foster Avenue
	K Street	Samoa Blvd to 11th Street (Gateway Area Plan)
	N Street	9th Street to 8th Street
	Sunset Avenue	Jay Street to G/H Streets
Class III Bicycle Boulevard		
	F Street	11th Street to 14th Street
Class III Bicycle Route		
	11th Street	Union Street to Bayview Road
	14th Street	L.K. Wood Blvd to B Street, then Union Street
	16th Street	M Street to G Street
	Alder Grove Road	West End Road to Ericson Way
	Bayview Street	13th Street to 11th Street
	Boyd Road	Giuntoli Ln to Sierra Way
	Buttermilk Lane	Samoa Blvd east to Arcata city limit
	D Street	11th Street to ped. trail south of 9th
	Ericson Way	West End Road to Aldergrove Road
	Foster Avenue	Janes Road to Alliance Road
	Q Street	17th Street to 11th Street
	Stromberg Ave/Maple Ln	Alliance Rd to Janes Creek Linear Trail
	South G Street	Arcata Corp. to Yard Highway 101
	Union Street	14th Street to 17th Street
	West End Road	Giuntoli Ln to Ericson Way
	Wyatt Lane	27th Street to Stewart Avenue
Shared Street	6th Street	Between L Street and K Street

FIGURE T - I GENERAL PLAN ACTIVE TRANSPORTATION CIRCULATION



Guiding Principles and Goals.

A. Provide a connected multimodal transportation system that contributes directly to the safety, health, economic vitality, and quality of life of all residents.

B. Create a transportation system tha... fe, accessible, comfortable, accommo...

C. Provide for increased use of active... es to the single-occupant vehicle, includ... carpooling/vanpooling, and ridesh...

D. Manage the street and highway sy... capacities rather than increase the...

E. Create a multimodal transportation system that will improve the livability of residential neighborhoods, including use of methods to calm or slow traffic and reduce through-traffic on local neighborhood streets.

F. Educate residents, employees, and students about the importance of using alternative forms of transportation instead of the single-occupant automobile.

G. Promote land use patterns that encourage walking, rolling, bicycling, and public transit use.

H. Establish a set of fee-based parking prices that are high enough to drive more active and shared transportation.

Prioritizes investment and transportation planning which shifts the City's transportation system from being car-centric to one in which transit and active transportation are competitive, or superior, in terms of convenience, perceived and actual safety, and accessibility for all residents.

2.8 POLICIES

The Circulation Element includes the following policies:

T-1 Balanced Transportation System with Choice of Modes
T-2 Travel Demand Management
T-3 Bus Transit System
T-4 Circulation Maps and Context Sensitive Street Design
T-5 Bicycle and Pedestrian Facilities
T-6 Parking Supply and Parking Management
T-7 Freight Transportation
T-8 Financing Transportation Improvements

POLICY T-1 BALANCED TRANSPORTATION SYSTEM WITH CHOICE OF MODES

Objective. Create and maintain a balanced transportation system with choice of bus transit, bicycle, and pedestrian as well as private automobile modes. Reduce the percentage of trips that are made by automobile and provide the opportunity and facilities to divert trips from automobiles to other modes.

T-1 **Complete Streets.** The City shall direct the design, construction, reconstruction, repair and maintenance efforts on the City's streets, bridges, pathways, and sidewalks, creating a comprehensive, integrated transportation network that is safe, accessible, comfortable, accommodating, and welcoming to users of all ages, races, ethnicities, incomes, and physical abilities, and all modes of transportation, particularly those walking, rolling, biking, and using transit, and in doing so the City shall apply a Complete Streets framework in all applicable and feasible transportation projects to allow the safe, comfortable, convenient and accessible use of streets for all street users.

T-1a **Investment in alternative modes.** In order to provide a realistic and cost-effective balance between travel modes, the City shall emphasize investment in alternative modes (bikeways, etc.) as a priority over increasing vehicular capacities of streets.

T-1b **Interconnections and transfers between travel modes.** The City shall provide and maintain a Transit Center to facilitate interconnection and transfers between bus routes and systems. As funding permits, Transit Center facilities shall be improved to encourage its use as a multi-modal transfer point. Pedestrian and bicycle amenities shall be provided at other locations which serve as modal transfer points such as bus stops and park-and-ride lots.

T-1c **Intercity travel.** The City shall coordinate with Humboldt County and Caltrans to provide adequate facilities for vehicles, buses, and bicycles to serve intercity demand. Joint efforts may include transportation improvements outside of Arcata which serve intercity travel, such as bicycle links, timed-transfer bus stops, park-and-ride lots, and regional transit service and development of park-and-ride lots in Arcata to reduce intercity vehicular travel.

T-1d **Critical transportation facilities.** Critical transportation facilities for emergency vehicle access and emergency evacuation shall be maintained and improved as a priority need. Critical transportation facilities include the major routes into and out of the City such as Highways 101, 299, and 255, their interchanges with City streets and primary intra-city street connections including Samoa Boulevard, 11th Street, "G" and "H" Streets, Sunset Avenue, L.K. Wood Boulevard, Alliance Road, Janes Road, and Giuntoli Lane. Due to the potential for structural failure of these facilities in a seismic emergency, alternative routes and procedures for their use shall be identified.

T-1e **Parking and public transit service study.** The City shall undertake a comprehensive study of parking and public transit service options for the downtown/uptown area and Cal Poly Humboldt, with cost/revenue implications presented for each option. This study shall be undertaken jointly with Cal Poly Humboldt.

POLICY T-2 TRAVEL DEMAND MANAGEMENT

Objective. Reduce the percentage of automobiles and reduce the annual vehicle-miles of travel.

T-2a **Land use development patterns.** The City encourages and supports travel demand management efforts. The City shall promote land use and development patterns that encourage walking, bicycling and transit use. In recognition of the link between land use and transportation, the land use plan shall discourage low density, homogenous land-use patterns that foster automobile travel and are impractical to serve with transit. Land use planning shall emphasize high density and mixed land- use patterns which translate into higher transit and pedestrian travel in the downtown and neighborhood commercial areas. Infill, redevelopment, and reuse of underutilized property at higher densities shall be encouraged prior to outward expansion of City boundaries. The following land use measures are emphasized:

1. Mixed-use neighborhood centers within transit corridors which include housing and commercial services near employment.
2. Land use patterns which maximize linking trip opportunities by assembling uses, thus allowing people to take care of a variety of daily needs with a single trip.
3. Clustering of higher density housing and incorporation of residential units on upper floors of commercial buildings.
4. Integration of new housing into neighborhood shopping centers, including Sunny Brae, Westwood, and Valley West.
5. Pedestrian-oriented land use and urban design, including the following elements:
    a. Pedestrian-scale block patterns.
    b. Incorporate pedestrian and bicycle amenities into public and private projects.
    c. Design streets for multi-modal use.
    d. Integrate transit stop facilities into public and private projects.
    e. Orient buildings and houses to the street.
    f. Provide attractively landscaped streets and buffers.
    g. Preserve existing and historic urban fabric.
    h. Eliminate blank wall facades.
    i. Incorporate bicycle routes and enhancements in public and private projects.
6. A fixed urban services boundary to reduce sprawl and infrastructure costs.
7. Focused growth along existing or planned transit corridors rather than extension of transit to serve new isolated development.
8. Prevention of large areas of single uses. Isolated single-use developments at the edge of the City could encourage automobile travel for commuting and errands.

9. Provision of convenience retail and services in ground floor space in the downtown to accommodate the needs of employees and reduce the need for mid-day automobile trips.

Newer version has changed

Include mention to on-demand micro transit in the future

POLICY T-3 BUS TRANSIT POLICY

Objective. Maintain a bus transit system which connects and serves major commercial and employment areas within Arcata, Cal Poly Humboldt, public schools, and higher density residential areas. Increase average citywide transit mode share of daily person trips to ___% from the 2020 level of 3%.

T-3a **5-year transit plans.** The City shall maintain the existing A&MRTS routes (as shown in Figure T-e), frequency, and level of service until increased demand, additional development, and transit planning studies identify the need for either route modification, an expanded route system, or increased service on existing routes. The transit planning studies should evaluate the cost-effectiveness and feasibility of increased routes and service based on projected capital and operating costs, fare box recovery, and state and federal subsidies (see Policy T-3c for planning criteria).

T-3b **Regional transit service.** Short- and long-range transit plans shall be coordinated with the regional transit service provided by the Redwood Transit System. The City supports regional transit plans which improve service and timed transfers, and reduce headways for intercity travel.

T-3c **Bus route system.** Public transportation is an enterprise activity and its services must be designed to be as efficient and productive as possible. As a transit operator, the City must balance demand with resources for a sustainable system. The City shall consider adding transit routes or modifying existing transit routes and level of service based on the transit planning efforts described in Policy T-3a. Criteria to evaluate and identify thresholds for changes to the A&MRTS system shall be developed. General guidelines for planning future routes and service include:

1. Accessibility of route to residents and employees. Calculate the number of people living or working within walking distance of the route (typically 1,000 feet). Assuming 1% to 8% of that population would use transit (based on existing transit mode share by census block), determine if the route will serve an adequate population for cost-effective service.

2. Review the housing density within the proposed route corridor. Minimum densities of at least seven dwelling units per acre are necessary to support local transit service. Ideally, the average housing density within a transit corridor or transit served nodes should range between eighteen to twenty dwelling units per acre, depending on the proximity to stops.

3. Evaluate the efficiency and directness of future routes. Compare bus travel time with automobile travel time to avoid a disproportionality which favors automobile use. Determine if the route requires inefficient loops which take riders out of their way and discourages transit use. Design routes to be as direct as possible with turnarounds at endpoints.
4. Evaluate the diversity of the destinations served. Efficient routes serve a diversity of land uses including residential, employment, schools, and shopping. Evaluate the number of activity centers connected by the route and the transfer opportunities provided.

and at bike share locations with empty bike share racks for one-way trip use

T-3d **Transfers between routes and systems.** The public transit system sh convenient transfers between routes, other transit services, and other modes of travel. The Arcata Transit Center shall serve as the primary multi-modal transfer station. Bus stops should be located near municipal parking lots or future park-and-ride lots. The A&MRTS and Redwood Transit System schedules shall be coordinated to provide a timed-transfer system at key stops.

Prioritize seating/ covered seating at all bus stop locations

T-3e **Bus stops.** Existing bus stops should be improved a future routes should be designed with appropriate amenities and ments include either bus stop lanes or bus turnouts. Bus stop design amenities which increase rider comfort and feeling of safety and encourage walking and bicycling are emphasized, including shelters, benches, lighting, shade trees, signs, information kiosks, waste receptacles, paved surfaces, and secure bicycle parking. Bus stop areas should be consistently maintained and cleaned, including vandalism repair and graffiti removal. Developers shall be required to provide bus stops and amenities on their frontage if the property is located on an existing or future bus route and is an appropriate location for a stop. Pedestrian and bicycle access should be provided to neighborhood bus stops.

T-3f **Transit subsidies.** The City supports continued A&MRTS contract services with Cal Poly

Humboldt to provide subsidized fares to its students and employees. This revenue source, which allows these users to ride without cost to the individual, is the single most important Transportation Demand Management strategy for A

Update to current Dept name *(i.e. No longer referred to as Public Works)*

T-3g **Transit implications of new development.** The public works d RTS shall evaluate proposed new development projects and make or to project approval regarding transit improvements and road designs.

Spelling

POLICY T-4 CIRCULATION MAPS AND CONTEXT SENSATIVE STREET DESIGN POLICY

Objectives. Plan the circulation network consistent with Figure T-k and Figure T-i to create Complete Streets solutions that are appropriate to individual contexts; that best serve the needs of all people using streets and that support the land-use, climate, safety, and environmental quality targets and policies of the City and which: 1) efficiently utilizes existing facilities and reduces need for investment in new or expanded street and highway facilities or capacities; 2) improves connectivity of streets to provide for direct routes between origins and destinations; 3) has a high quality of regular maintenance and repair; and ~~4) maintains a level of service which minimizes delays, but allows for higher levels of congestion during the short peak periods on weekdays.~~

T-4a **Freeways and Highways.** The following standards shall apply to State Routes 101 and 299 and State Route 255:

1. No additional travel lanes. The City does not support development of any additional through-travel lanes to State Routes 101, 299, or 255 in Arcata or nearby areas. Existing and projected traffic volumes do not warrant additional lanes on these facilities.
2. Auxiliary lanes. The City does not support construction of auxiliary lanes between existing interchanges, or any new interchanges, on State Route 101.
3. Interchange improvements. The City supports interchange improvements that reduce potential conflicts created by unrestricted access from freeway off-ramps.
4. Landscaping. The City encourages Caltrans to maintain and improve landscaping along freeway corridors in Arcata and surrounding areas to improve aesthetics, and provide a visual and noise buffer.
5. Undesignated right of way. All public rights of way with no land use designation (i.e. freeways, highways and associated interchanges) shall be used for transportation purposes only, including multi-modal use. All land uses within these rights of way shall be for transportation or related (i.e. lighting, drainage, utilities, pedestrian and bicycle) purposes.

T-4b **Vehicular Circulation.** The following shall apply to vehicular circulation routes:

1. Alternative street cross-sections. The Department of Public Works shall prepare

alternative cross-sections for existing and proposed new arterial, collector, and local streets utilizing a smaller right-of-way and that reduces traffic speed and shall be designed to allow the safe, comfortable, convenient and accessible use of streets for all roadway users.

2 No additional vehicular travel lanes. Street projects to improve vehicular traffic flow shall emphasize intersection improvements and facility maintenance. If congestion occurs, it shall be managed using alternative methods such as diversion of trips to other travel modes or intersection improvements. Construction of additional vehicle travel lanes shall be considered only when no other feasible congestion management methods are available and if it supports the land-use, climate, safety, and environmental quality targets and policies of the City.

3. Improvements at intersections. Improvements at intersections shall be designed to allow the safe, comfortable, convenient and accessible use of streets for all roadway users.
   a) Minor improvements at intersections. Minor projects to improve traffic safety include redistributing lane allocations and coordination of traffic signals. .
   b) Minimize the installation of new traffic signals. New traffic signals shall be provided only in instances where there is no feasible alternative to relieve a demonstrated safety problem at an intersection (based on documented accidents). Alternatives which shall be studied prior to signals include roundabouts or installation and monitoring of all-way stop signs

Collisions

T-4c **Slowing traffic.** The City shall employ a range of measures to reduce speeds and "calm" traffic in various commercial areas, near schools, public recreation areas and in residential neighborhoods to improve safety and comfort for those walking, rolling, biking, and taking transit:

1. Transportation Safety Committee. The Transportation Safety Committee holds regular public meetings and reviews matters related to traffic safety in Arcata and make recommendations to the Council, Commissions, or City staff as appropriate. Measures requested by residents or property owners, or initiated by City staff, that intended to slow traffic shall/should be presented to the Transportation Safety Committee for recommendations. The Transportation Safety Committee shall make recommendations after a public meeting where any public comments are heard.
2. Measures should be context sensitive and may include the installation of physical infrastructure, such as street trees, speed bumps, speed humps, narrowing streets, mid-block crossings, and bulb outs, while ensuring that the techniques employed have the effect of slowing traffic without compromising emergency access.
3. The installation of speed tables, humps and lumps shall adhere to the then current City of Arcata policy regarding installation of speed tables, humps and lumps for residential and local streets administered by the Department of Public Works.
4. ~~All neighborhood streets shall remain open to through vehicle travel unless there is a demonstrated safety problem that cannot be adequately addressed through the measures identified above.~~

General comment: Closing streets or street filtering can be beneficial

Combined into a single menu considering both as options - Not phased

TABLE T-7 ~~PASSIVE AND RESTRICTIVE~~ TRAFFIC CALMING MEASURES

~~PHASE I PASSIVE MEASURES~~	~~PHASE II RESTRICTIVE MEASURES~~
Neighborhood campaigns for traffic safety or speed watch reporting	Traffic circles or roundabouts
	Medians
Parking restrictions or modifications	Raised intersections and raised crosswalks
Active police enforcement	Speed humps/speed tables
Pavement markings and signage	Curb extensions at intersections or midblock
Neighborhood gateway features	Chicanes or slow points
Visual cues at neighborhood entries	Narrowing travel lanes
Emphasis on visual rather than physical deterrent	Reduced curb radii
Textured crosswalks	

Language to include Multi-use Paths as well

T-4d **Street maintenance.** The Pavement Management System shall be maintained to identify and prioritize street maintenance projects in the City's Capital Improvement Program (CIP). The maintenance program shall include regular street cleaning and repair of pavement, sidewalks, and bicycle lanes, and pay particular attention to conditions that discourage bike usage.

POLICY T-5 BICYCLE AND PEDESTRIAN FACILITIES

Objective. Create a complete, interconnected bikeway system and pedestrian network. Increase the percentages of person trips via walking and bicycling, which serves the full range of mobility needs.

or HCAOG if the City's plan is not updated

T-5a **Overall bicycle route system and connectivity.** Bicycle trails and facilities are shown in Figure T-i. The bikeway system shall be improved and expanded consistent with the City of Arcata Pedestrian & Bicycle Master Plan to serve new development and activity centers. Routes that provide access to and between major destinations including public facilities, schools, parks and open space, employment, and shopping, shall be the highest priority. Future improvements may be made which upgrade bike routes to a higher class. The City shall:

1. Regularly (at least every five years) update the City of Arcata Pedestrian & Bicycle Master Plan and coordinate planning efforts with Caltrans and the Humboldt County Council of Government's bicycle plans and advocacy groups to provide continuous

Association

bicycle routes.

2. Maintain existing bicycle routes and provide additional routes where feasible connecting the various neighborhoods with Cal Poly Humboldt. Class II bike lanes shall be provided on routes with the highest bicycle demand, ~~or~~ where there is sufficient right of way.
3. Improve and maintain bicycle infrastr[illegible]val of height differences between pavement and gutter pans, smooth pavement on street edges, drainage inlet grates, and street cleaning to remove debris from street shoulders.
4. Continue to implement Pedestrian & Bicycle Master Plan bicycle boulevard project, including the public awareness campaign about the form, functions, and routes of the bicycle boulevards, with messages that bicycle boulevards are preferred routes for bicyclists and pedestrians and do not exclude motor vehicle traffic..

T-5b **Bikeway system and pedestrian network standards.** The City of Arcata Pedestrian & Bicycle Master Plan and Humboldt County Association of Governments (HCAOG) Humboldt Regional Bicycle Plan contain appropriate design standards and guidelines for the proposed bikeway system and pedestrian network improvements in the City of Arcata. Continue to work with regional partners and HCAOG to plan improvements to the bikeway system and pedestrian network .

1. Right of way opportunities. As opportunities arise, the City shall utilize existing or acquire new easements or right of way for Class I bikeways. Such opportunities may include connecting dead-end streets in new developments with existing neighborhoods, along streets with excess width and unpaved right of way, along drainage channels or creeks, or along abandoned railroad rights of way.

T-5e **Bicycle parking facilities.** Secure bicycle parking facilities should be provided at important activity centers, civic facilities, apartment complexes, employment centers, shopping centers, major bus stops, and schools. Bicycle parking facilities include racks, lockers, and bollards.

Developers shall be required to provide a minimum number of bi[illegible]t convenient and visible locations within the development. The required number of bicycle parking spaces shall be calculated as a proportion ~~of the number of vehicle parking spaces~~.

T-5f **Pedestrian network enhancements.** Prioritize implementation of improved pedestrian facilities and enhancements ~~in areas of the city with the greatest need including the Arcata Plaza, Westwood Center area, Valley West area, the Sunset Avenue neighborhood, Samoa Boulevard, Alliance Road, Spear Avenue, Janes Road in the vicinity of the Pacific Union School, and Bayside Road in the vicinity of Jacoby Creek School~~. The following pedestrian improvements and safety enhancements should be considered in future planning for these areas:

class IV

or where R/W is insufficient, Class II

shall

on the ground floor near an entrance (preferably interior)

Based on number of users

linking residential areas with important destinations such as health care, education, employment, shopping, recreation, with priority given to neighborhoods with the greatest need (disadvantaged communities, etc.)

gap(s)

1. Close sidewalk gap.
2. Install vertical curbs to keep vehicles from parking on sidewalks.
3. Reduce street crossing distance with curb extensions and smaller curb radii.
4. Use on-street parking as a pedestrian buffer.
5. Install textured crosswalks.
6. Provide adequate street lighting focused on crossings.
7. Restrict parking near crosswalks to improve sight distance.
8. Install rumble strips on approaches to crosswalks.
9. Plant street trees or place street trees in planters in the parking lane.
10. Relocate intersection stop bars five feet back from crosswalks to improve driver and pedestrian visibility.
11. Wayfinding signage where appropriate

T-5g **Pedestrian pathways and multi-use trails.** Pedestrian pathways or multi-use trails for the exclusive use of non-motorized transportation modes should be provided. Pathways may be long facilities located along corridors or short facilities providing direct access through development projects or connecting areas not directly accessible by streets. Pathways should be planned to serve the full range of mobility needs for people of all ages, races, ethnicities, incomes, and physical abilities. The following shall apply to pedestrian pathways or multi-use trails:

1. Easement or right of way dedication. Dedication of easements or rights of way for pathways through new private developments may be required.
2. Cooperation with local and regional agencies and jurisdictions. The City shall cooperate with other agencies to establish and maintain off-street pathways and trails utilizing creek, utility, and railroad right of way.

3. Other Locations. Other potential locations for multi-use paths are within the North Coast Railroad right of way from Giuntoli Lane to Samoa Boulevard, along the west side of Samoa Boulevard/Old Arcata Road east of State Route 101, and along the perimeter of Arcata Bay towards Manila.

T-5h **Sidewalks.** A continuous and interconnected system of sidewalks shall be provided throughout the City. The existing standard right of way of most arterials, collectors, and local streets (fifty feet) permits a five-foot sidewalk in each direction, the minimum width to comply with Americans with Disabilities Act (ADA) requirements. Some commercial areas in downtown Arcata should have wider sidewalks to accommodate higher levels of pedestrian traffic and window-shopping. The following standards shall apply to sidewalks:

1. Sidewalk continuity. Gaps in existing sidewalks should be closed to provide a continuous pathway. Cul-de-sacs should be discouraged because they disrupt pedestrian connectivity.
2. Sidewalk widths. New development projects shall be required to construct or

reconstruct sidewalks along the property frontage in accordance with adopted City standards.

3. Sidewalk Requirements. Where adequate width exists to maintain ADA clearance, sidewalk pedestrian amenities should be provided in the downtown commercial area. These include benches, bicycle parking, pedestrian-scale lighting, street trees, flower boxes, trash receptacles, drinking fountains, and awnings. Private development projects shall be required to include sidewalk improvements; other landowners are encouraged to provide improvements.
4. Sidewalk Maintenance. Sidewalk facilities shall be systematically inspected and maintained to clean and repair damaged surfaces and remove impediments such as poles, newspaper racks, and other obstructions that interfere with pedestrian flow.

Agency

T-5i **Retention of railroad right of way.** The Great Redwood Trail ~~Authority~~, as the holder of the former North Coast Railroad Authority right of way, is encouraged to maintain railroad rights-of-way through railbanking for interim use as a multi-purpose trail. The City may consider purchase of right of way should the Authority decide to sell. Railroad right of way ~~may potentially be used for creation of multi-use trails. Long range potential uses of railroad right of way include an exclusive bus transitway or passenger rail service~~.

should be use exclusively for multi-use trails, bus or light rail transit.

T-5j **Rails to trails conversions.** The City supports plans to convert abandoned railroad rights-of-way to provide multi-use trails. Planning efforts shall be coordinated with federal, state, and regional agencies to obtain funds to purchase or lease abandoned lines if the railroad authority selects not to dedicate the right of way. If feasible, active railroad lines may be used for multi-use trail purposes.

This paragraph is confusing (active vs. abandoned)

POLICY T-6 PARKING SUPPLY AND PARKING MANAGEMENT

Objective. Provide an adequate supply of parking. Minimize the impacts of Cal Poly Humboldt parking into adjacent neighborhoods. Ensure that new development provides an adequate but not excessive supply of parking.

T-6a **Downtown parking.** The following shall apply to parking within the Downtown area:

1. Assess and plan for future parking needs. Municipal parking lots shall be provided in the perimeter of downtown to create an adequate parking supply to serve existing businesses, future development, and to replace on-street parking removed for pedestrian, bicycle, and landscaping improvements. Assess the need for additional parking lots if additional demand or opportunities arise.
2. In-lieu fee for on-site parking. Payment of a fee in-lieu of providing required parking spaces should be required in the Central Commercial Di[illegible] Historic Structures. Fees collected shall be used exclusively to fund municipal off-street parking lots or alternative travel mode facilities.
3. On-site parking standards. The City should reduce the parking standards applicable

or eliminate

4. Consider implementation of a parking benefits district for the areas of the Plaza, ballpark, and gateway area.

within the downtown area. New development is encouraged to pay in-lieu fees rather than provide parking on-site within the immediate Plaza area. Any on-site parking in the downtown should be located to the rear or side of buildings. Park and ride, car shares, and other measures to encourage alternative transportation shall be considered.

T-6b **Parking in neighborhoods impacted by Cal Poly Humboldt .** The City shall employ the following measures to reduce the impacts of University related parking on the surrounding neighborhoods:

1. Management of on-street parking. Metered on-street parking shall continue to be provided along local streets in the neighborhoods south of Cal Poly Humboldt to prevent all-day parking by students.
2. Preferential parking zones. The restrictive residential permit parking program shall be maintained for neighborhoods severely impacted by Cal Poly Humboldt to provide residents and their visitors more on-street parking and to discourage students from driving to campus.
3. Other parking management approaches. Alternative parking management approaches shall be considered if the student population and parking demand increases. Alternative approaches include time limit parking without meters, increasing no-parking zones to decrease supply of spaces, and implementing a strictly enforced tow-away policy. The City encourages Cal Poly Humboldt to reduce parking impacts on the City.

eliminate

T-6c **Parking standards for new development.** The City's should continue to specify maximum parking requirements for new development and ~~consider~~ eliminating minimum parking requirements. Parking lots should be located, where feasible, to the rear or side of commercial and multi-family residential buildings.

T-6d **Shared or joint-use parking for commercial development.** Reductions in the individual use parking requirements should be considered where two or more uses provide joint parking. Developers of projects with appropriate land uses for effective shared parking are encouraged to provide joint parking facilities. Examples of compatible land uses include office buildings and any use that generates primarily an evening parking demand such as restaurants and theaters.

POLICY T-7 FREIGHT TRANSPORTATION

Objective. Provide a transportation system which adequately serves the freight shipment needs of the City's industrial and commercial uses. Recognize that freight transportation via truck , is an essential element of the area's economic base.

T-7a **Truck routes.** The circulation system shall be planned to provide truck mobility to serve all commercial and industrial land uses in Arcata. Specific truck routes are designated in

Figure T-f, although other highways, arterials, and collector streets may be designated in the future. The City shall actively enforce truck routes and speed limits.

POLICY T-8 FINANCING TRANSPORTATION IMPROVEMENTS

Objective. Ensure that adequate funding is available to implement transportation improvements required to adequately serve the amount of growth allowed by the land use plan. Ensure that private development provides on-site transportation improvements and contributes an appropriate share of funding for off-site improvements.

T-8a **Developer responsibilities and exactions.** Developers shall be required to construct transportation improvements along their property frontages. Where appropriate, a traffic impact study shall be required which identifies on-site and off-site impacts and mitigation measures.

The developer shall be required to provide all necessary access and circulation facilities within the property and such facilities shall be designed to meet City standards. The following improvements may be required, based on the induvial context and the needs of all people using streets and the right-of-way; and that support the land-use, climate, safety, and environmental quality targets and Complete Streets policies of the City:

1. If development is located on an existing street:
   a. dedication of right of way;
   b. ~~widening of street along property frontage to provide for a travel lane;~~
   c. bicycle lane and parking lane;
   d. reconstruction of curb, gutter and sidewalk;
   e. transit facilities and landscaping within the right of way.
2. If development is located in a new growth area not served by streets:
   a. dedication of right of way to construct a street to connect the project site to a public street, which accommodates all modes of transportation, particularly those walking, rolling, biking, and using transit;
   b. construction of the street and connecting intersection(s) to City standards;
   c. after the dedication is accepted, the City will maintain the street.
3. In all instances, the developer shall be responsible for mitigating any off-site traffic impacts of the proposed development in a manner consistent with the policies of this plan. Measures may include a reduction in the size or density of the development; installation of additional pedestrian, bicycle and transit amenities to encourage alternative travel modes; or implementation of Transportation Demand Management measures.

T-8b **Subdivision improvements.** All on-site transportation infrastructure shall be constructed using standards approved by the City. Developers are required to establish mechanisms, such as homeowners associations, to provide future maintenance of on-

site streets and intersections that are not dedicated. The City may elect to require streets connecting to a public street to be dedicated to the City.

VMT

based on VMT analysis

T-8c **~~Traffic~~ impact fees.** The City may adopt a citywide traffic impact fee to fund transportation improvements to mitigate the traffic impacts of new development. The traffic impact fee may substitute in whole or in part for the off-site mitigation requirements described in Policy T-8a, but would be in addition to the developer's responsibility for on-site and frontage improvements. The traffic impact fee may be used to fund roadway extensions, intersection improvements, safety improvements, transit facility improvements, and pedestrian and bicycle facilities or amenities.

T-8d **Transit finance.** A&MRTS should continue to fund capital and operating expenses through fare box revenue, Cal Poly Humboldt , and state and federal subsidies. The City will explore the possibility of new development contributing a one-time fee towards A&MRTS capital expenses through the citywide traffic mitigation fee ordinance.

2.9 IMPLEMENTATION MEASURES

#	IMPLEMENTATION MEASURE DESCRIPTION	RESPONSIBLE PARTY	TIME FRAME
T-1	**Reducing Vehicle Miles Traveled** Consider application of vehicle miles traveled (VMT) as a metric for evaluating impacts of new development at such time as a methodology is available that is suitable for use in Arcata. Work with Humboldt County Association of Governments (HCAOG) when evaluating potential regional applications both to evaluate and to reduce vehicle miles traveled.	Community Development/ Engineering	Ongoing
T - 2	**Pavement Management Program** A pavement management program will evaluate roadway conditions, and schedule and complete needed maintenance and repair in a timely manner.	Engineering	Ongoing
T -3	**Capital Improvements Program (CIP)** Include transportation improvements, including bicycle and pedestrian facilities, in the City's CIP.	Engineering	Annually
T -4	**Adoption of Traffic Impact Fee Program** Adopt a citywide traffic impact fee to mitigate tr and TSC an equitable share of costs associated with cumulative traffic impacts to all development projects on facilities for all modes of travel.	Engineering	Year 5
T -5	**Pedestrian and Bicycle Master Plan Priorities** Periodically review and update Pedestrian and Bicycle Master Plan priorities including collaborating with Humboldt County Association of Governments on Humboldt Regional Bicycle Plan updates. Seek funding to implement priority projects.	Engineering	Ongoing
T-6	**Bicycle Boulevards** Provide primary bicycle corridors between major activity centers. Clearly sign all bicycle boulevards and include traffic calming measures to discourage automobiles.	Engineering	Year 1
T-7	**Rail Right of Way Coordination with Great Redwood Trail Agency** Coordinate with the Great Redwood Trail Agency in planning for use of the former NCRA rail right of way for a multi-use trail.	Engineering	Ongoing
T-8	**Weekend Transit Service** Continue to monitor demand for weekend bus service to Eureka in coordination with HCOAG and transit providers and ensure that planning for weekend transit service from Arcata to Eureka is appropriately addressed in the Humboldt County Transit Development Plan.	Engineering	

Appendix T-A City of Arcata Operational Analysis and Intersection Level of Service

CITY OF ARCATA CIRCULATION ELEMENT – APPENDIX T-A

Operational Analysis and Intersection Levels of Service

Intersection Levels-of-service. Level of service (LOS) is a qualitative and quantitative description of intersection operations defined in terms of a letter grade and average stopped delay per vehicle during the peak hour. Levels of service range from LOS "A", representing free flow conditions to LOS "F" which signifies excessive delays, long vehicle queues, and generally unacceptable conditions. The level of service criteria, defined in the most recent version of the Highway Capacity Manual prepared by the Transportation Research Board, are used by local agencies nationwide to establish standards of acceptability for traffic operations. What is considered acceptable may vary from one jurisdiction to another.

Intersection LOS was calculated for all control types using the methods documented in the Transportation Research Board's publication *Highway Capacity Manual, Sixth Edition, A Guide for Multimodal Mobility Analysis*, 2016 (HCM 6). For signalized and all-way stop-controlled (AWSC) intersections, an LOS determination is based on the calculated average delay for all approaches and movements. For two-way or side-street stop-controlled (TWSC) intersections, an LOS determination is based upon the calculated average delay for the worst-performing movement.

Table T-1 provides levels of service (LOS) definitions for operations of intersections. The locations of key intersections analyzed for the purposes of the Transportation Element are shown in Figure T-b.

Improvements since 2020 General Plan. Below is a list of vehicular circulation improvements which have been implemented since the last update of the General Plan:

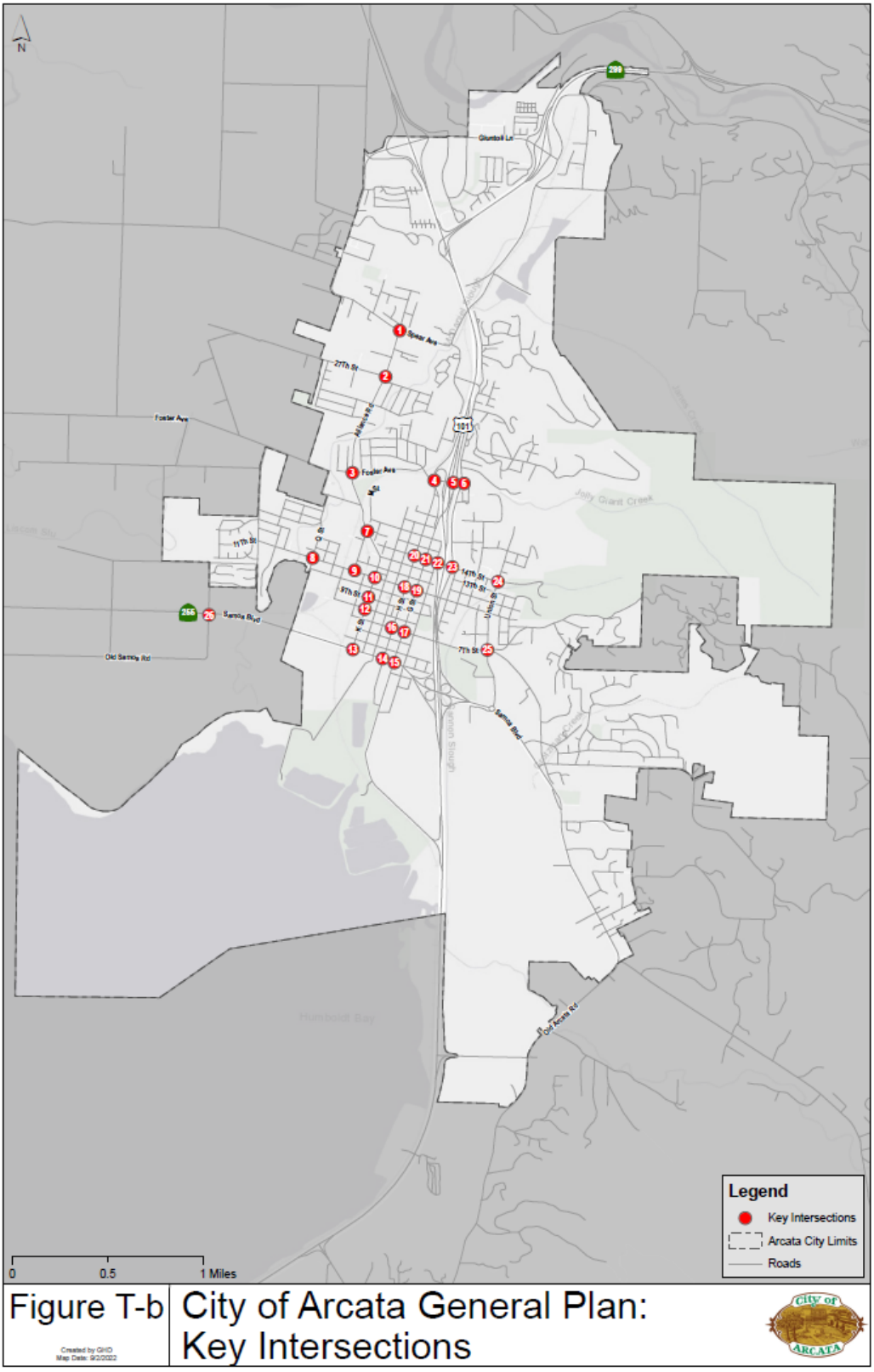
- Roundabouts at US 101/Giuntoli Lane, Foster Avenue / Sunset Avenue
- Foster Avenue Extension east from Alliance Road to Sunset Avenue
- Traffic Signal at K Street/Samoa Boulevard

TABLE T-1 LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay/Vehicle	
				Signalized	Unsignalized & Roundabouts
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	<10.0	<10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10.0 and <20.0	>10.0 and <15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20.0 and <35.0	>15.0 and <25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35.0 and <55.0	>25.0 and <35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55.0 and <80.0	>35.0 and <50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0

Source: *Highway Capacity Manual, 6th Edition, A Guide for Multimodal Mobility Analysis,* 2016 (HCM 6).

FIGURE T - b KEY INTERSECTIONS



Existing and Projected Traffic Volumes.

Existing volumes were established with traffic counts conducted in September 2021, when local schools were in session. Intersection traffic counts were collected during the AM and PM peak commute hours. The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume count over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one hour of peak traffic flow counted between 4:00 pm and 6:00 pm on a typical weekday. Existing geometry, including lane usage, traffic controls, and storage capacity at the study locations, is determined based on available imagery from Google and coordination on recent improvements with City staff. Existing average weekday traffic volumes are shown for key intersection locations in Figure T-c.

Projected traffic volumes were developed utilizing the Humboldt County Regional Travel Demand Model. The model land use inputs were modified to evaluate the travel conditions for growth to year 2045 or "buildout" scenario for Arcata based on the Land Use Plan, including a growth of 4,341 dwelling units and 1,712 employees over the approximately 20-year period. The traffic model run also included the proposed circulation network improvements identified in the Gateway Area Plan, including conversion of "K" and "L" Streets to one-way couplets between Alliance and Samoa Boulevard, extending the one-way couplets of 8th and 9th Streets west to N Street, and the planned connection of Foster Avenue between Alliance and Q Street. The traffic volumes presented in Figure T-d represent the buildout scenario associated with the land use plan, approximately 20 years out. Existing service levels for the morning and afternoon commute peak hours are shown in Table T-2 for the key intersections.

Traffic Volumes. Arterial streets with the highest daily traffic volumes are Samoa Boulevard (SR 255), Alliance Road, Spear Avenue, "K" Street, and 11th Street. Collector and local streets carry considerably less traffic than arterial streets. The highest traffic volume on a surface street is on Samoa Boulevard west of US 101, with an average daily volume of over 15,000 vehicles. The largest percent increases in daily traffic volumes is on Samoa Boulevard west of "K" Street are on Alliance Road, "K" Street, "L" Street, and 11th Street. Existing traffic volumes on US 101 range from nearly 34,000 vehicles per day north of Arcata, 42,000 vehicles per day south of 14th Street, and 33,500 vehicles per day south of the City. Projected future traffic volumes on US 101 range from nearly 41,000 vehicles per day north and south of Arcata to 54,000 vehicles per day near 14th Street. Traffic volumes on Highway 299 east of Arcata are currently estimated at nearly 12,000 vehicles per day and are projected to increase to over 16,000. Traffic volumes on these freeways reflect continuing growth within Arcata including Cal Poly Humboldt, and in areas outside Arcata that will result in increased through traffic, particularly McKinleyville to the north along State Route 101.

Figure T-c presents the Existing peak hour traffic volumes at key intersections within the City.

FIGURE T - c EXISTING PEAK HOUR TRAFFIC VOLUMES

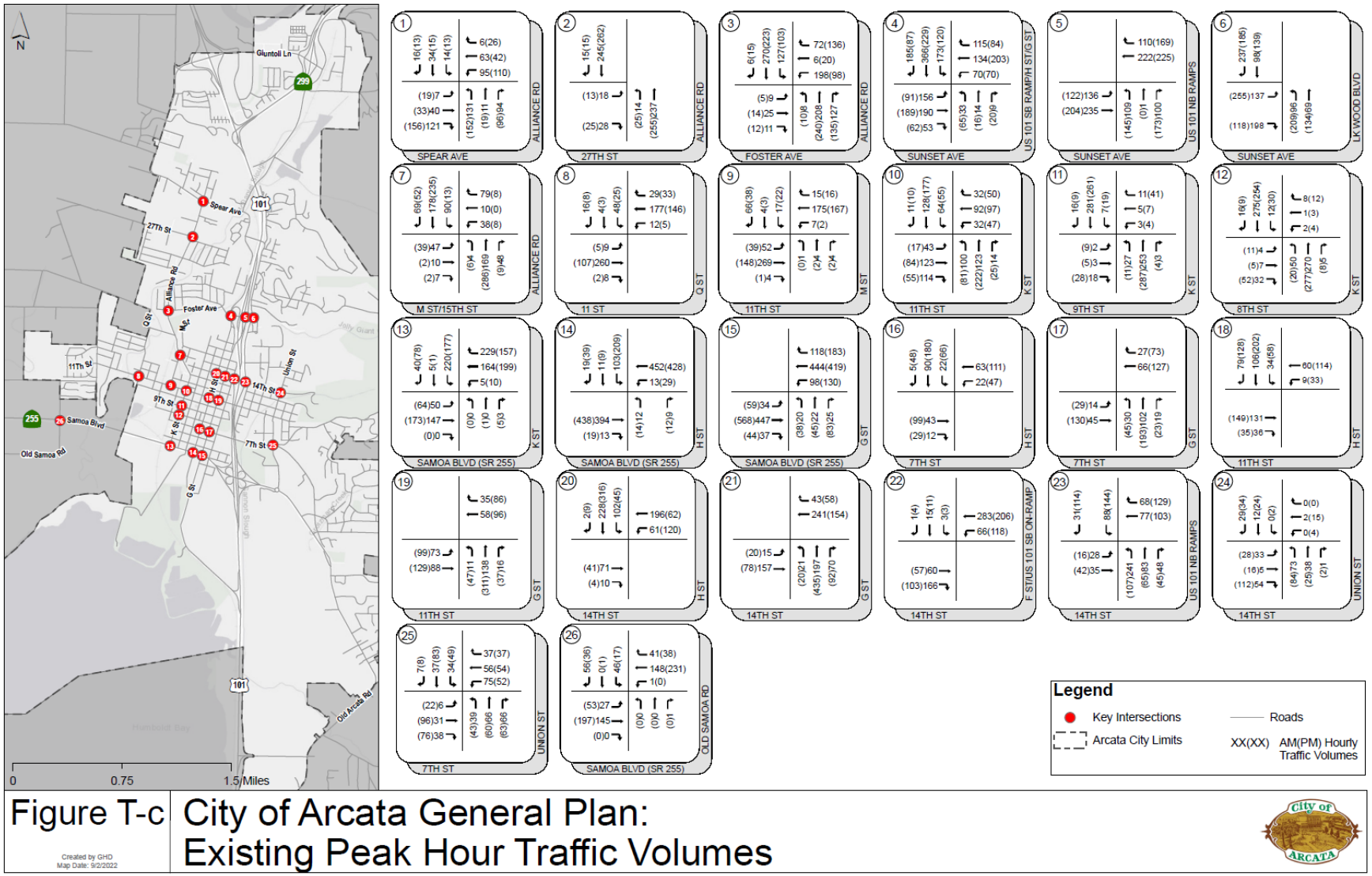


Figure T-c City of Arcata General Plan: Existing Peak Hour Traffic Volumes

Created by GHD
Map Date: 9/2/2022

TABLE T-2 EXISTING AM & PM PEAK HOUR INTERSECTION SERVICE LEVELS

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Alliance Rd & Spear Ave	AWSC	C	10.2	B	10.0	A
2	Alliance Rd & 27th St	TWSC	C	11.7	B	11.6	B
3	Alliance Rd & Foster Ave	AWSC	**C**	23.7	C	12.3	B
4	US 101 SB Ramps & Sunset Ave	AWSC	**C**	10.8	B	8.6	A
5	US 101 NB Ramps & Sunset Ave	AWSC	**C**	13.8	B	15.7	C
6	L.K. Wood Blvd & Sunset Ave	AWSC	**C**	11.2	B	17.4	C
7	**Alliance Rd & M St/15th St**	**TWSC**	**C**	**39.0**	**E**	15.1	C
8	Q St & 11th St	TWSC	C	18.1	C	10.8	B
9	11th St & M St	TWSC	C	13.0	B	11.4	B
10	K St & 11th St	AWSC	C	18.5	C	13.0	B
11	K St & 9th St	TWSC	C	13.6	B	12.5	B
12	K St & 8th St	TWSC	C	13.3	B	12.9	B
13	K St & SR 255/Samoa Blvd	Signal	C	24.2	C	23.4	C
14	H St & SR 255/Samoa Blvd	Signal	C	13.6	B	19.6	B
15	G St & SR 255/Samoa Blvd	Signal	**C**	13.1	B	16.8	B
16	H St & 7th St	AWSC	C	8.0	A	9.3	A
17	G St & 7th St	AWSC	C	8.3	A	9.7	A
18	H St & 11th St	AWSC	C	9.1	A	10.8	B
19	G St & 11th St	AWSC	C	8.7	A	10.8	B
20	H St & 14th St	AWSC	**C**	13.4	B	10.2	B
21	G St & 14th St	AWSC	**C**	13.0	B	11.4	B
22	US 101 SB On Ramps/F St & 14th St	TWSC	**C**	15.3	C	12.2	B
23	US 101 NB Off Ramps/L K Woods Blvd & 14th St	AWSC	C	12.6	B	11.3	B
24	Union St & 14th St	AWSC	C	7.9	A	7.9	A
25	Union St & 7th St/Bayside Rd	AWSC	C	9.9	A	9.7	A
26	Old Somoa Rd/V St & SR 55/Somoa Blvd	TWSC	C	11.3	B	10.8	B

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC and Signal
3. **Bold** = Unacceptable Conditions

The intersections analyzed presently operate at LOS C or better with the exception of the intersection of Alliance Road & M Street/15th Street, which operates at LOS E in the AM peak hour for the eastbound approach. This approach is stop controlled at M/15th Streets and must wait for gaps in both directions of traffic on the two-lane plus center turn lane segment of Alliance Road. The intersections of L.K. Wood Boulevard and Sunset Avenue, and US 101 NB Ramps and Sunset Avenue operate at LOS C in the PM peak hour. These two intersections are within close proximity of one another, and Cal Poly Humboldt is a primary destination directly served by this interchange. The City of Arcata has interchange improvements planned at Sunset Avenue that are subsequently discussed.

Figure T-d presents the Forecasted peak hour traffic volumes at key intersections within the City. The forecasted traffic operations are presented in Table T-3.

FIGURE T - d FORECASTED PEAK HOUR TRAFFIC VOLUMES

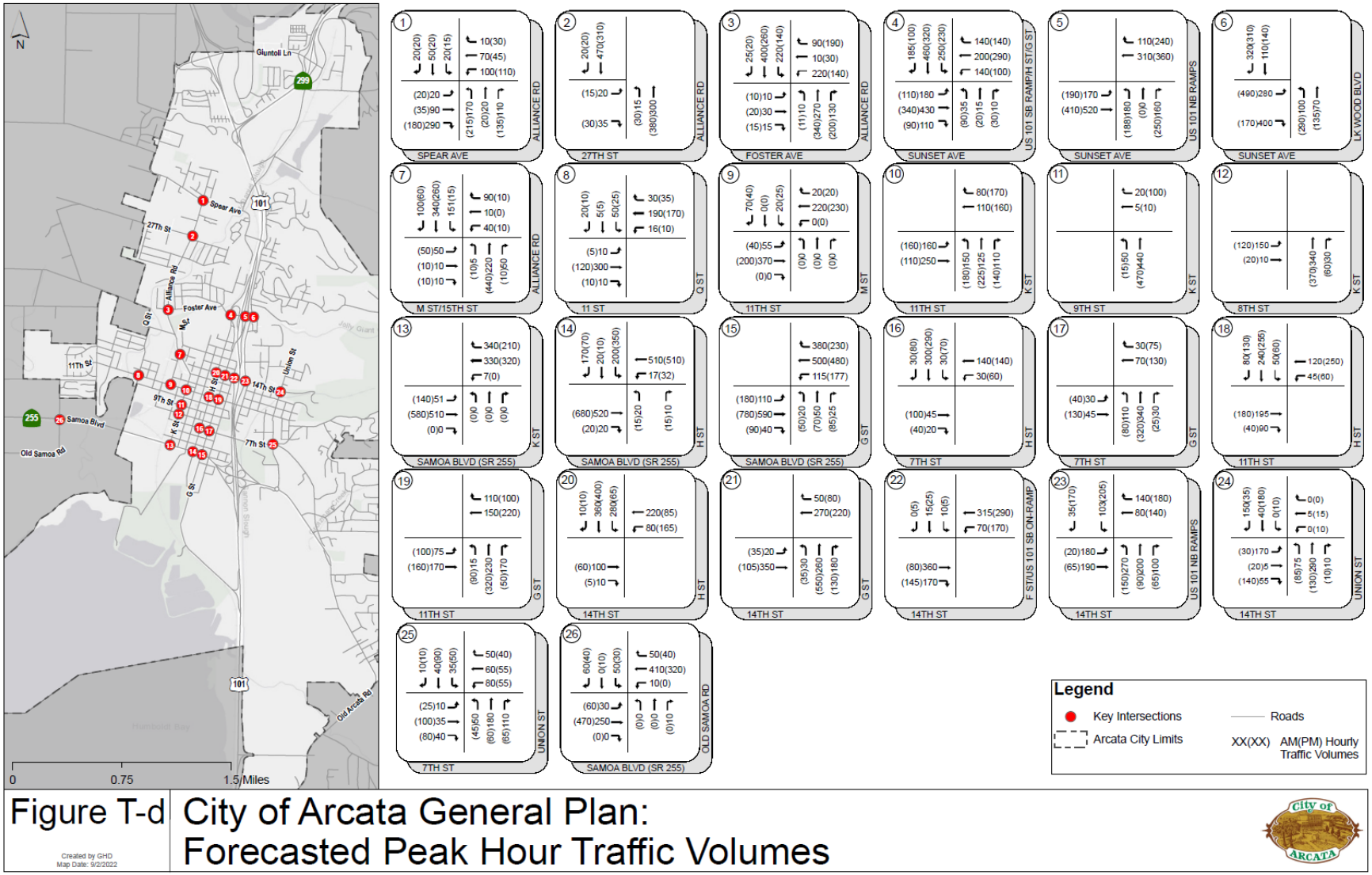


Figure T-d

Created by GHD
Map Date: 9/2/2022

City of Arcata General Plan:
Forecasted Peak Hour Traffic Volumes

Table T-3 presents the projected AM and PM peak hour intersection levels of service for the buildout scenario. Projected service levels are based on the estimated buildout of the land use plan by the year 2045.

TABLE T-3 FORECASTED BUILDOUT AM & PM PEAK HOUR INTERSECTION SERVICE LEVELS

#	Intersection	Control Type[1,2]	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Alliance Rd & Spear Ave	AWSC	C	12.7	B	12.1	B
2	Alliance Rd & 27th St	TWSC	C	15.0	B	13.0	B
3	**Alliance Rd & Foster Ave**	**AWSC**	**C**	**57.3**	**F**	18.2	C
4	**US 101 SB Ramps & Sunset Ave**	**AWSC**	**C**	**25.9**	**D**	16.3	C
5	**US 101 NB Ramps & Sunset Ave**	**AWSC**	**C**	**55.0**	**F**	**80.0**	**F**
6	**L.K. Wood Blvd & Sunset Ave**	**AWSC**	**C**	15.3	C	**67.7**	**F**
7	**Alliance Rd & M St/15th St**	**TWSC**	**C**	**100.9**	**F**	19.9	C
8	Q St & 11th St	TWSC	C	17.5	C	11.0	B
9	11th St & M St	TWSC	C	15.0	B	12.3	B
10	K St & 11th St (one-way couplet)	AWSC	C	20.7	C	16.8	C
11	K St & 9th St (one-way couplet)	TWSC	C	12.2	B	13.5	B
12	K St & 8th St (one-way couplet)	TWSC	C	13.2	B	15.0	B
13	K St & SR 255/Samoa Blvd	Signal	C	3.9	A	6.3	A
14	H St & SR 255/Samoa Blvd	Signal	C	22.3	C	32.0	C
15	**G St & SR 255/Samoa Blvd**	**Signal**	**C**	17.3	B	**36.9**	**D**
16	H St & 7th St	AWSC	C	9.7	A	10.7	B
17	G St & 7th St	AWSC	C	11.5	B	11.2	B
18	H St & 11th St	AWSC	C	12.5	B	14.6	B
19	G St & 11th St	AWSC	C	12.4	B	13.7	B
20	**H St & 14th St**	**AWSC**	**C**	**40.2**	**E**	11.8	B
21	**G St & 14th St**	**AWSC**	**C**	**25.8**	**D**	16.1	C
22	US 101 SB On Ramps/F St & 14th St	TWSC	C	22.6	C	16.9	C
23	US 101 NB Off Ramps/L K Woods Blvd & 14th St	AWSC	C	19.5	C	16.4	C
24	Union St & 14th St	AWSC	C	15.1	C	9.7	A
25	Union St & 7th St/Bayside Rd	AWSC	C	13.6	B	9.8	A
26	Old Somoa Rd/V St & SR 55/Somoa Blvd	TWSC	C	18.8	C	15.5	C

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC and Signal
3. **Bold** = Unacceptable Conditions

Although several unsignalized locations are projected to operate at LOS C or better, locations which experience higher volumes such as US 101/Sunset Avenue interchange, Alliance Road at Foster Avenue, Alliance Road at "M" Street/15th Street, and locations on 14th Street at "G" and "H" Street couplets are projected to operate at LOS D, E or F. Improvements anticipated by this plan (see Figure T-k) are expected to improve the LOS to acceptable levels for all intersections while balancing the priorities of active transportation goals.

Add...Arcata is committed to increasing ridership in line with HCAOG's goals

Existing and Projected Transit Ridership. The Arcata & Mad River Transit System (A&MRTS) is a service provider of the Humboldt Transit Authority (HTA) that offers public bus service for the City and is operated by the Public Works Department. Fixed service routes include the Red, Gold and Orange Route(s) running along major streets in the city to destinations including City Hall, Uniontown Shopping Center, and Mad River Hospital and to major inter-route transfer points including the Arcata Transit Center and Cal Poly Humboldt (as of May 16th, 2022, A&MRTS runs Orange Route only from Monday through Saturday 7am – 7pm). The Willow Creek route offers travel between the communities of Arcata and Willow Creek, which is located east of Arcata. HTA also provides regional public transportation for Humboldt County including service through Arcata via the Redwood Transit System (RTS), a fixed route system serving cities along the Highway 101 corridor from Trinidad to Scotia. The RTS has four stops in Arcata including Cal Poly Humboldt and the Arcata Transit Center. The Arcata Transit Center, located on "F" Street between 9th and 10th Streets, provides a centralized transit facility for buses operated by A&MRTS, RTS, Greyhound, and Amtrak. The Transit Center provides a park-and-ride lot and secure bicycle facilities.

Cal Poly Humboldt student ridership is significant during the school season when extra shuttles are provided to accommodate overflows in the morning peak hour. Cal Poly Humboldt provides unlimited free ride access on several HTA routes, including A&MRTS, through the Jack Pass program. The Jack Pass program aims to encourage mass transit and reduced travel via single-occupant vehicles. Staff, faculty, and Extended Education participants are also granted unlimited rides on these HTA routes for $60 a semester.

Figure T-e compares A&MRTS ridership over the past several years. Data for fiscal years 2017 and 2018 were not available. Figure T-f presents the Existing transit routes and stops.

Figure T-e A&MRTS RIDERSHIP SUMMARY

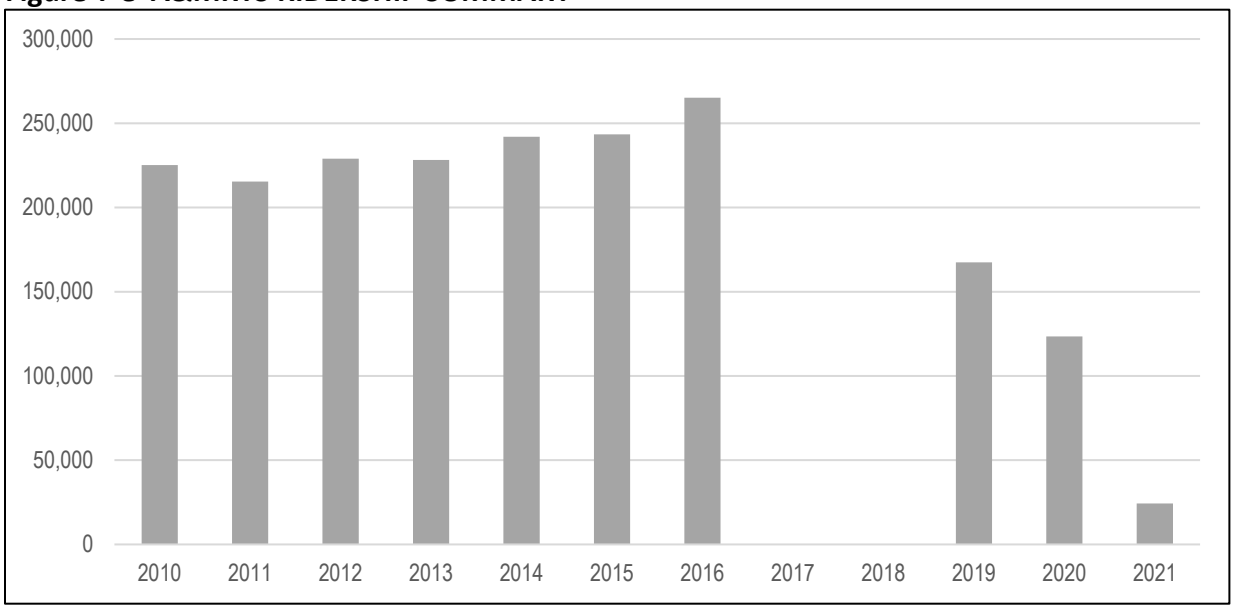


FIGURE T - f Existing Transit Routes

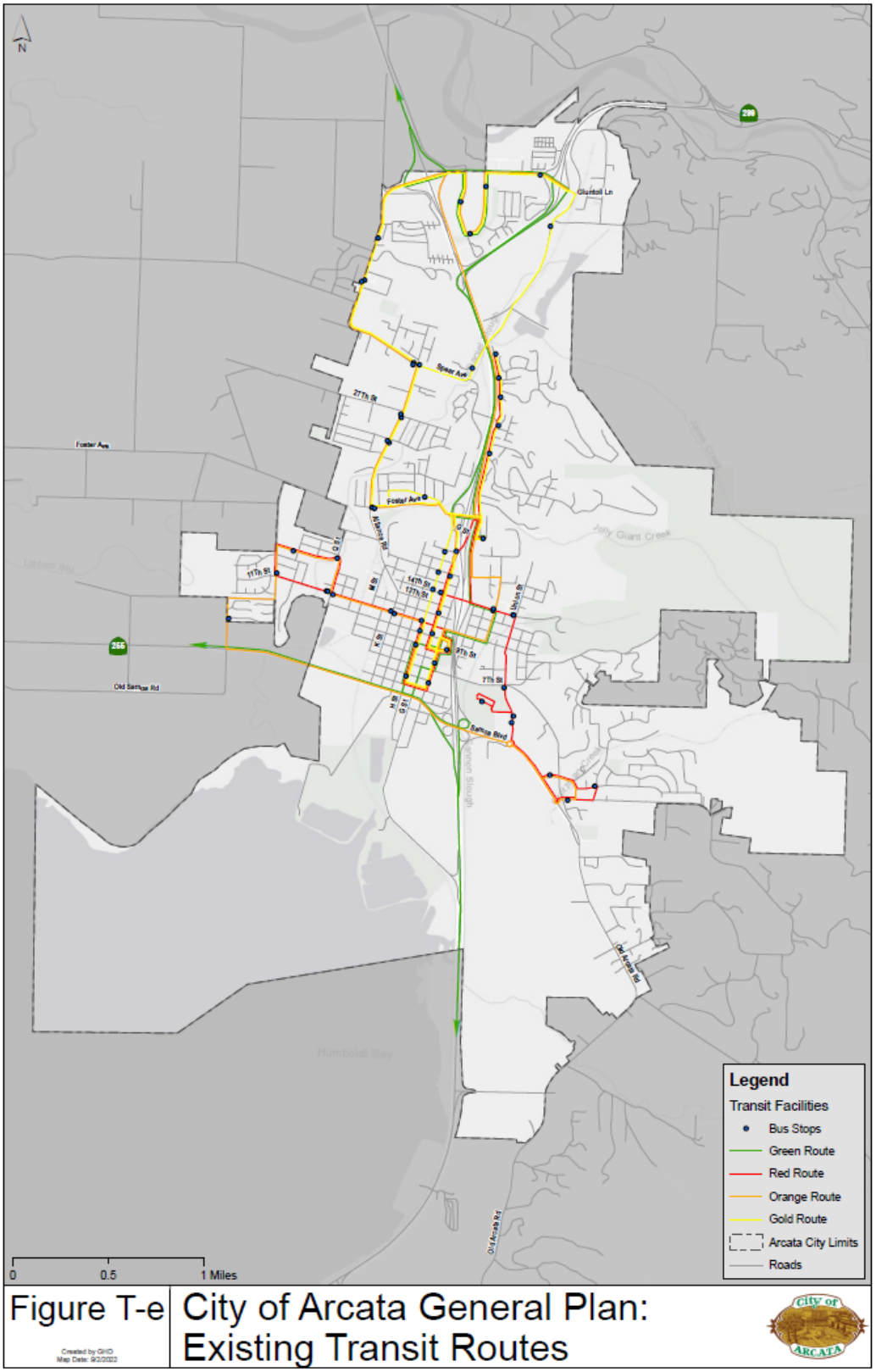


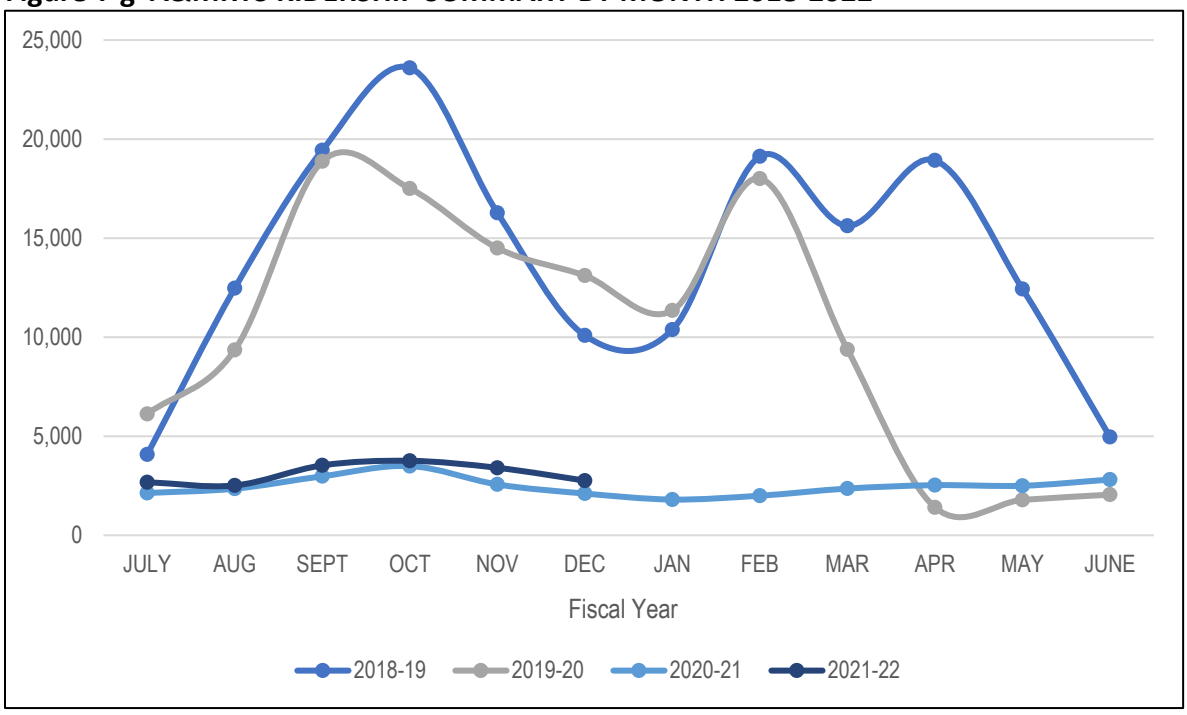
Table T-4 compares the A&MRTS bus ridership prior and during-Covid. During the school season pre-Covid, A&MRTS monthly ridership was nearly three times greater than ridership in the summer months where the student population accounted for nearly 80% of the ridership. Prior surveys indicated that 75% of A&MRTS riders traveled to and from school, 12% for work, and the remaining 14% for various purposes including shopping, recreational, and personal trips. Since the beginning of the pandemic in April 2020 till December 2021, ridership was still significantly low at under 50% of pre-Covid levels during the summer and 17% during the school season. There has been an increase in total ridership comparing fall 2020 to fall 2021 (looking at only August-December) by 18%, and ridership is expected to continue to increase post-Covid.

TABLE T-4 A&MRTS RIDERSHIP SUMMARY

Pre-Covid (FY 2018-19)				
Passenger Type	**Average Summer Monthly Ridership**	**Average Summer Daily Ridership**	**Average School Season Monthly Ridership**	**Average School Daily Ridership**
All Passengers	5,057	253	15,026	835
Students	893	45	12,172	676
Covid (FY 2020-22)				
Passenger Type	**Average Summer Monthly Ridership**	**Average Summer Daily Ridership**	**Average School Season Monthly Ridership**	**Average School Season Daily Ridership**
All Passengers	2,420	81	2,581	86
Students	143	5	652	22

In Fiscal Year (FY) 2018-19, fares represented 26% of the A&MRTS operating costs. The balance of the costs are funded through Transportation Development Act (TDA). TDA funds are provided through programs including Local Transportation Fund (LTF) and State Transit Assistance (STA). LTF is a major portion of TDA funds, which is derived from a one-fourth cent statewide sales tax and returned to the county of origin and allocated to service providers. STA funds are generated from the sales tax on gas to help further supplement State transportation funding needs where any remaining funds (or “spillover”) are made available to counties for local transportation purposes. The Federal Transit Administration (FTA) Section 5311 Rural Area Formula Grants also provides operating funds based on formula allocation using land area, population and transit service. In addition to fixed routes, A&MRTS provides “demand responsive” dial-a-ride service. This service accommodates about fifteen to twenty passengers per day. The majority of these passengers are elderly or disabled with destinations to the Mad River Adult Day Health Center.

Figure T-g A&MRTS RIDERSHIP SUMMARY BY MONTH 2018-2022



The Humboldt County 2017-2022 Transit Development Plan (TDP) was prepared for the Humboldt County Association of Governments (HCAOG) to help provide guidance to local agencies on service programs, capital improvements and financial strategies to improve the public transit services in Humboldt County over a five-year period. Recommended alternatives in the TDP include:

- *Adjust Schedule to Better Match University Class Schedules / Increase Trip Choices* – The TDP identified adjustments to transit schedules that allowed more time for students to get to class from campus stops would encourage more transit use.
- *Make the Community Center and "On Demand" Stop* – Low ridership at the Community Center stop was identified and recommended for "on demand" service. Procedures include passengers telling operators at boarding to be dropped off and to call a service helpline in advance for pick-up.
- *Extend Transit Service to South G Street* – Higher density housing and commercial activities are identified south of Samoa Boulevard on H and G Streets and potentially capture additional ridership for the Red Route.
- *A&MRTS Services Recommended Contingent on Funding: Provide a High Frequency Shuttle between Cal Poly Humboldt and Downtown in Peak Periods.* The TDP also recommended considering new shuttle service during peak periods so that students and university staff would be better served as highest transit demand was noted between Downtown Arcata and Cal Poly Humboldt.