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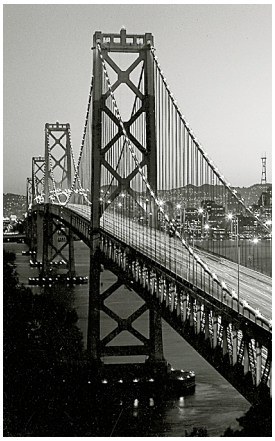

LIFELINE TRANSPORTATION NETWORK REPORT: 2001 REGIONAL TRANSPORTATION PLAN FOR THE SAN FRANCISCO BAY AREA

DECEMBER 2001

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Lifeline Transportation Network Report
For the 2001 Regional Transportation Plan for the
San Francisco Bay Area

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Executive Summary

In the spring of 2001, MTC embarked upon an ambitious effort to identify a safety net of lifeline transportation services intended to meet the travel needs of low-income individuals and families. The genesis of the project lies with earlier planning studies sponsored by MTC to provide local communities with transportation planning specific to assisting welfare recipients who are returning to the workforce. The fundamental questions intended to be addressed through this initiative are: Where are low-income communities located? Where do people living in low-income communities need to go? How well does the existing public transportation network serve the needs of those communities? How can we do a better job addressing the deficiencies?

A key recommendation that emerged from the Regional Welfare-to-Work Transportation Plan adopted by the Commission on July 25, 2001 (and described in more detail in Chapter 2 of this report) was for MTC to establish a Lifeline Transit Network for inclusion in the 2001 update of the Regional Transportation Plan (RTP). Until now, no comprehensive analysis had been completed to identify which public transit services, on a route-by-route basis, are most vital to disadvantaged neighborhoods. The Lifeline Transportation Network analysis conducted for this report identifies a series of routes that are considered critical to meeting the needs of low-income communities because they:

- Provide direct service to a neighborhood with high concentration of CalWORKs households;
- Provide service directly to areas with high concentrations of essential destinations;
- Provide core trunkline service as identified by the transit operator; or
- Provide a key regional link.

The purpose of this report is to document the findings of this analysis, and to recommend next steps. This report is intended to provide a "regional snapshot" of a regional Lifeline Transportation Network. At the same time, it is important to recognize that each transit agency provides services in an operating environment and with service characteristics unique to its own area. While this work represents an important first step, a key recommendation in this report is to further refine the Lifeline Transportation Network based on local transit and community planning.

This report provides background information on previous related MTC planning efforts (Chapter 1), summarizes public outreach efforts and comments received in response to the draft analysis (Chapter 2), details the methodology employed to develop the Lifeline Transportation Network (Chapter 3), presents the preliminary Lifeline Transportation Network analysis and reports on key regional findings (Chapter 4), and concludes with recommended next steps for the Commission to consider to invest in service improvements identified in this analysis (Chapter 5).

Methodology

The technical analysis and corresponding maps described in the report draw attention first and foremost to the ability of the region's public transit network to meet the needs of low-income communities. A critical component of this analysis was identifying and analyzing "gaps" in the

system. A gap is defined as *spatial*, where public transit service is needed but none currently exists, or *temporal*, times of day or when service is not frequent enough, or is needed but not currently available. While this is a valid first step in identifying a transportation network, outreach efforts conducted throughout this project suggest a multi-modal approach in defining future activities rather than to focus our efforts solely on expansion of public transit. No single entity can assume responsibility for meeting all of these needs, and no simple solution exists to address them. In many cases, providing additional fixed route bus service is not cost-effective, practical, or even the preferred approach. Other strategies such as guaranteed ride home programs, auto loan programs, community shuttles, dial-a-ride systems, or expanded use of taxi vouchers may serve to fill the gaps in a more cost-effective manner, and need to be included in the menu of options considered.

Stakeholder Review and Comment

This Lifeline Transportation Network analysis has generated intense interest--and debate--among the many stakeholders interested and invested in its outcome. In particular, as explained in more detail in this report, analysis surrounding the identification of temporal gaps in the system has proved controversial. This report is primarily intended as documentation of needs, which in turn, can serve as a tool to further define appropriate transportation options and advocate for additional funds. Therefore, some want the "bar set high." These comments have been tempered by others voicing caution and expressing concern that unrealistic expectations may be set by comparing existing services to a standard that is too high.

MTC staff met with representatives from transit agencies in each of the nine Bay Area Counties to solicit their comments on earlier versions of this exercise. Appendix A to this report provides the details of comments generated from those meetings, summarized as follows:

- Concerns were expressed by some about the objectives established for meeting time of day and frequency standards on the premise that they may not be realistic to meet, or could result in compromising other transit services and programs. Others want the "bar to be set high," with objectives that reflect a public transit environment of the highest quality.
- The majority of operators concurred with and confirmed MTC's analysis and identification of routes serving lifeline objectives, while a minority expressed the opinion that too many routes were included.
- Several operators commented that frequency objectives for rural counties should differ from those in urban counties.
- In an environment of limited funding, increasing public transit services to address gaps in the Lifeline Transportation Network could compete with other transit agency goals (e.g. congestion relief, productivity).

MTC convened stakeholder meetings to hear directly from residents of low-income communities, staff from social service agencies, and representatives of advocacy groups. Comments generated from those meetings are included in Chapter 2 and can be summarized as follows:

- Many participants commented on the affordability of transit service, making it clear that addressing the high cost of using transit cannot be separated from discussions regarding "lifeline" service and ensuring equitable access to the transportation system.
- Meeting attendees, particularly in the urban counties, pointed out that low-income persons need expanded early morning, evening, and late-night transit services because large numbers of low-income people work second and third shift jobs.
- The discussions about the Lifeline Transportation Network service objectives revealed some disagreement about key questions such as which type of objective is most important: frequency, availability, or reliability of the service. In general, the disparity in the responses reflected the participants' geography: those from more urban areas had a greater concern about frequency, while those in rural areas were more concerned about availability.
- Expanded bus service cannot meet all the transportation needs of low-income persons. Meeting this population's transportation needs requires creative approaches that can address specialized needs, such as transporting children of low-income parents. Low-income people also need assistance purchasing and maintaining reliable cars, which offer greater mobility than public transportation.
- Arranging transportation for children is a significant challenge for persons who rely on public transportation. Often, multiple trips per day are required to take children to and from school or after-school programs, and these may not be conducive to using fixed route transit.
- Reliability of bus service (on-time service to allow for transfers, provision of amenities such as bus stops and shelters, courteous drivers, etc.) is an important factor in encouraging people to take public transit.

Key Findings about the Existing Transit System

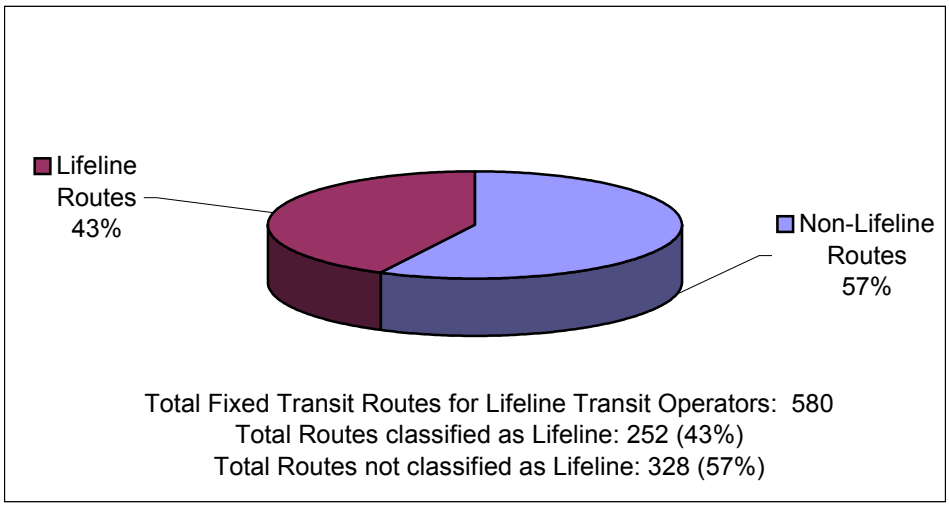
Despite the various—and sometimes conflicting—comments received in response to the work in progress, some points of common ground have emerged:

- Nearly half (43%) of all transit routes operated by 19 transit operators within the region are identified as Lifeline routes.
- Of these routes, 83% were selected because they directly serve neighborhoods with high concentrations of CalWORKs participants.
- More than one-third (36%) of all the region's transit routes directly serve low-income neighborhoods.
- 80% of the Lifeline Transportation Network routes meet more than one criterion.
- Throughout the region, few spatial gaps exist in the Lifeline Transportation Network suggesting that transit agencies are already providing adequate spatial coverage for low-income communities. In some cases where spatial gaps do exist, transit agencies are aware of these gaps and have attempted to address them. In other cases, operational

constraints, such as narrow roads or poor street access, limit the provision of fixed route service.

- Region wide, 51% of the Lifeline Transportation Network routes meet frequency of service objectives established for this project; the service objectives most likely to be met are for midday weekday service (72%), and those least likely to be met are for weekday evening service (41%).
- Some transit routes, especially those operated in urban areas, are very close to meeting the stated objectives, or already partially meet them.
- In Napa, Solano, and Sonoma Counties, and parts of Contra Costa County, very limited public transit service or no service is available on weekends.
- Throughout the region, only 25% of the transit routes meet or exceed the service objectives for Saturday service and 29% for Sunday.
- A total of 22 (9%) of the routes currently offer late night service, either "owl" service, past midnight, or on a 24-hour basis. All are within the urban core, with AC Transit providing 9, Muni 10, and VTA 3 (including 2 light-rail lines).
- All Bay Area counties except Napa have multiple transit agencies providing Lifeline service. For example, eight agencies originating in four counties provide services into Contra Costa County, emphasizing the importance of connectivity and the need to facilitate inter-jurisdictional travel.

Lifeline Transportation Network Routes
As a Percentage of All Regional Fixed Transit Routes



Number of Lifeline Transportation Network Routes by Transit Operator			
Operator	**# Lifeline Routes**	**% Routes as Lifeline**	**# Lifeline Routes serving CalWORKs neighborhoods**
AC Transit	67*	44%	64
Benicia	1	50%	0
CCCTA	19	51%	12
Fairfield-Suisun City	9	90%	9
Golden Gate Transit	12	23%	6
LAVTA	3	23%	2
MUNI	48	60%	43
Napa VINE	5	63%	4
SamTrans	12	27%	8
Santa Rosa CityBus	6	29%	4
Sonoma County Transit	6	27%	4
Tri-Delta Transit	9	69%	9
Union City	3	50%	3
Vacaville	5	50%	5
Vallejo Transit	7	70%	7
VTA	26	32%	15
WestCAT	8	62%	5
BART	5	100%	5
Caltrain	1	100%	1
TOTAL	**252**	**43%**	**206**

**Includes 2 Dumbarton Express routes provided through a consortium of AC Transit, BART, SamTrans, Union City Transit, and VTA.*

Proposed Recommendations/Next Steps

This work represents a starting point, rather than a conclusion. As such, the information in this report is intended to serve as a Blueprint Document in the RTP upon which to build an advocacy strategy to implement improvements. Few surprises about the transit network were revealed as a result of this analysis; indeed, knowing that gaps exist in the public transportation system is of limited or no use to individuals who experience them every day. The need to establish a more extensive and more reliable network of bus service—one that provides service frequently, late at night, and on weekends—has been documented many times. Information has been collected anecdotally, through surveys, by contacting caseworkers providing direct services to low-income families, in public hearings and through many planning studies. Finding solutions to filling these gaps is the focus of what needs to be addressed next. The purpose of this work, then, is to establish a foundation upon which to build future implementation efforts. Chapter 5 details recommended actions the Commission should consider, which are summarized as follows:

- While this Lifeline Transportation Network analysis provides a regional picture about gaps in the existing transit network for low-income communities, solutions for filling these gaps will need to be developed at the local level if they are to be effective. Staff recommends two immediate next steps to get this process underway: begin a transit agency analysis of specific lifeline gaps and support community planning to set priorities and evaluate options for filling the gaps. As such, MTC should commit resources to support community-based planning focusing on the most impoverished neighborhoods.
- In many cases, the most cost-effective solutions to filling gaps in the network may require provision of non-fixed route service, especially to provide transportation alternatives late in the evening. Local planning must consider a variety of creative solutions, such as guaranteed ride home programs, use of taxi vouchers, community-based shuttles, or affordable strategies for car ownership and car sharing.
- Transit agencies are already serving many low-income community needs within their service areas, while seeking to balance other service objectives such as productivity and congestion relief. Nearly half the region's transit routes have been identified as serving lifeline objectives. The Commission should continue to advocate for and seek new and additional fund sources to support filling Lifeline Transportation Network gaps, including new State Transit Assistance funding pursuant to Proposition 42.
- As a bridge to Proposition 42 funding prior to FY 2008-09, the Commission should continue its commitment to build upon the success of the LIFT program by taking the following actions:
    1. Dedicate $1 million per year in STA regional discretionary funds for the program.
    2. Secure federal funds via the Job Access and Reverse Commute (JARC) program. In FY 01-02, MTC was successful in obtaining a $3 million JARC earmark to support the LIFT program.
    3. Advocate for continued and increased funding of the JARC program and other strategies that are developed in the reauthorization of the federal transportation program (TEA-21).

4. Retain the current requirement to match regional LIFT funds on a 50/50 basis with local revenues to increase the total funding for lifeline services.

- MTC should continue to advocate for coordination and flexibility in social service funding programs so that these programs can be partners in filling gaps identified in this analysis, including taking a position on reauthorization of federal Health and Human Services programs (e.g. Temporary Assistance for Needy Families (TANF).
- The transit agencies view the lifeline gap analysis using GIS maps as an effective tool for planning new and enhanced services. It will be important to keep the analysis up to date to reflect changes resulting from the community planning, as transit services change, and as improved data become available.

CHAPTER 1:
Background Information/Related Planning Efforts

Welfare-to-Work

In 1996, President Bill Clinton signed into law the Personal Responsibility and Work Opportunity Reconciliation Act, also known as welfare reform legislation. One year after the passage of the Act, California passed Assembly Bill 1542, which established the California Work Opportunity and Responsibility to Kids (CalWORKs) program. The CalWORKs program requires that each county establish a countywide program for moving people from welfare to work, in accordance with federal and state legislation. Transportation is considered a key support service in ensuring that welfare recipients are able to transition into work or training opportunities.

MTC and its partners in the transportation and social service arenas have responded to the challenge of improving transportation services for CalWORKs participants in a number of ways:

- **Countywide Welfare-to-Work Transportation Plans** In the past three years, MTC has sponsored and actively participated in countywide welfare-to-work transportation planning efforts. Such plans have been completed in seven of the nine counties, and are in process or about to begin in the remaining two (Solano and Marin) counties. Completion of these plans resulted in the identification of significant transit gaps at the county level, prioritization of gaps most crucial to fill, and the development of a wide range of potential solutions and strategies for filling the gaps.
- **Regional Welfare-to-Work Transportation Plan** In July 2001, the Commission adopted the Regional Welfare-to-Work Transportation Plan, which evaluated progress to date toward improvements suggested in the countywide plans, and proposed other strategies for the Commission's consideration. Key among these was a recommendation to develop a regional Lifeline Transit Network for inclusion in the 2001 update of the RTP.
- **Welfare-to-Work Summits** MTC has hosted two regional summits on the subject of welfare-to-work transportation. These events included the participation of local officials as well as a Congressional representative who spoke of the importance of reliable transportation for low-income families. These events provided an opportunity for information sharing and promoting the partnerships established between transportation providers of service, and social service agencies responsible for administering welfare reform programs.
- **Low Income Flexible Transportation (LIFT) Program** With an initial infusion of $5 million Congestion Mitigation and Air Quality (CMAQ) funds, MTC established the LIFT program to provide grant funding to agencies interested in implementing new programs to address transportation gaps identified in local planning efforts. These funds were matched with social service or other transportation funds to create a $10 million program of projects. As a result, MTC funded a total of 12 new projects in nine counties.

- **Regional Welfare-to-Work Transportation Working Group** The Regional Welfare-to-Work Transportation Working Group includes staff from public transit operators, social service agencies, community based organizations, state and federal transportation agencies, and other key stakeholders interested and involved in promoting transportation solutions for low-income communities. This group meets on a regular basis and has been instrumental in providing oversight for the regional planning efforts.

Environmental Justice Planning

During the spring and summer of 2001, MTC embarked upon an extensive analysis to consider environmental justice issues in the context of developing the RTP, for the purposes of (1) ensuring inclusion of minority and low-income communities in the transportation process; and (2) to ensure the communities of concern enjoy equally in the benefits of the transportation network without bearing a disproportionate share of the burdens of the transportation network. *The Environmental Justice Report for the 2001 Regional Transportation Plan* for the San Francisco Bay Area is included as a component of the RTP.

The Environmental Justice Advisory Group (EJAG) provided oversight and guidance to MTC staff during the planning process. EJAG expressed interest in defining a Lifeline Transportation Network that would result in improvements for disadvantaged communities. Community transportation plans were identified during the development of the Environmental Justice Report as an important planning activity for MTC to lead. This process is seen as an opportunity to address transportation gaps that have been identified at a community-based level. Using the Lifeline Transportation Network as a starting point, it is intended that community members and service providers work together to identify the solutions to the gaps, and that technical assistance be provided to implement those solutions.

Community transportation plans are a pilot initiative being tested by MTC. Modeled after the Transportation for Livable Communities program, the community transportation plan will identify transportation needs within disadvantaged communities and identify opportunities to address those needs. These plans will be collaborative efforts supported by MTC but will require the participation of community based organizations, affected transit operators, congestion management agencies and other organizations where it is appropriate.

CHAPTER 2:
Outreach Efforts and Summary of Comments

Throughout this planning effort, MTC staff has consulted with a variety of stakeholders, including the Regional Welfare-to-Work Transportation Working Group, EJAG, staff from transit agencies and Congestion Management Agencies, and representatives of community-based or social service organizations. In particular, the Regional Welfare-to-Work Transportation Working Group provided guidance to ensure the goals of the project were consistent with the findings of welfare-to-work plans, and to suggest service standards upon which to base the analysis. That group reviewed early versions of the GIS maps and offered helpful suggestions regarding the methodology as well as the way information should be presented.

On three occasions, MTC staff informed the Commission's Planning and Operations Committee (POC) on the status of this effort. In April 2001, the Committee confirmed staff's approach for conducting the analysis, and in September 2001 the Committee received and commented on preliminary findings. In November 2001, the Committee issued the draft Lifeline Transportation Network Report for public comment.

Meetings with Transit Agency Staff

Upon completion of Lifeline maps for each county, MTC staff met with service planning staff from respective transit agencies. The purpose of these meetings was to review and confirm the preliminary findings, which identified candidate Lifeline routes and gaps, and to solicit comments on the findings to date. A summary of the comments received at these meetings is included as Appendix A. In general, transit operator staff expressed interest and a willingness to participate in MTC's efforts, and found the maps and analysis to be useful tools for service planning purposes. Some common themes emerged from these meetings:

- In cases where spatial gaps exist, transit agencies are aware of these gaps and in many cases had attempted to address them but could not because of topographical or operational constraints.
- Concerns were expressed by some about the objectives established for meeting time of day and frequency standards on the premise that they may not be realistic to meet, or could result in compromising other transit services and programs. Others want the "bar to be set high," with objectives that reflect a public transit environment of the highest quality.
- The majority of operators concurred with and confirmed MTC's analysis and identification of their routes, while a minority expressed the opinion that too many routes were included in the Lifeline analysis..
- Several operators commented that transit service frequency objectives for rural counties should differ from those in urban counties.

- In an environment of limited funding, increasing services to address gaps in the Lifeline Transportation Network could compete with other transit agency goals (e.g. congestion relief, productivity) that will need to be addressed by the local transit agency policy boards.

Lifeline Outreach Meetings

In September and October 2001, MTC sponsored a series of seven meetings with local stakeholders regarding MTC's development of the Lifeline Transportation Network. Reflecting the purpose of the project, the meetings took place in low-income communities throughout the region, as follows

Meeting Date	City	Meeting Location
September 26, 2001	Oakland	Spanish Speaking Unity Council
October 3, 2001	San Francisco	Southeast Community Facility Commission
October 9, 2001	San Jose	Low-Income Self-Help Center
October 10, 2001	Vallejo	Vallejo City Hall
October 11, 2001	North Richmond	Missionary Baptist Church
October 16, 2001	East Palo Alto	East Palo Alto City Hall
October 22, 2001	Livermore	Livermore-Amador Valley Transit Authority

In addition to the meetings listed above, MTC staff made a special presentation about the Lifeline Transportation analysis at the kick-off meeting of the Marin County Welfare-to-Work Countywide Transportation Plan, held on November 5 in San Rafael.

MTC's goal in sponsoring the meetings was to engage a wide audience of stakeholders in a discussion about the goals, methodology, and initial findings of the project. While MTC staff had met with transit agency staff earlier in the project, the outreach meetings enabled MTC to meet with representatives from county social services agencies, community based organizations, and advocacy groups, all of whom provide services for low-income persons. The invitation lists for the meetings included many people who had previously participated in the MTC-sponsored county welfare to work transportation planning projects, including staff from transit operators. The comments from meeting participants have assisted MTC in determining the significance of certain gaps in the public transit network when compared to service objectives; participants also assisted in providing an initial indication of the most pressing transportation issues facing low-income persons in different parts of the region.

At each meeting, MTC gave an overview of the project including a discussion of the process by which MTC identified the routes that are included in the Lifeline Transportation Network. Participants were then asked to review maps used in the Lifeline analysis, note gaps in the provision of services to low-income neighborhoods and other key destinations, and consider how often and how late transit services need to operate to meet the mobility needs of low-income transit-dependent persons.

The following is an overview of some of the comments made by meeting participants. The comments are grouped according to broad topics.

Lifeline Transportation Network Purpose

Some participants were unclear about the purpose of the Lifeline Transportation Network project. Longtime participants in the countywide welfare to work transportation planning projects noted that the original purpose of identifying a Lifeline Transportation Network was to establish service during time periods when BART does not operate service. They suggested that "lifeline" service should operate 24 hours per day, so the gaps identified through the Lifeline analysis should include the areas served by BART lines during the owl period, 1 -5 a.m., when BART does not operate.

Likewise, though MTC presented the Lifeline Transportation Network analysis as intending to identify transit routes that serve critical transportation needs, meeting participants did not agree about what is deemed critical. For some, only work-related transportation was considered critical. Others felt that having secure transportation for children who may travel alone between school and childcare was equally important. And yet others felt that destinations such as church on Sunday were as critical as these other destinations.

Lifeline Transportation Network Methodology

MTC mapped the residences of CalWORKs participants to identify the region's low-income neighborhoods and then assess the degree to which existing transit services meet certain spatial and temporal service objectives. Some meeting participants questioned whether using the CalWORKs data is the most appropriate method for identifying such neighborhoods and recommended that MTC's definition of low-income persons be broader than just participants in the CalWORKs program.

Some participants also questioned the methodology for identifying essential destinations, which focuses on the number of destinations that are concentrated in a single ¼ mile by ¼ mile area. This approach does not necessarily capture very large employers or other physically large essential destinations, such as hospitals and community colleges, which have single addresses and therefore did not necessarily register as a concentration of essential destinations. An example of these larger employers and other essential destinations is the Marine World amusement park in Vallejo, which employs many low-skill workers but is so physically large that it covers more than the ¼ mile by ¼ mile area, the unit of analysis used to identify concentrations of destinations.

Lifeline Transportation Network Service Objectives

When introducing each meeting, MTC staff discussed the Lifeline Transportation Network service objectives, which reflect the frequency of service and the hours of service that Lifeline Transit Network would need to operate to effectively meet the mobility needs of low-income transit-dependent persons. Responses to the proposed service objectives were mixed.

Some participants said that service every 15 minutes is too frequent because of the associated operating costs; others said that 15-minute frequencies are the minimum for meeting the needs of low-income transit-dependent persons. At the root of the discussion was basic disagreement about which type of objective was most important: frequency, availability, or reliability of the service. A sizable number of participants felt that it was better to have any bus – even if it ran

only once an hour – than to have no bus at all. Likewise, a bus that ran longer hours less frequently was thought to be more desirable than a more frequent bus that stopped running too early. Others felt that ensuring greater reliability was also more important than having frequent service, especially if the service was going to be infrequent.

In general, however, the disparity in the responses reflected the participants' geography: those from more urban areas had a greater concern about frequency, while those in rural areas were more concerned about availability.

AFFORDABILITY

Many participants commented on affordability of transit service, making it clear that this issue cannot be separated from discussions regarding "lifeline" service and ensuring equitable access to the transportation system.

CREATIVE APPROACHES

In general, participants were very open to alternatives to regular fixed-route transit service to fill gaps in the Lifeline Transportation Network. Specific ideas mentioned included vanpools, using paratransit vehicles to serve low-income persons, bicycles, and community transit services or shuttles. These different modes were thought to be especially important for transporting children.

Finally, many meeting participants discussed the difficulties of using public transit as a primary means of transportation. These difficulties include lengthy trips because of transfers, paying multiple fares because of trips that involve multiple transit operators, and the difficulty of riding transit with young children.

CHAPTER 3:
Use of MTC's Geographic Information System (GIS) for Lifeline Transportation Network Analysis – Methodology and Observations

The use of detailed maps proved to be the centerpiece of MTC's Lifeline Transportation Network analysis. The agency's Geographic Information System (GIS) was utilized for purposes of data collection, analysis, and management. MTC has now amassed a sizeable repository of digital demographic, transit, and geographic data that can be used for other studies and which can be shared with partner agencies.

The Lifeline maps were used both internally by MTC staff for detailed analysis, and by a number of stakeholders to confirm MTC's findings, make corrections, or to suggest areas for further study. A paper base map was first produced for each area of study, followed by a series of acetate overlays that aligned with the base map information. Each of the clear overlays represented a different data set: CalWORKs households, essential destinations, fixed transit routes, walking distance to bus lines and train stations. The overlays could be added or removed as users wished, allowing for the relationship between different sets to be studied.

Appendix B provides a detailed description of the mapping methodology employed throughout the study. A brief summary is presented here:

Step One: Preparation of Base Maps
For each county and neighborhood map series, a paper base map was first prepared, upon which all of the subsequent data layers were overlaid. Major highways, streets, parks, water bodies and other features are shown on the base maps.

Step Two: Mapping CalWORKs households
After consultation with the Lifeline Working Group, it was decided to use CalWORKs households as a "proxy" for general poverty in the region. In order to accurately pinpoint the locations of CalWORKs household concentrations, staff used the GIS to create density maps. The region was first divided into quarter-mile-by-quarter-mile grid cells. Next, the GIS highlighted any cell that contained at least ten CalWORKs households.

Using this technique, the highest concentrations of households in the Bay Area could quickly be identified: southeastern San Francisco, East Palo Alto, east San Jose, central and southern Oakland, portions of Richmond, and small pockets in the more rural northern counties of Marin, Sonoma, Napa and Solano.

Step Three: Mapping Essential Destinations
The next step was to determine the locations of essential destinations that persons would need to access on a typical basis. These destinations include employment sites, medical facilities, homeless shelters, career and job training centers, daycare centers, schools, civic destinations (such as libraries and town halls), public housing sites, and establishments that accept food stamps. Each of these destinations were mapped at the street address level and then aggregated to create a density map for each county, similar to the process used with the CalWORKs data. The result: areas with the highest concentrations of destinations became quickly identifiable. Since it

would be impossible to develop a transit system that provides direct connections between every single low-income household to each and every destination, the mapping of *concentrations* of destinations and households using density maps was a logical approach.

Step Four: Mapping all Fixed Transit Routes

Only a handful of public transit agencies have GIS capabilities at this time, so every transit route had to be screen-digitized into the GIS. Staff was able to acquire printed transit route maps from the operators for use in hand drawing and aligning the routes with the proper streets or railroads. In all, approximately 600 individual fixed transit routes were drawn digitally into the system. Staff added attribute data to each route record, reflecting its hours of operation and frequency of service.

Step Five: Selecting Lifeline Transit Routes

The preceding steps enabled staff to determine the locations of CalWORKs household concentrations as well as high-density destination concentrations. The next step was to determine which fixed transit routes best serve each of these areas. Using the acetate overlays that contained each of the three data sets, staff visually inspected each route to determine if it met at least one of the following criteria:

- Provides direct service to a neighborhood with high concentration of CalWORKs households;
- Provides service directly to areas with high concentrations of essential destinations;
- Provides core trunkline service as identified by the transit operator; or
- Provides a key regional link.

If a transit route met at least one of these criteria, it was designated as a Lifeline Route.

Step Six: Establishing Service Objectives

A consistent theme throughout MTC's welfare-to-work planning activities is that residents of low-income communities need to have access to public transit services later in the evening, more frequently during the day, and more extensively on the weekends. As a result, the Lifeline Transportation Network Working Group recommended that staff develop service objectives to reflect these needs. The objectives for frequency of service and service span provide a baseline against which to compare current transit service. Those not meeting the objectives are indicative of potential temporal gaps in the proposed network of lifeline routes.

Step Seven: Performing Spatial and Temporal Gap Analysis

The final step in the study was to identify potential gaps in the existing transit network. The neighborhood and countywide maps were analyzed in order to locate both *spatial* gaps -- geographical areas with high concentrations of CalWORKs households or areas of key destinations not served at all by public transit----or *temporal* gaps----characteristics of proposed lifeline transit routes that fail to meet some or all of the proposed service objectives. The results of the temporal gap analysis were placed onto matrices that allow readers to quickly identify those routes that currently meet the proposed service objectives. The matrices for each County are included in Appendix D.

Observations on Methodology

The following observations are made regarding the process employed to complete this effort.

First, one criterion used in selecting a Lifeline route was whether it serves a concentration of "key destinations," including employment sites. Unfortunately, the data used to geo-code employment sites does not distinguish between large and small businesses; a site with one employee is coded the same as one with many employees. Data was also not available to highlight employers with entry-level positions. Also, some important destinations, such as community colleges or hospitals, or even airports may not have emerged as "key destinations" if they were not collectively considered with other sites. Finally, natural breaks in the data were applied to quantify concentrations of key destinations for each county. While this approach resulted in different standards used for each county to define the concentrations, it did allow for a "customized" analysis unique to each county's density.

Concerns were also raised about the timeliness of the CalWORKs data. As explained in more detail in Appendix B, CalWORKs data were selected to represent low-income communities for purposes of this exercise. Efforts were made to ensure that the data are current, in some cases updating information that had originally been used for countywide welfare-to-work plans. Given the changes over time, however, it will be important to refine the information on a regular basis. A good time to initiate this exercise would be when the 2000 Census household income data are available, which would also allow us to compare information revealed from the two data sources.

Ideally the Lifeline Transportation Network analysis would examine the proximity of bus stops, not entire routes, to low-income households and essential destinations. Although not available in time for this effort, MTC's TranStar trip planning system, now in development, can be used for future map updates to easily extract current bus stop data in GIS format.

CHAPTER 4:
Regional Lifeline Transportation Network and Identification Of Lifeline Transit Network Gaps

The Lifeline Transportation Network comprises public transit routes identified as critical to meeting the transportation needs of low-income persons as well as a series of related spatial and temporal gaps in the network based on completion of the analysis described in Chapter 3. A discussion, county by county, of gaps identified in the Lifeline Transportation Network is included as Appendix C. The complete listing of Lifeline Transportation Network routes by county and accompanying analysis of temporal gaps is included in Appendix D. Each route meets at least one of the following selection criteria:

- The route provides direct service to a neighborhood with a high concentration of CalWORKs households;
- The route provides service to areas with concentrations of key destinations;
- The route is part of an operator's core service; or
- The route provides a key regional link between the local service areas of different transit operators.

As discussed in Chapter 3, MTC staff worked with staff from the region's transit agencies, community-based organizations, social services agencies and others to develop Lifeline Transportation Network service objectives. MTC compared the current operating characteristics of each proposed lifeline route against the service objectives described in Chapter 3 to identify temporal gaps, i.e., times of day at which no service operates or infrequent service operates along the identified routes.

The service objectives represent the hours of service and the frequency of service at which Lifeline Transportation Network routes should operate to meet the basic mobility needs of low-income transit-dependent persons. In proposing these objectives, no consideration was given to anticipated ridership or costs of providing the service at the levels proposed since we also do not assume that all resulting gaps will be filled by fixed route service. The objectives represent only an assumed level of service to meet the mobility needs of low-income transit-dependent persons. The service objectives are as follows.

Hours of Operation Objectives for Lifeline Routes

	Weekday	Saturday	Sunday
Urban Core Transit Operators/Routes	6 a.m. – 12 midnight	6 a.m. – 12 midnight	7:30 a.m. – 12 midnight
Suburban Transit Operators/Routes	6 a.m. – 10 p.m.	6 a.m. – 10 p.m.	8 a.m. – 10 p.m.

Frequency of Service Objectives for Lifeline Routes (In Minutes)

	Weekday Commute	Weekday Midday	Weekday Night	Saturday	Sunday
Urban Core Transit Operators/Routes	15	30	30	30	30
Suburban Transit Operators/Routes	30	30	30	30	30

For this analysis, AC Transit, Muni, and part of the Santa Clara VTA system are considered urban core transit operators.

Transit operators had many comments about the establishment of service objectives and the comparison of lifeline l routes to the objectives for the purpose of identifying temporal gaps. In response to these concerns, MTC met with a Lifeline Transportation Network Working Group including transit operator staff and staff from social services agencies and gave careful consideration to the appropriateness of the service objectives.

- ***Comment:*** *Transit operator staff raised concerns about MTC's proposing broad service objectives for areas of the region without careful consideration of the environment in which each transit system operates, the financial constraints placed on each operator, and the demand for expanded hours of service and frequency of service along certain routes. Many transit operators also recommended that MTC use different service objectives for operators in urban areas than for suburban/non-urban areas.*

  Response: MTC staff has proposed different service objectives for urban operators and suburban operators. With regard to the concern about MTC staff's proposing standards to which transit operators might be held, it is important to clarify again that the objectives represent the time of day and frequencies for the mobility needs of low-income transit-dependent persons. MTC staff has established these objectives to serve as a benchmark against which lifeline transit routes can be compared to identify temporal gaps and to assist in prioritizing gaps most important to fill. This does not imply that all resulting gaps must be filled by increases in fixed route service.

- ***Comment:*** *Some operators requested that specific routes be included in the analysis, and others requested that specific routes be excluded.*

  Response: MTC staff reviewed each of the proposed Lifeline Transit Network routes to confirm that each route meets at least one of the criteria. In some cases, MTC added routes suggested by transit operator staff based on the transit operators' knowledge of their own service areas.

- ***Comment:*** *Operators suggested that while the approach for identifying temporal gaps considers the entire length of a route, the demand for improved service might pertain to only a portion of a route that passes through either a low-income community or a concentration of essential destinations.*

  Response: In general, the identification of spatial and temporal gaps through this analysis is a starting point to indicate where a need might call for improved transportation services. While the initial analysis may suggest a demand for improved services along a route, further analysis should be conducted at the local level to determine the extent of the demand and whether the demand pertains to a more specific area than what MTC has initially identified.

- ***Comment:*** *Transit operator staff raised concerns about MTC staff's comparing Lifeline Transit Network routes to any service objectives because that implies MTC is setting service standards for transit operators.*

  Response: The Lifeline Transportation Network analysis is a tool to identify where and when additional transportation services may be needed. Any process to implement new or expanded services to address spatial and/or temporal gaps in the Lifeline Transportation Network will be based on a local planning process, and resulting services will reflect the demand of a specific local area.

Finally, it should be noted that while this analysis focuses on the region's bus network, BART and Caltrain are integral components of the Lifeline Transportation Network. The rail systems are the *spine* of the regional transportation network, and MTC staff has proposed many lifeline routes because they serve either BART or Caltrain stations. Participants in MTC's earlier county-specific and regional Welfare-to-work planning efforts suggested that, to be most effective, the Lifeline Transportation Network should mirror the operating hours and frequency of BART and Caltrain. A follow up step to this planning effort will be to determine the need for and approach to providing service to parallel BART service when BART does not operate. Both the BART Board of Directors and the San Francisco Board of Supervisors support exploring this concept.

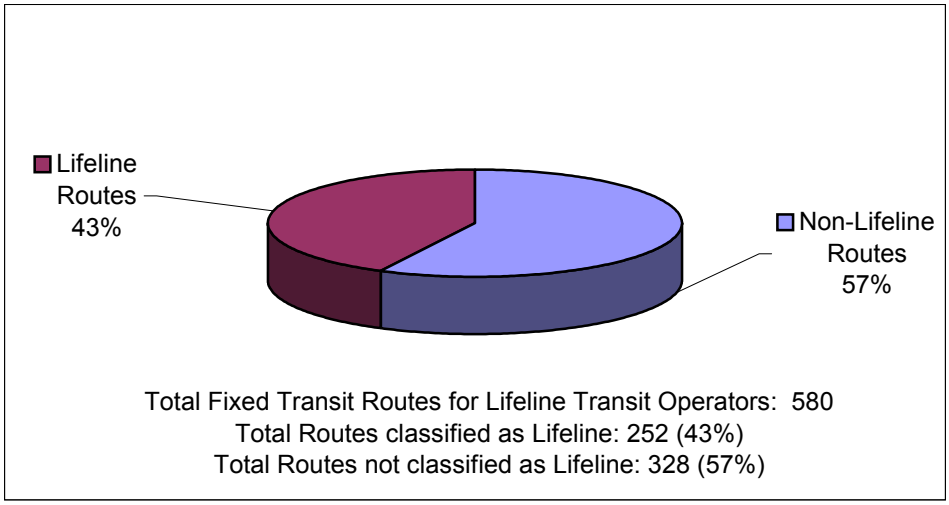
Key Findings

Upon review of the proposed Lifeline Transportation Network for each county, a summary of the initial key findings follows.

- Nearly half (43%) of all transit routes operated by 19 transit operators within the region are proposed as lifeline transit routes.
- Of these routes, 83% were selected because they directly serve neighborhoods with high concentrations of CalWORKs participants.
- More than one-third (36%) of all the region's transit routes directly serve low-income neighborhoods.
- 80% of the proposed lifeline transit routes meet more than one criterion.

- Throughout the region, few spatial gaps exist in the Lifeline Transportation Network indicating that transit agencies are already providing spatial coverage for low-income communities. In some cases where spatial gaps do exist, transit agencies are aware of these gaps and have attempted to address them. In other cases, operational constraints, such as narrow roads or poor street access, limit the provision of fixed route service.
- Region wide, 51% of the proposed lifeline transit routes meet frequency of service objectives established for this project; the service objectives most likely to be met are for midday weekday service (72%), and those least likely to be met are for weekday evening service (41%).
- Some transit routes, especially those operated in urban areas, are very close to meeting the stated objectives, or already partially meet them.
- In Napa, Solano, and Sonoma Counties, and parts of Contra Costa County, very limited public transit service or no service is available on weekends.
- Throughout the region, only 25% of the proposed lifeline transit routes meet or exceed the service objectives for Saturday service and 29% for Sunday.
- A total of 22 (9%) of the proposed lifeline transit routes currently offer late night service, either "owl" service, past midnight, or on a 24-hour basis. All are within the urban core, with AC Transit providing 9, Muni 10, and VTA 3 (including 2 light-rail lines).
- All Bay Area counties except Napa have multiple transit agencies providing Lifeline service. For example, eight agencies originating in four counties provide services into Contra Costa County, emphasizing the importance of connectivity and the need to facilitate inter-jurisdictional travel.

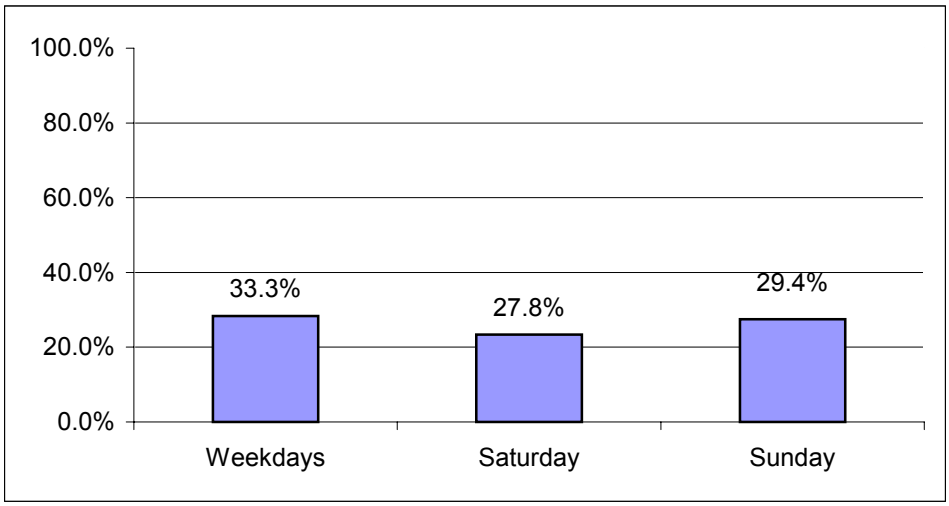
Candidate Lifeline Routes as a Percentage of All Regional Fixed Transit Routes



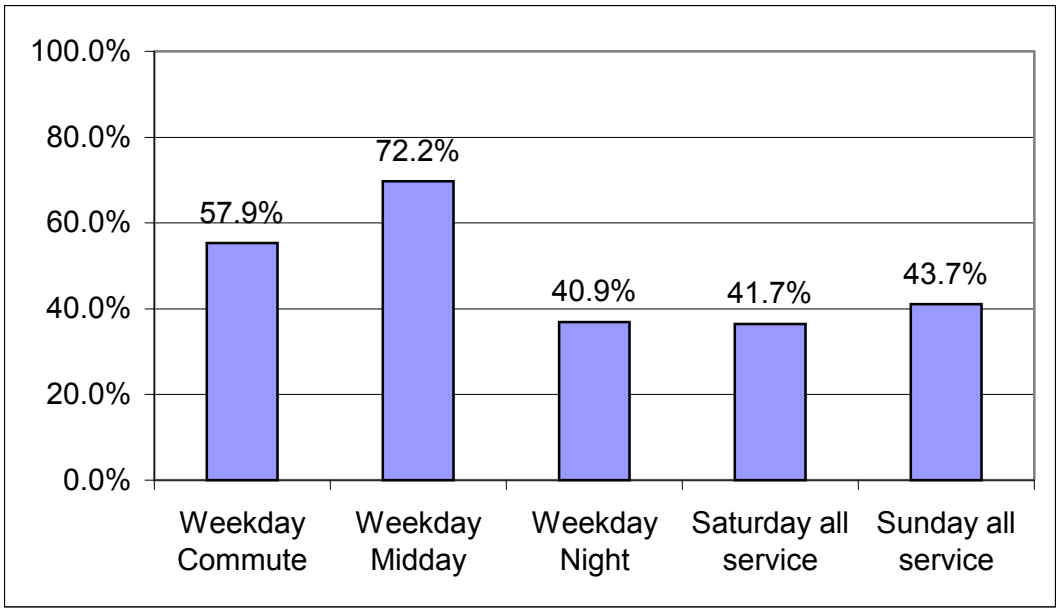
Number of Candidate Lifeline Routes by Transit Operator			
Operator	**# Lifeline Routes**	**% Routes as Lifeline**	**# Lifeline Routes serving CalWORKs neighborhoods**
AC Transit	67*	44%	64
Benicia	1	50%	0
CCCTA	19	51%	12
Fairfield-Suisun City	9	90%	9
Golden Gate Transit	12	23%	6
LAVTA	3	23%	2
MUNI	48	60%	43
Napa VINE	5	63%	4
SamTrans	12	27%	8
Santa Rosa CityBus	6	29%	4
Sonoma County Transit	6	27%	4
Tri-Delta Transit	9	69%	9
Union City	3	50%	3
Vacaville	5	50%	5
Vallejo Transit	7	70%	7
VTA	26	32%	15
WestCAT	8	62%	5
BART	5	100%	5
Caltrain	1	100%	1
TOTAL	**252**	**43%**	**206**

*Includes 2 Dumbarton Express routes provided through a consortium of AC Transit, BART, SamTrans, Union City Transit, and VTA.

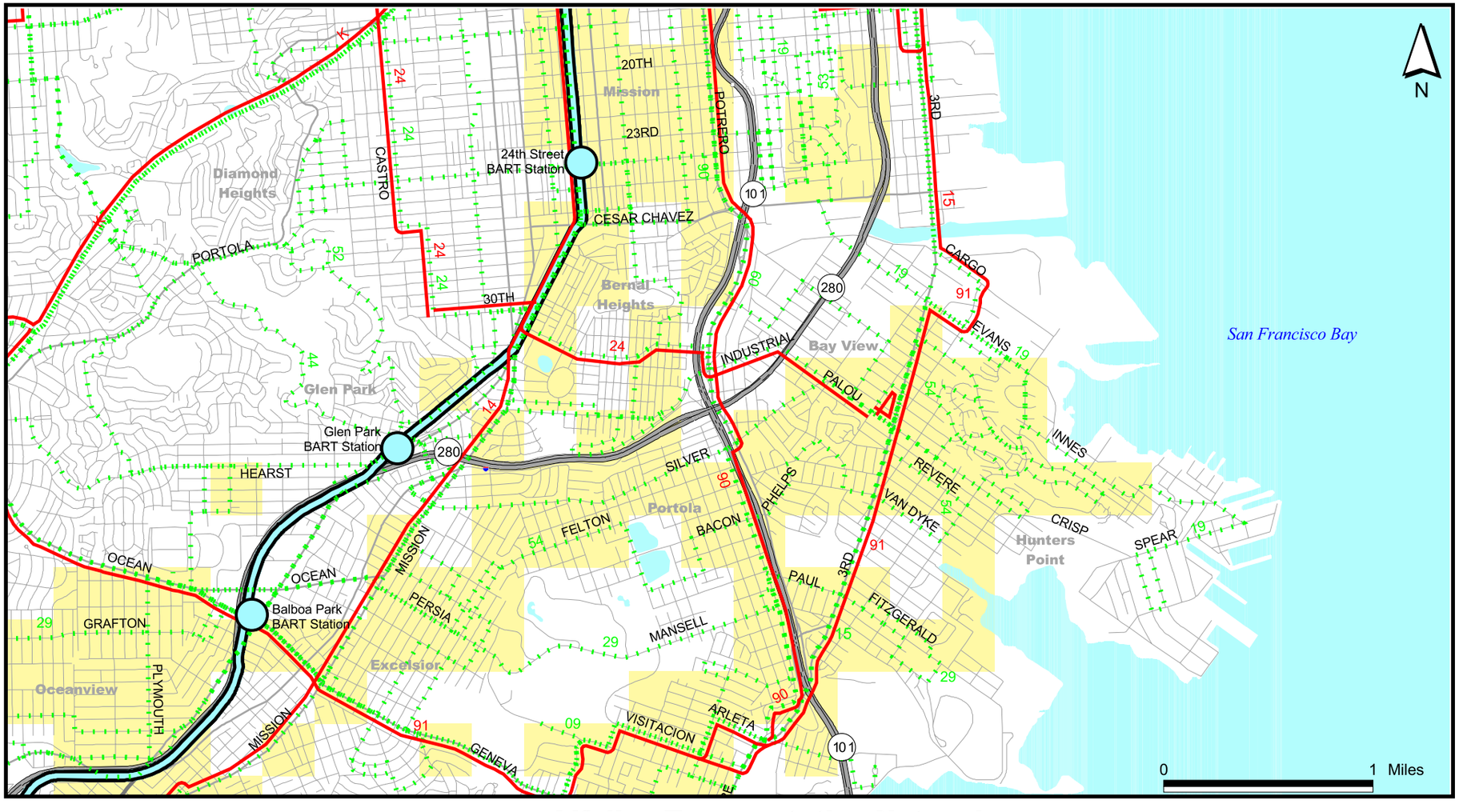
% of Candidate Lifeline Routes Currently Meeting Service Objectives for Hours of Operation



% of Candidate Lifeline Routes Currently Meeting Objectives for Frequency of Service



The following four maps illustrate examples of temporal gaps that have been identified in the Lifeline Transportation Network analysis: Southeastern San Francisco Owl Route Temporal Gap Analysis, Eastern Alameda County Sunday Temporal Gap Analysis, Central/Eastern Oakland and portion of City of Alameda Weeknight Temporal Gap Analysis, and Solano, Napa, Contra Costa Counties Sunday Temporal Gap Analysis.



Lifeline Transportation Network
Southeastern San Francisco
Owl Route Temporal Gap Analysis

Description: This map depicts MUNI bus and rail Lifeline routes that are in operation during the day (dotted green) and those that operate during"owl" hours (1:00 to 5:00 am), shown in red. Temporal gaps in the Lifeline Transit Network increase as the evening progresses since the number of bus routes in operation decreases. BART does not provide service during owl hours. Destination concentrations have been omitted from this map in order not to obscure the CalWORKs data.

MUNI Owl route (operates 1:00 a.m. to 5:00 a.m.)

MUNI daytime Lifeline route

Quarter-mile-square area containing at least 10 CalWORKs households. Source: San Francisco County Social Services, 2000.

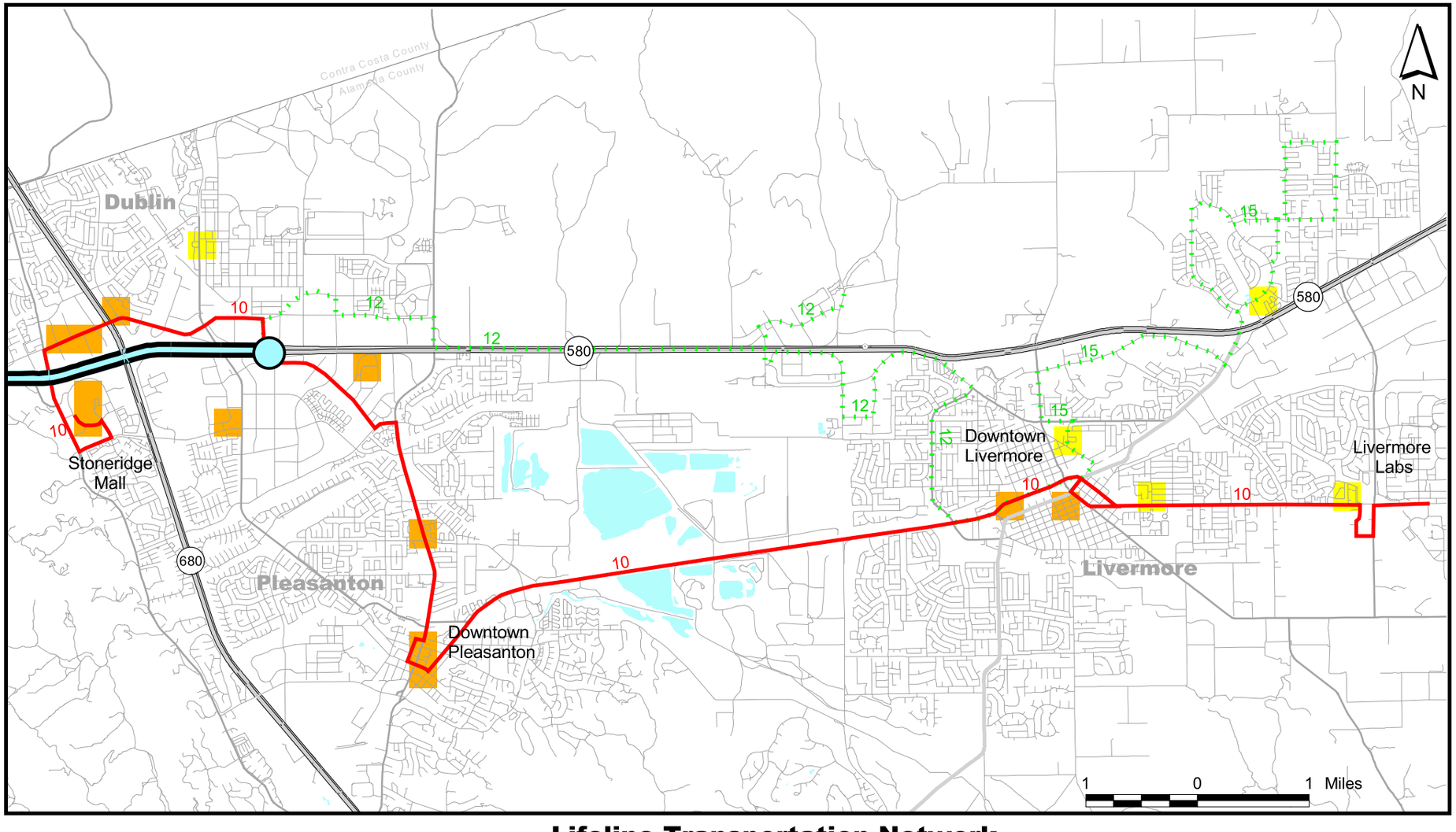
Station

BART Line

METROPOLITAN TRANSPORTATION COMMISSION

Transit Coordination and Access Section
December 2001
Cartographer: Rick Kos

Path: g:/section/tc&a/lifeline/projects /san_francisco/southeast_temporal.apr



Lifeline Transportation Network
Eastern Alameda County
Sunday Temporal Gap Analysis

Description: This map depicts LAVTA Lifeline bus routes that are in operation on Sunday (solid red) and those that do not operate on Sunday (dashed green). Weekend temporal gaps in the Lifeline Transit Network such as these are common in the lower-density, suburban portions of the Bay Area.

10 — LAVTA Lifeline Transit routes in operation on Sunday

12, 15 — LAVTA Lifeline Transit routes that operate on all days EXCEPT Sunday

Quarter-mile-square area containing at least 10 CalWORKs households. Source: Alameda County Social Services, March, 2001.

Quarter-mile-square area with high concentrations of destinations (workplace, civic, etc.). Source: California Employment Development Department, July 2001.

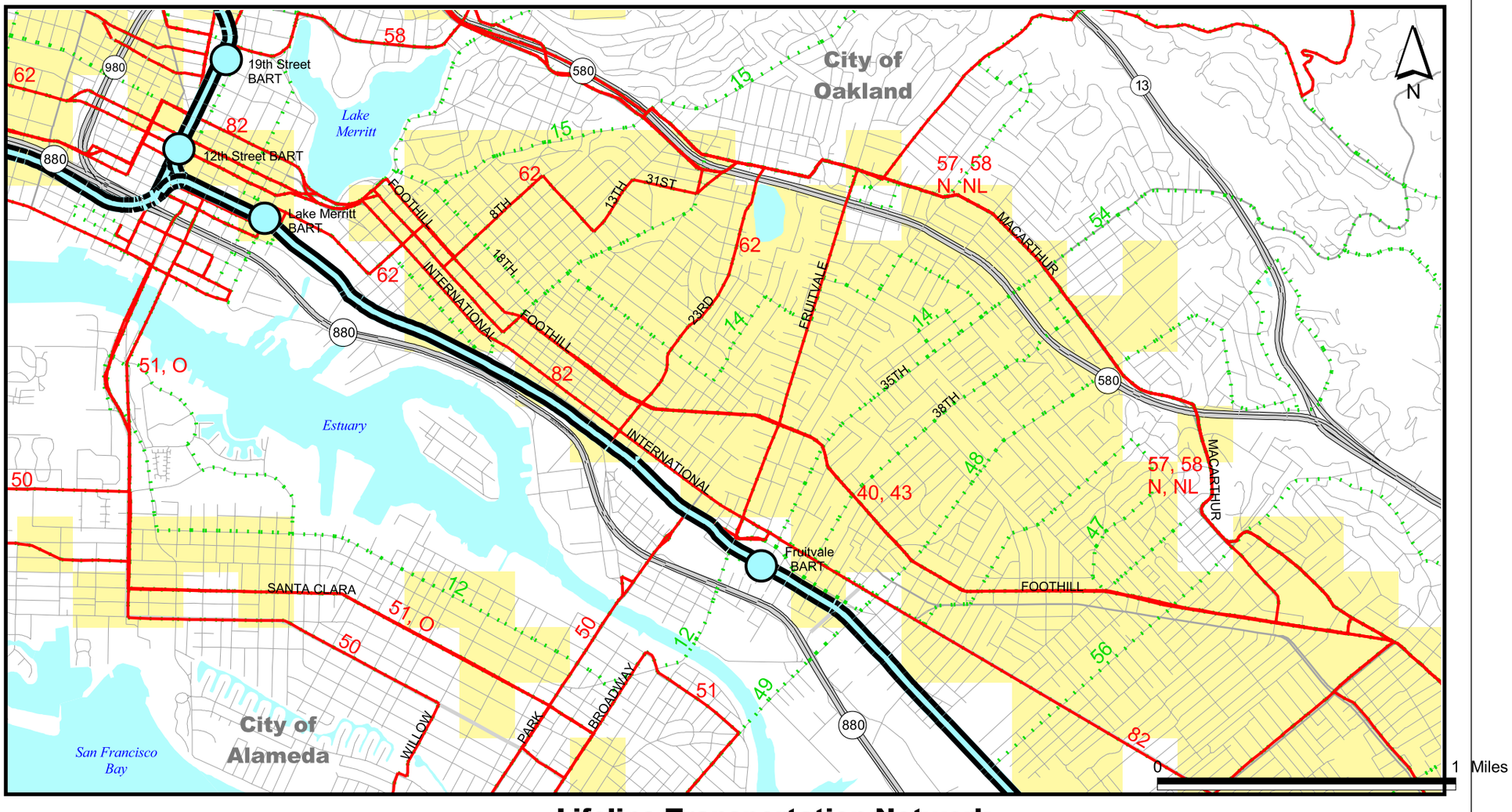
Station

BART Line

METROPOLITAN TRANSPORTATION COMMISSION

Transit Coordination and Access Section
December 2001
Cartographer: Rick Kos

g:/section/tc&a/projects/lifeline/livermore_temporal.apr



Lifeline Transportation Network
Central/Eastern Oakland and portion of City of Alameda
Weeknight Temporal Gap Analysis

Description: This map depicts AC Transit Lifeline bus routes that are in operation at 11:00 pm (solid red) and those that cease operation before 11:00 pm (dashed green). Temporal gaps in the Lifeline Transit Network increase as the evening progresses since the number of bus routes in operation decreases. Destination concentrations have been omitted from this map in order not to obscure CalWORKs data.

12 — Route Number (typ.) — 62

AC Transit Lifeline routes that cease operation prior to 11:00 pm Weekdays

AC Transit Lifeline routes in operation at 11:00 p.m. on weekdays

Quarter-mile-square area containing at least 10 CalWORKs households. Source: Alameda County Social Services, March, 2001.

METROPOLITAN TRANSPORTATION COMMISSION

Transit Coordination and Access Section
December 2001
Cartographer: Rick Kos

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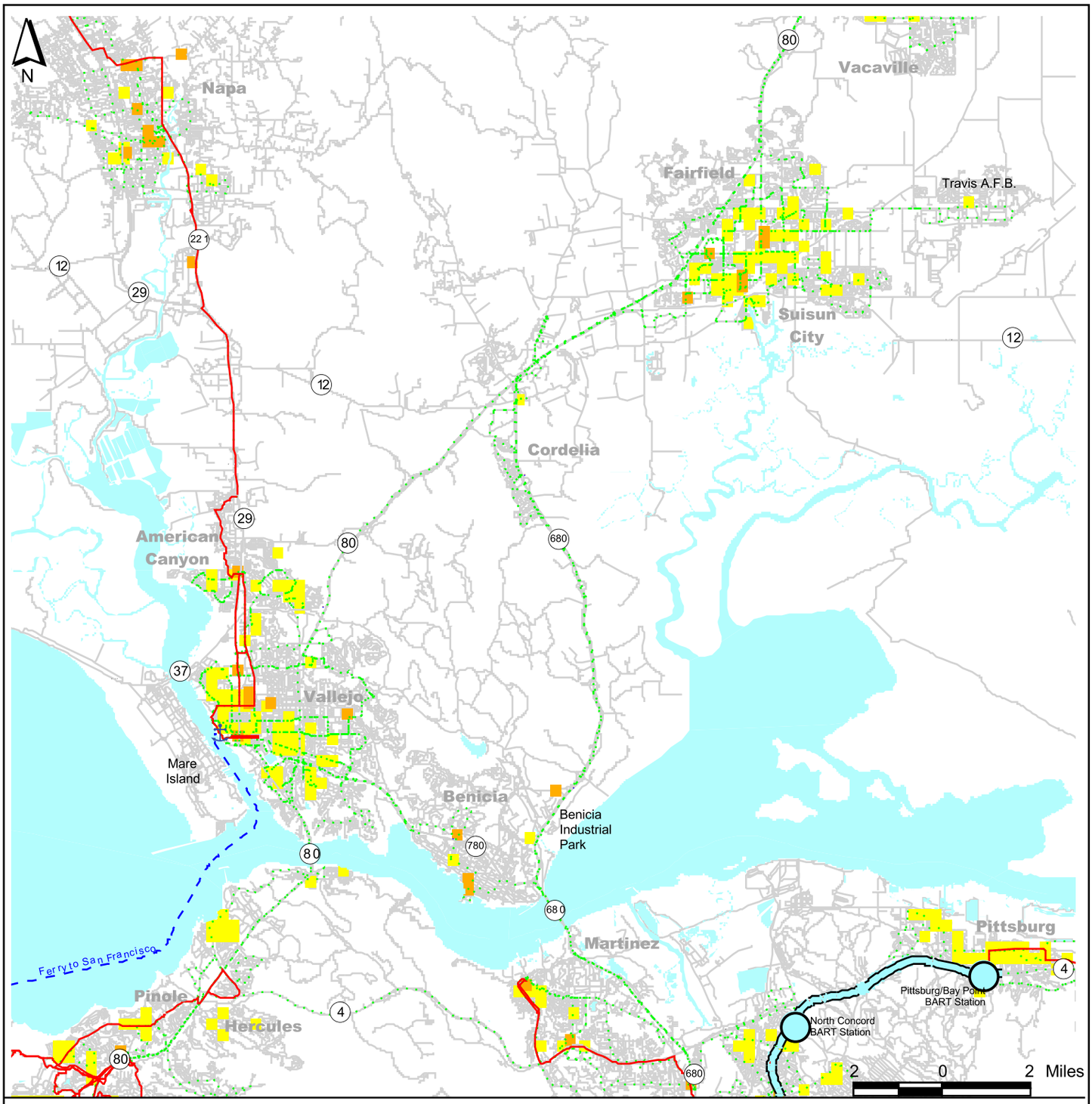

Lifeline Transportation Network
Solano, Napa, Contra Costa Counties
Sunday Temporal Gap Analysis

Transit Coordination and Access Section
November 2001
Cartographer: Rick Kos
g:/section/tc&a/lifeline/projects/solano/northbay_temporal.apr

Description: This map depicts Lifeline Transit bus routes that are in operation on weekdays (green lines) and those that operate on Sundays (red). Note that no Sunday transit service is available in Solano County, except for Napa VINE Route 10 which runs from Napa to Vallejo. Some Sunday service is provided in western Contra Costa County.

Lifeline Transit routes in operation on Weekdays

Lifeline Transit Routes in operation on Sundays

Station

BART Line

Quarter-mile-square area containing at least 10 CalWORKs households. Source: Social service agencies in Contra Costa, Solano, and Napa counties.

Quarter-mile-square areas with high concentrations of destinations (workplace, civic, etc.) Source: California Economic Development Department, July, 2001.

CHAPTER 5:
Investments in the Lifeline Transportation Network

This chapter provides a preliminary look at approaches to filling the gaps identified through the analysis described in Chapters 1-4 and suggests next steps to advance a range of potential solutions to improve the mobility for residents of low-income communities.

Local Transit and Community-based Planning

This Lifeline Network analysis illustrates gaps in the existing network for low-income communities as defined by service objectives proposed at the regional level. Appropriate solutions for filling these gaps, however, will need to be developed at the community level if they are to be effective. To this end, the Congestion Management Agencies and transit agencies along with local community-based organizations should proceed to validate the findings presented in this report and identify the options and priorities for filling the gaps. To ensure the local evaluation includes the input of low-income communities and transit agency policy boards, staff recommends that the Commission take the following steps:

- The Commission should provide financial assistance to disadvantaged communities and transportation providers to evaluate the gaps identified in the regional analysis and provide recommendations to the Commission on service priorities and potential service strategies. These strategies are to take into consideration the cost-effectiveness and potential patronage for various fixed route and non-fixed route alternatives.
- The Commission should target funding to those communities with the highest concentrations of low-income persons. These communities, which are the focus of follow-up activities related to the Environmental Justice Report for the 2001 RTP, include the following:

  Bayview/Hunters Point
  East San Jose
  Mission District – San Francisco
  Cherryland – Alameda County
  Santa Rosa
  Vallejo
  Concord/Martinez/Pittsburg
  Richmond/North Richmond/San Pablo
  East Palo Alto
  North San Mateo County
  Gilroy
  Marin City/San Rafael
  Fairfield

- Recommendations from the community-based plans described above will be submitted to MTC for consideration in funding decisions related to the Lifeline Transportation Network.
- The plan recommendations affecting transit services are to be incorporated into the respective transit agency Short Range Transit Plans submitted to MTC.

- MTC has established a number of programs intended to improve the livability of our communities and to improve access to the public transportation system; among these are the Transportation for Livable Communities (TLC) program, Low Income Flexible Transportation (LIFT) program, the Housing Incentive Program (HIP) and customer services programs for traveler information and transit fare payment. Staff will take steps to ensure these programs are coordinated with the goals of this analysis.
- Transit agencies view the lifeline analysis using GIS maps as an effective tool for planning new and enhanced services. It will be important to keep the analysis up-to-date to reflect changes resulting from the community planning, as improved data become available and as transit services change. As mentioned in this report, improved data for employment sites can refine future analyses. This Lifeline analysis should be updated in subsequent RTP updates.

Filling Gaps in the Lifeline Transportation Network

In addition to the local analyses described above, the region will need to address the cost implications of filling temporal and spatial gaps identified in this analysis. Since nearly half the region's existing transit routes are identified as serving lifeline objectives, many stakeholders have pointed out that the region's highest priority should be to protect the viability of current public transit services to ensure they can be sustained. The 2001 RTP does so by funding 100% of the capital replacement needs of the existing transit network. At the same time, this analysis reveals that in order to achieve the proposed service objectives, more frequent and more extensive service above and beyond what exists today would be required. This, in turn, will require new and additional sources of funding, especially for service operations.

In estimating the resources needed to fill the gaps identified in this analysis, we must carefully consider, on a case-by-case basis, appropriate strategies to address each type of gap. Some gaps will best be met by providing additional fixed route service; in other circumstances employing an alternative approach would be more cost effective or responsive to riders' needs.

The financial requirements will vary significantly depending on the mix of strategies recommended by the local communities and transit agencies. For example, some gaps can be filled by extensions of fixed route service hours using existing capital and labor; others might require a new route or service frequencies that require more substantial investment in fixed route. The latter may or may not make sense, depending on the anticipated ridership or in comparison to alternatives for serving the same market.

Evaluating Fixed Route Strategies

As a starting point, and in order to establish a benchmark against which to compare a variety of strategies, MTC requested each transit agency to estimate the number of service hours that would be needed to fill temporal gaps identified for that agency *assuming a fixed route solution*. Based on estimates from 15of 17 agencies, the additional service would total 1.55 million service hours per year. Put in context, this would amount to a 13% increase in total fixed route service operating in the Bay Area today.

This estimate is based on a preliminary look at the service gaps but cannot be used to calculate the total cost of meeting the lifeline transportation network objectives. Alternatives to fixed route service can and should be pursued where fixed route does not appear cost effective. The community plans identified above will be instrumental in identifying these alternatives which will have very different cost implications compared to fixed route services.

As a first step, staff recommends that the Commission forward the results of this regional analysis to the transit agencies and Congestion Management Agencies (CMAs) to confirm the route designations in this analysis and determine which gaps are best met by providing additional fixed route service. Many routes operated in urban areas (AC Transit, Muni, VTA) are very close to meeting the stated objectives, or are partially met. For example, most of VTA's routes meet the objective of beginning at 6:00 a.m., but gaps have been identified in meeting the evening hours. Likewise, some routes meet frequency objectives for most, but not all, hours of the day. This analysis would be due to the Commission by December 2002, conducted in the context of the transit agency's short-range transit plans, and would also explore the following assumptions:

- Additional fixed route could be provided cost-effectively if service hours currently offered are close to meeting the stated objectives. ("Close" is defined as providing no more than 2 additional trips at existing frequencies.)
- Frequency gaps are most appropriately met with additional fixed route service (e.g. adding a bus to an existing route).
- Those routes connecting with another system, thereby facilitating inter-jurisdictional travel would be candidates for enhanced service. Depending on the time of day, connections could be more cost effective using an alternative to an existing fixed route, including shuttles, vanpools or taxi service, as described below.
- Designated Lifeline Transit routes directly serving low-income neighborhoods with the potential for high ridership could warrant expanded fixed route coverage.

Evaluating Alternatives to Fixed Route

Where fixed route service does not appear cost effective (which costs between $40 and $100 per hour to provide), transit agencies and their local communities can consider a range of alternative approaches. Through the LIFT program, several model programs have been initiated which can provide valuable information for others interested in replicating them. These alternatives include:

- Guaranteed Ride Programs can appropriately be employed in circumstances when a limited number of trips are needed during late night or midday when fixed route is not available or for emergency or unanticipated trips. Typically, such programs provide taxi vouchers for eligible persons with an average cost per trip ranging from $15-$50 depending on the length of the trip
- Shuttle service operated under contract is another effective way to provide services late at night or along routes in less dense areas. Many employer-based shuttles already operate in many parts of the region. In San Mateo County several of these services are extended during the midday to serve community needs for an average cost of$42 per hour.

- Paratransit programs, such as Outreach in Santa Clara County, provide ADA complementary paratransit service with demand-response service. These contracted paratransit services also average $42 per hour throughout the region.
- In Contra Costa County, vanpool subscription service for CalWORKs participants has been initiated at a cost of $20-$22 per trip.
- Several county Departments of Social Services have used TANF funds to institute car share, car repair, or car loan programs to enable CalWORKs recipients to purchase or repair automobiles. This strategy is an alternative for persons who cannot access public transit or whose family needs require a more effective alternative.
- Non-motorized solutions such as enhanced pedestrian or bicycle access to transit could also be considered.

Funding the Lifeline Transportation Program

This analysis indicates that transit agencies are already serving low-income communities within their service areas, while needing to balance other service objectives such as productivity and congestion relief. Since nearly half the region's existing transit routes have been identified as serving lifeline transportation objectives, the first priority is to support the current network of transit routes that effectively serve low-income communities. In addition, staff recommends that the Commission pursue the following funding strategies:

- The Commission should continue to advocate for and seek new and additional fund sources to support filling gaps identified in this report and as validated or amended in the community planning process. A primary funding source will be new STA transit funding generated pursuant to Proposition 42 that will generate an additional $11 million per year after 2008 in "population-based" discretionary funding at the regional level and an additional $42 million in "revenue-based" funding for individual transit operators. Unlike most of the existing discretionary funds available in the region, STA can be used for operating purposes. If Proposition 42 is successful, and increased transit funds are assured, the Commission should consider taking interim steps to fund the Lifeline network, provided that "bridge" funding can be secured.
- As a bridge to Proposition 42 funding prior to FY 2008-09, the Commission should continue its commitment to build upon the success of the LIFT program by taking the following actions:
    1. Dedicate $1 million per year in STA regional discretionary funds for the program.
    2. Secure federal funds via the JARC program. In FY 01-02, MTC was successful in obtaining a $3 million JARC earmark to support the LIFT program.
    3. Advocate for continued and increased funding of the JARC program and other strategies that are developed in the reauthorization of the federal transportation program (TEA-21).
    4. Retain the current requirement to match regional LIFT funds on a 50/50 basis with local revenues to increase the total funding for lifeline services.

- The Commission should use the Lifeline Transportation Network analysis and subsequent community plans to guide decisions for existing or future discretionary sources of funds (e.g. TDA in Northern Counties consistent with MTC's Unmet Transit Needs Policy, efforts to pursue a regional gas tax, etc.).
- MTC should continue to advocate for coordination and flexibility in social service funding programs so that these programs can be partners in filling gaps identified in this analysis, including taking a position on reauthorization of federal Health and Human Services programs (e.g. Temporary Assistance for Needy Families (TANF).

APPENDIX A
SUMMARY OF TRANSIT OPERATOR COMMENTS

The following table summarizes comments provided to MTC by transit operators through a series of meetings prior to the development of the Draft Lifeline Transit Network Report for the 2001 Regional Transportation Plan for the San Francisco Bay Area.

Urban Operators (VTA, Muni, AC Transit)	
Topic	**Comment**
General Comments	What kind of analysis will be done for BART? The Lifeline Transportation Network, as identified by MTC, is only "half the equation." Information about the financial impacts of adding service to fill the temporal gaps and data concerning current ridership on existing services identified as part of the Lifeline Transportation Network is missing. Addressing the MTC-identified temporal gaps will lead to operating empty buses. Addressing spatial gaps is more important than addressing temporal gaps. How often will MTC update the Lifeline Transportation Network and the data supporting the identification of the Network? Many transit agencies design routes to serve low-income persons or other transit dependent persons, so what is the purpose of the Lifeline Transportation Network project?
Criteria/process for selection of routes	MTC should include "significant regional links" to the Lifeline Transportation Network. Golden Gate Transit's Route 40 is an example of a significant regional link. Many routes that do not meet the Lifeline Transportation Network operating objectives are very close to meeting the objectives and should not be identified as routes with temporal gaps. MTC should distinguish between transit routes that meet the Lifeline Transportation Network objectives, routes that do not meet the objectives, and those that are close to meeting the objectives. Expansion or extension of fixed-route bus lines cannot address all spatial gaps.

	The process for selecting Lifeline Transportation Network routes should consider existing ridership on a route and the nature of the destinations served by the route; for example, a route that serves businesses that operate from 9 a.m. – 5 p.m. should not operate in the late evening, and therefore, no temporal gaps should be identified for that route.
Operating objectives for Lifeline Transportation Network routes	The operating objectives, such as those that pertain to service spans and headways, are not appropriate for all counties. "B-Level" service is more appropriate, considering the needs of the low-income population, the existing ridership, and the perceived latent demand for additional service. The Lifeline Transportation Network operating objectives should reflect geographical differences within counties and the differing densities of low-income persons. For example, the Tri-Valley area is very different from Oakland, and Southern Santa Clara County is very different from the northern areas of the county; applying the same operating objectives to these areas does not make sense.
Identification of gaps	Transit services have few spatial gaps because the transit lines are largely designed to serve low-income individuals. 66% of riders do not own cars. The Lifeline Transportation Network should not be designed to serve every concentration of 10 CalWORKs households in a ¼ mile by ¼ mile area. Setting a target percentage of CalWORKs households to be served by fixed-route lines that is below 100% may be more appropriate. The maps make no effort to distinguish between areas that have large numbers of CalWORKs participants in a ¼ mile by ¼ mile square vs. those that have about 10 in the same area. This distinction is important to determining whether a "spatial gap" or "temporal gap", as identified by MTC, might warrant additional transportation services. The maps should show the densities of CalWORKs households in more detail.
Implications of the Lifeline Transportation Network project	How will the Lifeline Transportation Network analysis be used? Will it be linked to the Transit Capital shortfall? Will the Lifeline Transportation Network project be strictly an advocacy effort? How will MTC use the identification of a Lifeline Transportation Network? Does the project have financial implications? Does the identification of gaps benefit an operator by qualifying the operator for funding that MTC will make available for addressing spatial and temporal gaps?

	Making Lifeline Transportation Network routes "untouchable" under the Regional Transit Expansion Policy (RTEP) is not a good idea. MTC needs to allow flexibility for the operators to adjust services according to demand and demographic changes, if some routes are going to be designated as untouchable. The "lockbox" concept, i.e, the possible establishment of a direct connection between the identification of Lifeline Transportation Network routes and the adoption of the RTEP, is difficult for operators.

Non-Urban Operators (SamTrans, CCCTA, WestCat, NCTPA, Golden Gate Transit, Sonoma County Transit, Vallejo. Fairfield/Suisun City, Benicia, Tri-Delta)	
Topic	**Comment**
General Comments	Commuter oriented routes that currently operate during the peak hours only should be considered differently when being evaluated for inclusion in the Lifeline Transportation Network. These routes, some of which are infrequent and single direction-only, do not currently meet the operating objectives and will require significant additional funding to operate according to the Lifeline objectives. The methodology used to identify Lifeline Transportation Network routes does not reflect demand for intercounty services. Will the identification of a Lifeline Transportation Network lead to ongoing reporting requirements for transit operators? Will this project lead to a greater commitment of staff time by operators with additional administrative costs? MTC's analysis of gaps in the Lifeline Transportation Network should consider how much travel time is needed to make a trip, the number of transfers involved, and the ease of inter-jurisdictional travel. Some neighborhoods in non-urban areas are not suited for fixed-route bus travel; they are better served by dial-a-ride services. The identification of a Lifeline Transportation Network is a good effort. The Lifeline Transportation Network Working Group should include representatives from rural counties. Addressing spatial gaps is more important than meeting the objectives for frequency of service and service span.
Criteria/process for selection of routes	The Lifeline Transportation Network definition should consider infrequent service to rural areas with no other transit service. The operating objectives for rural areas should be different than the objectives applied to urban and suburban areas. In identifying the Lifeline Transportation Network routes, MTC should consider a hierarchy of trunkline routes and give them a

	value based on some pre-determined criteria, such as ridership, passengers per hour, etc. The Lifeline Transportation Network includes too many routes. The decision that all concentrations of CalWORKs households and essential destinations are to be served by Lifeline Transportation Network routes leads to a situation where the routes identified as Lifeline Transportation Network routes do not necessarily reflect the travel behavior of the county's low-income population. MTC should not include routes that serve only a small concentration of CalWORKs households and/or destinations in the Lifeline Transportation Network. The mapping of destinations, and specifically employers, should distinguish between employers where low-income persons are likely to be employed and those where they are unlikely to be employed. Rural services that do not serve either concentrations of CalWORKs households or destination concentrations should not be considered Lifeline Transportation Network routes. Using the locations of CalWORKs households to reflect the locations of low-income communities may not fully capture the locations of all low-income communities.
Operating objectives for Lifeline Transportation Network routes	The operating objectives are too high for rural areas. For a medium-sized city 15-minute frequencies may be appropriate, but 30-minute frequencies is more appropriate for rural and suburban areas. Some transit lines are designed to relieve traffic congestion on key corridors; expanding routes to meet the Lifeline Transportation Network operating objectives will limit the ability of operators to provide services designed to relieve congestion. Applying the Lifeline Transportation Network operating objectives to transit routes that target commuters traveling long distances during the peak hours is not realistic. Hourly headways are sufficient for Sunday Lifeline Transportation Network services in suburban counties, The Lifeline Transportation Network operation objectives should be different for areas with different population densities.

	The criteria concerning headways and service span are not appropriate for the majority of routes MTC has identified as part of the Lifeline Transportation Network. The operating objectives proposed by MTC are appropriate for medium-sized cities. The operating objectives do not reflect the transportation needs of low-income persons in rural areas, where many low-income persons work in jobs with traditional hours.
Identification of gaps	Some spatial gaps identified by MTC should be ignored. Caltrain and BART shuttles serve some areas identified as spatial gaps, so that no spatial gap really exists. The maps do not reflect the significance of single employers with many employees; instead the maps focus on concentrations of employers/destinations.
Implications of the Lifeline Transportation Network project	What are the financial implications of the Lifeline Transportation Network project? It is unrealistic to assume the gaps can be filled with existing resources. Expanding fixed-route services has implications for paratransit, resulting in even higher costs. Smaller agencies will need to drastically expand their services to reach the proposed operations objectives. This type of expansion will require huge amounts of funding, expansion of fleets, and easing of requirements for systemwide farebox recovery rates. Dramatic increases in service in rural areas would have a tremendous negative impact on the farebox recovery rate for rural operators.

APPENDIX B
METHODOLOGY TO DEFINE LIFELINE TRANSPORTATION NETWORK

To define a Lifeline Transportation Network, maps depicting CalWORKs households, essential destinations and transit routes were produced for each of the nine counties in the Bay Area. In order to enable staff to perform neighborhood-level analysis, it was sometimes necessary to produce three or four maps for each county so that the urbanized regions could be examined more closely than a countywide map would allow. A typical map covered an area of approximately 30-40 square miles at a scale of one inch equals one-quarter mile. The following sections describe how each map was created.

Step One: Preparation of a Base Map

The base map is the foundation upon which all of the subsequent data layers are overlaid. Major highways, streets, parks, water bodies, and other features are shown on the base maps.

Step Two: Mapping CalWORKs households

Since MTC was able to acquire CalWORKs household information at the street address level, and because the 1990 Census poverty data is so dated, it was agreed that the CalWORKs information would best serve as a proxy for general poverty in the Bay Area. Staff contacted representatives of social service agencies in the nine-county region to fully describe the Lifeline project, adding that specific address information was needed in order to plot the locations of CalWORKs households. In all, approximately 45,000 participating households were mapped. MTC was required to enter into confidentiality agreements with each county to guarantee the security of the sensitive CalWORKs data.

The region was divided into equal quarter-mile grid cells and each cell was shaded according to the number of CalWORKs households within each. In this manner, the highest concentrations of households could quickly be identified. In the Bay Area, these areas include southeastern San Francisco, the city of East Palo Alto, east San Jose, central and southern Oakland, portions of Richmond, and small pockets in the more rural northern counties of Marin, Sonoma, Napa, and Solano.

One of the key questions concerning the Lifeline analysis was how best to define a neighborhood with a "high" concentration of CalWORKs households. Throughout the region, concentrations range from 0-1 households per ¼-mile area in the rural areas, up to 250 households per ¼-mile area in densely-populated San Francisco. Clearly, if the baseline was set too high, many rural households would be excluded, giving precedence only to the dense urban areas. However, if the baseline was set too low, it was possible that too many neighborhoods would be included, possibly leading to inflated funding estimates needed to close gaps in the transit network. After considerable study, it was decided that a baseline of ten CalWORKs households per ¼-mile area constituted a high concentration. Using the Bay Area average of 2.7 persons per household, this translated

into roughly 27 persons per ¼-mile area, which was a reasonable density for the purposes of the Lifeline study.

It should be noted that while CalWORKs data is intended as representative of disadvantaged communities, comments were received that these households do not represent all people who are economically disadvantaged, transit dependent, or otherwise in need of what is referred to as a Lifeline Transportation Network. Some suggested that the definition of the targeted population should also include car-less households, residents of public housing facilities, or those receiving Social Security benefits (SSI). While ultimately the decision was made to focus on CalWORKs data, for reasons stated above, this decision does not preclude the possibility of updating the information when other data becomes available. For example, MTC will soon undertake a study of senior citizen transportation needs; it is possible that some data from this study could be folded into subsequent Lifeline analyses.

Step Three: Mapping Essential Destinations

The following table lists the data sets that were ultimately agreed to be essential destinations for the purposes of the Lifeline Network study. It should be noted that the list of candidate destinations was longer than the final list below. For example, it was suggested to staff that religious destinations be included, but because of difficulty in defining the inclusiveness of this term and its exact relevance to low-income households, the Lifeline Working Group decided not to map such facilities. Other candidate destinations were dropped from the list simply because the data were not readily available, nor could they be created within the timeframe of the project. Nonetheless, staff was satisfied with the items in the final list since they represent a significant number of destinations of relevance to low-income persons.

TABLE 1
ESSENTIAL LIFELINE DESTINATIONS AND DATA SOURCES

Description	Source
Employers with entry-level positions (e.g. positions requiring minimal or no training)	California Employment Development Department, Sacramento. (www.edd.ca.gov)
Medical facilities (hospitals, dialysis centers, clinics, etc.)	California Office of Statewide Health Planning and Development. (www.oshpd.state.ca.us)
Homeless shelters	HelpLink Information and Referral Services, San Francisco
Career and job training centers	Internet search by County
Daycare centers and homes	County childcare coordinating councils
Schools, colleges, community colleges	Thomas Brothers Maps digital data
Civic destinations (libraries, town halls, courts, post offices, etc.)	Thomas Brothers Maps digital data
Public housing (elderly, disabled, family)	U.S. Housing and Urban Development web site (www.hud.gov)

Establishments that accept food stamps	U.S. Department of Agriculture (www.usda.gov)

Once the households were mapped, a shaded density map was produced, similar to the process used with the CalWORKs data. The resulting map enabled staff to quickly identify locations with high concentrations of essential destinations. While some of these destination hubs centered around urban transit centers, quite a large number were found within suburban office parks, outlying shopping malls, and industrial areas, auto-dependent land uses that are not always well-served by public transit systems.

Each employment site, regardless of the number of people it employs, is indicated with a single icon on the map since the Lifeline project is studying the geographic locations of employers and not necessarily their relative size. Not surprisingly, childcare centers are neighborhood oriented and scattered throughout the region, rather than being concentrated along with other key destinations. For this reason, transporting children to and from day care programs presents a unique challenge.

Step Four: Mapping All Transit Routes

There are twenty-four transit operators in the Bay Area and only a small handful have GIS capabilities at this time. The lack of digital transit route information created the most time-intensive phase of the Lifeline study since each and every route had to be screen-digitized into the GIS. Staff acquired printed transit route maps from the operators or from the Internet. In all, approximately 400 individual fixed transit routes were created, street by street. Additionally, staff added attribute data to the records, reflecting each route's hours of operation and frequency of service during the following time periods for weekdays, Saturdays, and Sundays: commute hours, midday, night, and late night.

Step Five: Selecting Candidate Lifeline Routes

Transit routes that were to be considered "candidates" in the Lifeline Network had to meet one of the following criteria:

- It serves low-income neighborhoods as defined by high concentrations of CalWORKs households (10 or more per ¼-mile area);
- It serves high concentrations of essential destinations;
- It is part of the transit operator's core (or trunkline) service network as defined by that operator;
- It is a route that is a considered a key regional link.

Once the candidate Lifeline routes were selected according to one of the four criteria, a ¼-mile buffer was delineated from both sides of each route. For transportation planning purposes, this distance is generally agreed to represent a zone within which it would take no more than five minutes to walk to the transit line.

Step Six: Performing Spatial Gap Analysis

The goal of this step was to identify places within a transit operators' service area that are currently not serving low-income neighborhoods or key destinations. These gaps became apparent on the map if they fell outside of the ¼-mile buffer delineated along either side of the Lifeline routes. The spatial gaps were circled on the maps and discussed at length with the transit operators who best know their territories. In most instances, the gaps identified in MTC's analysis came as no surprise to the operators. Oftentimes, they were simply waiting for funding, road improvements, or administrative approval needed to begin service to close the identified gaps.

Step Seven: Performing Temporal Gap Analysis

Through countywide welfare-to-work planning efforts, a consistent theme was that more frequent service is needed, additional—or new—service on weekends, and service later at night. In consultation with the Lifeline Transportation Network Working Group, objectives were established for the frequencies and hours of service. It proved challenging and controversial to establish these service objectives, and different standards were proposed for operators serving the urban core than for those whose service is suburban or commute-oriented. The final step in the study was to analyze the temporal gaps in the existing transit network; that is, candidate Lifeline routes that failed to meet the frequency and time of day objectives indicated by Table 2.

TABLE 2
LIFELINE TRANSPORTATION NETWORK FREQUENCY
AND HOURS OF SERVICE OBJECTIVES

	Frequency (minutes)				**Hours of Day**		
	Weekday commute	Weekday Non-commute	Saturday	Sunday	weekday	Sat.	Sun.
urban	15	30	30	30	6:00 a.m.-12:00 a.m.	6:00 am-12:00 am	7:30 a.m.-12:00 a.m.
Non-urban	30	30	30	60	6:00 a.m.-10:00 p.m.	8:00 a.m.-10:00 p.m.	8:00 a.m.-10:00 p.m.

In the majority of instances, most routes started service too late or ended service too early to meet the objective for hours of operation. Urban-core operator hours were set based upon the assumption that all transit services should match those offered by BART and Caltrain. For other operators, particularly those lacking regional rail, an ending time of 10:00 p.m. was set, which generally coincides with the end of shifts for most retail workers. A matrix was prepared to document, route by route, what temporal gaps exist.

APPENDIX C
LIFELINE TRANSPORTATION NETWORK ANALYSIS BY COUNTY

Intercounty Operators and Services

BART

BART's services function as the *spine* of the Lifeline Transportation Network in Alameda, Contra Costa and San Francisco Counties. Throughout the region, BART stations serve as both destinations and transfer points for local bus services, which facilitate movement by low-income transit-dependent persons between the areas served by BART lines. In addition, BART stations are located in or near many low-income communities throughout the Bay Area including Richmond, West Oakland, several neighborhoods in East Oakland, Hayward, Concord, the Eastern Contra Costa County cities of Pittsburg and Bay Point, San Francisco's Tenderloin and Mission District neighborhoods, and Daly City. Finally, BART is a key regional link between San Francisco and the East Bay, Alameda and Contra Costa Counties, and between Central and Eastern Alameda County.

Caltrain

Caltrain functions as an important Lifeline Transportation Network route between San Francisco, San Mateo, and Santa Clara Counties. While the route does not operate directly through many low-income communities, bus connections between Caltrain stations and communities such as East Palo Alto, Menlo Park, South San Francisco, and the Bayview/Hunters Point section of San Francisco make the system an important link between these communities and job centers such as downtown San Francisco, San Francisco International Airport and Silicon Valley.

- While Caltrain does operate service to Gilroy in Southern Santa Clara County, the service is single-direction peak-hour-only between San Jose and Gilroy. Santa Clara VTA's Route 68, which MTC has included in the Lifeline Transportation Network, provides local bus service in the same corridor.

Alameda County

Alameda County includes two of the region's densest concentrations of low-income persons, West Oakland and the neighborhoods of East Oakland. West Berkeley, Hayward, the unincorporated area of San Lorenzo/Cherryland, and parts of the Tri-Valley Area also have concentrations of low-income households. The county has several significant concentrations of essential destinations including Downtown Oakland, Downtown Berkeley, both of which are well-served by many bus routes and BART, and Dublin/Pleasanton, a suburban area with low-density business parks and more limited transit services.

Alameda County has two urban operators, AC Transit and BART, and two suburban operators, LAVTA and Union City Transit. CCCTA's County Connection and the Dumbarton Express also provide service in Alameda County. MTC considers these operators' areas suburban.

Spatial Gaps

MTC's analysis revealed only one spatial gap in the County: the Cherryland neighborhood west of Castro Valley in unincorporated Alameda County. Meekland Avenue, Western Boulevard, Willow and Medford Streets generally bound the area. The area has a large concentration of CalWORKs households, but there are pockets that are farther than one-quarter mile from any bus route. MTC staff conferred with AC Transit staff about this gap and while AC Transit staff is aware of it, poor road conditions in the Cherryland area now prevent buses from serving the neighborhoods. AC Transit is now working with the County to address this situation.

Temporal Gaps

The densest concentrations of both low-income persons and essential destinations are well served by Lifeline Transportation Network routes during the weekday commute periods and the weekday midday period. Service at other times of day or days of the week is more limited.

- AC Transit has 5 routes that provide 24-hour service and 6 routes that provide service only between midnight and 5 a.m.; these are the only 24-hour services in Alameda County. The 24-hour routes serve many of the largest concentrations of low-income persons in the county.
- The Dumbarton Express does not operate in the evening or on weekends.
- Of the 4 LAVTA routes included in the Lifeline Transportation Network, only one route, Route 10, operates on Sunday.

AC Transit

- AC Transit's Transbay Route A is the only service between Oakland and San Francisco after BART stops operating at approximately 1 a.m.

- AC Transit operates owl service (service that operates between about 1 a.m. – 5 a.m.) on Routes 40, 51, 58, 82, and 73. In addition, Routes A, 301, 345, 354, and 362 operate only during the owl service period; typically, these routes consist of segments of routes that operate during the non-owl periods.

BART

BART provides service to many of Alameda County's low-income communities, including West Oakland, East Oakland, and Hayward; BART also serves the county's major concentrations of destinations, Downtown Oakland and Downtown Berkeley.

- BART provides the only direct public transit link between the Tri-Valley Area and Western Alameda County.

Dumbarton Express

The Dumbarton Express provides a key regional link between Southern Alameda County and the Peninsula.

- Dumbarton Express routes provide connections to both Caltrain in Palo Alto and BART at Union City.

LAVTA Wheels

- Two of the 3 Wheels routes included in the Lifeline Network serve the Dublin/Pleasanton BART station.
- LAVTA supplements its fixed route Wheels services by providing general-public demand-responsive service called DART in Dublin, Pleasanton, and Livermore. DART service operates in place of some local services during the weekday midday and evening periods, and on the weekends.

Union City Transit

- All 3 Union City Transit routes included in the Lifeline Transportation Network serve the Union City BART station.

<u>Contra Costa County</u>

The highest concentrations of low-income households in Contra Costa County are located in the West County cities of Richmond and San Pablo and the East County cities of Pittsburg, Bay Point, Antioch, and Brentwood. Richmond and San Pablo are dense urban communities, while Pittsburg, Bay Point, Antioch, and Brentwood are lower density cities; Antioch and Brentwood have some agricultural areas.

Contra Costa County has two urban operators, AC Transit and BART, and three suburban operators, CCCTA County Connection, WestCAT and Tri-Delta Transit. Vallejo Transit,

Benicia Transit, and Fairfield/Suisun Transit provide service to BART stations from cities in Solano County; Golden Gate Transit serves the El Cerrito Del Norte Station from San Rafael.

- The El Cerrito Del Norte BART station serves as a major transfer point for Lifeline services; 5 transit agencies serve the station enabling riders to make trips from Alameda and San Francisco Counties to Solano and Marin Counties.

Spatial Gaps

The Lifeline analysis detected two spatial gaps in Contra Costa County, both of which are areas with high concentrations of destinations that lack transit service.

1. No bus routes serve the northernmost concentration of industrial employers along Port Chicago Highway, north of Highway 4, in Concord. County Connection Routes 108 and 117L both offer service along a short stretch of Port Chicago Highway to Bates Drive, but the concentration of employers suggests potential demand for additional service towards the Naval Weapons Station.
2. The concentration of employers in Central Concord in the area bounded by Detroit Avenue, Shary Circle and the BART line is not served by existing bus routes. Many of these businesses are light industrial manufacturers with many low-skill employment opportunities. The nearest bus routes operate on Monument Boulevard and Oak Grove Road.

Temporal Gaps

In general, both the urban and suburban transit operators in Contra Costa County provide service that meets the service objectives for Lifeline Transportation Network routes during the weekday commute and midday periods. Service is more limited in the evening and particularly on the weekends, when very limited service is available.

- Most County Connection Lifeline routes operate on Saturdays though only Route 114 in Concord operates as frequently as every 30 minutes. County Connection provides only limited service in the evenings, and only two Lifeline routes operate on Sundays.
- AC Transit, considered by MTC as an urban operator for this analysis, operates service in the Contra Costa County cities of El Cerrito, Kensington, Richmond, San Pablo, and El Sobrante. Most of the 13 Lifeline routes operate throughout the week, including the county's most extensive evening service. Route 73 operates 24 hours per day between the Richmond BART station and Downtown Oakland via San Pablo Avenue.
- BART operates service throughout the week along its two lines serving Contra Costa County and into the evenings until approximately 12:30 a.m. AC Transit serves the large concentration of CalWORKs households in Richmond with 24-hour local service, but connections between Richmond and other parts of the region are limited during the owl hours.

- Tri-Delta Transit has very limited service on its Lifeline Transportation Network routes on Saturdays and Sundays. Only Route 392 from the Pittsburg/Bay Point BART station to Brentwood operates on weekends.
- WestCAT operates limited service in the evenings and very limited service on Saturdays, when 3 of 8 Lifeline routes operate, and Sundays, when only one route operates – Route J between El Cerrito Del Norte BART and Hercules via the Eastshore Freeway.
- No service operates between the El Cerrito Del Norte BART station and cities in Solano County on Sundays, and only limited service operates on Saturdays.

CCCTA County Connection

- 9 of 11 County Connection routes included in the Lifeline Transportation Network serve a BART station.
- County Connection Route 121 is a key regional link providing service between Walnut Creek and the Tri-Valley area.
- Routes 121 and 221 are the only County Connection Lifeline routes that offer service on Sundays. Route 121 provides service between Dublin/Pleasanton BART and Walnut Creek BART. Route 221 operates between San Ramon and Alamo.

BART

BART operates service both in the West County cities of Richmond and El Cerrito and in the central part of the county in Orinda, Walnut Creek, Concord, and Pittsburg/Bay Point.

Golden Gate Transit

Golden Gate Transit's Route 40 provides a key regional link between Western Contra Costa County and San Rafael; the route enables low-income residents of Western Contra Costa County to travel to employment sites in San Rafael. Golden Gate Transit recently expanded the service using funding from MTC's Low Income Flexible Transportation (LIFT) Program.

Tri-Delta Transit

Tri-Delta Transit links the cities of Brentwood, Antioch, and Oakley to the Pittsburg/Bay Point BART station.

- 7 of the 9 Tri-Delta Transit routes included in the Lifeline network serve the Pittsburg/Bay Point BART station.

WestCAT

In addition to its fixed-route service, WestCAT operates dial-a-ride service in Crockett and Rodeo, both of which have scattered clusters of CalWORKs households.

Benicia Transit, Fairfield/Suisun Transit, Vallejo Transit

These three operators provide a key regional link between cities in Solano County and both local operators in Contra Costa County and BART.

Marin County

Marin County's low-income population is relatively small compared to other Bay Area counties. The most significant concentration of low-income households is in San Rafael and specifically the Canal area east of Downtown San Rafael. The largest concentration of essential destinations is also located in San Rafael, which also serves as an employment center for the low-income population in Western Contra Costa County.

Spatial Gaps

MTC's analysis identified one spatial gap in Marin County: no bus service serves Novato Community Hospital or other key destinations just east of Novato Boulevard. When MTC staff met with Golden Gate Transit staff to discuss the Lifeline Transportation Network project, Golden Gate Transit staff acknowledged this gap and indicated that Golden Gate Transit is taking steps to add service in the area. The agency very recently authorized an extension of Route 1 to better serve the Novato Hospital area; the new service will commence this winter.

MTC did identify other areas in the county with concentrations of essential destinations that lack transit service including Bolinas and the more mountainous areas of Mill Valley. Despite the concentration of destinations in these communities, the low density of development and the hilly terrain in both of these areas suggests that while expanded transportation services may be needed, expanded fixed-route bus service is neither feasible nor appropriate.

Temporal Gaps

Golden Gate Transit's Lifeline routes meet the frequency of service objectives during the weekday commute and midday periods for 8 of the 10 Lifeline routes. Only one route – Route 23 – meets the service objectives for weekday evening hours. Most of Golden Gate Transit's Lifeline routes do provide some service on the weekends, though infrequently.

Golden Gate Transit

Golden Gate Transit operates a total of 53 routes, including both the local service in Marin County and commute services that run between Sonoma County, Marin County, and San Francisco. MTC has included 10 of the routes in the Lifeline Transportation Network. All are considered part of Golden Gate's core service, and 5 of the 10 routes serve concentrations of CalWORKs households in San Rafael, Novato or Marin City.

- Route 80 provides commute service from Santa Rosa into San Francisco, and is supplemented by Routes 60 and 70, which originate in Novato and San Rafael, respectively. Route 80 operates about 21 hours of service per day and, therefore, exceeds the service objectives for suburban transit routes.
- Routes 10, 20, and 30 provide service to San Francisco, as well as local service within Marin County. While MTC has included all three routes in the Lifeline Transportation Network, it is likely that only the local route segments would warrant increases in either frequency of service or hours of service, because the portions of the routes to San Francisco are covered by Route 60/70/80, which provides service from San Rafael, Novato, and Santa Rosa to San Francisco.

Napa County

Napa County has the smallest population of the nine Bay Area counties and has many areas that could be considered rural, though Napa City, which is home to the county's largest concentrations of both low-income persons and essential destinations, has a more suburban density. Napa VINE is the primary transit operator in Napa County, but local dial-a-ride service is also available to the general public in Calistoga.

While VINE links Napa County to Vallejo to the south, no direct service operates between Napa County and either Sonoma County or Fairfield in central Solano County, a significant employment destination for Napa County's low-income residents. Staff at the Napa County Transportation Planning Agency (NCTPA) identified these two corridors as missing regional links where expanded bus service may be warranted.

Spatial Gaps

The Lifeline analysis did not identify any spatial gaps in Napa County.

Temporal Gaps

MTC's analysis of Napa VINE's Lifeline Transportation Network routes indicates that service objectives are not met for hours of operation for any of the Lifeline Transportation Network routes. Service on most routes ends at 6:30 p.m. on weekdays and operates even more limited hours on Saturday. The only Napa VINE Lifeline route that operates on Sunday is Route 10, which offers 5 trips in each direction between Calistoga, Napa city, and Vallejo.

Napa VINE

Napa VINE provides local services in Napa City and countywide service along Highway 29 from Calistoga to Vallejo in Solano County. Of Napa VINE's 8 bus routes, MTC has included 5 routes in the Lifeline Transportation Network.

- MTC selected 4 of the 5 routes because they serve concentrations of CalWORKs households and one route because it serves essential destinations.
- Napa VINE's Route 10 provides a key regional link between Napa and Solano Counties.

San Francisco

San Francisco has the region's most significant concentrations of essential destinations, several neighborhoods with large concentrations of low-income persons, and an extensive public transit network. The neighborhoods with the largest concentrations of low-income households are Bayview/Hunters Point, the Tenderloin, and the Mission District.

Spatial Gaps

The Lifeline analysis did not identify any spatial gaps in the city of San Francisco. Muni's routes serve all areas in the city with either a large number of CalWORKs households or a concentration of essential destinations.

Temporal Gaps

San Francisco Muni provides extensive service throughout the city throughout the week and 10 bus routes operate throughout the night. Route 108, which serves Treasure Island, has only infrequent service outside of the weekday commute period.

San Francisco Muni

The Lifeline Transportation Network includes 48 of Muni's 62 routes, nearly all of which serve both low-income neighborhoods and concentrations of essential destinations.

- San Francisco Muni has 10 routes that operate all-night service, all of which serve the city's low-income neighborhoods.
- Route 91, the one owl bus route that serves the Hunters Point neighborhood, one of the densest concentrations of low-income persons in the city, operates along Third Street at the edge of the neighborhood. The dense concentration of low-income households in the neighborhood suggests a possible demand for expanded neighborhood-oriented owl services.

BART

BART service in San Francisco serves two significant concentrations of CalWORKs households, the Tenderloin and Mission Districts, and the region's most dense concentration of employers, Downtown San Francisco. As in other counties served by BART, the BART lines serve as a key regional link enabling low-income transit-dependent persons to seek employment throughout the region.

AC Transit

MTC has identified 6 AC Transit Transbay routes as part of the Lifeline Transportation Network. All 6 of these routes operate beyond the weekday commute period, when AC Transit operates the majority of its Transbay service. Route A, the only public transit service operating between San Francisco and the East Bay during the owl period, is a key regional link.

Caltrain

MTC has included Caltrain in the Lifeline Transportation Network as a key regional link. While the rail line does serve a concentration of CalWORKs households in South San Francisco and many key destinations are located along the route, the most significant *Lifeline* role of Caltrain is that it offers a link between bus routes that serve low-income communities and bus routes that serve concentrations of destinations and major employment destinations including San Francisco International Airport and Silicon Valley.

Golden Gate Transit

MTC has included 5 Golden Gate Transit routes that serve San Francisco in the Lifeline Transportation Network; most routes travel through the Civic Center area and terminate at the Transbay Terminal, where connections are available to SamTrans, Muni, AC Transit, BART. MTC identified these 5 routes as part of the Lifeline Transportation Network based on the concentrations of CalWORKs households and/or essential destinations that the routes serve in Marin County. Addressing temporal gaps along these routes would likely require adding service along the local Marin County portion of the route, rather than adding the entire route from Marin County to San Francisco, because multiple routes already serve the portion of the trip between Marin County and San Francisco frequently.

SamTrans

SamTrans operates 3 Lifeline Transportation Network routes that serve San Francisco, all of which terminate at the Transbay Terminal in Downtown San Francisco.

- Route 97 provides the only service between Downtown San Francisco and San Francisco International Airport during the owl period, from about 1 a.m. – 5 a.m.
- SamTrans buses do not pick up local riders in San Francisco, except at the Transbay Terminal.

<u>San Mateo County</u>

San Mateo County is a largely suburban county with several concentrations of low-income households, including East Palo Alto, one of the region's densest concentrations of low-income persons, parts of Daly City, South San Francisco, and Menlo Park. The

county is relatively job-rich and includes one of the region's major 24-hour employment centers, San Francisco International Airport.

In general, a mismatch exists in San Mateo County between the locations of employers and low-income communities; low-income households are concentrated in a few communities located closer to San Francisco Bay, while employers are scattered throughout the county with some concentrations in the hills west of the Highway 101 corridor. The mismatch, coupled with the orientation of many SamTrans routes towards Caltrain stations, led to the identification of several Lifeline routes that serve only destinations or only low-income households. In some cases, the identified Lifeline routes may primarily serve employers with a largely high skill workforce, which makes these employers less relevant as essential destinations for low-income transit-dependent persons. However, the analysis conducted for this project does not go this level of detail, so this is an example of a situation where more analysis will be needed to determine whether the nature of the employers along specific routes will generate demand for expanded Lifeline services.

- Two routes serve San Mateo County during the owl period from about 1 a.m. – 5 a.m.: Santa Clara VTA operates Route 22 from Menlo Park to San Jose, and SamTrans operates Route 97 from Downtown San Francisco to San Francisco International Airport.

Spatial Gaps

SamTrans routes serve the most heavily populated areas of the county very well. SamTrans routes serve all identified concentrations of CalWORKs households at some time of the day. MTC staff identified only two spatial gaps, both in areas with high concentrations of destinations:

1. SamTrans does not serve the area along Airport Boulevard in South San Francisco, the site of many large hotels and food franchises, which provide a significant number of low-skill employment opportunities. While no fixed route service operates in this area, the city of Burlingame offers shuttle service to this area with connections available to a number of Caltrain stations.
2. No fixed route service operates to the corner of Sand Hill Road and Interstate 280 in Atherton, the location of a concentration of destinations. In general, Atherton is a wealthy community and employers offer high-skill job opportunities.

Temporal Gaps

Most SamTrans routes identified by MTC as part of the Lifeline Transportation Network operate at or near the frequency service objectives during the weekday commute and midday periods. Most Lifeline routes operate during the evening and on weekends, though several of the routes operate only once per hour during these periods. The SamTrans trunkline routes, which run along key corridors such as El Camino Real,

largely meet the frequency of service objectives for weekday commute and midday periods, and Saturdays and Sundays.

- Three SamTrans routes, the BX, 292, and 391, exceed the hours of service objectives for non-urban operators on weekdays, Saturdays, and Sundays.
- The density of low-income persons in East Palo Alto indicates possible demand for 24-hour transit service, though more analysis will be needed to determine whether demand exists to simply expand existing routes or whether some alternative service is more appropriate. SamTrans is currently considering implementing owl service between East Palo Alto and San Francisco.

Caltrain meets the urban operator frequency of service objectives for the weekday commute and midday periods, but service runs less frequently in the evening and on weekends. Caltrain meets the hours of service objectives for weekdays and Saturdays.

- Caltrain will eliminate weekend service through 2003 because of track work.
- Track capacity and ongoing maintenance work will limit the ability of Caltrain to increase the frequency of service to meet the service objectives.

SamTrans

The Lifeline Transportation Network includes 12 of SamTrans' 64 routes. Three of the routes serve the county's most dense concentration of low-income persons, East Palo Alto.

- Route BX serves as a key regional link connecting the Colma BART station to San Francisco International Airport and Route 97 serves as a key regional link between Downtown San Francisco and San Francisco International Airport during the owl period.
- 4 of the 12 SamTrans Lifeline routes provide a connection to either BART or Caltrain service.

BART

BART has two stations in San Mateo County at Daly City and Colma. All BART routes serving San Mateo County pass through San Francisco and terminate in the East Bay.

Caltrain

While Caltrain does serve a concentration of low-income persons in South San Francisco and several concentrations of essential destinations, its primary *Lifeline* function is a key regional link both between San Francisco and San Jose and within San Mateo County. Many local SamTrans routes serve Caltrain stations so low-income transit dependent persons can travel from one part of the county to another by riding a bus to Caltrain and then boarding a bus at another Caltrain station to complete their journey.

Santa Clara VTA

Santa Clara VTA operates one route in San Mateo County, Route 22, which operates 24-hours per day and provides a key regional link between Menlo Park and San Jose.

Santa Clara County

Santa Clara County has significant concentrations of low-income persons in East San Jose, though smaller clusters of low-income persons are scattered throughout the county. Santa Clara County has many concentrations of destinations including Downtown San Jose, Santa Clara, Sunnyvale, Mountain View, and Palo Alto. Similar to San Mateo County, a mismatch exists between the location of low-income households and concentrations of destinations; most low-income households are in the eastern part of the county and essential destinations are in the western part of the Santa Clara Valley.

Spatial Gaps

The Lifeline analysis did not identify any spatial gaps in Santa Clara County. VTA's routes serve all areas in the county with either a large concentration of CalWORKs households or a concentration of essential destinations.

Temporal Gaps

For the Lifeline analysis MTC has split Santa Clara County into two parts: MTC has compared routes in the northern part of the county to the urban operator service objectives and routes in the area south of San Jose including Morgan Hill and Gilroy to the suburban operator service objectives.

- Most VTA Lifeline routes meet the frequency of service objectives for the weekday commute and midday periods. While all but two VTA Lifeline routes operate in the evenings and on weekends, nearly all the routes operate less frequently than the service objectives recommend. The most frequent service in the evening and on the weekends operates on east-west trunkline routes and the light rail lines.
- 12 of the 26 VTA Lifeline Transportation Network routes meet the hours of service objective on weekdays; 10 routes meet the objective on Saturdays, and 9 routes meet the objective on Sundays. Routes 22, 64, and 70, which serve East San Jose, meet or exceed the hours of service objective.

Santa Clara VTA

The Lifeline Transportation Network includes 24 Santa Clara VTA bus routes and 2 light rail lines.

- Three VTA Lifeline routes operate 24-hours per day, Route 22 from Menlo Park to Eastridge Transit Center in East San Jose, and the two VTA light rail lines.

- Route 180 provides a key regional link between Fremont BART station and San Jose.
- Route 22 provides a key regional link between Menlo Park and San Jose.

AC Transit

Route 217 provides a key regional link between the Fremont BART station and the Alder VTA light rail station in Milpitas.

Caltrain

Caltrain operates single direction peak-hour-only service between San Jose and Gilroy. VTA Route 68 serves the same corridor

Dumbarton Express

The Dumbarton Express provides a key regional link between Southern Alameda County and the Peninsula.

- Both Dumbarton Express routes provide connections to both Caltrain in Palo Alto and BART at Union City.

Solano County

The largest concentration of low-income persons in Solano County is in Vallejo, but Vacaville, Fairfield, and Suisun City all have smaller concentrations of low-income persons. In each of the cities, all of which operate local city-based transit systems, low-income households are spread widely throughout the city. This led MTC to identify most of the local bus routes operating in each city as Lifeline Transportation Network routes.

Spatial Gaps

The major transit operators in Solano County – Benicia Transit, Fairfield/Suisun Transit, Vacaville City Coach, and Vallejo Transit – provide far-reaching geographic coverage of the county including service to concentrations of low-income persons and concentrations of essential destinations. One exception is the Benicia Industrial Park, an area with a large number of employers, but no transit service.

Temporal Gaps

The most significant temporal gap for transit agencies in Solano County is that only one Lifeline Transportation Network route operates on Sundays, Napa VINE's Route 10 from Vallejo to Napa. No local transit operator in Solano County operates bus service on Sundays.

- Most Lifeline Transportation Network routes in Vacaville, Fairfield, and Suisun City stop operating before 7 p.m. on weekdays and before 6 p.m. on Saturdays.

- Neither Vacaville Citycoach nor Fairfield/Suisun Transit operates service in the evenings.

Benicia Transit

The Benicia-Vallejo BART route provides a key regional link between Benicia and the Pleasant Hill BART station in Contra Costa County.

Vallejo Transit

- Routes 80 and 90 are key regional links between cities in Solano County including Vacaville, Fairfield, Suisun City, and Vallejo, and the El Cerrito Del Norte BART station in Contra Costa County.

Napa VINE

Route 10 is a key regional link between Vallejo and Napa County.

Sonoma County

The low-income population in Sonoma County is primarily located in Santa Rosa, with smaller concentrations of low-income persons in Cotati, Rohnert Park, and Petaluma. The rural areas of Sonoma County also have scattered low-income households, but these are not clustered in sufficient densities to warrant public transit service. Most essential destinations in Sonoma County are located in Santa Rosa or in other cities along the Highway 101 Corridor such as Petaluma, Rohnert Park, Cotati, and Windsor.

Spatial Gaps

The Lifeline analysis did not identify any spatial gaps in Sonoma County.

Temporal Gaps

The most significant temporal gap in Sonoma County is the lack of local bus service after 8 p.m. in Santa Rosa. The recently completed Sonoma County Welfare to Work Transportation Planning Project identified the lack of evening service in Santa Rosa as the most important barrier limiting access to employment opportunities. In particular, the Welfare to Work Project focused on the lack of evening service to Santa Rosa Junior College.

- None of the 6 Sonoma County Transit routes identified by MTC as part of the Lifeline Transportation Network meet the frequency of service objectives for any time period during the week or on weekends.

Golden Gate Transit

Golden Gate Transit operates one Lifeline route in Sonoma County, Route 80, from Santa Rosa to San Francisco. This service operates about 21 hours per day throughout the week, which exceeds the hours of service objective for non-urban operators.

APPENDIX D
LIFELINE TRANSPORTATION NETWORK ROUTES AND GAP ANALYSES

The following tables list the specific transit routes that comprise the Lifeline Transportation Network. Each table shows the four criteria on which MTC based the identification of the Lifeline routes: 1. Serves a cluster of CalWORKs households; 2. Serves a concentration of essential destinations; 3. Identified by a transit operator as a trunkline route; or 4. Functions as a key regional link.

Notes About the Tables

- The table does not set priorities for which routes are the most significant components of the Lifeline Transportation Network. However, it is important to note the significance of the region's rail lines – BART and Caltrain – which provide key regional links between many of the local Lifeline routes that serve the concentrations of CalWORKs households and essential destinations directly.
- If a route is identified as part of the Lifeline Transportation Network because it meets three or four of the criteria, it does not mean that route is more important to meeting the transportation needs of low-income persons than a route that meets fewer criteria.
- Several operators provide services in more than one county and several transit routes cross between counties; in these cases, the routes are listed under every county in which the particular route operates.

ALAMEDA COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	Route	Route Description	Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	6	Parkwood - Piedmont	✓				BART
	9	University Avenue – Berkeley BART	✓	✓			BART
	11	Piedmont – Fruitvale Avenue	✓	✓			BART
	12	Macarthur BART – Fruitvale BART	✓	✓			BART
	13	Oakland Army Base – Lakeshore Avenue	✓	✓			BART
	14	Macarthur BART – 35th Avenue	✓	✓			BART
	15	El Cerrito BART – Montclair	✓	✓			BART
	40/40L	El Cerrito – Bayfair	✓	✓	✓		BART
	43	El Cerrito – Bayfair	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	44	38th & Macarthur – Fruitvale BART	✓	✓			BART
	45	Coliseum BART – Foothill Square	✓				BART
	46	Coliseum BART – Skyline	✓				BART
	47	55th & Macarthur – Fruitvale BART	✓	✓			BART
	48	Tompkins & Carson – Fruitvale BART	✓	✓			BART
	49	Fruitvale BART – Coliseum BART	✓	✓			BART
	50	Fruitvale BART – Alameda	✓	✓			BART
	51	Berkeley – Oakland – Alameda	✓	✓	✓		BART
	52/52L	U.C. Village – U.C. Campus	✓	✓			BART

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	53	Fruitvale BART – Fruitvale Avenue – Chabot Center	✓				BART
	54	Fruitvale BART – Merritt College	✓	✓			BART
	55	Dutton Drive – Doolittle Drive	✓	✓			BART
	56	Seminary Avenue – 90th Avenue	✓				BART
	57	Emeryville Amtrak – Bayfair BART	✓	✓	✓		BART
	58	Downtown Oakland – Oakland Airport	✓	✓	✓		BART
	59	Montclair – Jack London Square	✓	✓			BART
	62	Wood Street – Fruitvale BART – Alameda	✓	✓	✓		BART
	65	University Avenue – Euclid Avenue	✓	✓			BART
	72/72L	Richmond – Downtown Oakland	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	73	Richmond – Downtown Oakland	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	77	Tennyson Road – Hayward BART	✓	✓			BART
	80	San Leandro BART – Castro Valley	✓	✓			BART
	81	San Leandro BART – Hayward BART	✓	✓			BART
	82/82L	West Oakland – Hayward BART	✓	✓	✓		BART
	84	San Leandro – Castro Valley	✓	✓			BART
	85	San Leandro BART – Hayward BART	✓	✓			BART

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	86	Hayward BART – Industrial Park	✓	✓			BART
	88	North Berkeley BART – Downtown Oakland	✓	✓			BART
	90	Hayward BART – Hesperian Boulevard	✓	✓			BART
	91	Castro Valley – Chabot College	✓	✓			BART
	92	Hesperian Boulevard – Cal State Hayward	✓	✓	✓		BART
	95	Kelly Hill – Hayward BART		✓			BART
	97	Union City BART – Hesperian Boulevard	✓	✓	✓		BART, Union City
	98	Coliseum BART – 98th Avenue	✓				BART
	213	Fremont/Hayward – Mowry Avenue – Niles Boulevard		✓			BART, Union City, VTA
	217	Fremont BART – Mission Boulevard – Milpitas – Alder LRT		✓		✓	BART, VTA
	219	Fremont BART – Thorton Boulevard	✓	✓			BART, VTA
	301	Hayward – Fremont Owl Service	✓	✓			
	345	Eastmont Mall – Foothill Square Owl	✓				
	354	35th Avenue – K-Mart Owl	✓	✓			
	362	Macarthur BART – Fruitvale BART Owl	✓	✓			
	A	Downtown Oakland – San Francisco Owl	✓	✓		✓	Golden Gate, Muni, SamTrans
	C	Piedmont Avenue – San Francisco	✓	✓		✓	BART, GGT, Muni, SamTrans

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	F	Berkeley – San Francisco	✓	✓	✓	✓	BART, GGT, Muni, SamTrans
	N	East Oakland – San Francisco	✓	✓	✓	✓	BART, GGT, Muni, SamTrans
	NL	East Oakland – San Francisco	✓	✓	✓	✓	BART, GGT, Muni, SamTrans
	O	Alameda – San Francisco	✓	✓	✓	✓	BART, GGT, Muni, SamTrans
	Dumbarton Express	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA
	Dumbarton Express 1	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA
BART	Dublin/ Pleasanton – Daly City	Eastern Alameda County – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, LAVTA, Muni, SamTrans, Union City
	Fremont – Richmond	Fremont – Hayward – Oakland – Richmond	✓	✓	✓	✓	AC Transit, Golden Gate, Union City, VTA, Vallejo, WestCAT
	Fremont – Daly City	Fremont – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Muni, SamTrans, Union City, VTA
	Pittsburg/ Bay Point - Colma	Central Contra Costa County – Oakland – San Francisco – Colma	✓	✓	✓	✓	AC Transit, CCCTA, Muni, SamTrans, Tri-Delta

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
BART	Richmond – Daly City	Richmond – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Golden Gate, Muni, SamTrans, Union City, Vallejo, WestCAT
CCCTA	121	Walnut Creek BART – San Ramon Valley – Dublin/Pleasanton BART	✓	✓	✓	✓	BART, LAVTA
LAVTA Wheels	10	Dublin – Pleasanton – Livermore	✓	✓	✓		BART, CCCTA
	12	Livermore – Las Positas College – Dublin/ Pleasanton BART		✓	✓		BART
	15	Livermore – Springtown	✓	✓			
Union City Transit	1A	Alvarado-Niles (Regents/Dolores)	✓				AC Transit, BART
	1B	Alvarado-Niles (Dolores/Regents)	✓				AC Transit, BART
	2	Whipple	✓				AC Transit, BART

ALAMEDA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

		FREQUENCY OF SERVICE						HOURS OF OPERATION		
		WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
URBAN LIFELINE GOAL		15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
ROUTE							**ROUTE**			
AC 6		15	20	X	40	40	AC 6	**(600)** to 1900	800 to 1800	800 to 1800
AC 9		15	30	X	30	30	AC 9	700 to 1900	745 to 1830	745 to 1830
AC 11		15	30	X	60	60	AC 11	**(600)** to 1830	700 to 1900	**(700)** to 1900
AC 12		15	30	X	30	30	AC 12	**(600)** to 1900	700 to 1900	**(700)** to 1900
AC 13		15	30	X	X	X	AC 13	**(530)** to 1900	X	X
AC 14		15	30	X	30	30	AC 14	**(500)** to 1900	700 to 1900	**(700)** to 1900
AC 15		15-30	15-30	30	20-40	20-40	AC 15	**(530)** to 2130	**(600)** to 2200	**(600)** to 2200
AC 40/40L	**24 hours**	8	8	20-60	20-60	20-60	AC 40/40L	24 Hours	24 Hours	24 Hours
AC 43		12-15	16	20-30	20	20	AC 43	500 to 1215 am	500 to 1215am	500 to 1215am
AC 44		15	30	X	30	30	AC 44	**(600)** to 1900	800 to 1830	800 to 1830
AC 45		15	30	X	30	30	AC 45	**(530)** to 2300	715 to 2000	**(715)** to 2000
AC 46		15	30	30	X	X	AC 46	**(530)** to 1900	X	X
AC 47		30	30	X	X	X	AC 47	**(545)** to 1930	X	X
AC 48		30	30	X	30	30	AC 48	**(600)** to 1900	800 to 1830	800 to 1830
AC 49		15	30	X	X	X	AC 49	**(600)** to 1900	X	X
AC 50		30	30	30	30	30	AC 50	**(600)** to 2330	**(600)** to 2330	**(600)** to 2330
AC 51	**24 hours**	6-8	10	15-60	15-60	20-60	AC 51	24 hours	24 hours	24 Hours
AC 52/52L		30	30	30	X	X	AC 52/52L	**(600)** to 1800	X	X
AC 53		15	15	30	15	15	AC 53	500 to 1200 am	500 to 1200 am	500 to 1200 am
AC 54		10	15	60	30	30	AC 54	**(600)** to 2230	700 to 1900	**(700)** to 1900
AC 55		30	30	X	30	30	AC 55	**(600)** to 1900	800 to 1830	800 to 1830
AC 56		15	30	50	30	30	AC 56	**(500)** to 2000	**(530)** to 1930	**(530)** to 1930
AC 57		10-15	17	20-30	30	20-30	AC 57	400 to 1200 am	430 to 1200am	430 to 1200am
AC 58	**24 hours**	10-15	17	20-60	20-60	20-60	AC 58	24 Hours	24 Hours	24 Hours
AC 59		30	30	X	60	60	AC 59	**(530)** to 1930	800 to 1900	800 to 1900
AC 62		15	15	30	30	30	AC 62	530 to 1200 am	520 to 1200am	520 to 1200am
AC 65		20	30	30	30	30	AC 65	**(530)** to 2000	730 to 1830	**(730)** to 1830
AC 72/72L		10-20	20-30	36	36	36	AC 72/72L	**(530)** to 2330	**(530)** to 2330	**(530)** to 2330
AC 73	**24 hours**	20	30	36-60	36-60	36-60	AC 73	24 Hours	24 Hours	24 Hours
AC 77		15	60	X	60	60	AC 77	**(553)** to 1837	900 to 1900	900 to 1900
AC 80		30	30	30	30	30	AC 80	615 to 1945	800 to 1900	800 to 1900
AC 81		30	60	X	60	60	AC 81	**(551)** to 1930	800 to 1900	800 to 1900
AC 82/82L	**24 hours**	12	15	20-60	15-60	15-60	AC 82/82L	24 Hours	24 Hours	24 Hours
AC 84		30	30	30	60	60	AC 84	**(535)** to 2000	750 to 1910	800 to 1900
AC 85		30	60	X	60	60	AC 85	**(530)** to 1900	740 to 1920	**(730)** to 1915
AC 86		30	30	X	X	X	AC 86	**(600)** to 1700	X	X
AC 88		20	20	20	20-30	20-30	AC 88	530 to 1200 am	600 to 1200am	600 to 1200am
AC 90		15-30	60	X	60	60	AC 90	**(530)** to 1830	940 to 1710	940 to 1710
AC 91		15-30	30	X	X	X	AC 91	**(545)** to 1945	X	X
AC 92		15	15	30	60	60	AC 92	**(540)** to 2230	730 to 2000	**(540)** to 2000

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

ALAMEDA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		WEEKDAY	SATURDAY	SUNDAY
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
AC 95	15	60	X	60	60	AC 95	618 to 1848	900 to 1900	900 to 1900
AC 97	30	30	30	60	60	AC 97	**(526)** to 2230	730 to 1730	819 to 1820
AC 98	15	30	20	X	X	AC 98	**(545)** to 2030	X	X
AC 213	15-30	15-30	15-30	30/60	30/60	AC 213	**(600)** to 2231	647 to 1857	**(647)** to 1857
AC 217	30	30	30	30	30	AC 217	**(550)** to 2200	700 to 1921	700 to 1921
AC 219	30	30	30	60	60	AC 219	**(548)** to 2200	700 to 1900	700 to 1900
AC 301 (OWL ONLY)	X	X	60	60	60	AC 301 OWL	1245 am to 430 am	1245am to 615 am	1245am to 816am
AC 345 (OWL ONLY)	X	X	60	60	60	AC 345 OWL	1200 am to 500 am	1200am to 500 am	1200am to 500am
AC 354 (OWL ONLY)	X	X	60	60	60	AC 354 OWL	2220 to 610 am	2220 to 610 am	2220 to 610 am
AC 362 (OWL ONLY)	X	X	60	60	60	AC 362 OWL	1200 am to 530 am	1200am to 530 am	1200am to 530am
AC 376	X	X	30	30	30	AC 376	2000 to **(1255am)**	2000 to **(1255am)**	2000 to **(1255am)**
AC A (OWL ONLY)	X	X	60	60	60	AC A OWL	1235 am to 615 am	125am to 814 am	125am to 814 am
AC C	20-30	90	90	90	90	AC C	**(530)** to 2300	**(600)** to 2300	**(600)** to 2300
AC F	15	30	30	30	30	AC F	450 to 1200 am	600 to 1200am	600 to 1200am
AC N	15	30	30	30	30	AC N	530 to 1200 am	530 to 1200am	530 to 1200am
AC NL	15	30	30	30	30	AC NL	530 to 1200 am	530 to 1200am	530 to 1200am
AC O	10-15	45	60	60	60	AC O	530 to 1200 am	545 to 1200am	545 to 1200am
Dumbarton DB	A	C	X	X	X	Dumbarton DB	**(520)** to 2000	X	X
Dumbarton DB1	B	B	X	X	X	Dumbarton DB1	**(535)** to 1845	X	X
BART Dublin-Daly City	A	A	B	B	B	BART Dublin-DC	400 to 1200 am	600 to 1200 am	800 to 1200 am
BART Pitts-Colma	A	A	B	B	B	BART Pitts-Colma	400 to 1200 am	600 to 1200 am	800 to 1200 am
BART Rich-Frem	A	A	B	B	B	BART Rich-Frem	400 to 1200 am	600 to 1200 am	800 to 1200 am
BART Rich-Daly City	A	A	X	B	X	BART Rich-DC	**(456)** to 1945	846 to 1915	X
BART Fremont-D. City	A	A	X	B	X	BART Fremont-DC	**(506)** to 1941	853 to 1920	X
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
CCCTA 121	30-40	20-30	30-60	60	X	CCCTA 121	515 to 2259	**(738)** to 2132	838 to 1828
LAVTA 10	A	B	B	B	B	LAVTA 10	530 to 2352	653 to 2344	708 to 2224
LAVTA 12	B	B	C	C	X	LAVTA 12	**(454)** to 2133	802 to 1940	X
LAVTA 15	C	C	X	C	X	LAVTA 15	**(525)** to 1925	823 to 1623	X
Union City 1A	30	30-60	60	60	60	Union City 1A	**(435)** to 2005	**(705)** to 1805	805 to 1705
Union City 1B	15-30	15-60	X	60	X	UnionCity 1B	**(500)** to 1930	**(735)** to 1835	X
Union City 2	20-30	30	30	30	20-60	Union City 2	**(500)** to 2030	**(700)** to 1830	830 to 1740

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

CONTRA COSTA COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	Route	Route Description	Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	15	El Cerrito BART – Montclair	✓	✓			BART, Golden Gate, Vallejo, WestCAT
	43	El Cerrito – Bayfair	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	68	Richmond BART – El Cerrito BART	✓				BART, Golden Gate, Vallejo, WestCAT
	69	Leroy Heights – Sherwood Forest	✓				
	70	El Cerrito Del Norte BART – Richmond Parkway Transit Center	✓				BART, Golden Gate, Vallejo, WestCAT
	71	West Contra Costa Justice Ctr. – El Cerrito Del Norte BART	✓				BART, Golden Gate, Vallejo, WestCAT
	72/72L	Richmond – Downtown Oakland	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	73	Richmond – Downtown Oakland	✓	✓	✓		BART, Golden Gate, Vallejo, WestCAT
	74	Hilltop Mall – Marina Bay	✓	✓			BART, Golden Gate, WestCAT
	75	El Cerrito Del Norte BART – El Cerrito BART	✓	✓			BART, Golden Gate, Vallejo, WestCAT
	76	Contra Costa College – El Cerrito BART	✓	✓			BART, Golden Gate, Vallejo, WestCAT
	78	Richmond BART – Contra Costa College	✓				BART, Golden Gate
	376	North Richmond Shuttle	✓	✓			

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
BART	Fremont – Richmond	Fremont – Oakland – Hayward – Richmond	✓	✓	✓	✓	AC Transit, Golden Gate, Union City, VTA, Vallejo, WestCAT
	Pittsburg/ Bay Point – Colma	Central Contra Costa County – Oakland – San Francisco – Colma	✓	✓	✓	✓	AC Transit, CCCTA, Muni, SamTrans, Tri-Delta
	Richmond – Daly City	Richmond – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Golden Gate, Muni, SamTrans, Union City, Vallejo, WestCAT
CCCTA	101	Rossmoor – Ygnacio Valley Road – John Muir Medical Center		✓	✓		
	105	Walnut Creek BART – Broadway – Creekside Drive	✓	✓	✓		BART
	107	Pleasant Hill BART – John Muir Medical Center			✓		BART
	108	North Concord BART – Center Avenue – Amtrak Martinez	✓		✓		BART
	109	Pleasant Hill BART – Contra Costa Boulevard – Diablo Valley College	✓		✓		BART
	110	Clayton – Concord BART – Diablo Valley College	✓	✓	✓		BART
	111	Concord BART – Pleasant Hill BART – Geary Road	✓	✓	✓		BART
	114	Concord BART – Monument Boulevard – Pleasant Hill BART	✓	✓	✓		BART

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
CCCTA	115	Concord BART – Pleasant Hill BART – Walnut Creek BART	✓	✓	✓		BART
	116	Martinez Amtrak – Pleasant Hill BART – Walnut Creek BART	✓	✓	✓		BART
	117A	Concord BART – Solano Way – North Concord BART	✓	✓	✓		BART
	117B	Concord BART – Solano Way – North Concord BART	✓	✓	✓		BART
	118	Concord BART – Morello – Martinez Amtrak	✓	✓	✓		BART
	121	Walnut Creek BART – San Ramon Valley – Dublin/Pleasanton BART	✓	✓	✓	✓	BART, LAVTA
	129	Concord Boulevard		✓	✓		
	221	San Ramon Area		✓			
	308	Concord BART – Martinez (Sunday only)	✓		✓		BART
	314	Clayton Road – Concord BART (Sunday only)	✓	✓	✓		BART
	930	Antioch – Hillcrest Park & Ride – Walnut Creek BART		✓	✓		BART
Tri-Delta Transit	300	Pittsburg/Bay Point BART – Brentwood Express	✓				BART
	380	Pittsburg/Bay Point BART – Antioch – Hillcrest Park & Ride	✓		✓		BART
	383	Oakley – Antioch – Freedom High School	✓				
	387	Pittsburg/Bay Point BART – Antioch	✓				BART

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
Tri-Delta Transit	389	Pittsburg/Bay Point BART – Shore Acres	✓				BART
	388	Pittsburg/Bay Point BART – Antioch – Hillcrest Park & Ride	✓				BART
	390	Pittsburg/Bay Point BART – Antioch – Hillcrest Park & Ride	✓				BART
	392	Pittsburg/Bay Point BART – Antioch – Oakley - Brentwood	✓				BART
	Dimes – a – Ride	Brentwood Local	✓				
WestCAT	11	Hercules	✓		✓		
	15	Viewpointe	✓				
	16	Pinole Valley	✓	✓	✓		
	18	Tara Hills	✓	✓			AC Transit
	19	Hilltop/Hercules		✓			AC Transit
	30Z	Martinez Link			✓	✓	AC Transit, BART, Golden Gate, Vallejo
	J	Rodeo – Hercules – Pinole – El Cerrito Del Norte BART	✓	✓	✓	✓	AC Transit, BART, Golden Gate, Vallejo
	JX	Hercules – El Cerrito Del Norte BART	✓	✓	✓	✓	AC Transit, BART, Golden Gate, Vallejo
Benicia Transit	Vallejo – Pleasant Hill BART	Vallejo – Pleasant Hill BART		✓		✓	BART, CCCTA
Fairfield/ Suisun Transit	40	Solano – BART Express	✓	✓		✓	BART, CCCTA

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
Golden Gate Transit	40	San Rafael – Richmond	✓	✓	✓	✓	AC Transit, BART, Vallejo, WestCAT
Vallejo Transit	80	Fairfield – El Cerrito Del Norte BART	✓		✓	✓	AC Transit, BART, Golden Gate, WestCAT
	90	South City – El Cerrito Del Norte BART	✓		✓	✓	AC Transit, BART, Golden Gate, WestCAT

CONTRA COSTA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	WEEKDAY MIDDAY	WEEKDAY NIGHT	SATURDAY ALL SERVICE	SUNDAY ALL SERVICE		WEEKDAY	SATURDAY	SUNDAY
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
Trunkline Routes						**Trunkline Routes**			
CCCTA 101	B	B	X	C	X	CCCTA 101	630 TO 1945	840 TO 1857	X
CCCTA 105	C	C	X	C	X	CCCTA 105	610 TO 1926	935 TO 1803	X
CCCTA 107	B	C	X	C	X	CCCTA 107	610 TO 1932	905 TO 2002	X
CCCTA 108	B	B	C	C	X	CCCTA 108	614 TO **(2200)**	**(700)** TO 2013	X
CCCTA 109	B	B	X	C	X	CCCTA 109	**(545)** TO 2009	1010 TO 1833	X
CCCTA 110 (kpc)	A	B	B	C	X	CCCTA 110	502 TO 2238	**(740)** TO 2027	X
CCCTA 111	C	C	X	C	X	CCCTA 111	605 TO 1938	922 TO 1845	X
CCCTA 114	B	B	C	B	X	CCCTA 114	607 TO **(2323)**	**(740)** TO 1934	X
CCCTA 115	B	C	X	C	X	CCCTA 115	**(535)** TO 2029	910 TO 1944	X
CCCTA 116	C	B	C	C	X	CCCTA 116	**(540)** TO 2110	910 TO 1905	X
CCCTA 117A	C	C	X	C	X	CCCTA 117A	**(505)** TO 2007	910 TO 1807	X
CCCTA 117B	C	C	X	C	X	CCCTA 117B	**(530)** TO 1955	930 TO 1828	X
CCCTA 118	C	C	C	C	X	CCCTA 118	655 TO 2108	832 TO 1924	X
CCCTA 121	B	B	B	C	C	CCCTA 121	515 TO 2259	**(738)** TO 2132	838 TO 1828
CCCTA 129	C	C	X	C	X	CCCTA 129	653 TO 1753	953 TO 1853	X
CCCTA 308	X	X	X	X	D	CCCTA 308	X	X	904 TO 1730
CCCTA 314	X	X	X	X	D	CCCTA 314	X	X	**(730)** TO 1815
CCCTA 930	B	X	X	X	X	CCCTA 930	**(527)** TO 1932	X	X
Golden Gate 40	B	B	X	D	D	Golden Gate 40	**(525)** TO 1946	**(656)** TO 1920	**(656)** TO 1920
TriDelta 380	B	C	C	X	X	TriDelta 380	**(316)** to 2114	X	X
Vallejo Transit 80	B	B	B	B	X	Vallejo Transit 80	428 TO 2230	637 TO 2330	X
Vallejo Transit 90	B	B	C	X	X	Vallejo Transit 90	455 TO 2235	X	X
WestCAT J	A	B	C	C	C	WestCAT J	445 TO 1201AM	615 TO 2340	**(739)** TO 1940
WestCAT JX	A	X	X	X	X	WestCAT JX	**(523)** TO 1855	X	X
WestCAT 30Z	D	D	X	X	X	WestCAT 30Z	**(600)** TO 1825	X	X
WestCAT 11	B	B	B	X	X	WestCAT 11	**(552)** TO 2001	X	X
WestCAT 15	B	B	B	C	X	WestCAT 15	**(530)** TO 2130	825 TO 1815	X
WestCAT 16	B	B	C	X	X	WestCAT 16	**(500)** TO 2110	X	X
WestCAT 18	C	C	C	X	X	WestCAT 18	625 TO 2005	X	X
WestCAT 19	B	B	X	C	X	WestCAT 19	715 TO 1855	850 TO 1850	X
Added Routes						**Added Routes**			
Benicia Trans (to BART)	B	C	C	D	X	Benicia Transit	**(500)** TO 1956	810 TO 1844	X
CCCTA 221	B	D	X	X	X	CCCTA 221	656 TO 1551	X	X
FairSuisun 40	C	X	X	X	X	FairSuisun 40	**(500)** TO 2030	X	X
TriDelta 300	C	X	C	X	X	TriDelta 300	**(428)** TO 2002	X	X
TriDelta 383	D	D	D	X	X	TriDelta 383	**(524)** TO 2010	X	X
TriDelta 387	C	C	D	X	X	TriDelta 387	**(525)** TO 1951	X	X
TriDelta 388	C	C	D	X	X	TriDelta 388	451 TO 2200	X	X
TriDelta 389	C	C	C	X	X	TriDelta 389	455 TO 2200	X	X
TriDelta 390	C	X	C	X	X	TriDelta 390	400 TO 1203 AM	X	X
TriDelta 392	X	X	X	C	C	TriDelta 392	X	551 TO 1207 AM	651 TO 1207 AM
TriDelta (Dimes-a-Ride)	B	B	X	C	X	TriDelta (Dimes-a-Ride)	625 TO 1925	930 to 1630	X

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

CONTRA COSTA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*					HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE	**WEEKDAY**	**SATURDAY**	**SUNDAY**
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
Trunkline Routes						**Trunkline Routes**		
AC 43	A	B	B	B	B	AC 43	510 TO 1215 AM	500 TO 1215 AM	500 TO 1215 AM
AC 72/72L	A	B	C	B	B	AC 72/72L	**(530)** TO 2330	**(530)** TO 2330	**(530)** TO 2330
AC 73 **24 hours**	B	B	C	C	C	AC 73	24 Hours	24 Hours	24 Hours
Added Routes						**Added Routes**			
AC 15	B	B	B	C	C	AC 15	**(530)** TO 2130	**(600)** TO 2200	**(600)** TO 2200
AC 68	B	B	B	X	X	AC 68	**(600)** TO 1930	X	X
AC 69	B	B	X	C	C	AC 69	**(600)** TO 1945	700 TO 1916	**(700)** TO 1916
AC 70	B	B	B	C	C	AC 70	**(532)** TO 2130	630 TO 1930	**(630)** TO 1930
AC 71	B	B	B	C	C	AC 71	**(515)** TO 1930	630 TO 1930	**(630)** TO 1930
AC 74	B	B	B	B	B	AC 74	**(530)** TO 2030	900 TO 1830	900 TO 1830
AC 75	B	B	X	C	C	AC 75	**(600)** TO 1900	700 TO 1900	**(700)** TO 1900
AC 76	B	B	B	C	C	AC 76	**(600)** TO 2000	630 TO 1930	**(630)** TO 1930
AC 78	B	B	B	B	B	AC 78	**(530)** TO 1930	645 TO 1900	**(645)** TO 1900

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

MARIN COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
Golden Gate Transit	1	College of Marin – Novato		✓	✓		
	10	Sausalito – Tiburon – San Francisco			✓	✓	AC Transit, BART, Muni, SamTrans
	20	Canal – San Francisco	✓		✓	✓	AC Transit, BART, Muni, SamTrans
	21	Mill Valley – College of Marin			✓		
	23	Fairfax – San Anselmo – San Rafael – Santa Venetia	✓	✓	✓		
	30	San Rafael – San Francisco			✓	✓	AC Transit, BART, Muni, SamTrans
	35	Canal area	✓		✓		
	40	San Rafael –Richmond	✓	✓	✓	✓	AC Transit, BART, Vallejo, WestCAT
	50	San Marin – San Francisco	✓		✓		AC Transit, BART, Muni, SamTrans
	60/70/80	Santa Rosa – Novato – San Rafael – San Francisco		✓	✓	✓	AC Transit, BART, CityBus Muni, Sam-Trans, SC Transit

MARIN COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

---------- FREQUENCY OF SERVICE* ----------

	WEEKDAY A.M./P.M. COMMUTE	WEEKDAY MIDDAY	WEEKDAY NIGHT	SATURDAY ALL SERVICE	SUNDAY ALL SERVICE
LIFELINE GOAL--	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways
Trunkline Routes					
Ggate 1	B	B	X	C	X
Ggate 10	C	C	C	C	C
Ggate 20	B	B	C	B	B
Ggate 21	B	B	X	X	X
Ggate 23	B	B	B	B	B
Ggate 30	X	C	X	X	X
Ggate 35	B	B	X	B	B
Ggate 40	B	B	X	D	D
Ggate 50	B	B	C	C	C
Ggate 60/70/80	B	B	D	C	C

---------- HOURS OF OPERATION ----------

	WEEKDAY	SATURDAY	SUNDAY
LIFELINE GOAL--	6:00 am - 10:00 pm	8:00 am - 10:00 pm	8:00 am - 10:00 pm
Trunkline Routes			
Ggate 1	**(550)** to 1820	**(752)** to 1725	X
Ggate 10	504 to 1252 am	539 to 1250 am	539 to 1250 am
Ggate 20	445 to 230 am	500 to 230 am	500 to 230 am
Ggate 21	749 to 1615	X	X
Ggate 23	636 to **(1252 am)**	708 to 1248 am	708 to 1248 am
Ggate 30	815 to 1600	X	X
Ggate 35	630 to 1900	700 to 2350	700 to 2350
Ggate 40	**(525)** to 1946	**(656)** to 1920	**(656)** to 1920
Ggate 50	407 to 2319	531 to 2316	531 to 2316
Ggate 60/70/80	400 to 200am	445 to 200am	445 to 200am

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

NAPA COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
Napa VINE	1	Browns Valley – Downtown – Foster Road	✓	✓			
	2/2A/2N	Redwood Road – Downtown – Napa College	✓	✓			
	3/3A/3N	Old Sonoma Road – Downtown – Silverado Plaza	✓	✓			
	4	Orchard Avenue – Salvador – Downtown Napa	✓	✓			
	10	Calistoga – Napa – Vallejo	✓	✓	✓	✓	Vallejo Transit

NAPA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
LIFELINE GOAL---	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am - 10:00 pm	8:00 am - 10:00 pm	8:00 am - 10:00 pm
Trunkline						**Trunkline**			
Napa VINE 10	D	D	D	D	D	Napa VINE 10	**(520)** to 2125	**(600)** to 1926	853 to 1814
Added Routes						**Added Routes**			
Napa VINE 1	B	B	X	D	X	Napa VINE 1	630 to 1826	**(730)** to 1756	X
Napa VINE 2/2A/2N	C	C	X	D	X	Napa VINE 2/2A/2N	630 to 1827	**(630)** to 1757	X
Napa VINE 3/3A/3N	C	C	X	D	X	Napa VINE 3/3A/3N	630 to 1827	**(730)** to 1827	X
Napa VINE 4	C	D	X	D	X	Napa VINE 4	630 to 1830	**(730)** to 1755	X

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

SAN FRANCISCO COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
San Francisco Muni	F	Market		✓	✓		BART
	J	Church		✓	✓		BART
	K	Ingleside	✓	✓	✓		BART
	L	Taraval	✓	✓	✓		BART
	M	Ocean Beach	✓	✓	✓		BART, SamTrans
	N	Judah	✓	✓	✓		BART, Caltrain
	1/1AX/1BX	California	✓	✓	✓		BART
	2	Clement	✓	✓			BART
	3	Jackson	✓	✓			BART
	4	Sutter	✓	✓			BART
	5	Fulton	✓	✓	✓		AC Transit, BART, Golden Gate, SamTrans
	6	Parnassus	✓	✓	✓		AC Transit, BART, Golden Gate, SamTrans
	7	Haight	✓	✓	✓		BART
	9/9AX/9BX	San Bruno	✓	✓	✓		BART
	12	Folsom	✓	✓	✓		
	14/14L/ 14X	Mission	✓	✓	✓		AC Transit, BART, Golden Gate, SamTrans
	15	Third	✓	✓	✓		BART, Caltrain
	18	46th Avenue	✓				SamTrans
	19	Polk	✓	✓			BART
	21	Hayes	✓	✓	✓		BART
	22	Fillmore	✓	✓	✓		BART
	23	Monterey	✓				BART

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
San Francisco Muni	24	Divisadero	✓	✓	✓		
	26	Valencia	✓	✓			BART
	27	Bryant	✓	✓	✓		BART
	28/28L	19th Avenue	✓				BART
	29	Sunset	✓				BART
	30/30X	Stockton	✓	✓	✓		BART, Caltrain
	31	Balboa	✓	✓	✓		BART
	33	Stanyan	✓				BART
	38/38L/ 38AX/ 38BX	Geary	✓	✓	✓		AC Transit, BART, Golden Gate, SamTrans
	43	Masonic		✓	✓		BART
	44	O'Shaugnessy	✓	✓	✓		BART
	45	Union – Stockton	✓	✓	✓		BART, Caltrain
	47	Van Ness	✓	✓	✓		
	48	Quintara – 24th Street	✓				BART, Caltrain
	49	Van Ness – Mission	✓	✓	✓		BART
	52	Excelsior	✓				BART
	53	Southern Heights	✓	✓			BART
	54	Felton	✓				BART
	56	Rutland	✓				
	66	Quintara	✓	✓			BART
	67	Bernal Heights	✓				BART
	71/71L	Haight – Noriega	✓	✓	✓		BART
	89	Laguna Honda		✓			
	90	San Bruno Owl	✓	✓			
	91	Owl	✓	✓			
	108	Treasure Island	✓		✓	✓	AC Transit, Golden Gate Transit, SamTrans

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
AC Transit	A	Downtown Oakland – San Francisco Owl	✓	✓		✓	Muni
	C	Piedmont – San Francisco	✓	✓		✓	Golden Gate, Muni, SamTrans
	F	Berkeley – San Francisco	✓	✓	✓	✓	BART, Golden Gate, Muni, SamTrans
	N	East Oakland – San Francisco	✓	✓	✓	✓	Golden Gate, Muni, SamTrans
	NL	East Oakland – San Francisco	✓	✓	✓	✓	Golden Gate, Muni, SamTrans
	O	Alameda – San Francisco	✓	✓	✓	✓	Golden Gate, Muni, SamTrans
BART	Dublin/ Pleasanton – Daly City	Eastern Alameda County – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, LAVTA, Muni, SamTrans, Union City
	Fremont – Daly City	Fremont – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Muni, SamTrans, Union City, VTA
	Pittsburg/ Bay Point - Colma	Central Contra Costa County – Oakland – San Francisco – Colma	✓	✓	✓	✓	AC Transit, CCCTA, Muni, SamTrans, Tri-Delta
	Richmond – Daly City	Richmond – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Golden Gate, Muni, SamTrans, Union City, Vallejo, WestCAT

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
Caltrain		San Francisco – San Jose – Gilroy	✓	✓	✓	✓	AC Transit, Muni SamTrans, VTA
Golden Gate Transit	10	Sausalito – Tiburon – San Francisco			✓	✓	AC Transit, BART, Muni, SamTrans
	20	Canal – San Francisco	✓		✓	✓	AC Transit, BART, Muni, SamTrans
	30	San Rafael – San Francisco			✓	✓	AC Transit, BART, Muni, SamTrans
	50	San Marin – San Francisco	✓		✓	✓	AC Transit, BART, Muni, SamTrans
	60/70/80	Santa Rosa – Novato – San Rafael – San Francisco		✓	✓	✓	AC Transit, BART, CityBus Muni, Sam-Trans, SC Transit
SamTrans	97	San Francisco – SFO, owl		✓	✓	✓	Muni
	292	San Mateo – SFO – San Francisco	✓	✓	✓	✓	AC Transit, BART, Caltrain, Golden Gate, Muni
	391	Palo Alto – San Mateo – Daly City – San Francisco	✓	✓	✓	✓	AC Transit, BART, Caltrain, Golden Gate, Muni, VTA

SAN FRANCISCO LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
Trunklines:						***Trunklines:***			
Muni 5	A	A	A	A	A	Muni 5	24 Hours	24 Hours	24 Hours
Muni 9/9AX/9BX*	A	A	A	A	A	Muni 9/9AX/9BX*	535 to 1218am	617 to **(1218am)**	615 to 1218am
Muni 14/14L/14X*	A	A	A	A	A	Muni 14/14L/14X*	24 Hours	24 Hours	24 Hours
Muni 15	A	A	A	A	A	Muni 15	**(528)** to 2359	**(528)** to 2354	**(528)** to 2354
Muni 22	A	A	A	A	A	Muni 22	24 Hours	24 Hours	24 Hours
Muni 24	A	A	A	B	B	Muni 24	24 Hours	24 Hours	24 Hours
Muni 28/28L*	A	A	B	A	A	Muni 28/28L*	523 to 1223am	521 to 1223am	521 to 1223am
Muni 30/30X*	A	A	A	A	A	Muni 30/30X*	530 to 109am	600 to 106am	600 to 106am
Muni 38/38L/38AX/38BX*	A	A	A	A	A	Muni 38/38L/38AX/38BX	24 Hours	24 Hours	24 Hours
Muni 47	A	A	B	B	B	Muni 47	601 to 1256am	602 to 1255am	602 to 1255am
Muni 91	X (owl only)	X (owl only)	B (owl only)	B (owl only)	B (owl only)	Muni 91	1255am to 416am	1255am to 416am	1255am to 416am
Muni K	A	A	A	A	B	Muni K	507 to 112 am	457 to 111am	507 to 107am
Muni L	A	A	A	A	B	Muni L	24 Hours	24 Hours	24 Hours
Muni N	A	A	A	A	B	Muni N	24 Hours	24 Hours	24 Hours
BART Dublin-Daly City	A	A	B	B	B	BART Dublin-DC	400 to 1200am	600 to 1200am	800 to 1200am
BART Pitts-Colma	A	A	B	B	B	BART Pitts-Colma	400 to 1200am	600 to 1200am	800 to 1200am
BART Rich-Daly City	A	A	X	B	X	BART Rich-DC	**(456)** to 1945	846 to 1915	X
BART Fremont-D. City	A	A	X	B	X	BART Fremont-DC	**(506)** to 1941	853 to 1920	X
Caltrain	B	B	C	C	D	Caltrain	433 to 2359	553 to 2359	**(723)** to 2230
Routes Added:						***Routes Added:***			
Muni 1/1AX/1BX*	A	A	A	A	A	Muni 1/1AX/1BX*	522 to 125 am	525 to 120 am	525 to 120 am
Muni 2	A	B	X	A	A	Muni 2	**(534)** to 1855	**(507)** to 1923	**(507)** to 1923
Muni 3	A	B	B	A	A	Muni 3	703 to **(105 am)**	522 to 108 am	522 to 108 am
Muni 4	A	B	X	X	X	Muni 4	**(528)** to 1754	X	X
Muni 6	A	A	B	A	B	Muni 6	620 to **(1222 am)**	620 to **(1220 am)**	627 to 1218 am
Muni 7	A	A	X	A	B	Muni 7	**(601)** to 1819	933 to 1806	1019 to 1814
Muni 12	A	A	B	A	A	Muni 12	555 to 1230 am	600 to 1231 am	600 to 1231 am
Muni 18	A	B	B	B	B	Muni 18	540 to 1221 am	620 to **(1221 am)**	620 to 1221 am
Muni 19	A	A	A	B	B	Muni 19	521 to 127am	523 to 127am	523 to 127am
Muni 21	A	A	A	A	A	Muni 21	540 to 1250 am	545 to 1250 am	545 to 1250 am
Muni 23	A	B	B	B	B	Muni 23	544 to 1205 am	542 to 1205 am	542 to 1205 am
Muni 26	A	B	B	B	B	Muni 26	604 to **(1232 am)**	611 to **(1232 am)**	611 to 1232 am
Muni 27	A	A	B	B	B	Muni 27	540 to 1234 am	610 to **(1235 am)**	610 to 1235 am
Muni 29	A	A	B	A	A	Muni 29	**(602)** to 2353	**(600)** to 2354	**(600)** to 2354
Muni 31	A	A	A	A	A	Muni 31	520 to 1218am	520 to 1218am	520 to 1218am
Muni 33	A	A	B	B	B	Muni 33	600 to 1210 am	600 to 1230 am	600 to 1230 am
Muni 43	A	A	B	A	A	Muni 43	540 to 1228 am	548 to 1227 am	548 to 1227 am
Muni 44	A	A	B	A	A	Muni 44	555 to 1230 am	555 to 1230 am	555 to 1230 am
Muni 45	A	A	B	A	A	Muni 45	610 to **(103 am)**	610 to **(133am)**	610 to 130 am
Muni 48	A	B	B	B	B	Muni 48	520 to 1220 am	545 to 1220 am	545 to 1220 am
Muni 49	A	A	B	A	A	Muni 49	542 to 1249 am	559 to 1251 am	559 to 1250 am
Muni 52	B	B	B	B	B	Muni 52	620 to **(1212 am)**	620 to **(1209 am)**	620 to 1209 am
Muni 53	B	B	B	B	B	Muni 53	645 to 1915	830 to 1915	830 to 1915
Muni 54	B	B	B	B	B	Muni 54	553 to 1235am	550 to 1234am	550 to 1234am
Muni 56	C	C	C	C	C	Muni 56	647 to 2110	647 to 1910	**(647)** to 1910

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives * Frequency and Service Hours Information listed for base route only Updated Nov 29, 2001

SAN FRANCISCO LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
Added Routes (cont'd):						***Added Routes:***			
Muni 66	B	B	B	B	B	Muni 66	650 to 2342	630 to 2342	**(630)** to 2342
Muni 67	B	B	B	B	B	Muni 67	610 to **(1210 am)**	610 to **(1210 am)**	610 to 1210 am
Muni 71/71L*	A	A	B	A	A	Muni 71/71L*	613 to **(1223 am)**	612 to **(1222 am)**	623 to 1221 am
Muni 89	X	A	X	A	A	Muni 89	704 to 1500	942 to 1445	942 to 1445
Trunklines:						***Trunklines:***			
AC Transit A	30 (24-Hour)	30 (24-Hour)	60 (24-Hour)	30-60 (24-hour)	30-60 (24-Hour)	AC Transit A	24 Hours	24 Hours	24 Hours
AC Transit C	20-30	90	90	90	90	AC Transit C	**(530)** to 2300	**(600)** to 2300	**(600)** to 2300
AC Transit F	15	30	30	30	30	AC Transit F	450 to 1200 am	600 to 1200am	600 to 1200am
AC Transit N	15-30	30	30	30	30	AC Transit N	530 to 1200 am	530 to 1200am	530 to 1200am
AC Transit NL	15-30	30	30	30	30	AC Transit NL	530 to 1200 am	530 to 1200am	530 to 1200am
AC Transit O	10-15	45	60	60	60	AC Transit O	530 to 1200 am	545 to 1200am	545 to 1200am
Muni 90	X (owl only)	X (owl only)	B (owl only)	B (owl only)	B (owl only)	Muni 90	118 am to 440 am	118 am to 440 am	118 am to 440 am
Muni 108	B	C	C	C	C	Muni 108	435 to 1230 am	645 to **(1230 am)**	645 to 1230 am
Muni F	A	A	A	A	A	Muni F	547 to 1238 am	612 to **(1231 am)**	612 to 1231 am
Muni J	A	A	A	A	B	Muni J	508 to 1216am	536 to 1216am	536 to 1216am
Muni M	A	A	A	A	B	Muni M	540 to 1223 am	532 to 1228am	628 to 1226am
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
Trunklines:						***Trunklines:***			
Ggate 10	C	C	C	C	C	Ggate 10	504 to 1252 am	539 to 1250 am	539 to 1250 am
Ggate 20	B	B	C	B	B	Ggate 20	445 to 230 am	500 to 230 am	500 to 230 am
Ggate 30	X	C	X	X	X	Ggate 30	815 to 1600	X	X
Ggate 50	B	B	C	C	C	Ggate 50	407 to 2319	531 to 2316	531 to 2316
Ggate 60/70/80	B	B	D	C	C	Ggate 60/70/80	400 to 200am	445 to 200am	445 to 200am
SamTrans 97	X	X	C (Owl only)	C (Owl only)	C (Owl only)	SamTrans 97	1256am to 526am	1256am to 526am	1256am to 526am
SamTrans 292	B	B	C	B	B	SamTrans 292	446 to 1245am	501 to 1243am	501 to 1243am
SamTrans 391	B	B	C	B	B	SamTrans 391	420 to 122 am	410 to 117am	410 to 119 am

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

* Frequency and hours of operation listed for base route only

Updated Nov 29, 2001

SAN MATEO COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	Route	Route Description	Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
SamTrans	40	Pacifica – San Bruno		✓			
	97	San Francisco – SFO, owl		✓	✓	✓	
	121	Skyline College – Colma BART – Daly City BART – Hanover		✓			Muni
	130	South San Francisco – Colma BART – Daly City BART	✓	✓			Muni
	270	Redwood City – Fair Oaks – Redwood City Caltrain	✓	✓			
	280	East Palo Alto – Stanford Shopping Center	✓	✓			
	281	East Palo Alto – Stanford Shopping Center	✓	✓			
	292	San Mateo – SFO – San Francisco	✓	✓	✓		
	296	East Palo Alto – Canada College	✓	✓			Caltrain, VTA
	390	Palo Alto – Daly City BART	✓	✓	✓		BART, Caltrain, Muni, VTA
	391	Palo Alto – San Mateo – Colma BART – San Francisco	✓	✓	✓	✓	AC Transit, BART, Caltrain, Golden Gate, Muni, VTA
	BX	Colma BART – SFO		✓		✓	BART
AC Transit	Dumbarton Express	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA
	Dumbarton Express 1	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
BART	Dublin/ Pleasanton – Daly City	Eastern Alameda County – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, LAVTA, Muni, SamTrans, Union City
	Fremont – Daly City	Fremont – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Muni, SamTrans, Union City, VTA
	Pittsburg/ Bay Point - Colma	Central Contra Costa County – Oakland – San Francisco – Colma	✓	✓	✓	✓	AC Transit, CCCTA, Muni, SamTrans, Tri-Delta
	Richmond – Daly City	Richmond – Oakland – San Francisco – Daly City	✓	✓	✓	✓	AC Transit, Golden Gate, Muni, SamTrans, Union City, Vallejo, WestCAT
Caltrain		San Francisco – San Jose – Gilroy	✓	✓	✓	✓	AC Transit, Muni, SamTrans, VTA
Santa Clara VTA	22	Menlo Park – San Jose	✓	✓	✓	✓	AC Transit, Caltrain, SamTrans

SAN MATEO COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
Trunkline Routes						**Trunkline Routes**			
SamTrans 97	X	X	C (owl only)	C (owl only)	C (owl only)	SamTrans 97	1256am to 526am	1256am to 526am	1256am to 526am
SamTrans 292	B	B	C	B	B	SamTrans 292	446 to 1245am	501 to 1243am	501 to 1243am
SamTrans 390	B	B	X	C	C	SamTrans 390	**(532)** to 1840	842 to 1720	841 to 1717
SamTrans 391	B	B	C	B	B	SamTrans 391	420 to 122am	410 to 117am	410 to 119am
Added Routes						**Added Routes**			
Dumbarton DB	A	C	X	X	X	Dumbarton DB	**(520)** to 2000	X	X
Dumbarton DB1	B	B	X	X	X	Dumbarton DB1	**(535)** to 1845	X	X
SamTrans 40	B	C	C	C	C	SamTrans 40	555 to 2215	805 to 1845	805 to 1845
SamTrans BX	A	A	B	B	B	SamTrans BX	547 to 2319	702 to 2319	702 to 2319
SamTrans 121	B	B	C	C	C	SamTrans 121	546 to 2218	828 to 2130	828 to 1830
SamTrans 130	B	B	C	B	C	SamTrans 130	530 to 2250	820 to 1735	905 to 1720
SamTrans 270	C	C	X	C	X	SamTrans 270	635 to 1805	935 to 1735	X
SamTrans 280	B	B	C	B	C	SamTrans 280	551 to 2206	805 to 1801	835 to 1635
SamTrans 281	B	B	C	B	C	SamTrans 281	**(553)** to 2155	**(736)** to 1812	836 to 1710
SamTrans 296	B	B	C	C	X	SamTrans 296	602 to **(2220)**	**(752)** to 1616	X
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
BART Dublin-Daly City	A	A	B	B	B	BART Dublin-DC	400 to 2400	600 to 2400	800 to 2400
BART Pitts-Colma	A	A	B	B	B	BART Pitts-Colma	400 to 2400	600 to 2400	800 to 2400
BART Rich-Daly City	A	A	X	B	X	BART Rich-DC	**(456)** to 1945	846 to 1915	X
BART Fremont-D City	A	A	X	B	X	BART Fremont-DC	**(506)** to 1941	853 to 1920	X
Caltrain	B	B	C	C	D	Caltrain	433 to 2359	553 to 2359	**(723)** to 2230
VTA 22	A	A	C	B	B	VTA 22	24 Hours	24 Hours	24 Hours

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

SANTA CLARA COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
Santa Clara VTA	10	Airport Flyer		✓			Caltrain
	19	Gilroy – 1st Street	✓	✓			Caltrain
	22	San Jose – Menlo Park	✓	✓	✓	✓	AC Transit, Caltrain, SamTrans
	23	San Jose – Mountain View/Palo Alto		✓	✓		
	25	San Jose – De Anza College	✓	✓	✓		Caltrain
	26	Eastridge - Lockheed		✓	✓		
	27	Santa Teresa College – West Valley College		✓	✓		
	54	West Valley – Fair Oaks/Tasman		✓	✓		Caltrain
	57	West Valley – Great America		✓	✓		
	58	West Valley – Alviso		✓	✓		
	60	Los Gatos – Great America	✓	✓	✓		
	62	Los Gatos – Sierra/Piedmont		✓	✓		Caltrain
	64	Almaden Station – Alum Rock	✓	✓	✓		Caltrain
	65	Almaden Light Rail Station – San Jose State	✓	✓			Caltrain
	66	Santa Teresa - Milpitas	✓	✓	✓		Caltrain
	68	Gilroy – San Jose	✓	✓	✓		Caltrain
	70	Capitol Light Rail Transit Station – Milpitas	✓	✓	✓		
	71	Eastridge – Milpitas	✓				
	72	Senter/Monterey – Downtown San Jose	✓	✓			Caltrain
	73	Snell/Capitol – Downtown San Jose	✓	✓			

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
Santa Clara VTA	77	Milpitas – Evergreen College	✓	✓			
	81	East San Jose – Vallco	✓	✓			
	82	19th/Mission – Westgate	✓	✓			Caltrain
	180X	Fremont BART – San Jose		✓		✓	AC Transit, BART
	901	Santa Teresa – Baypointe Light Rail		✓	✓		Caltrain
	902	Mountain View – Milpitas/Interstate 880 Light Rail		✓	✓		Caltrain
AC Transit	217	Fremont BART – Mission Boulevard – Milpitas – Alder LRT		✓		✓	BART, VTA
	Dumbarton Express	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA
	Dumbarton Express 1	Union City BART – Palo Alto	✓	✓		✓	BART, Caltrain, SamTrans, VTA
Caltrain		San Francisco – San Jose – Gilroy	✓	✓	✓	✓	AC Transit, Muni, SamTrans, VTA

SANTA CLARA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
URBAN LIFELINE GOAL	15-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways		6:00 am to 12:00 am	6:00 am to 12:00 am	7:30 am to 12:00 am
Trunkline Routes						**Trunkline Routes**			
VTA 10	A	A	B	B	B	VTA 10	5:00 am - 12:00 am	5:00 am - 12:00 am	5:00 am - 12:00 am
VTA 22	A	A	C	B	B	VTA 22	24 Hours	24 Hours	24 Hours
VTA 23	B	B	C	C	C	VTA 23	5:00 am - 12:30 am	6:00 am - 12:00 am	6:00 am - 12:00 am
VTA 25	A	B	C	B	B	VTA 25	5:00 am - 12:00 am	**(5:30 am)** - 11:30 pm	**(5:30 am)** - 11:30 pm
VTA 26	B	B	C	C	C	VTA 26	**(5:00 am)** - 11:30 pm	7:00 am - 9:30 pm	**(7:00 am)** - 9:30 pm
VTA 27	B	B	C	C	C	VTA 27	**(5:30 am)** - 11:30 pm	7:30 am - 9:30 pm	**(7:30 am)** - 9:30 pm
VTA 54	B	B	C	C	C	VTA 54	**(5:30 am)** - 10:00 pm	8:00 am - 7:30 pm	8:00 am - 7:30 pm
VTA 57	B	B	C	C	C	VTA 57	**(6:00 am)** - 10:30 pm	8:00 am - 10:30 pm	8:00 am - 10:30 pm
VTA 58	B	B	C	C	C	VTA 58	**(5:30 am)** - 10:30 pm	7:30 am - 9:00 pm	**(7:30 am)** - 9:00 pm
VTA 60	B	B	C	C	C	VTA 60	**(5:30 am)** - 11:00 pm	7:00 am - 10:30 pm	**(7:00 am)** - 10:30 pm
VTA 62	B	B	C	C	C	VTA 62	**(5:30 am)** - 10:30 pm	6:30 am - 9:30 pm	**(6:30 am)** - 9:30 pm
VTA 64	A	B	C	C	C	VTA 64	5:30 am - 12:00 am	6:00 am - 12:00 am	6:00 am - 12:00 am
VTA 66	A	B	C	C	C	VTA 66	5:00 am - 12:00 am	**(5:30 am)** - 11:30 pm	**(5:30 am)** - 11:30 pm
VTA 68	A	B	C	C	C	VTA 68	4:30 am - 1:00 am	6:00 am - 12:30 am	6:00 am - 12:30 am
VTA 70	A	A	C	B	C	VTA 70	**(5:00 am)** - 11:30 pm	6:30 am - 11:30 pm	**(6:30 am)** - 11:00 pm
VTA express 180	B	B	C	C	C	VTA express 180	4:30 am - 12:30 am	6:30 am - **(12:30 am)**	7:30 am - 12:30 am
VTA 901 (Light Rail)	A	A	A	A	A	VTA 901 (Light Rail)	24 Hours	24 Hours	24 Hours
VTA 902 (Light Rail)	A	A	A	A	A	VTA 902 (Light Rail)	24 Hours	24 Hours	24 Hours
AC Transit 217	B	B	B	B	B	AC Transit 217	**(5:50 am)** - 10:00 pm	7:00 am - 7:21 pm	**(7:00 am)** - 7:21 pm
Dumbarton DB	A	C	X	X	X	Dumbarton DB	**(5:20 am)** - 8:00 pm	X	X
Dumbarton DB1	B	B	X	X	X	Dumbarton DB1	**(5:35 am)** - 6:45 pm	X	X
Caltrain	B	B	C	C	D	Caltrain	4:30 am - 12:00 am	6:00 am - 12:00 am	**(7:30 am)** - 11:30 pm
Added Routes						**Added Routes**			
VTA 65	B	B	C	C	C	VTA 65	**(5:30 am)** - 10:30 pm	8:00 am - 6:30 pm	8:00 am - 6:30 pm
VTA 71	A	A	C	C	C	VTA 71	**(5:30 am)** - 11:00 pm	7:00 am - 9:00 pm	**(7:00 am)** - 9:00 pm
VTA 72	B	B	C	C	C	VTA 72	**(5:00 am)** - 10:30 pm	**(6:00 am)** - 8:30 pm	**(6:00 am)** - 8:30 pm
VTA 73	A	A	C	C	C	VTA 73	**(5:00 am)** - 10:00 pm	7:00 am - 8:00 pm	**(7:00 am)** - 8:00 pm
VTA 77	B	B	C	C	C	VTA 77	**(5:30 am)** - 10:30 pm	7:00 am - 9:30 pm	**(7:00 am)** - 9:30 pm
VTA 81	B	B	C	C	C	VTA 81	7:00 am - 10:30 pm	7:00 am - 10:00 pm	**(7:00 am)** - 10:00 pm
VTA 82	B	B	C	C	C	VTA 82	**(5:30 am)** - 9:00 pm	7:00 am - 7:00 pm	**(7:00 am)** - 7:00 pm
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
VTA 19	B	B	C	C	C	VTA 19	4:00 am - 1:00 am	5:30 am - 1:00 am	5:30 am - 1:00 am

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully Meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

SOLANO COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
Benicia Transit	Vallejo – Pleasant Hill BART	Vallejo – Pleasant Hill BART		✓	✓	✓	BART, CCCTA, Vallejo
Fairfield/ Suisun Transit	1	Central Fairfield Loop	✓		✓		
	2	Travis Air Force Base – South Mall	✓	✓	✓		
	3/3A	Outer Fairfield Loop	✓	✓			
	4	Northeast Fairfield	✓				
	5	Suisun City East	✓				
	6	Suisun City West	✓	✓	✓		
	7	Cordelia Villages	✓				
	30	Fairfield – UC Davis	✓	✓		✓	
	40	Solano – BART Express	✓	✓		✓	BART, CCCTA
Vacaville City Coach	1	North Vacaville/Browns Valley	✓	✓			
	5	South Central Vacaville	✓	✓	✓		
	6	North Vacaville	✓	✓	✓		
	7	South Vacaville	✓				
	8	South Vacaville	✓				
Vallejo Transit	1	Rancho Vallejo/South Vallejo	✓	✓			
	2	North Vallejo/Beverly Hills	✓	✓			
	3	Glen Cove/Georgia Street	✓				Napa VINE
	5	Redwood Street/Spring Road	✓	✓			Napa VINE
	7	Spring Road/Redwood Street	✓	✓			Napa VINE

Operator	Route	Route Description	Qualifications for Selection as a Lifeline Transportation Network Route				
			Serves CalWORKs Cluster	Serves Essential Destinations	Operator Trunkline Route	Regional Link	Connection to Other Lifeline Transportation Services
Vallejo Transit	80	Fairfield/El Cerrito Del Norte BART	✓		✓	✓	AC Transit, BART, Golden Gate, WestCAT
	90	S. City/El Cerrito Del Norte BART	✓		✓	✓	AC Transit, BART, Golden Gate, WestCAT
Napa VINE	10	Calistoga – Napa – Vallejo	✓	✓	✓	✓	Vallejo Transit

SOLANO COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	---------- FREQUENCY OF SERVICE* ----------					---------- HOURS OF OPERATION ----------			
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
Trunkline Routes						**Trunkline Routes**			
Fair-Suisun 1	B	A	X	B	X	Fair-Suisun 1	630 to 1930	930 to 1730	X
Fair-Suisun 2	B	B	X	C	X	Fair-Suisun 2	**(600)** to 1830	900 to 1730	X
Fair-Suisun 6	B	C	X	C	X	Fair-Suisun 6	**(600)** to 1900	830 to 1800	X
Napa VINE 10	D	D	D	D	D	Napa VINE 10	**(520)** to 2125	**(600)** to 1926	853 to 1814
Vacaville 5	B	B	X	B	X	Vacaville 5	700 to 1530	900 to 1530	X
Vacaville 6	C	C	X	C	X	Vacaville 6	640 to 1540	840 to 1540	X
Vallejo 80	B	B	B	B	X	Vallejo 80	428 to 2230	637 to 2330	X
Vallejo 90	B	B	C	X	X	Vallejo 90	455 to 2235	X	X
Added Routes						**Added Routes**			
Benicia Vallejo-BART	B	C	C	D	X	Benicia Val-BART	**(500)** to 1956	810 to 1844	X
Fair-Suisun 3/3A	C	C	X	C	X	Fair-Suisun 3/3A	700 to 1900	900 to 1730	X
Fair-Suisun 4	C	C	X	C	X	Fair-Suisun 4	630 to 1900	830 to 1800	X
Fair-Suisun 5	C	C	X	C	X	Fair-Suisun 5	730 to 1830	830 to 1730	X
Fair-Suisun 7	D	D	X	D	X	Fair-Suisun 7	655 to 1839	1000 to 1609	X
Fair-Suisun 30	D	D	X	X	X	Fair-Suisun 30	645 to 1815	X	X
Fair-Suisun 40	C	X	X	X	X	Fair-Suisun 40	**(500)** to 2030	X	X
Vacaville 1	C	C	X	C	X	Vacaville 1	700 to 1815	915 to 1615	X
Vacaville 7	C	C	X	C	X	Vacaville 7	715 to 1515	915 to 1615	X
Vacaville 8	C	C	X	C	X	Vacaville 8	700 to 1700	900 to 1600	X
Vallejo 1	B	B	B	B	X	Vallejo 1	430 to 2230	630 to 2245	X
Vallejo 2	B	B	B	C	X	Vallejo 2	445 to 2245	600 to 2215	X
Vallejo 3	B	B	B	C	X	Vallejo 3	**(530)** to 2000	930 to 1730	X
Vallejo 5	B	B	B	C	X	Vallejo 5	**(530)** to 2030	**(700)** to 1945	X
Vallejo 7	B	B	B	C	X	Vallejo 7	**(530)** to 2030	**(700)** to 1945	X

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

Updated Nov 29, 2001

SONOMA COUNTY							
			Qualifications for Selection as a Lifeline Transportation Network Route				
Operator	**Route**	**Route Description**	**Serves CalWORKs Cluster**	**Serves Essential Destinations**	**Operator Trunkline Route**	**Regional Link**	**Connection to Other Lifeline Transportation Services**
Santa Rosa CityBus	3	West Ninth Street		✓	✓		Golden Gate, SC Transit
	5	South Park		✓	✓		Golden Gate, SC Transit
	9	Sebastopol Road		✓	✓		Golden Gate, SC Transit
	11	Fulton Road	✓				Golden Gate, SC Transit
	12	Roseland	✓	✓	✓		Golden Gate, SC Transit
	15	Stony Point Road	✓	✓	✓		Golden Gate, SC Transit
Sonoma County Transit	20	Occidental – Monte Rio – Santa Rosa	✓	✓			CityBus, Golden Gate
	30	Santa Rosa – Sonoma Valley	✓	✓			CityBus, Golden Gate
	40	Sonoma Valley – Petaluma		✓	✓		Golden Gate
	44	Petaluma – Santa Rosa	✓	✓	✓		CityBus, Golden Gate
	48	Petaluma – Santa Rosa	✓	✓	✓		CityBus, Golden Gate
	60	Santa Rosa – Healdsburg – Cloverdale		✓	✓		CityBus, Golden Gate
Golden Gate Transit	80	Santa Rosa – Novato – San Rafael – San Francisco		✓	✓	✓	AC Transit, BART, CityBus Muni, Sam-Trans, SC Transit

SONOMA COUNTY LIFELINE ROUTES compared with LIFELINE TRANSPORTATION NETWORK OBJECTIVES

	FREQUENCY OF SERVICE*						HOURS OF OPERATION		
	WEEKDAY A.M./P.M. COMMUTE	**WEEKDAY** MIDDAY	**WEEKDAY** NIGHT	**SATURDAY** ALL SERVICE	**SUNDAY** ALL SERVICE		**WEEKDAY**	**SATURDAY**	**SUNDAY**
SUBURBAN LIFELINE GOAL	30-Min. Headways	30-Min. Headways	30-Min. Headways	30-Min. Headways	60-Min. Headways		6:00 am to 10:00 pm	8:00 am to 10:00 pm	8:00 am to 10:00 pm
CityBus 3	B	B	B	C	C	CityBus 3	605 to 1955	935 to 1755	1035 to 1655
CityBus 5	B	B	B	C	C	CityBus 5	615 to 2010	**(645)** to 1925	1045 to 1625
CityBus 9	B	B	B	C	D	CityBus 9	615 to 2025	**(755)** to 1830	1000 to 1630
CityBus 11	B	B	B	C	C	CityBus 11	615 to 2010	**(730)** to 1755	1030 to 1655
CityBus 12	B	B	B	C	C	CityBus 12	**(600)** to 2000	**(730)** to 1855	1030 to 1655
CityBus 15	B	B	B	C	X	CityBus 15	613 to 2015	805 to 1800	X
Ggate 80	B	B	D	C	C	Ggate 80	400 to 200am	445 to 200am	445 to 200am
Sonoma 20	D	D	D	D	D	Sonoma 20	**(540)** to 2030	847 to 2030	847 to 2030
Sonoma 30	D	D	D	D	D	Sonoma 30	**(551)** to 2010	**(715)** to 1724	**(715)** to 1724
Sonoma 40	D	D	X	X	X	Sonoma 40	640 to 1820	X	X
Sonoma 44	D	D	D	D	D	Sonoma 44	**(523)** to 2145	1000 to 1905	1000 to 1905
Sonoma 48	D	D	X	D	D	Sonoma 48	621 to 1735	**(710)** to 1715	**(710)** to 1715
Sonoma 60	C	D	D	D	D	Sonoma 60	**(454)** to 2025	**(710)** to 1915	**(710)** to 1915

*HEADWAYS: (A: equal or less than 15 min) (B: 16-30 min) (C: 31-60 min) (D: less than once/hour) (X: No Service)

: Fully meets Lifeline Objectives **(time)** Partially meets Lifeline Objectives

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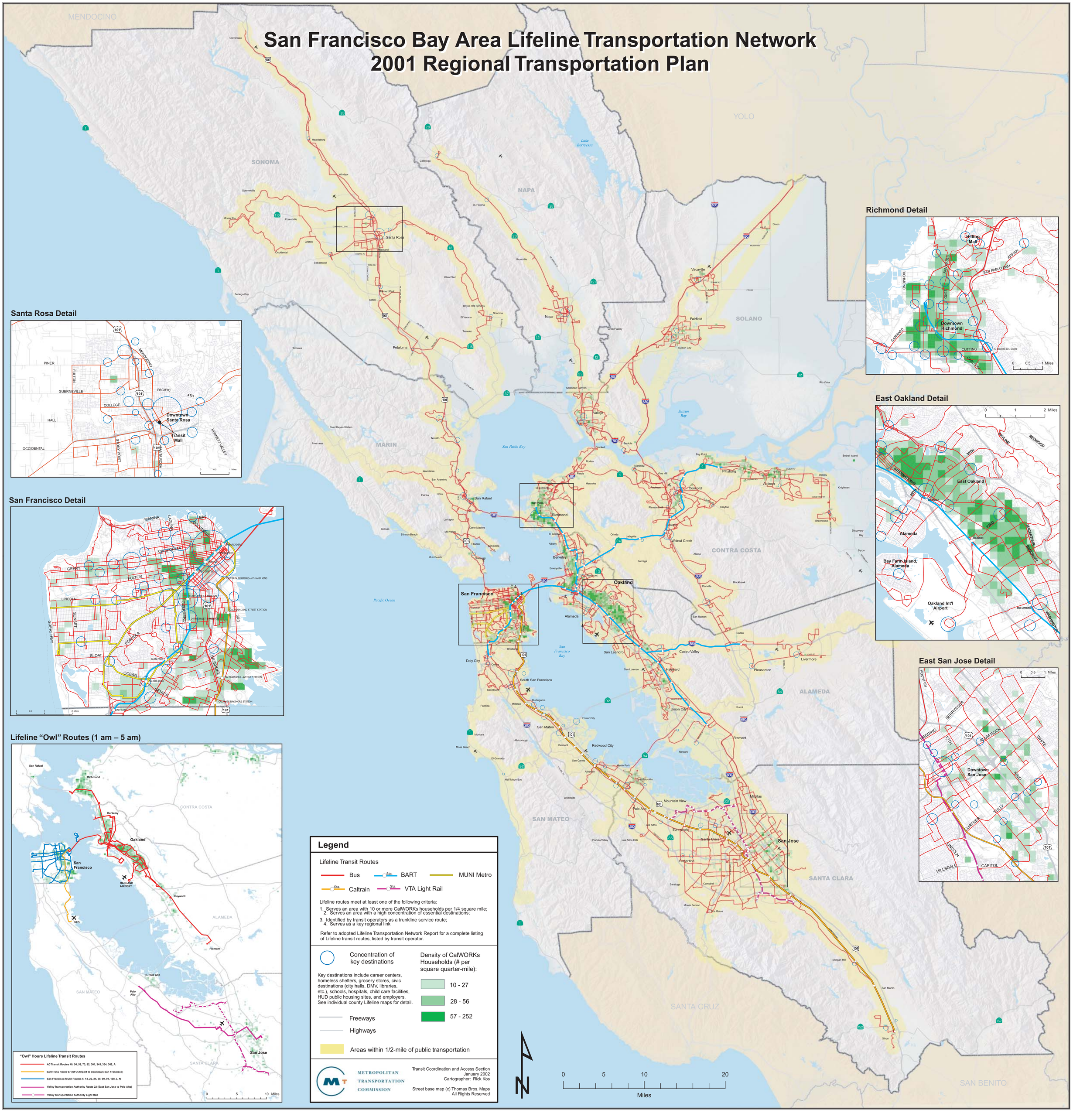
No Lifeline Routes: Cloverdale Transit, Healdsburg In-City Transit, Petaluma Transit

APPENDIX E
LIFELINE TRANSPORTATION NETWORK MAP

The map on the following page shows the specific transit routes that comprise the Lifeline.

San Francisco Bay Area Lifeline Transportation Network
2001 Regional Transportation Plan



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