SFMTA 20-YEAR CAPITAL PLAN

SFMTA
Municipal
Transportation
Agency

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Preface

The San Francisco Municipal Transportation Agency's (SFMTA) vision is to create a great city with excellent transportation choices. Its primary mission is to plan, build, operate, regulate, and maintain the transportation network, with our partners, to connect communities. Both its vision and mission support the city's *Transit First* Policy, which directs people to more sustainable modes of transportation, such as transit, bicycling, walking, and ridesharing. The SFMTA's Capital Plan is a need-based assessment that describes the capital investments required to deliver the *Transit First* Policy, including investments to provide a safe and reliable transportation system over a 20-year period.

In 2010, auto trips made up 62 percent of the total trips taken in San Francisco. In 2015, San Francisco met the goal of a 50/50 mode split between auto and non-auto trips. By 2040, the city is expected to experience a 15 percent growth with approximately 280,000 new residents, 191,000 new jobs and 92,410 new housing units. Investments in the transportation system are needed to prepare San Francisco for the magnitude of future growth and improve the quality of life in San Francisco.

Guided by the SFMTA's Strategic Plan, the Capital Plan provides an initial prioritization for future capital investments. Recognizing that transportation is a critical element in creating and sustaining an economically vibrant and livable city, Mayor Edwin Lee's Transportation Task Force 2030 recommended three new revenue sources to address a significant portion of the transportation needs. Thanks to the support of San Francisco voters, the first $500 million General Obligation bond, known as Proposition A, was approved in November 2014. Those funds are being used to support two major - Muni Forward and Vision Zero - that call for redesigning streets for better transit reliability and safety changes to eliminate traffic fatalities, adding more bike and transit-only lanes, updating traffic signals, improving maintenance facilities, and adding new elevators and escalators at Metro stations.

To continue moving forward, the SFMTA has updated the Capital Plan to capture the investment needs over the next 20 years. By identifying the transportation investments needed over the next 20 years, the SFMTA is working to continue to restore, enhance and expand the transportation network in San Francisco, and ensure that the city has excellent transportation choices today and in the future.

SFMTA Vision - San Francisco: great city, excellent transportation choices.
SFMTA Mission Statement - We work together to plan, build, operate, regulate, and maintain the transportation network, with our partners, to connect communities.

Executive Summary

Capital Plan Purpose

The San Francisco Municipal Transportation Agency's (SFMTA) 20-year Capital Plan is a need-based assessment of the SFMTA's anticipated capital needs for the upcoming 20 years. It is a financially unconstrained plan and includes capital needs for which funding has not yet been committed.

The purpose of the Capital Plan is to identify and prioritize all of the agency's potential capital investment needs to achieve the agency's and city's transportation goals. It also provides the foundation for developing the fiscally-constrained 5-year Capital Improvement Program (CIP) and the 2-year Capital Budget. Moreover, it informs citywide and regional capital funding priorities for the City and County of San Francisco and the Bay Area.

Capital Plan Methodology

The development and the prioritization of the capital needs are based on the goals and objectives of the SFMTA Strategic Plan.

The capital needs included in this Capital Plan were identified through a three step process:

1. Develop and Weigh Prioritization Criteria
2. Define Capital Needs
3. Prioritize Capital Needs

A total investment of $21.4 billion (2015 dollars) in capital needs have been identified including all potential infrastructure investments, capital procurements and various programs. The $21.4 billion is based on existing plans and strategies of $20.6 billion in capital needs and $828 million in capital vision needs.

Capital needs are grouped by the 14 Capital Programs and also classified by investment types:

- 48% Restore: Replacement or rehabilitation of an existing asset
- 23% Enhance: Improvement of an existing asset above and beyond what would occur if rehabilitated or replaced

- 29% Expand: Addition of new capital assets.

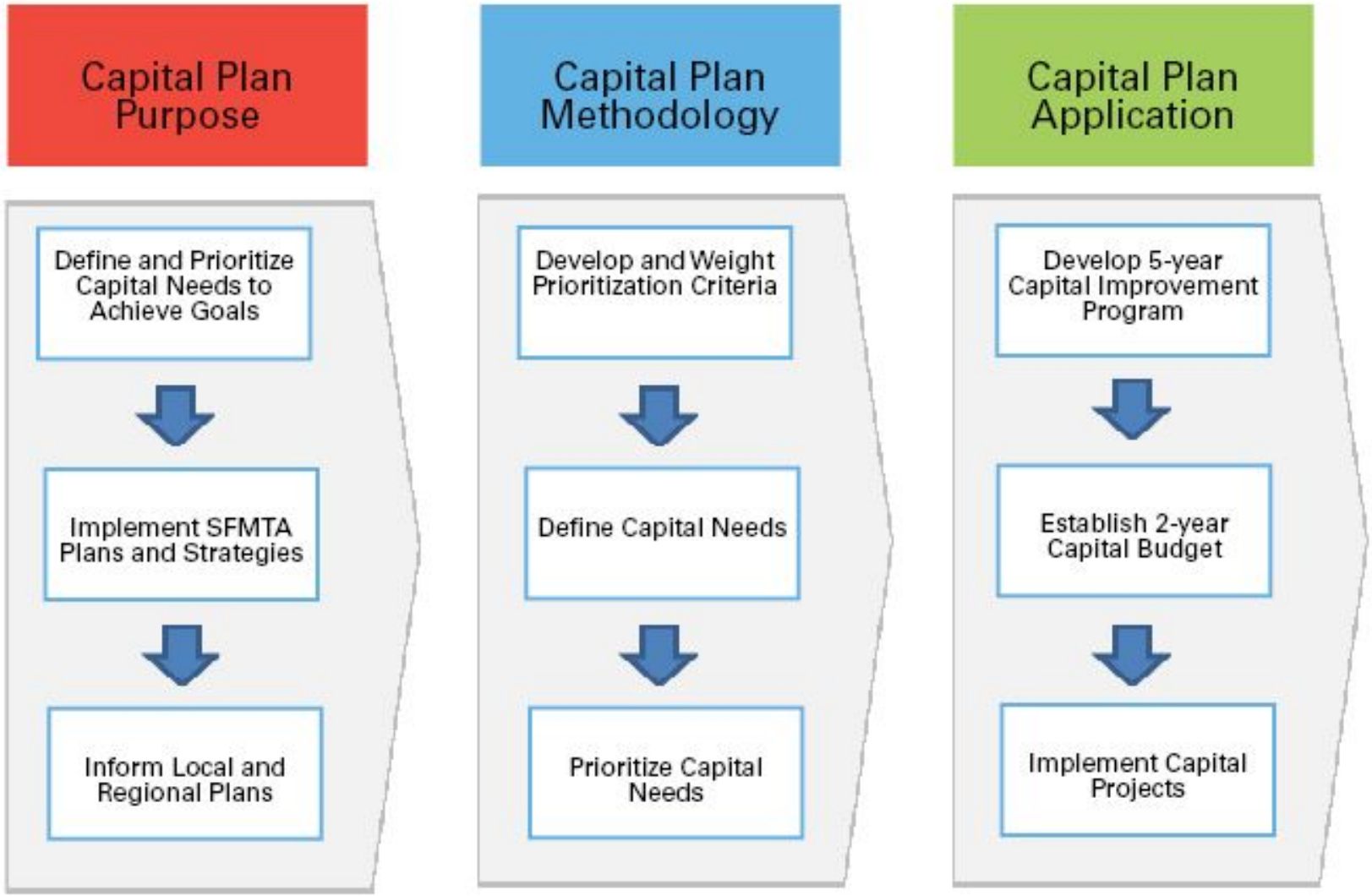
Capital needs are also grouped by travel modes:

- 82 % Transit: Investments that provide a safe, reliable, clean, accessible and convenient public transportation system.
- 9% Vehicle: Investments that minimize conflicts between auto and other modes of travel and allow all modes to better co-exist on the roadway.
- 5% Walking: Investments that build safety and livability into the streets of San Francisco.
- 4% Bicycling: Investments that enable bicycling to become a part of everyday life.

Capital Plan Application

The Capital Plan provides the basis for prioritizing the agency's capital needs for inclusion in the fiscally-constrained 5-year Capital Improvement Program (CIP) and the 2-year Capital Budget. Together, these actions make up the inception phase of a capital project; the initial steps taken in the project implementation process.

Capital Plan Framework



The San Francisco Municipal Transportation Agency

A department of the City and County of San Francisco, the San Francisco Municipal Transportation Agency (SFMTA) manages all ground transportation in the city. The SFMTA plans, designs, builds, operates, regulates and maintains one of the most comprehensive transportation networks in the world with multi-modal operations including:

- Transit and Paratransit Operation
- Streets Management
- Taxi Regulation
- Complete Streets Planning and Design
- Local and Regional Transportation Planning

Transit & Paratransit Operation

For more than a century, we have kept people moving with the San Francisco Municipal Railway (Muni), the nation's eighth largest public transit system. The largest component of the SFMTA's multi-modal operations is providing public transportation. In 2014, 25 percent of all trips to, from and within San Francisco were by transit; including those on regional transit systems. The agency directly manages five types of public transit in San Francisco (motor coach, trolley coach, light rail, historic streetcar and cable car), in addition to overseeing paratransit services, which serves individuals unable to use fixed-route transit service. SFMTA provides over 40 percent of all transit trips in the region; carrying more than 225 million passengers annually.

Streets Regulation

With half of the trips by driving, The SFMTA also manages all on-street parking and on-street car sharing spaces, including 28,000 metered spaces, 40 public parking garages and lots, nearly 281,000 street signs and 1,200 traffic signals on 946 miles of city streets.

Taxi Management

The SFMTA manages taxi operations including taxi stands, taxi driver rest stops, and bicycle racks for taxis. The agency also seeks to reduce the environmental impact of taxi use, such as promoting clean taxi fleets, including electrical or hybrid vehicles.

Complete Streets Planning and Design

With the remaining 25 percent of trips by walking and bicycling, the agency is responsible for the management of public streets in regards to traffic calming, pedestrian and bicycle safety, traffic enforcement and the painting and striping of roads; including those that define 215 miles of the city's growing bicycle network.

Regional and Local Transportation Planning

The SFMTA partners with regional transit operators that connect the city with the region using four additional transit modes (heavy rail, commuter railroad, regional bus and ferry). The SFMTA also partners with other city agencies to manage and acquire funding, enhance pedestrian safety, create complete streets projects and evaluate the impacts of the transportation network on the environment.

Furthermore, the agency engages communities around San Francisco and regional agencies to coordinate development efforts, station area plans, neighborhood plans and local and regional transportation improvements. The SFMTA is a major component of the economic engine of San Francisco, and supports the quality of life of its residents and visitors.

Capital Assets

Restoring, enhancing and expanding San Francisco's transportation system requires significant assets and infrastructure. In addition to supporting the operation of a diverse transportation network, the 2014 State of Good Repair Report stated that the agency also has ongoing needs of $11.45 million to restore the system and ensure that it can operate in a safe and reliable manner. Figure 1 provides an overview of the capital assets SFMTA is responsible for.

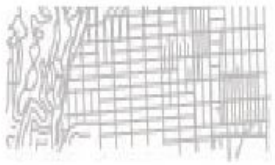
Figure 1. SFMTA's Key capital assets as of June 2015

- 505 Hybrid/Diesel Motor Coaches
- 311 Trolley Buses
- 151 Light Rail Vehicles
- 71 miles of Light Rail Tracks
- 25 miles of Overhead Wires
- 15 miles of Transit Priority Lanes

- 40 Cable Cars
- 35 Historic Streetcars
- 9 miles of Cable Car Tracks

- 275,500 On-Street Parking Spaces
- 28,862 Parking Meters
- 40 Off-Street Parking Garages and Lots
- 203 On-Street Car Sharing Spaces

- 431 miles of Bicycle Lanes, Routes, and Paths
- 4,013 Bicycle Racks
- 328 Bicycle Racks in Corrals
- 35 Bike Sharing Stations



- 1,088 miles of Street Striping
- 1,211 Signalized Intersections
- 281,000 Street Signs

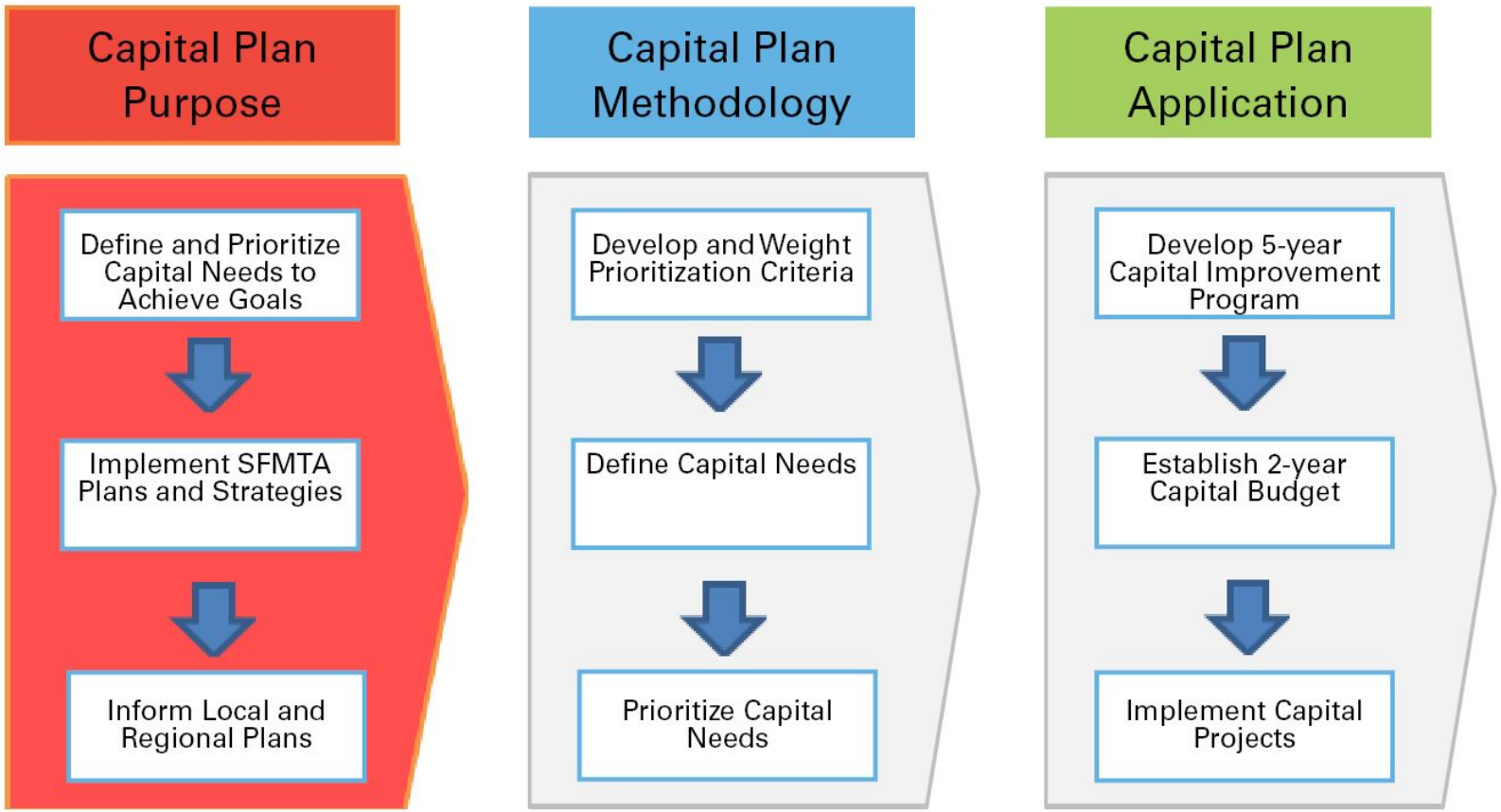
- 19 Facilities for Operations, Maintenance & Administration

Table 1: SFMTA Key Capital Assets, as of June 2015

Type	Quantity	Capital Asset
Operations, Maintenance & Administrative Sites	19	**Facility**
Hybrid/Diesel Motor Coach	505	**Fleet**
Trolley Buses	311	
Light Rail Vehicles	151	
Cable Cars	40	
Historic Streetcars	35	
Overhead Wires	25 miles	**Wire**
Light Rail Tracks	71 miles	**Track**
Cable Car Tracks	9 miles	
Transit Priority Lanes	15 miles	
Bike Lanes	431 miles	**Bicycle**
Bike Racks	4,013	
Bike Racks in Corrals	328	
Biking Sharing Stations	35	
Streets	1,088 miles	**Street**
Signalized Intersections	1,211	
Street Signs	281,000	
On-Street Parking Spaces	275,500	**Parking**
Parking Meters	28,862	
Off-street parking Garages and Lots	40	
Car Sharing Spaces	203	

Overview of the Capital Plan

The primary purpose of the SFMTA 20-year Capital Plan is to define and prioritize all of the agency's potential capital investment needs over a 20 year period. These investment needs will help meet the agency's and city's goals for transportation and is based on previously developed plans and strategies. The Capital Plan is also a key input to local and regional plans on capital funding priorities for the City and County of San Francisco and the Bay Area.



The Capital Plan is an assessment of the SFMTA's anticipated capital needs for the upcoming twenty years. It is a financially unconstrained plan and includes capital needs for which funding has not yet been committed. The purpose of the Capital Plan is to identify and prioritize all of the agency's potential capital investment needs to achieve the agency's and city's transportation goals. These investment needs are based on the analysis provided by a number of strategies and programs, as well as staff-identified needs such as those to address potential safety issues or to comply with new mandates.

All of the agency's priorities, investment decisions, and grant applications rely upon the capital needs described in this plan. All needs in the Capital Plan are prioritized based on the goals and objectives of the SFMTA Strategic Plan. Although inclusion in the Capital Plan does not guarantee funding or approval of any particular project or program contained within it, having clear and consistently stated capital needs are critical to SFMTA's ability to plan for and secure federal, state, regional, and local funding.

The Capital Plan is used by all levels of SFMTA staff, local and regional transportation funding agencies and policy bodies, other City and County of San Francisco Departments, advocacy and stakeholder groups, and the general public. Additionally, the Capital Plan is used as an input to other planning documents and to advocate for the agency's funding needs. The Capital Plan provides the basis from which SFMTA advocates for capital funding needs and prioritizes project delivery for consideration by governing bodies.

Relationship to SFMTA's Other Capital Planning Documents

The 20-year Capital Plan provides the foundation for developing the financially-constrained 5-year Capital Improvement Program (CIP) and the 2-year Capital Budget. Whereas the Capital Plan includes all capital needs identified to help the agency meet its long-term and strategic goals, the 5-year CIP and the 2-year Capital Budget are restricted by projected funding and anticipated resources. A comparison of the 20-year Capital Plan, 5-year CIP, and 2-year Capital Budget and other capital planning documents is provided in Table 2.

The first two years of the CIP generally constitute the 2-year Capital Budget. The 2-year Capital Budget further refines the 5-year CIP to account for the timing of budget allocations, individual capital grants and the availability of capital project implementation staff. It is presented to the SFMTA Board for approval on a two year cycle, concurrent with the SFMTA Operating Budget.

Table 2: Comparison of SFMTA Capital Program Documents

Plan	Year of Adoption	Timeframe	Project Funding Level	2015 Total Investments ($ Billions)
Capital Plan	2015	20 years	Funding not committed	$21.4
Capital Improvement Program	2014	5 years	At least 90% committed	$3.3
Capital Budget	2014	2 years	At least 90% committed/ appropriated	$1.0

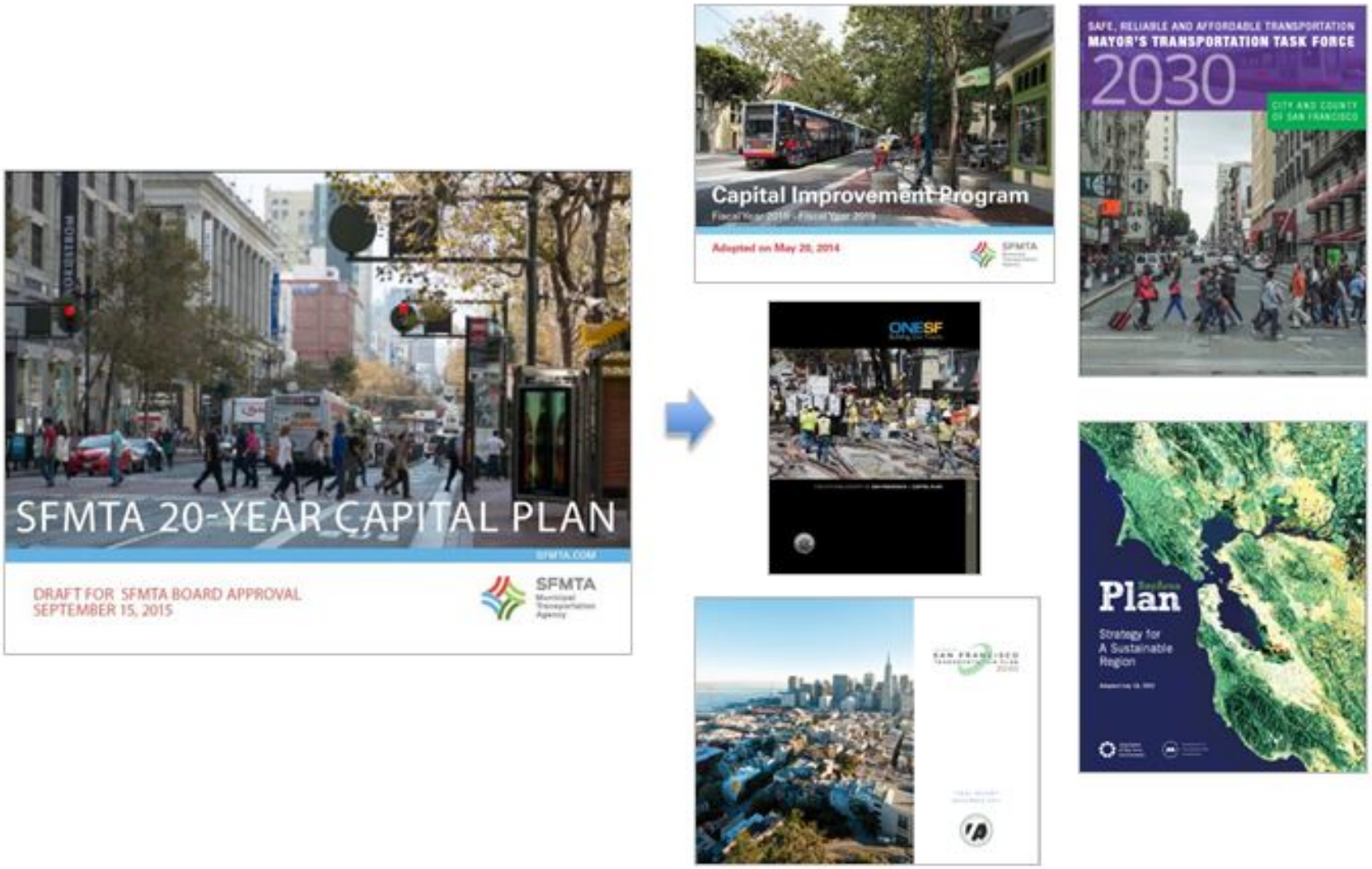
Relationship to Other Plans

Not only does the Capital Plan serve as the basis for identifying SFMTA's long term capital needs, it also plays a key role in informing citywide and regional capital funding priorities for the City and County of San Francisco and the Bay Area. The SFMTA Capital Plan was used to inform transportation capital needs for consideration in:

- Safe, Reliable and Affordable Transportation 2030
- San Francisco 10-year Capital Plan
- San Francisco Transportation Plan
- Plan Bay Area (Regional Transportation Plan)

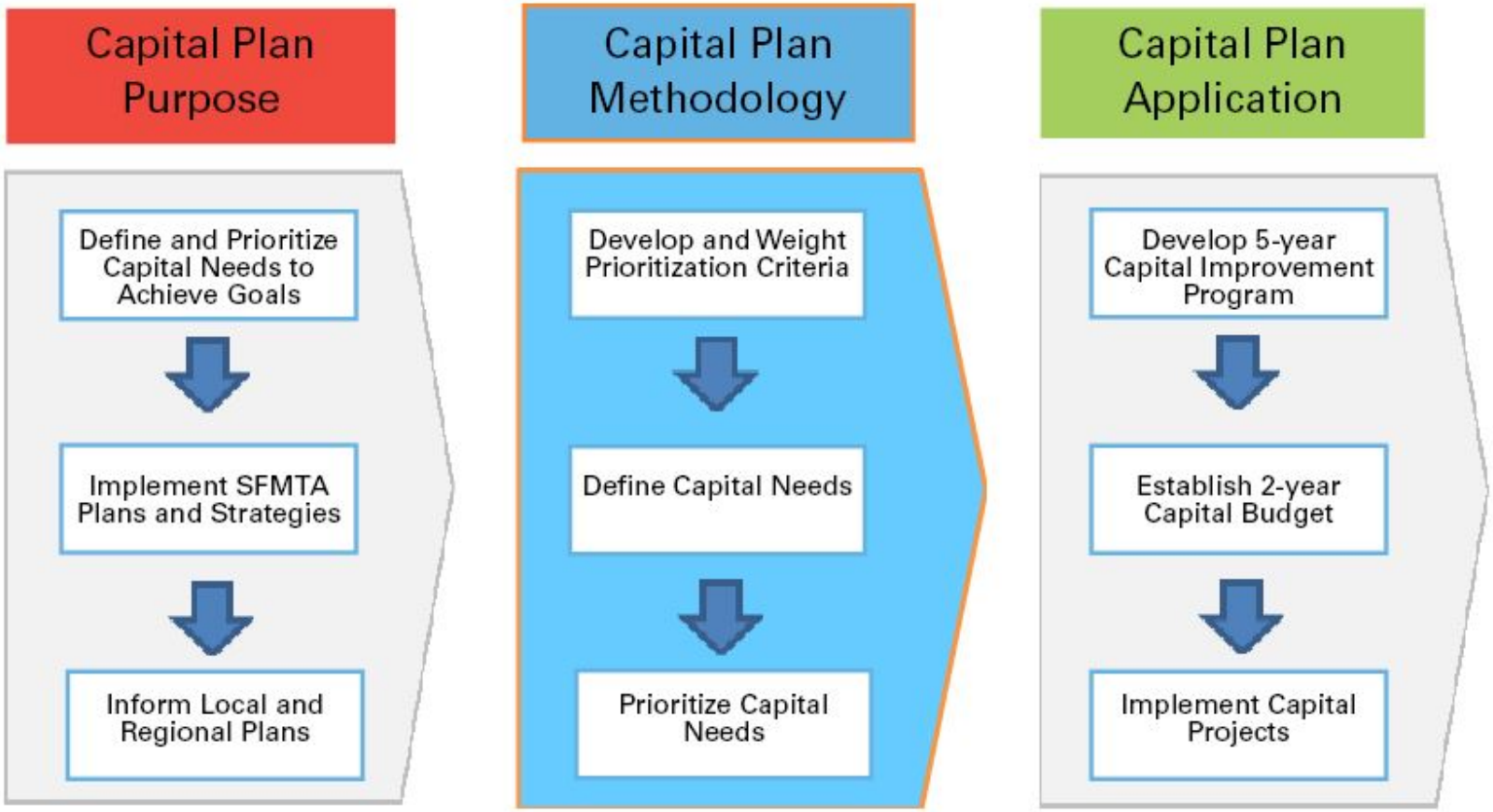
Figure 2 provides an overview of the uses for the SFMTA Capital Plan. Appendix A provides detailed descriptions of these local and regional plans.

Figure 2. Overview of the Uses for the SFMTA Capital Plan



Capital Plan Development Process

The methodology used to develop this Capital Plan follows a three-step process. First, the Executive Team establishes the capital need prioritization criteria and their relative weights based on the SFMTA's Strategic Plan. Second, CIP Program Managers coordinate with staff from throughout the agency to identify and review Capital Needs. Finally, each Capital Program subcommittee rates all capital needs using prioritization criteria and rating scales developed by the Executive Team.



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Capital Plan Development Process

The capital needs included in this Capital Plan were identified through a three step process

1. Develop and Weigh Prioritization Criteria
2. Define Capital Needs
3. Prioritize Capital Needs

After completion of these steps, the Transportation Capital Committee (TCC) follows established policies and processes to both adopt and amend the Capital Plan.

Develop and Weigh Prioritization Criteria

The Capital Plan was last adopted by the SFMTA Board of Directors in October 2013. To kick off the update process, the Executive Team established the capital need prioritization criteria based on agency plans, goals, and adopted policies, specifically the Strategic Plan. The Strategic Plan establishes the goals, objectives, and metrics by which the agency will be measured from Fiscal Year (FY) 2013 through FY 2018. Figure 3 provides an overview of the Strategic Plan goals and criteria.

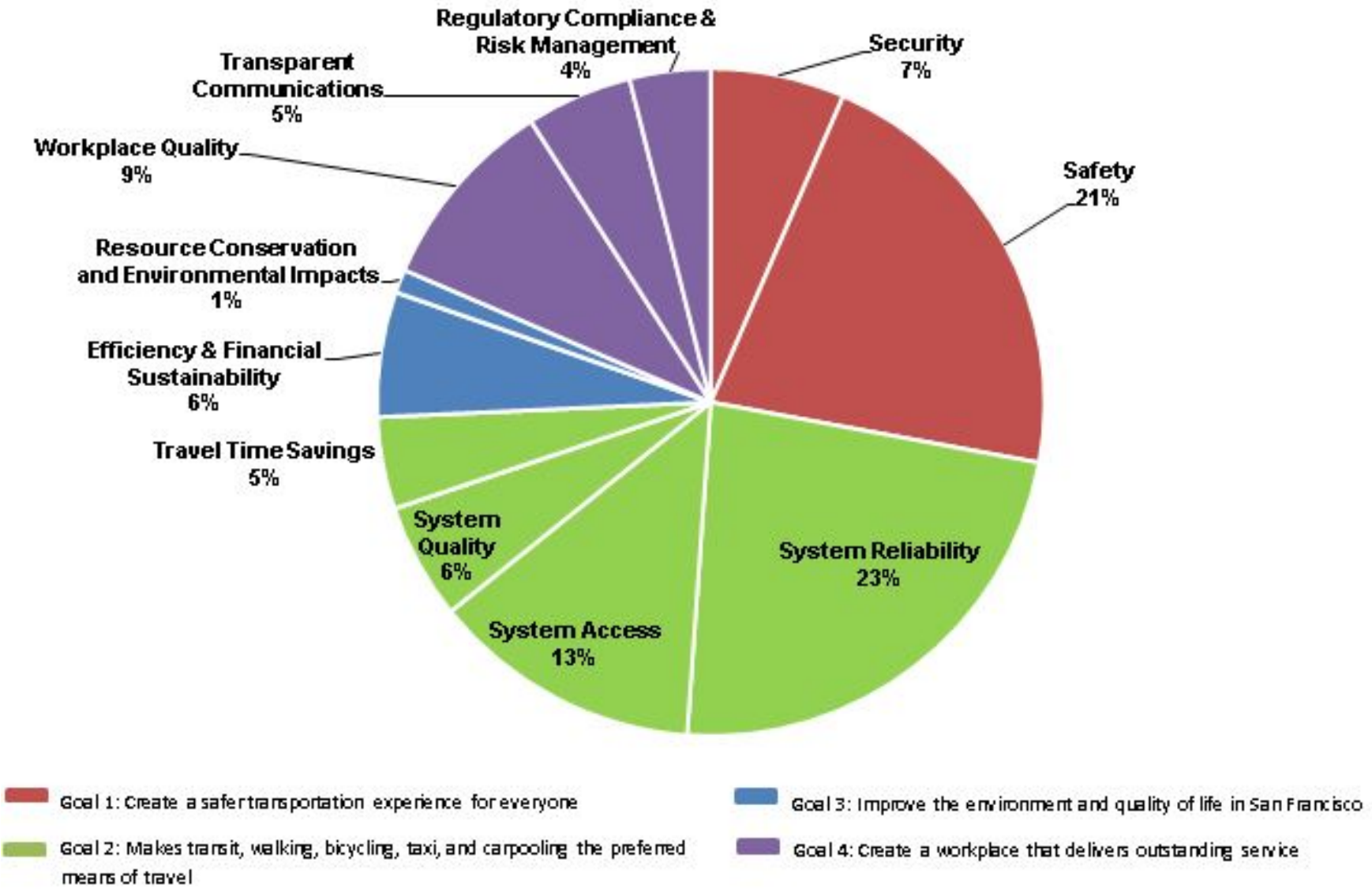
Figure 3: 2015 Prioritization Criteria by Strategic Plan Goal

Based on the agency's Strategic Plan, the capital need evaluation criteria are focused on the benefits that capital investments would contribute towards meeting the SFMTA's strategic goals. The criteria are broad in nature as they are applied to a range of potential capital investments, from communications systems, to buses, to traffic signals, to transit expansion. While detailed definitions have been established for the criteria, given their broad nature, there can be overlap in the benefits provided. For example, improving the workplace may also improve safety even when the need for a specific safety improvement has not been identified. In addition to the capital investments identified in the Capital Plan, the agency also undertakes training, education, enforcement and marketing efforts which also support achievement of the SFMTA's strategic goals.

The Executive Team established the relative importance of each criterion through the application of a pair-wise comparison technique. During a workshop, the directors used real-time information gathering to display criteria preferences, allowing them to immediately see the impact and trade-offs of the choices they made and express their judgments concerning the relative importance of each individual pair of criteria. Figure 5 illustrates the capital need evaluation criteria and weights. Figure 4 demonstrates the pair-wise comparison tool used in Decision Lens. Figure 5 provides the result of the prioritization and weight of each criterion.

Figure 4. Example: Decision Lens Pair-wise Comparison Tool

Figure 5: 2015 SFMTA Capital Plan Prioritization Criteria and Weights



Define Capital Needs

CIP Program Managers, project managers, and staffs throughout the agency were provided the opportunity to review the existing capital needs from the previous Capital Plan. The primary focus of this update was to remove those capital needs that have been funded or completed, refine previously identified needs, and add new capital needs based on SFMTA's formal plans, such as:

- Muni Forward Implementation Plan
- State of Good Repair Report
- Pedestrian Safety Strategy
- Bicycle Strategy
- Transit Fleet Plan
- Real Estate Vision for the 21st Century

Figure 6 provides an overview of the basis for the SFMTA Capital Plan.

A major component of the Capital Plan is the assessment of the agency's rehabilitation and replacement needs and investments over the next 20 years. These needs were identified in the SFMTA's 2014 State of Good Repair Report that accounts for all of the agency's capital assets, their scheduled replacement and estimated replacement costs. This report identifies the amount of deferred investment backlog and the investment level needed to eliminate the backlog and replace all assets when they reach the scheduled end of their lifecycle over the next 20 years. SFMTA is committed to spending an average of $250 million per year to keep its transportation infrastructure in a state of good repair over a twenty year period. To achieve this goal, SFMTA has begun the implementation of a comprehensive Enterprise Asset Management System and the development of a Transportation Asset Management Program to better collect, manage and analyze detailed capital asset data. SFMTA continues to refine its asset management practices and prioritization criteria for funding capital projects to better allocate state of good repair investments.

Figure 6. Basis for the SFMTA Capital Plan

Once complete, the capital need descriptions, justifications, and cost estimate information were reviewed and any additional information necessary was requested prior to the prioritization step. These capital needs cover all modes of transportation under the purview of SFMTA. To manage the capital needs of such a broad and complex transportation system, SFMTA's Capital Plan is organized into the following 14 Capital Programs. Detailed descriptions of the 14 Capital Programs are available in Appendix B.

- Accessibility
- Bicycle
- Communications & Information Technology Infrastructure
- Facility
- Fleet
- Parking
- Pedestrian
- School
- Security
- Taxi
- Traffic Calming
- Traffic Signals & Signs
- Transit Fixed Guideway
- Transit Optimization & Expansion

Prioritize Capital Needs

For each Capital Program, a group of subject matter experts rated each capital need within their respective program using the criteria and rating scales established by the SFMTA Executive Team. See Appendix C for detailed rating scale definitions. SFMTA is unique in its multi-modal responsibility and the breadth of capital needs, which provides a unique challenge in crafting agency-wide criteria. Due to this unique challenge, SFMTA has employed Decision Lens, a web-based software tool, to help prioritize, analyze, and measure which investments will deliver the highest returns to SFMTA. Using a structured and collaborative decision making process provides quantitative analysis of qualitative measures in a transparent and participatory process in which all participants can see and discuss results in real-time. The prioritization process includes identifying and prioritizing a set of criteria, quantifying rating scales, rating transportation capital needs and applying weighted scores. This activity occurred at the Capital Program level and was

conducted by subject matter experts for each Capital Program. The outcome of the prioritization process is a quantitative measure of the relative importance of each capital need within a specific Capital Program.

Transportation Capital Vision Needs

As mentioned earlier, capital investment needs identified and prioritized in the Capital Plan are based on the SFMTA's plans, studies, strategies and mandates. In some cases the investment needs included in these documents do not align with the 20 year timeframe of the Capital Plan, rather they use timeframes best suited to their particular purposes. However, it is critical to capture the unconstrained needs for the full 20 years to plan for projected growth and provide a safe and reliable transportation system. For this reason, the Capital Plan includes a vision element to capture the additional scope of work and costs beyond the capital needs developed through a plan, study or strategy. The vision needs allow the Capital Plan to fully represent the 20-year potential investment needs. These vision needs are general categories of improvement that typically lack the level of detail needed to rate and prioritize individual investments.

The SFMTA, with its partners at the San Francisco County Transportation Authority and San Francisco Planning Department, will initiate a long-range planning effort later this year that will help clarify the city's long-term capital needs. Part of that planning effort is to solidify a vision and associated goals for the San Francisco transportation system. Key transportation corridors and associated capital needs will be identified. This effort will not only inform future SFMTA Capital Plans, but also the San Francisco Transportation Plan, San Francisco General Plan Transportation Element, and Regional Transportation Plan.

Prioritization Findings

The result of this Capital Plan development process is the prioritized list of financially unconstrained capital needs included in Appendix E. The capital needs are organized by Capital Program and the relative rank of each capital need within the Capital Program. The total capital needs and vision needs of each Capital Program in 2015 dollars are shown in Table 3.Overall, the Capital Plan identifies over $21.4 billion in total capital plan needs, which includes all potential SFMTA capital investments in the next 20 years. The $21.4 billion is based on existing plans and strategies of $20.6 billion in capital needs and $828 million capital vision needs. Of this total, approximately $10 billion is needed for the ongoing replacement and restoration of the agency's existing assets (State of Good Repair needs), while others are enhancements and expansions to the current transportation network.

The SFMTA uses this list of priorities to organize and allocate funding to projects in the Capital Improvement Program (CIP). Each Capital Program has been assigned a CIP Program Manager by the SFMTA Division Directors. The CIP

Program Managers are tasked to convene committees or perform the work necessary to refine capital needs for inclusion in the CIP.

Table 3: Total Capital Needs by Capital Program

Capital Program	Total Capital Need (millions, 2015 dollars)	Total Capital Vision Need (millions, 2015 dollars)	Total Capital Plan Need (millions, 2015 dollars)
Accessibility	$319	$97	$416
Bicycle	$913	$23	$936
Communications & Information Technology Infrastructure	$167	$0	$167
Facility	$2,760	$9	$2,769
Fleet	$4,334	$0	$4,334
Parking	$963	$31	$994
Pedestrian	$393	$369	$762
School	$162	$0	$162
Security	$57	$10	$67
Taxi	$90	$0	$90
Traffic Calming	$210	$0	$210
Traffic Signals & Signs	$771	$0	$771
Transit Fixed Guideway	$2,648	$0	$2,648
Transit Optimization & Expansion	$6,814	$289	$7,103
Total	**$20,601**	**$828**	**$21,429**

Capital Needs by Investment Types

The type of investment provides another way to view capital needs. Restoration of existing assets are generally higher priorities than system enhancements and expansion, but targeted enhancements and expansions are needed to meet projected demand due to growth. Each capital need included in the Capital Plan is identified as one of these three types of investments:

Restore: Includes investments to replace existing assets that are beyond their useful life or normal replacement cycle. (e.g. signal replacement). It also features investments that rehabilitate or renovate existing assets to continue the use of the asset, such as major improvements to an asset that extend the useful life. (e.g. replacing the roof on a facility).

Enhance: Includes enhancements to the functionality or quality of the existing transit or multi-modal system, thereby improving system reliability and service delivery. This would include investments that upgrade systems or enhance the features of an existing asset (e.g. transforming a Class II bike lane to a cycletrack).

Expand: Includes investments that augment and increase capacity of the existing system. Results typically include growing ridership, system reliability and service delivery. (e.g. extending transit service to a new area or increasing the bicycle network mileage. Planning studies to expand existing transit services and systems also fall into this category).

The relative distribution of capital needs by investment type based on total cost estimate is depicted in Table 4. Nearly half of the identified capital needs are needed to keep the existing system, which comprises the agency's State of Good Repair program. It is important to note that maintenance investments generally include the latest technology or features available, and enhancement and expansion investments will generally include any needed maintenance investments, so needs are categorized by the primary purpose of the investment and/or which aspect is largest.

Table 4: Capital Needs by Investment Type

Investment	Total Capital Plan Need (millions, 2015 dollars)	Percent of Total Cost
Restore	$10,219	48%
Enhance	$4,954	23%
Expand	$6,256	29%
Total	**$21,429**	**100%**

Capital Needs by Travel Mode

Capital needs can also be grouped by the four primary travel modes governed by the SFMTA. The relative distribution of capital needs by travel mode based on total estimated cost is depicted in Table 5.

Transit: Includes investments that provide safe, reliable, clean, accessible and convenient public transportation services. Transit capital needs include transit accessibility, communication, facility, vehicle fleets, security, fixed guideway, and transit optimization and expansion.

Vehicle (Auto, Taxi, Parking): Includes investments that minimize conflicts between auto and other modes of travel and allow all modes to better co-exist on the roadway. Capital needs include traffic signals and signs, road striping and painting, and taxi management.

Walking: Includes investments that build safety and livability into our streets, including support for the city's Vision Zero Policy. Capital needs include safer routes to schools, safer street designs, educating the public, enforcing traffic law, building crosswalks, bulb-outs, sidewalks, and traffic calming elements.

Bicycling: Includes investments that enable bicycling to become a part of everyday life. Capital needs include building or improving bike paths, wayfinding, signals, bike racks and traffic calming elements.

Table 5: Capital Needs by Travel Mode

Travel Mode	Total Capital Plan Need (millions, 2015 dollars)	Percent of Total
Transit	$17,504	82%
Vehicle	$1,855	9%
Walking	$1134	5%
Bicycling	$936	4%
Total	**$21,429**	**100%**

Changes from the 2013 Capital Plan

The $21.4 billion in capital needs identified in this Capital Plan are over $5.5 billion greater than the total in the 2013 Capital Plan. This change is primarily driven by refined cost estimates and updated state of good repair needs. The most significant changes include:

State of Good Repair:

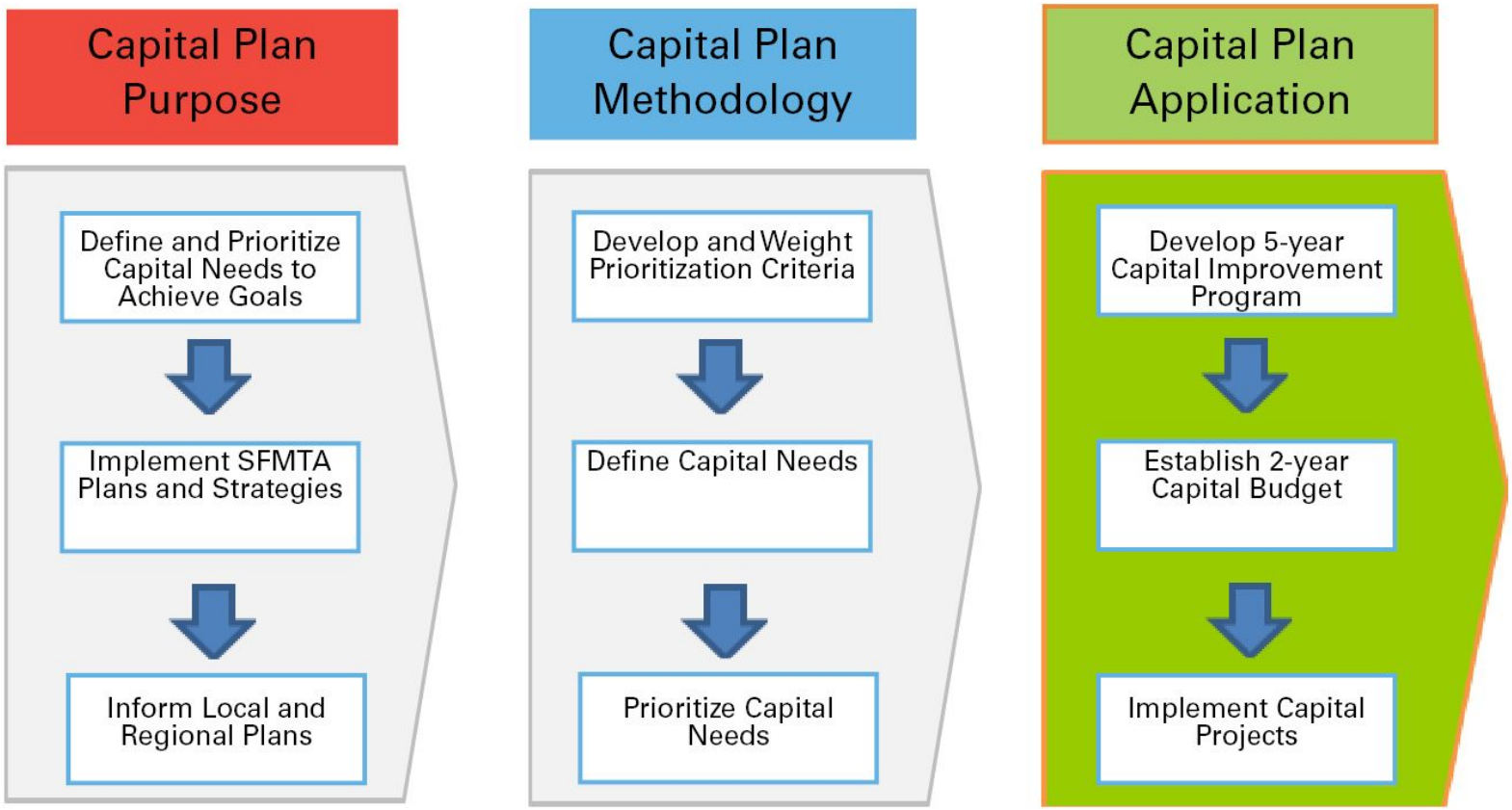
- Facility Program added $1.0 billion needs.
- Transit Fixed Guideway Program added $652 million needs.
- Parking Program added $495 million needs

Transit Optimization and Expansion Program added $3.5 billion needs in:

- 19th Avenue/Oceanview Subway
- T Third Phase 3 to Fisherman's Wharf
- Rail Capacity Strategy

Next Steps for Capital Planning

The prioritized list of financially unconstrained capital needs sets the foundation for the 5-year Capital Improvement Program and the 2-year Capital Budget. All projects seeking capital funding must be included in the Capital Plan to be eligible for inclusion in the financially-constrained CIP. The first two years of the CIP generally constitute the 2-year Capital Budget. The Transportation Capital Committee (TCC) is responsible for developing, amending and implementing the Capital Plan, CIP, and Capital Budget.



Capital Planning Process

All projects seeking capital funding must be included in the Capital Plan to be eligible for inclusion in the financially-constrained Capital Improvement Program (CIP). Whereas the Capital Plan includes all of the potential capital needs the SFMTA could invest in, the CIP and 2-year Capital Budget must be financially constrained and only projects and phases that are substantially funded can move forward for further review and approval. The Capital Plan provides the basis for prioritizing the agency's capital needs for inclusion in the 5-year CIP and 2-year Capital Budget. Figure 7 provides an overview of the Capital Plan's role in the Project Development Process.

Figure 7. Role of Capital Plan in Project Initiation Process

SFMTA 5-year Capital Improvement Program (CIP). The CIP is a fiscally-constrained five year funding plan for delivery of transportation capital projects. The CIP matches capital need priorities with projected funding available over a five year period. For a project to be considered for funding in the CIP, it must first be included in the Capital Plan. Secondly, a project must have at least 90% of its funding identified for the project or phase to be included in the CIP. Development of the CIP includes reviewing the priorities established in the Capital Plan, five year projections of capital revenue sources, and using a Strategic Investment/Value Analysis for prioritizing funding. Cumulatively, these provide the public with an understanding of which projects are planned to occur in the next five years, along with corresponding budgets and timelines. Once included in the CIP, the capital needs become capital projects and should be removed from the Capital Plan. While the CIP does not guarantee funding, it conveys specific commitments from funding agencies to support the SFMTA's highest priority and most ready capital improvements.

The FY 2015-2019 CIP was adopted by the SFMTA Board in May 2014, and includes 370 projects for a total investment of $3.3 billion. This includes infrastructure investments, capital procurements, area plans, and one-time initiatives such as educational programs. Of this $3.3 billion, $1.5 billion will be dedicated to state of good repair investments over the next five years. This Capital Plan will support the FY 2017-2021 CIP update, which will begin in fall 2015 for approval in early 2016 by the SFMTA Board.

SFMTA 2-year Capital Budget. The 2-year Capital Budget represents a list of financially constrained capital projects that are adopted or appropriated by the SFMTA Board. Capital projects must have full funding plans to be included in the Capital Budget. Many of the same conditions for inclusion in the 5-year CIP apply to the 2-year Capital Budget, with the 2-year Capital Budget largely based on the first two years of the 5-year CIP. The 2-year Capital Budget must be approved by the SFMTA Board by April of each even year.

Transportation Capital Committee

The Transportation Capital Committee (TCC) is responsible for developing, amending and implementing the 20-year Capital Plan, 5-year CIP, and 2-year Capital Budget. This responsibility includes approving new capital needs for inclusion in the Capital Plan and prioritizing needs based on criteria established by the Director of Transportation and his Executive Team. The committee meets monthly to consider changes to the Capital Plan or CIP and is comprised of representatives for each of the SFMTA's 14 CIP Programs areas. All new capital projects, or changes to existing project scopes, schedules, budgets and funding plans must be approved by this diverse committee.

Project Integration Process

In 2014, the SFMTA implemented an internal Project Integration Process that facilitates SFMTA's internal coordination on project delivery and implementation of Complete Streets projects where all modes of transportation are considered at the early stages of project development. The goal is to identify potential project integration opportunities based on existing plans, policies and projects. The Project Integration Process relies on an internal committee of technical experts representing all 14 CIP Programs and other functional areas of the agency. The committee reviews each project at an early planning phase and identifies integration opportunities and potential conflicts across all modes. If an opportunity or conflict is identified, agency staff then considers modifying the project scope while weighing budget and timeline implications.

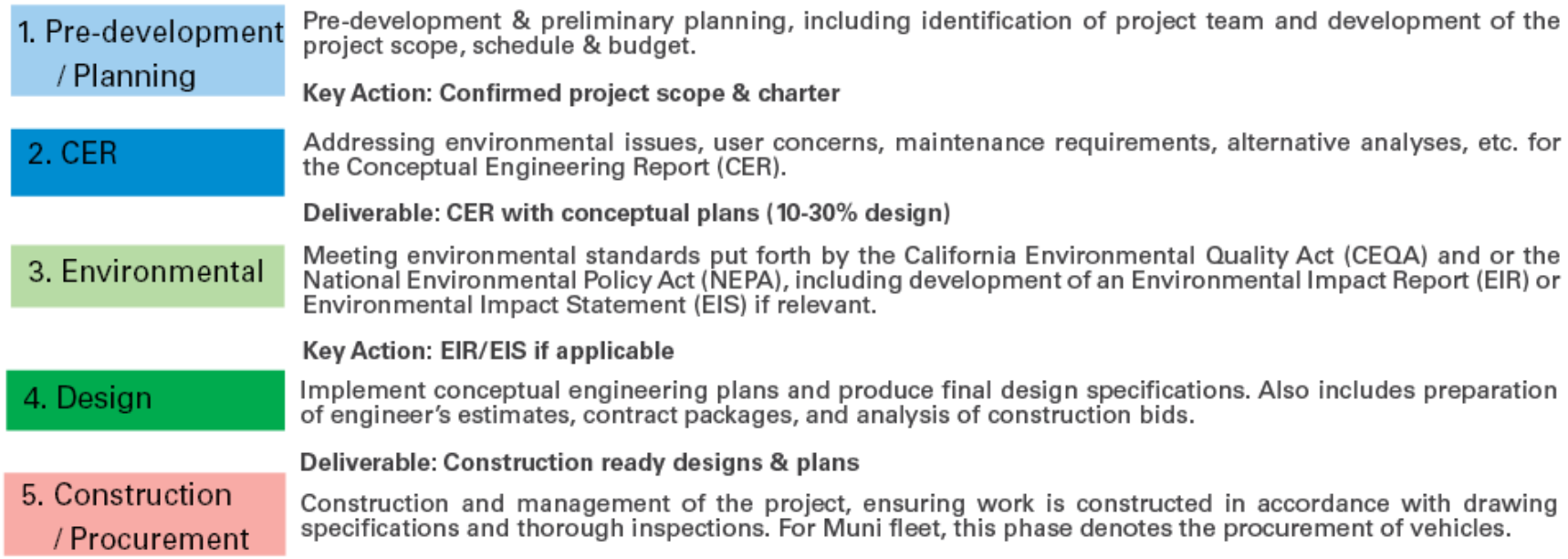
Capital Project Implementation

The Capital Plan, Capital Improvement Program, and Capital Budget are important milestones in project development. There are many additional steps in the capital project lifecycle. Figure 8 provides an overview of the typical capital project lifecycle. Although individual projects may slightly deviate from this lifecycle, the major milestones hold true for a vast majority of the wide range of projects overseen by the SFMTA.

Most large-scale SFMTA capital projects move from a project idea to implementation through five primary phases: Pre-development Planning, Conceptual Engineering, Environmental Review, Design and Construction or Procurement. Large, capital intensive projects such as a Bus Rapid Transit project can take 6-10 years or more to complete. Smaller, less capital intensive projects typically take 2-3 years.

Public involvement and engagement is a hallmark of the SFMTA's project development process. The public provides valuable input and feedback to project managers particularly during the Environmental Review and Design phases. It is during this stage that the SFMTA would seek approval from its Board of Directors, and in some cases, the Board of Supervisors.

Figure 8. Overview of a Typical Capital Project Lifecycle.



Next Steps

The SFMTA has a number of efforts underway that will improve the Capital Planning and Project Delivery processes:

Enterprise Asset Management System (EAMS):
The SFMTA has initiated the development of a software system to capture all of the agency's asset related data in a single database, including quantity, age, replacement cost and location. The EAMS will enable agency-wide asset tracking, work management, and materials management. Once fully deployed, the EAMS will integrate currently disparate asset tracking systems within the agency and enable ongoing asset condition assessments as well as capturing the lifecycle costs associated with each asset. These improvements will support asset renewal/replacement programs and allow for better financial planning and forecasting.

State of Good Repair (SGR) Reporting:
The agency has established metrics to track performance with regards to the goals outlined in the 2014 State of Good Repair report. In addition to the annual SGR report, tracking these metrics provide a tool for measuring the progress of SGR investments included in the 5-year CIP. A summary report is developed for the Federal Transportation Administration on a quarterly basis to track progress in meeting the agency's goal to invest at least $250 million a year in SGR related projects.

Capital Program Control System (CPCS):
CPCS is a suite of software tools to improve the tracking of capital project budgets, funding, and schedules. CPCS was initiated by the Capital Programs and Construction Division and is in the process of expanding the use of the system to other divisions. Integration is underway with the Sustainable Streets Division's project management business needs. In addition, various enhancements - such as fund programming, quarterly billing and new electronic timesheets – are being incorporated for Agency-wide utilization.

Citywide Project Integration:
In addition to the SFMTA's Project Integration Process, the city uses the Envista on-line spatial database to help facilitate coordination between the SFMTA, other public agencies, and private utility companies. Envista is designed to track data regarding project scopes and schedules for any project that involves breaking ground (i.e. modifying roads or closing sidewalks), or that would benefit from multi-departmental coordination.

As previously discussed, development of the Capital Improvement Program will begin this fall, with anticipated SFMTA Board adoption of the CIP and Capital Budget by May 2016. Development of the next 20-year Capital Plan will begin in early 2017.

Appendix

Appendix A. Local and Regional Plans

- The SFMTA Capital Plan is used to inform transportation funding priorities for the City and County of San Francisco, including the San Francisco Capital Plan, San Francisco Transportation Plan, Transportation 2030, and Plan Bay Area.

Appendix B. Capital Program Descriptions

-There are over 100 capital needs included in this Capital Plan. To organize these needs, the Capital Plan uses 14 Capital Program, which are described here.

Appendix C. Capital Plan Prioritization Criteria and Rating Scales

-To evaluate each capital need, the SFMTA Director of Transportation and Executive Team defined the capital plan prioritization criteria and rating scales described here.

Appendix D. Capital Need Priorities

- The results of the prioritization process are presented here, organized by Capital Program. These relative priorities are one of several factors that are considered when identifying capital needs that should be funded in the Capital Improvement Program.

Appendix E. Capital Need Descriptions

- Detailed descriptions for each capital need, organized by Capital Program are included here. The descriptions include the justification, investment type; estimated cost and priority score (1-100).

Appendix A. Local and Regional Plan

The City and County of San Francisco's Capital Plan (FY 2016-25). The City and County of San Francisco develops a ten-year Capital Plan on a biennial basis for all recommended investments to replace, repair, and improve the city's capital infrastructure and to restore healthy levels of investment in the City and County's aging infrastructure. These capital investments represent a practical and fiscally-constrained set of improvement projects that address critical capital needs in all major City departments. As a City department, SFMTA's needs are included in this citywide Capital Plan.

San Francisco Transportation Plan 2040 (SFTP). The San Francisco Transportation Plan, prepared by the San Francisco County Transportation Authority and adopted by the Transportation Authority Board in December 2013, is the blueprint for San Francisco's transportation system development and investment over the next 30 years. The SFTP brings all transportation modes, operators, and networks together, with a view to improving travel choices for all users. Through detailed analysis, interagency collaboration, and public input, the SFCTA evaluated ways to improve the transportation system with existing and potential new revenues. The SFTP recommends a diverse investment and expansion plan, as well as policy changes, which help generate revenues that fund a significant amount of SFMTA's capital needs. It also contains a SF Investment Vision that departs from business as usual and envisions how San Francisco could achieve more with potential bond measures and new sources of local revenue.

Safe, Reliable and Affordable Transportation 2030 (T2030). In 2014 Mayor Lee's Transportation Task Force recommended a package of transportation infrastructure investments to fund better roads, improved transit and safer streets throughout the city in its Transportation 2030 report. The report recommends a series of funding measures that would provide almost $3 billion to delivery hundreds of local transportation infrastructure projects by 2030. The funds would go toward major capital investments identified in San Francisco's Capital Plan. These improvement projects include: street repaving, new Muni vehicles, transit stop and route upgrades, pedestrian safety enhancements, Muni track replacement projects, expanded and enhanced bikeways, accessibility enhancements and other infrastructure improvements.

Plan Bay Area 2040. Adopted in 2013 by the Metropolitan Transportation Commission and the Association of Bay Area Governments, Plan Bay Area is the long-range integrated transportation and land-use/housing strategy through 2040 for the San Francisco Bay Area. A state-mandated document (to meet the requirement of SB 375 for Metropolitan Planning Organizations, including MTC, to prepare a Sustainable Communities Strategy), it integrates long-range transportation, land-use and housing plans that will support a growing economy, provide more housing and transportation choices and

reduce transportation-related pollution in the nine-county San Francisco Bay Area. This roadmap is updated every four years to reflect changing conditions and new planning priorities and helps Bay Area cities and counties plan for transportation needs and adapt to the challenges of future population growth.

As the Congestion Management Agency (CMA) for San Francisco, the SFCTA assists SFMTA and other local agencies in submitting investment needs to MTC during the Plan Bay Area Call for Projects. Inclusion in the financially-constrained project list in Plan Bay Area is mandatory for all projects seeking state or federal funds or a federal action. Three project parameters are used to evaluate projects: project readiness, plan status, and supporting adopted goals. The Capital Plan and CIP are one way that SFMTA satisfies these parameters. The SFCTA then develops recommendations for project and program priorities within MTC's target budget for the county in consultation with stakeholders. Once approved by the SFCTA Board, the list of recommended investment priorities is submitted to MTC for evaluation in Plan Bay Area. After MTC completes its detailed project evaluation, including environmental review, the final list is adopted by the MTC Commission.

Appendix B. Capital Program Descriptions

Accessibility: The Accessibility Program is dedicated to investments that improve access to the transportation system for seniors and persons with disabilities, and maintains compliance with the Americans with Disabilities Act. This program focuses on enhancing the accessibility of the transportation system, such as installing elevators at transit stations, constructing high level boarding platforms at transit stops that provide level boarding onto trains for those who need it, and regular replacement of Paratransit vehicles. In addition, most other capital programs include elements that improve the transportation system's accessibility. Examples include accessibility features on all new light rail vehicles, trolley coaches and motor coaches, improved communications at stations such as audible "next muni" information, audible pedestrian signals, and pedestrian bulbs and curb ramps.

Bicycle: The Bicycle Program is designed to create a cohesive, city-wide network of safe bicycle routes, and to enhance the safety and comfort of San Francisco's bicycle infrastructure. This includes new bicycle lanes and separated cycle tracks, safety and spot improvements, expansion of the existing bicycle network and bicycle sharing system, intersection improvements for bicycles, and secure bicycle parking. These capital investments are identified in the SFMTA Bicycle Strategy (2013).

Communications & IT Infrastructure: The Communications and Information Technology (IT) Infrastructure Program supports the design and implementation of IT infrastructure to improve the efficiency and ease of use of the transportation system externally and enhance SFMTA's internal operational and financial efficiency. This includes maintaining the fiber network that provides the internal communication backbone of the Metro system. The program also supports investments in new technology to improve the Muni customer experience.

Facility: The Facility Program includes the rehabilitation and replacement of SFMTA's buildings, yards, transit stations, and other agency facilities to provide for increased operational and financial efficiency. Many of these capital needs are identified in the Real Estate Vision for the 21st Century, which outlines a program of investments to rehabilitate and modernize SFMTA's operating facilities as well as acquisition of new facilities to accommodate growth.

Fleet: The Fleet Program focuses on the replacement, maintenance, and expansion of revenue (transit) and non-revenue (support) vehicles. Special fleet equipment is also included, such as On-Board Fare Collection Equipment and Rail Training Simulators. The long-term transit revenue fleet needs are documented in the Transit Fleet Management Plan adopted in 2014.

Parking: The Parking Program includes two primary areas of focus: rehabilitation of existing public parking garages and lots, and the street infrastructure and facilities related to public parking and expansion of the SFpark parking management system. This includes ensuring that parking garages are structurally sound, well-ventilated, and can withstand harsh weather and earthquake activity. SFMTA also ensures that parking structures are accessible and meet the requirements of the Americans with Disabilities Act (ADA). SFpark related investments focus on maintaining and replacing existing mechanical parking meters with electronic meters that accept multiple forms of payment and that allow for demand based pricing adjustments.

Pedestrian: With San Francisco's Vision Zero policy goal as its primary focus, the Pedestrian Program seeks to improve the safety of people walking, improve street design, and improve the comfort of walking. These capital elements include streetscape enhancements, street median refuge islands, speed tables to calm traffic, crosswalks and pedestrian activated signals, and corner bulb-outs to shorten street crossing distances. Such investments help protect people walking from car traffic, ensuring neighborhood roads are Complete Streets and making busy intersections more people-friendly.

School: The School Program focuses on improvements within school zones to enable safe direct routes of travel for children walking and biking to school. Capital needs include street redesigns, bicycle infrastructure, removal of pedestrian barriers, and programs such as Walk to School Day and pedestrian safety classes in elementary schools.

Security: The Security Program seeks to improve the security of the transportation system. The primary security initiatives included in the Security Program are emergency and disaster response equipment and training, facility site hardening, and enhanced security systems. The Security Program capital needs are primarily identified through Transportation Security Administration Threat and Vulnerability Assessments (TVA), other security focused exercises, and best practices in transportation system security.

Taxi: The Taxi Program seeks to improve taxi operation and enhance customer experience. Capital elements include increasing the number of taxi stands, taxi driver rest stops, and bicycle racks for taxis. The Taxi Program also includes initiatives to reduce the environmental impact of taxi use, such as promoting electric vehicles.

Traffic Calming: The goal of the Traffic Calming Program is to improve safety for all users of the transportation system by slowing car traffic and increasing the safety and visibility of pedestrians, bicyclists and transit users. Capital investments include road diets (i.e. removing travel lanes), narrowing travel lanes, speed humps, signage, pedestrian median islands, traffic circles, lane shifting and landscaping along local, arterial, and school streets.

Traffic Signals & Signs: The Traffic Signals Program seeks to decrease transit travel time and improve mobility and safety of San Francisco roadways. Capital needs include Intelligent Transportation Systems (ITS) tools to enhance traffic management, provide transit signal priority, and expedite maintenance procedures. ITS tools include advanced traffic signal controllers, traffic cameras, video detection, variable message signs, a communications network, Transportation Management Center (TMC) and remote workstations.

Transit Fixed Guideway: The Transit Fixed Guideway Program is comprised primarily of the infrastructure that supports the movement of rail vehicles (light rail, streetcars and cable car) and trolley buses. These investments span from rail grinding to systemwide improvements, including: investing in new train control technology; track replacement; and maintaining Muni's 217 miles of overhead wires.

Transit Optimization & Expansion: The Transit Optimization and Expansion Program seeks to optimize and expand Muni service for greater reliability, capacity and connectivity. This includes implementing transit priority changes on the most heavily used lines to give buses and trains preferred right-of-way on city streets, and expansion of transit service along corridors with anticipated ridership growth. The SFMTA is also implementing a combination of policies, programs, information, services, and tools that help optimize transportation infrastructure and operations, and support the use of sustainable modes for all trips.

Appendix C. Capital Plan Prioritization Criteria and Rating Scales

The SFMTA Executive Team established the criteria based on agency plans, goals, and adopted policies, specifically the Strategic Plan. The Strategic Plan establishes the goals, objectives, and metrics by which the agency will be measured from Fiscal Year (FY) 2013 through FY 2018.

Goal 1: Create a safer transportation experience for everyone.

Security: Protects the transportation system and Agency assets from potential threats. Reduces system and asset vulnerability (frequency or severity) due to collisions, vandalism, theft, security threats, or natural causes (earthquakes, sea level rise, or adaptation to climate change).

Rating	Weight	Definition
Major/Critical	**1.00**	**The project directly improves a documented security risk related to the physical plant or systems used by the public or employees on a daily basis. Greater resiliency to earthquakes or adaptation to climate change is possible.**
Medium/Important	**0.50**	**The project contributes to improving current security conditions and reducing risks related to the physical plant; without the project, current risk exposures may increase.**
Moderate/Useful	**0.25**	**The project prevents security conditions from deteriorating and is expected to make a moderate difference to overall conditions.**
Minor/Neutral, Negative, or Unknown	**0.00**	**The project is not expected to improve current conditions and its impacts on the Agency's security goals are not generally measurable.**

Safety: Reduces incidents and injuries. Supports the City's Vision Zero policy goal. Provides transportation services that address and minimize safety risks.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves and mitigates documented unsafe condition for employees or the public; the project improves or restores a service/"safety-critical" asset.
Medium/Important	**0.50**	The project is expected to reduce incidents and injuries.
Moderate/Useful	**0.25**	The project maintains current safety conditions.

Rating	Weight	Definition
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's safety goals are not generally measurable.

Goal 2: Make transit, walking, bicycling, taxi, and carpooling the preferred means of travel.

Reliability: Meets core operational Agency performance objectives. Improves transit on-time performance, reduces travel time variability, or improves multi-modal trip predictability. Provides a system that can be reliably used by all. Provides for the proper functioning of transportation assets.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves on-time performance, reduces travel time variability, or improves multi-modal trip predictability across or within a defined major corridor or major travel market; the project is based on documented forecasts or estimates of system performance.
Medium/Important	**0.50**	Within high use segments of a corridor or a specific travel market, the project improves on-time performance, reduces travel time variability, or improves multi-modal trip predictability.
Moderate/Useful	**0.25**	The project contributes to moderate improvements in OTP, travel time variability, or predictability, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's core operational performance standards are not generally measurable.

System Quality: Improves the quality (comfort, attractiveness and cleanliness) of the transportation system. Supports the development of a seamless, multi-modal transportation system. Enhances multi-modal transfers, improves information and transfer arrangements. Provides or enhances pedestrian-oriented public spaces.

Rating	Weight	Definition
Major/Critical	**1.00**	The project will result in a discernible, major improvement in the quality of customer-experienced use of the transportation system or related public amenities, e.g., comfort, attractiveness and cleanliness.
Medium/Important	**0.50**	The project will make improvements to the customer-experience of the transportation system or related public amenities, e.g., comfort, attractiveness and cleanliness.
Moderate/Useful	**0.25**	The project will maintain and continue the current customer-experience of the public transportation systems or related public amenities. It may include quality enhancements that are a limited component of overall transportation improvement projects.
Minor/Neutral, Negative, or Unknown	**0.00**	The project will not impact the Agency's quality goals.

System Access: Enhances system access and accessibility by incorporating principles of universal design. Provides access, including access for persons with disabilities, where it does not exist or improving access where existing conditions are substandard. This may include improving wayfinding and interconnectivity.

Rating	Weight	Definition
Major/Critical	**1.00**	The project makes major barrier-free access improvements for a large customer base or at high-use segments of the transportation system for people with disabilities, while improving access for all customers.
Medium/Important	**0.50**	The project makes important barrier-free access improvements to the transportation system for all customers.
Moderate/Useful	**0.25**	The project will make a moderate improvement in barrier-free access to the transportation system for people with disabilities, while improving access for all customers, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's access/accessibility goals are not generally measurable.

Travel Time: Reduces travel time for transit, pedestrians, bicyclists or carpooling, including taxis. Removes or limits sources of delay through resolving a gap in rights of way, improving connectivity, physical service or expanding existing rights of way or service.

Rating	Weight	Definition
Major/Critical	**1.00**	The project reduces travel time and delays for a major travel market. The improvements appear to be a real opportunity to maintain or increase ridership. Possible time savings could be > 4% over current conditions (for transit, pedestrian, bicyclist or carpooling).
Medium/Important	**0.50**	The project would reduce travel time/improve connectivity for a distinct travel market or corridor. Time savings could be close to or > 2% over current conditions for transit, pedestrian, bicyclist or carpooling.
Moderate/Useful	**0.25**	The project will help reduce delays/improve connections for transit, pedestrians, bicyclists or carpooling over current conditions, possibly as a limited component of a project.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's travel time goals are not generally measurable.

Goal 3: Improve the environment and quality of life in San Francisco.

Efficiency & financial sustainability: Results in a positive impact on SFMTA's transportation operating budget. Directly results in a net decrease in operating and/or maintenance costs for the Agency to operate the transportation system. Avoids potential cost increases. Enhances the ability of the Agency to deliver capital improvements in a timely manner. Directly generates additional revenue or provides a direct operating subsidy for the Agency.

Rating	Weight	Definition
Major/Critical	**1.00**	The project reduces O&M costs, avoids new cost, or provides opportunity for new revenue from existing or new sources. The project has potential to make a substantial difference to annual costs, operating ratios, or revenue (i.e. attract unique funding grants) within a given work area or even a Division; some benefits such as added efficiencies could be ongoing and long term.
Medium/Important	**0.50**	The project could help to avoid O&M costs increases; or may create an opportunity for new revenue. The project could ensure current or improved service, revenue or other positive results with less cost.
Moderate/Useful	**0.25**	The project maintains current O&M costs while resulting in equal or enhanced conditions; it supports maintaining current revenue.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's financial goals are not generally measurable.

Resource Conservation and Environmental Impacts: Reduces the SFMTA's use of non-renewable resources. Optimizes the use of sustainable resources and improves energy efficiency of the transportation sector to protect against the impacts of climate change. Creates a positive transportation impact to communities. Reduces vibration, waste, air, water and noise pollution during construction and operation.

Rating	Weight	Definition
Major/Critical	**1.00**	The project improves the use of renewable resources, improves energy efficiency or reduces greenhouse gas emissions at a system wide or area level. The improvements from this one project could be an example or prototype for future sustainable infrastructure projects or support "green" best practices in the next several years. This could include projects supporting transit-oriented development. The project would substantially reduce the impact of operations on a major corridor or area or make measurable reductions in construction impacts. The public or employees would clearly benefit from the project reducing glare, vibration, waste, air, water or noise pollution.
Medium/Important	**0.50**	The project supports use of sustainable resources, increased energy efficiency, or reduction of greenhouse gas emissions as a significant component of a project. The project would reduce the impact of operations at a specific location and/or reduce impacts of construction at a noticeable level.
Moderate/Useful	**0.25**	The project supports use of sustainable resources/ energy efficiency, possibly as a limited component of a project. The project is expected to marginally reduce impacts during construction and operations that may include glare, vibration, waste, air, water and noise pollution.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's conservation goals are not generally measurable. The project is not expected to improve current conditions and its impacts on the Agency's environmental impact goals are not generally measurable.

Goal 4: Create a workplace that delivers outstanding service.

Transparent Communications: Provides clear information (internally and externally) and improves accountability.

Rating	Weight	Definition
Major/Critical	**1.00**	The project directly improves the transparency of communications, both internally and externally, resulting in increased accountability across the Agency.
Medium/Important	**0.50**	The project improves the transparency of communications within a division or other section of the Agency, or between the Agency and a portion of the external audience.
Moderate/Useful	**0.25**	The project contributes to improvements in communications at the sub-division level, and likely has no impact at the agency level or on external communications.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's communications goals are not generally measureable.

Regulatory Compliance & Risk Management: Achieves regulatory compliance or mitigates potential risk (organizational, financial, community, etc.).

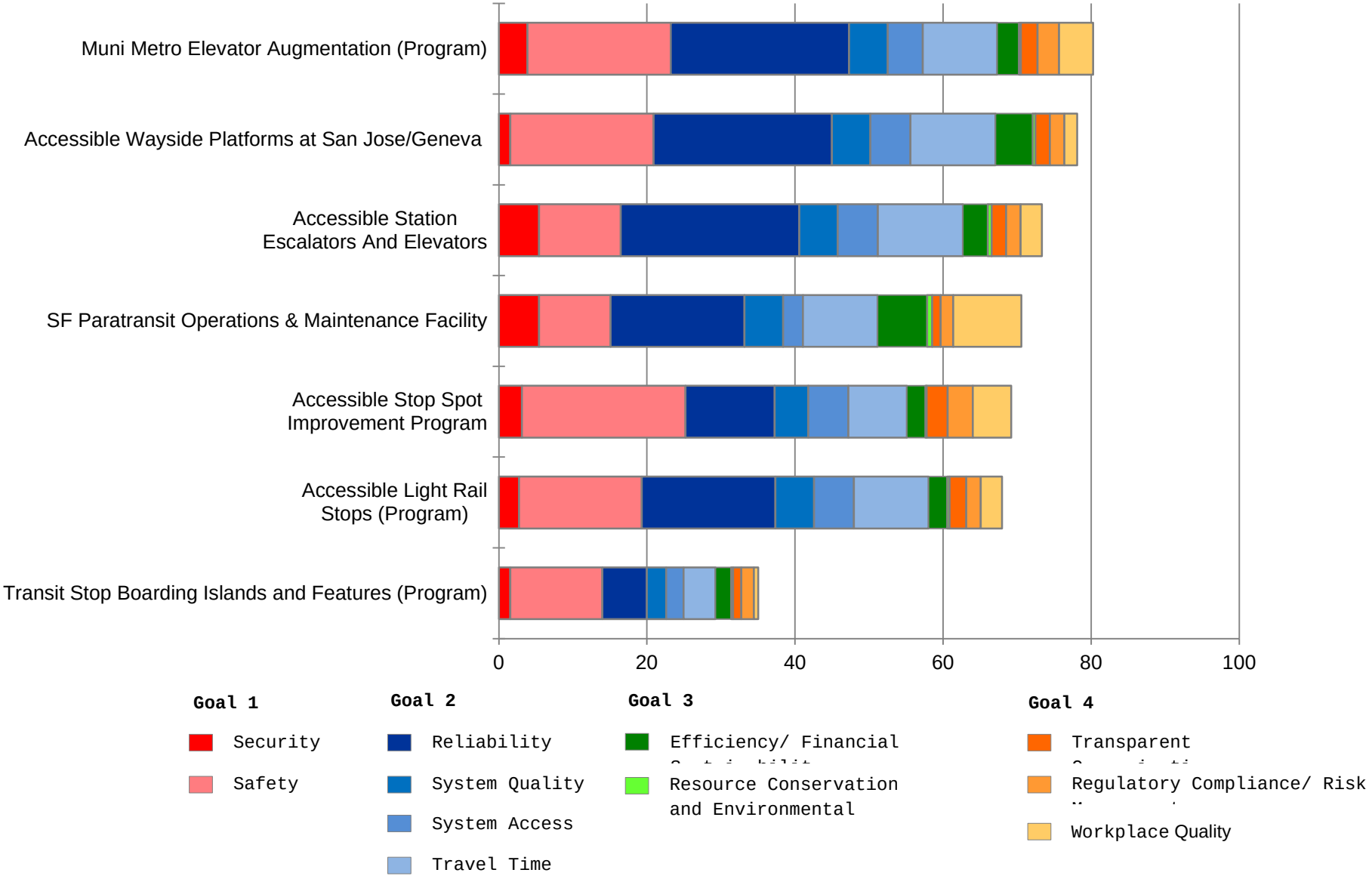
Rating	Weight	Definition
Major/Critical	**1.00**	The project directly and measurably improves the Agency's ability to meet regulatory compliance and/or effectively manage risks across the agency.
Medium/Important	**0.50**	The project improves regulatory compliance and/or risk management in a quantitative manner in a specific division or area of the Agency.
Moderate/Useful	**0.25**	The project is expected to qualitatively improve the Agency's ability to meet regulatory compliance requirements or to manage risk at the division or sub-division level.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve the level of regulatory compliance or provide any mitigation or management of risks the Agency faces.

Workplace Quality: Provides for a safe, healthy, and high-quality work environment. Promotes a collaborative organizational culture across the SFMTA.

Rating	Weight	Definition
Major/Critical	**1.00**	The primary purpose of the project is to directly improve the quality of workplace, both internally and externally, resulting in a safer and healthier work environment for SFMTA staff and visitors to SFMTA facilities.
Medium/Important	**0.50**	The project includes components that improve the quality of workplace, but is not the primary purpose of the project. Only portions of the project may result in a healthier work environment for SFMTA staff and visitors to SFMTA facilities.
Moderate/Useful	**0.25**	The project contributes to maintaining workplace quality at its current condition.
Minor/Neutral, Negative, or Unknown	**0.00**	The project is not expected to improve current conditions and its impacts on the Agency's workplace quality are not generally measureable.

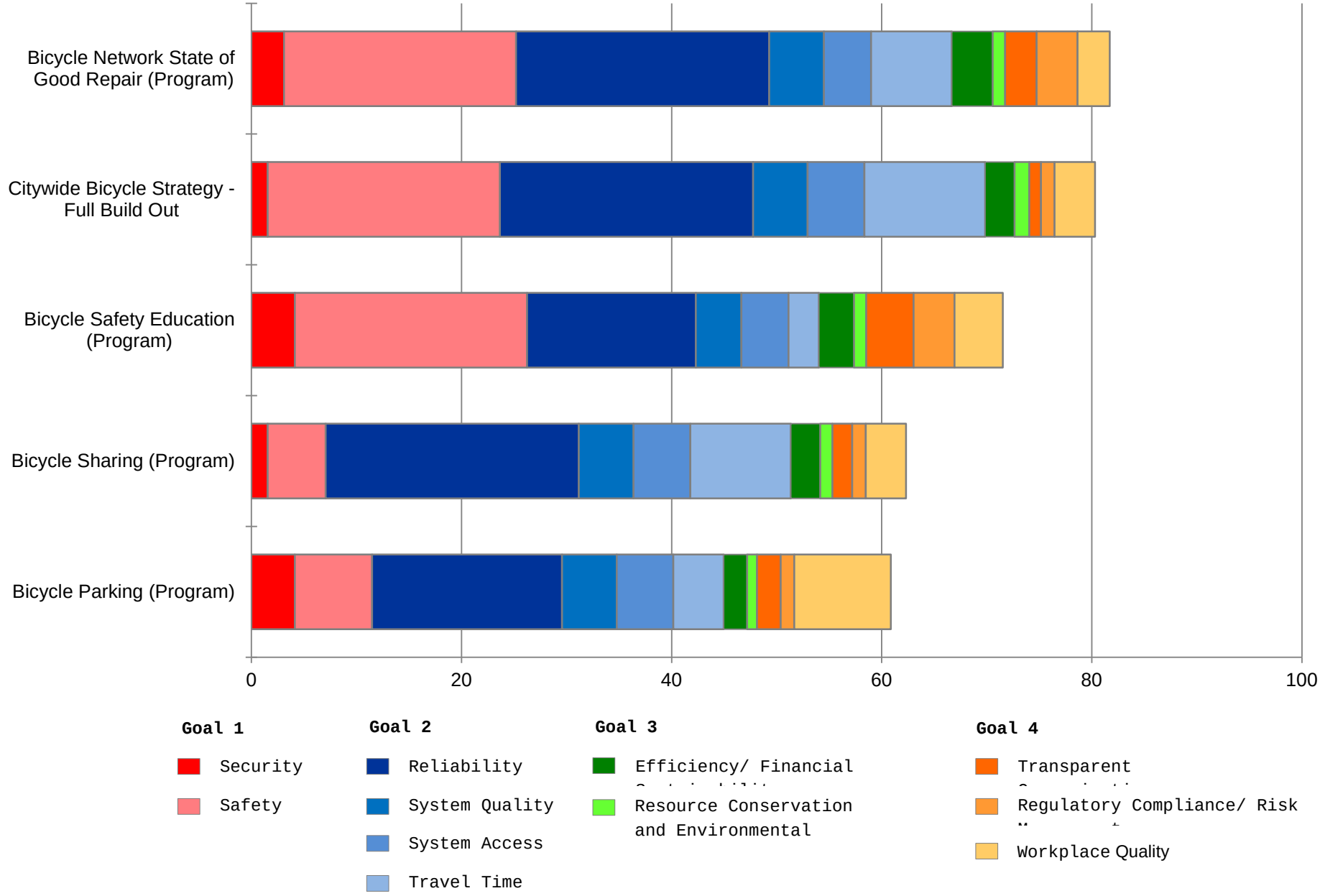
Appendix D. Capital Program Capital Need Priorities by Program

Accessibility Program Priorities



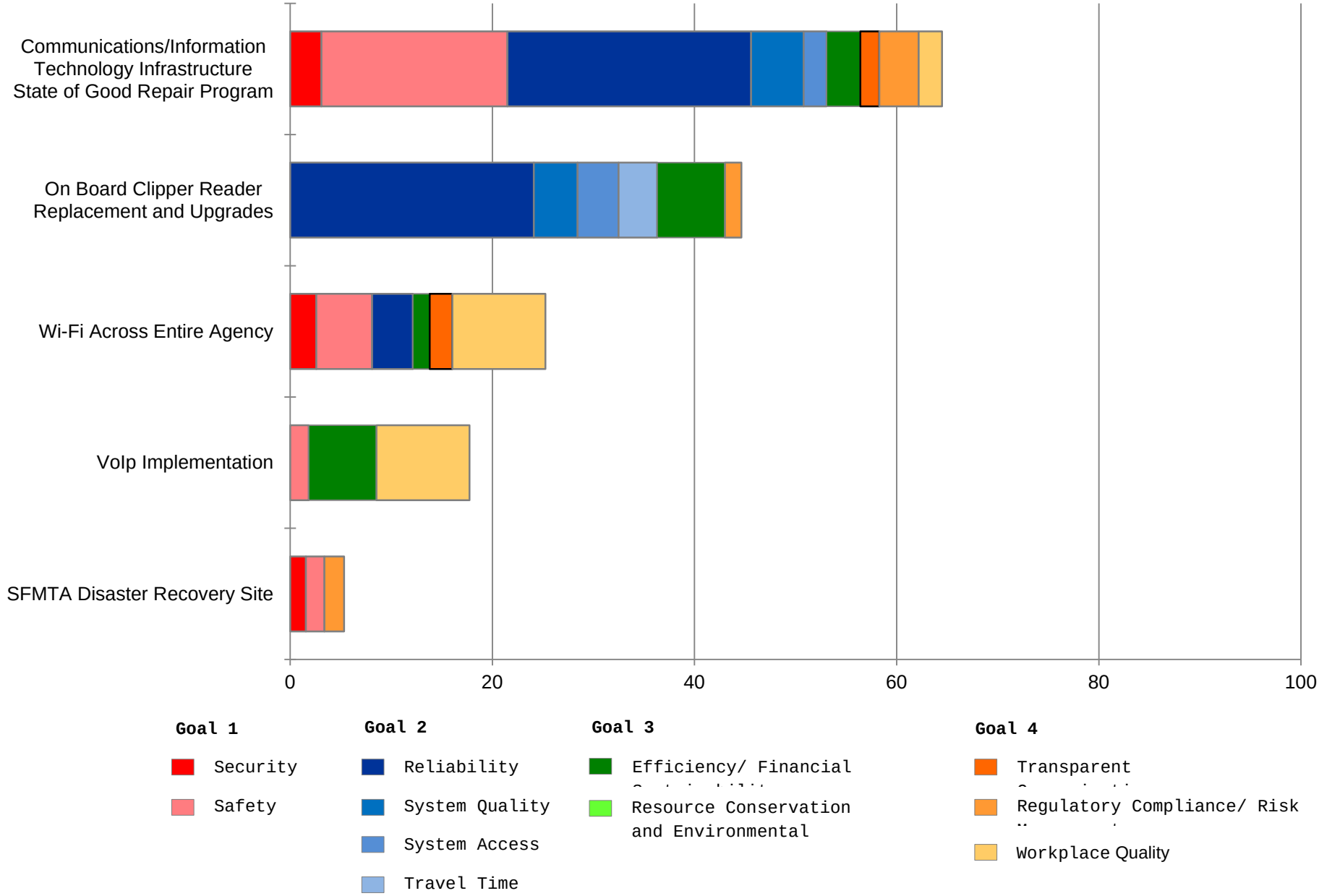
Accessibility Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Muni Metro Elevator Augmentation (Program)	3.875	19.3375	24.1	5.2	4.725	10.0625	2.9279	0.2618	2.25	2.925	4.6	80.1
Accessible Wayside Platforms at San Jose/Geneva	1.55	19.3375	24.1	5.2	5.4	11.5	5.025	0.35	1.9665	1.95	1.7296	78
Accessible Station Escalators And Elevators	5.425	11.05	24.1	5.2	5.4	11.5	3.35	0.525	1.9665	1.95	2.8796	73.2
SF Paratransit Operations & Maintenance Facility	5.425	9.6798	18.075	5.2	2.7	10.0625	6.7	0.7	1.125	1.7043	9.2	70.4
Accessible Stop Spot Improvement Program	3.1	22.1	12.05	4.55	5.4	7.9005	2.5125	0.175	2.8125	3.4125	5.1796	69
Accessible Light Rail Stops (Program)	2.7094	16.575	18.075	5.2	5.4	10.0625	2.5125	0.35	2.25	1.95	2.8796	67.8
Transit Stop Boarding Islands and Features (Program)	1.55	12.4202	6.025	2.6	2.3598	4.3125	2.0971	0.2618	1.125	1.7043	0.5796	35

Bicycle Program Priorities



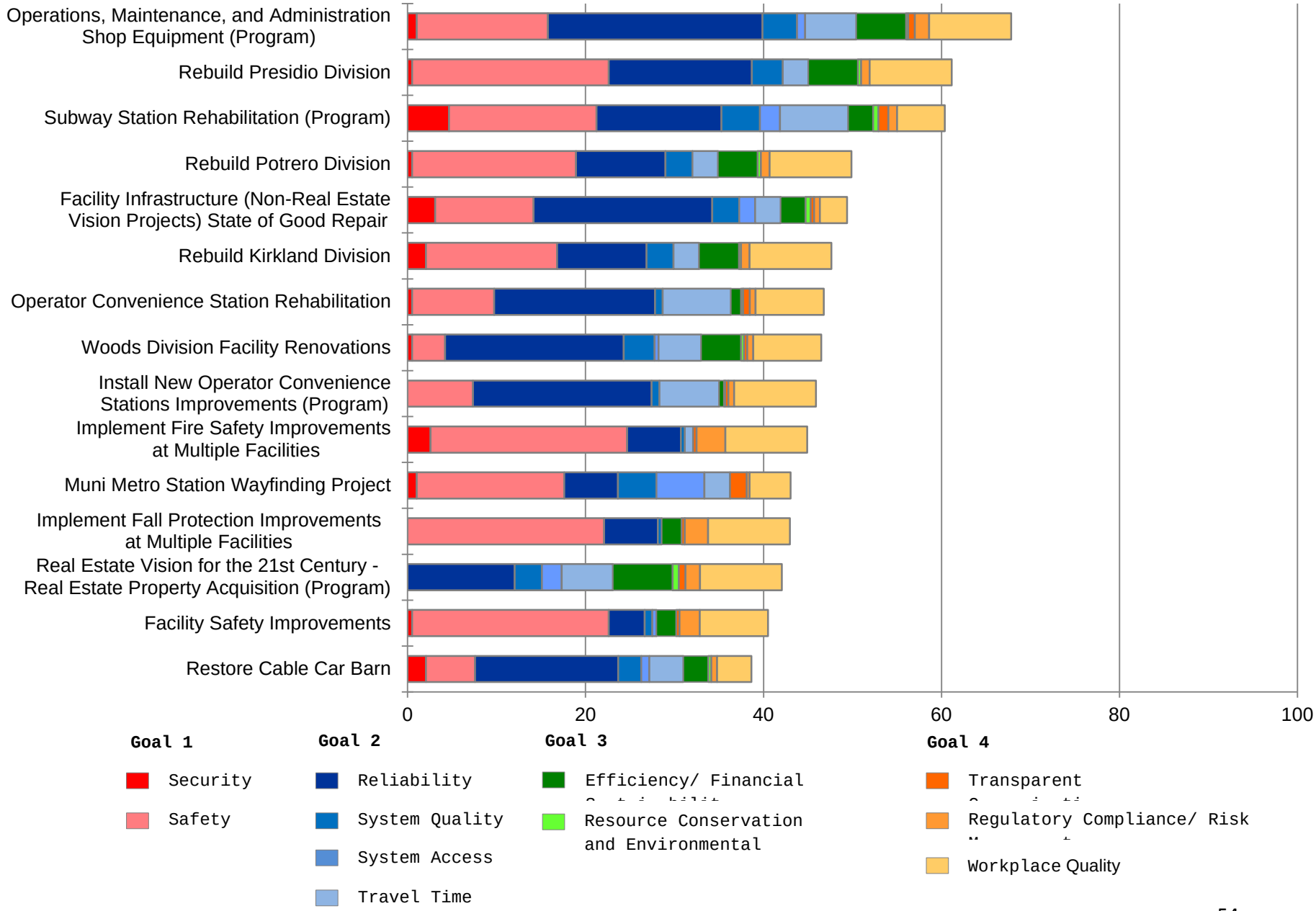
Bicycle Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Bicycle Network State of Good Repair (Program)	3.1	22.1	24.1	5.2	4.4982	7.6705	3.9061	1.1662	3.0015	3.9	3.0636	81.6
Citywide Bicycle Strategy - Full Build Out	1.55	22.1	24.1	5.2	5.4	11.5	2.7939	1.4	1.125	1.2987	3.8364	80.2
Bicycle Safety Education (Program)	4.1354	22.1	16.0747	4.3316	4.4982	2.875	3.35	1.1662	4.5	3.9	4.6	71.4
Bicycle Sharing (Program)	1.55	5.525	24.1	5.2	5.4	9.5795	2.7939	1.1662	1.8765	1.2987	3.8364	62.2
Bicycle Parking (Program)	4.1354	7.3593	18.075	5.2	5.4	4.7955	2.2311	0.9338	2.25	1.2987	9.2	60.7

Communication / Information Technology (IT) Program Priorities

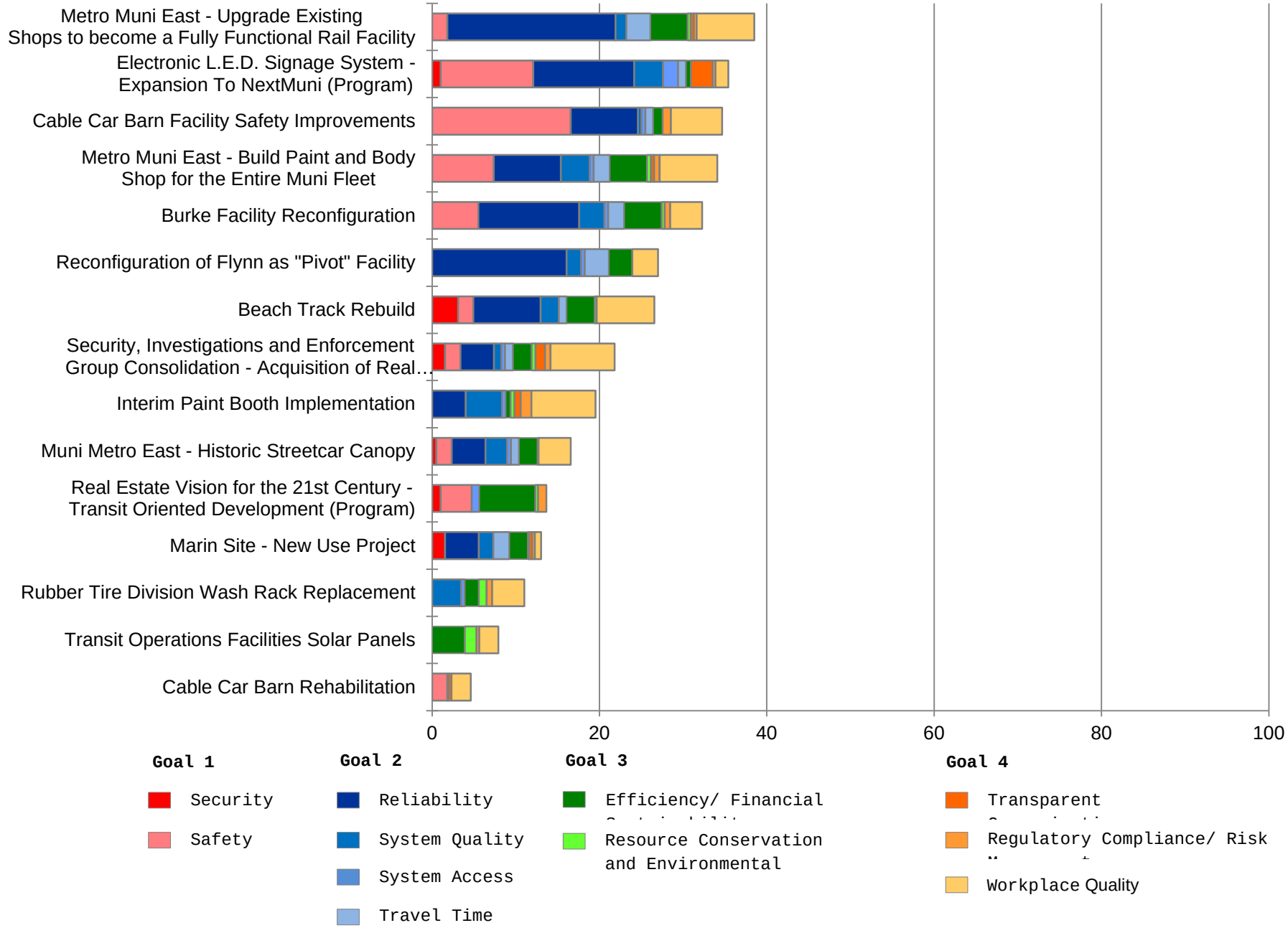


Communications/IT Infrastructure Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/ Risk Management	Workplace Quality	**Score**
Restore Existing Communications/Information Technology Infrastructure	3.1	18.4093	24.1	5.2	2.2518	0	3.35	0	1.8765	3.9	2.3	64.4
On Board Clipper Reader Replacement and Upgrades	0	0	24.1	4.3316	4.05	3.8295	6.7	0	0	1.6263	0	44.6
Wi-Fi Across Entire Agency	2.5854	5.525	4.0247	0	0	0	1.675	0	2.25	0	9.2	25.2
VoIp Implementation	0	1.8343	0	0	0	0	6.7	0	0	0	9.2	17.7
SFMTA Disaster Recovery Site	1.55	1.8343	0	0	0	0	0	0	0	1.95	0	5.3

Facility Program Priorities



Facility Program Priorities (Continued)

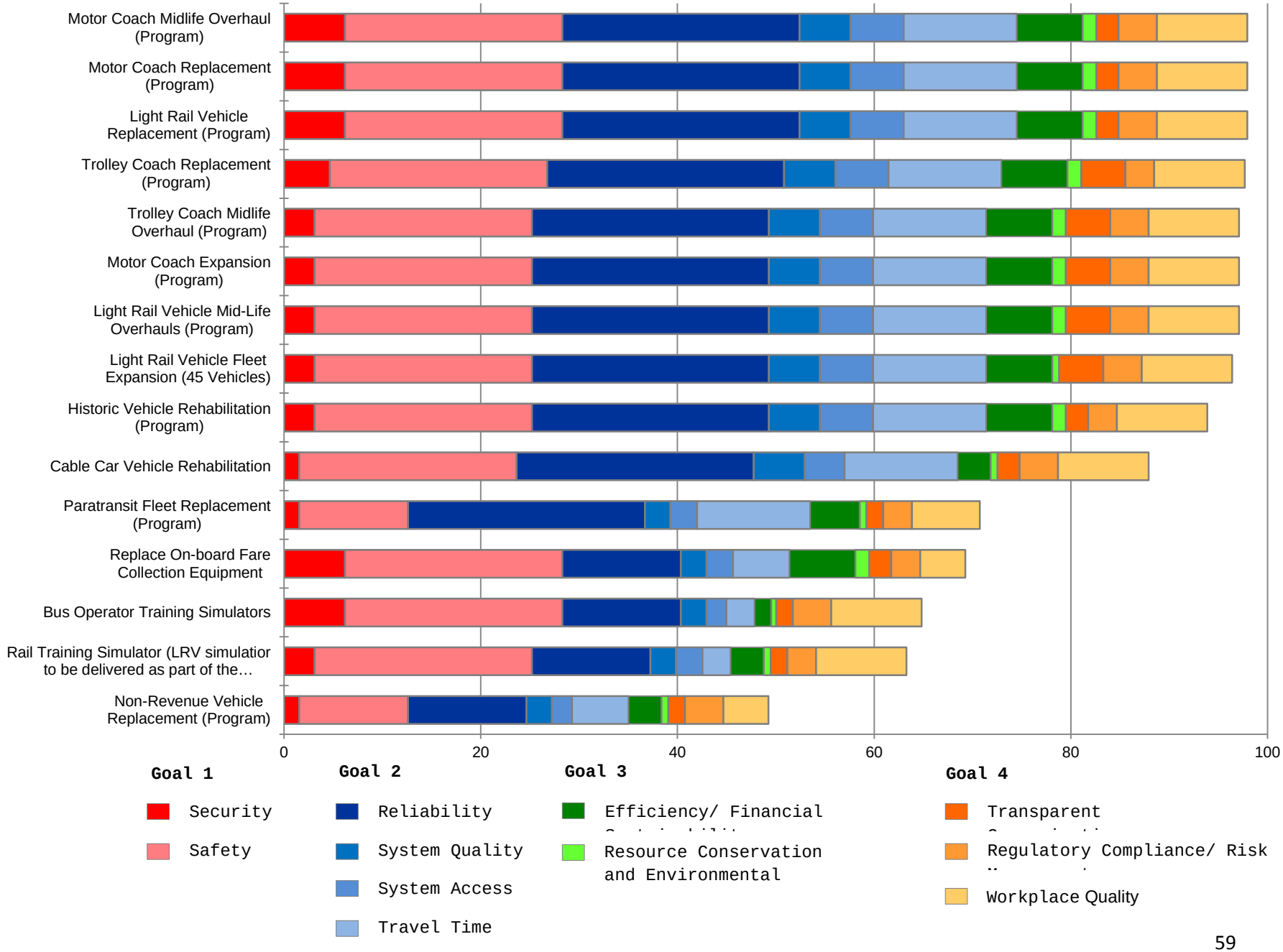


Facility Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/ Risk Management	Workplace Quality	**Score**
Operations, Maintenance, and Administration Shop Equipment (Program)	1.0354	14.7407	24.1	3.9	0.9018	5.75	5.5811	0.2338	0.7515	1.6263	9.2	67.7
Rebuild Presidio Division	0.5146	22.1	16.0747	3.4684	0	2.875	5.5811	0.35	0	0.975	9.2	61
Subway Station Rehabilitation (Program)	4.65	16.575	14.0503	4.3316	2.2518	7.6705	2.7939	0.5838	1.125	0.975	5.3636	60.2
Rebuild Potrero Division	0.5146	18.4093	10.0497	3.0316	0	2.875	4.4689	0.35	0	0.975	9.2	49.8
Facility Infrastructure (Non-Real Estate Vision Projects) State of Good Repair	3.1	11.05	20.0753	3.0316	1.7982	2.875	2.7939	0.5838	0.3735	0.6513	3.0636	49.3
Rebuild Kirkland Division	2.0646	14.7407	10.0497	3.0316	0	2.875	4.4689	0.2338	0	0.975	9.2	47.5
Operator Convenience Station Rehabilitation	0.5146	9.2157	18.075	0.8684	0	7.6705	1.1189	0.2338	0.7515	0.6513	7.6636	46.7
Woods Division Facility Renovations	0.5146	3.6907	20.0753	3.4684	0.4482	4.7955	4.4689	0.35	0.3735	0.6513	7.6636	46.4
Install New Operator Convenience Stations Improvements (Program)	0	7.3593	20.0753	0.8684	0	6.7045	0.5561	0.1162	0.3735	0.6513	9.2	45.8
Implement Fire Safety Improvements at Multiple Facilities	2.5854	22.1	6.025	0.4316	0	0.9545	0	0	0.3735	3.2487	9.2	44.8
Implement Fall Protection Improvements at Multiple Facilities	0	22.1	6.025	0.4316	0	0	2.2311	0	0.3735	2.6013	9.2	42.9

Facility Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/ Risk Management	Workplace Quality	**Score**
Muni Metro Station Wayfinding Project	1.0354	16.575	6.025	4.3316	5.4	2.875	0	0	1.8765	0.3237	4.6	42.9
Real Estate Vision for the 21st Century - Real Estate Property Acquisition (Program)	0	0	12.05	3.0316	2.2518	5.75	6.7	0.7	0.7515	1.6263	9.2	42
Facility Safety Improvements	0.5146	22.1	4.0247	0.8684	0.4482	0	2.2311	0	0.3735	2.2737	7.6636	40.4
Restore Cable Car Barn	2.0646	5.525	16.0747	2.6	0.9018	3.8295	2.7939	0.35	0	0.6513	3.8364	38.6
Metro Muni East - Upgrade Existing Shops to become a Fully Functional Rail Facility	0	1.8343	20.0753	1.3	0	2.875	4.4689	0.35	0.3735	0.3237	6.9	38.5
Electronic L.E.D. Signage System - Expansion To NextMuni (Program)	1.0354	11.05	12.05	3.4684	1.7982	0.9545	0.5561	0	2.6235	0.3237	1.5364	35.3
Cable Car Barn Facility Safety Improvements	0	16.575	8.0253	0.4316	0.4482	0.9545	1.1189	0	0	0.975	6.1364	34.6
Metro Muni East - Build Paint and Body Shop for the Entire Muni Fleet	0	7.3593	8.0253	3.4684	0.4482	1.9205	4.4689	0.4662	0.3735	0.6513	6.9	34
Burke Facility Reconfiguration	0	5.525	12.05	3.0316	0.4482	1.9205	4.4689	0.35	0	0.6513	3.8364	32.2
Reconfiguration of Flynn as "Pivot" Facility	0	0	16.0747	1.7316	0.4482	2.875	2.7939	0	0	0	3.0636	27
Beach Track Rebuild	3.1	1.8343	8.0253	2.1684	0	0.9545	3.35	0.2338	0	0	6.9	26.5

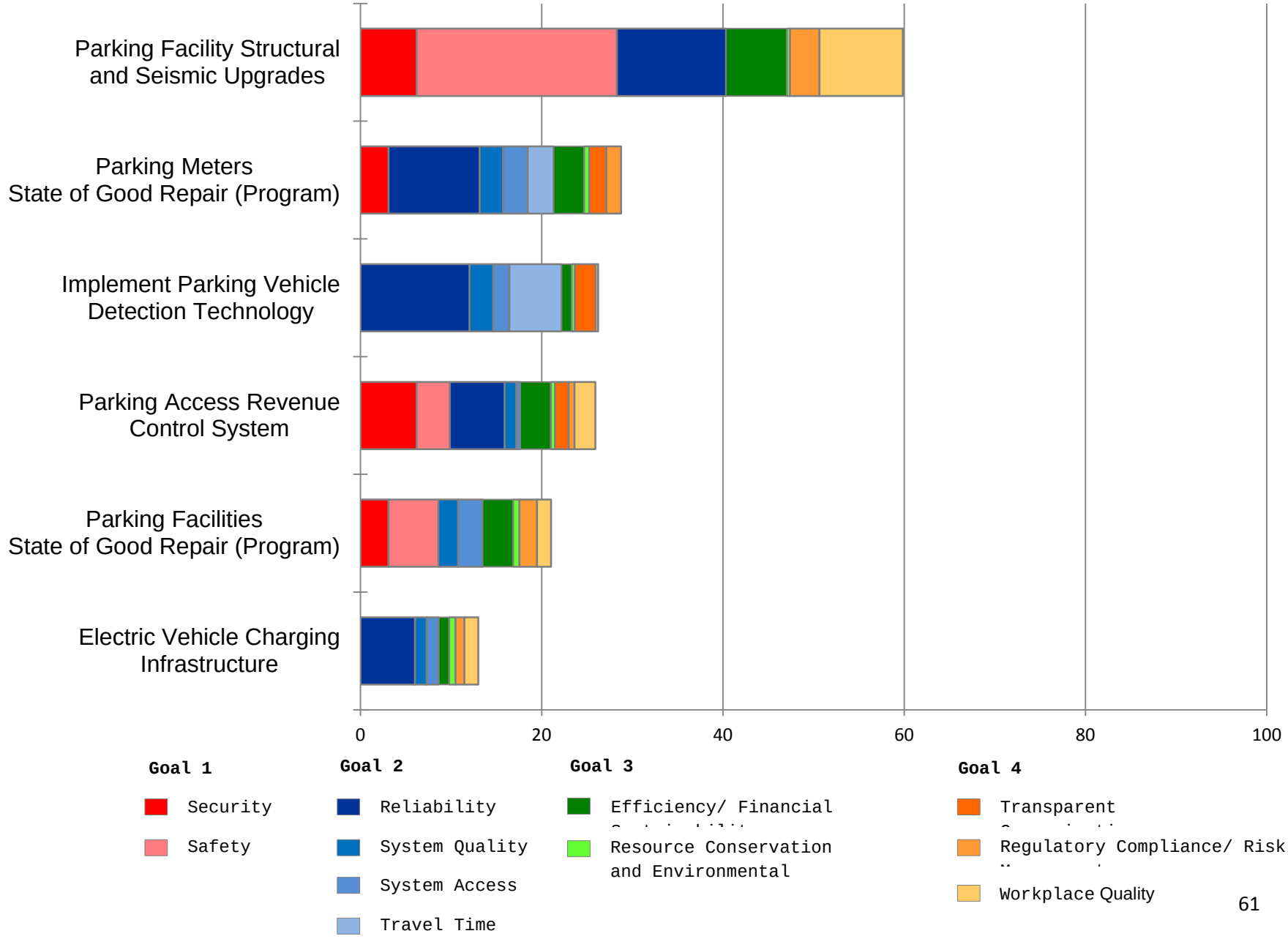
Facility Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/ Risk Management	Workplace Quality	**Score**
Security, Investigations and Enforcement Group Consolidation - Acquisition of Real Estate and Outfit of New Facility	1.55	1.8343	4.0247	0.8684	0.4482	0.9545	2.2311	0.4662	1.125	0.6513	7.6636	21.8
Interim Paint Booth Implementation	0	0	4.0247	4.3316	0.4482	0	0.5561	0.4662	0.7515	1.2987	7.6636	19.5
Muni Metro East - Historic Streetcar Canopy	0.5146	1.8343	4.0247	2.6	0.4482	0.9545	2.2311	0.1162	0	0	3.8364	16.5
Real Estate Vision for the 21st Century - Transit Oriented Development (Program)	1.0354	3.6907	0	0	0.9018	0	6.7	0.35	0	0.975	0	13.7
Marin Site - New Use Project	1.55	0	4.0247	1.7316	0	1.9205	2.2311	0.1162	0.3735	0.3237	0.7636	13
Rubber Tire Division Wash Rack Replacement	0	0	0	3.4684	0.4482	0	1.675	0.9338	0	0.6513	3.8364	11
Transit Operations Facilities Solar Panels	0	0	0	0	0	0	3.9061	1.4	0	0.3237	2.3	8
Cable Car Barn Rehabilitation	0	1.8343	0	0	0	0	0	0.1162	0.3735	0	2.3	4.6

Fleet Program Priorities



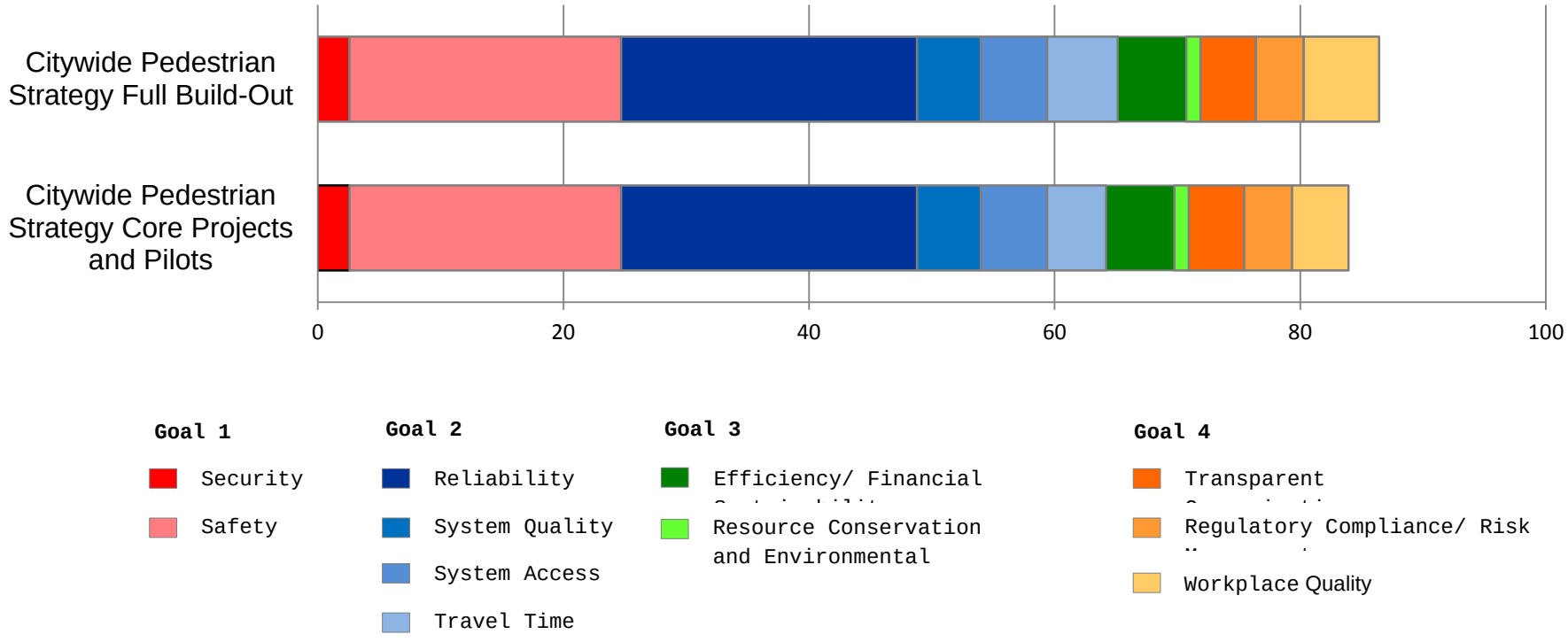
Fleet Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Light Rail Vehicle Replacement (Program)	6.2	22.1	24.1	5.2	5.4	11.5	6.7	1.4	2.25	3.9	9.2	97.8
Motor Coach Replacement (Program)	6.2	22.1	24.1	5.2	5.4	11.5	6.7	1.4	2.25	3.9	9.2	97.8
Motor Coach Midlife Overhaul (Program)	6.2	22.1	24.1	5.2	5.4	11.5	6.7	1.4	2.25	3.9	9.2	97.8
Trolley Coach Replacement (Program)	4.65	22.1	24.1	5.2	5.4	11.5	6.7	1.4	4.5	2.93	9.2	97.5
Light Rail Vehicle Mid-Life Overhauls (Program)	3.1	22.1	24.1	5.2	5.4	11.5	6.7	1.4	4.5	3.9	9.2	96.9
Motor Coach Expansion (Program)	3.1	22.1	24.1	5.2	5.4	11.5	6.7	1.4	4.5	3.9	9.2	96.9
Trolley Coach Midlife Overhaul (Program)	3.1	22.1	24.1	5.2	5.4	11.5	6.7	1.4	4.5	3.9	9.2	96.9
Light Rail Vehicle Fleet Expansion (45 Vehicles)	3.1	22.1	24.1	5.2	5.4	11.5	6.7	0.7	4.5	3.9	9.2	96.2
Historic Vehicle Rehabilitation (Program)	3.1	22.1	24.1	5.2	5.4	11.5	6.7	1.4	2.25	2.93	9.2	93.7
Cable Car Vehicle Rehabilitation	1.55	22.1	24.1	5.2	4.05	11.5	3.35	0.7	2.25	3.9	9.2	87.7
Paratransit Fleet Replacement (Program)	1.55	11.1	24.1	2.6	2.7	11.5	5.03	0.7	1.69	2.93	6.9	70.6
Replace On-board Fare Collection Equipment	6.2	22.1	12.1	2.6	2.7	5.75	6.7	1.4	2.25	2.93	4.6	69.2
Bus Operator Training Simulators	6.2	22.1	12.1	2.6	2.03	2.88	1.68	0.53	1.69	3.9	9.2	64.7
Rail Training Simulator (LRV simulatior to be delivered as part of the Siemens LRV Contract)	3.1	22.1	12.1	2.6	2.7	2.88	3.35	0.7	1.69	2.93	9.2	63.2
Non-Revenue Vehicle Replacement (Program)	1.55	11.1	12.1	2.6	2.03	5.75	3.35	0.7	1.69	3.9	4.6	49.2

Parking Program Priorities



Parking Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Parking Facility Structural and Seismic Upgrades	0.598	6.2	22.1	12.1	0	0	0	6.7	0.35	0	3.25	59.8
Parking Meters State of Good Repair (Program)	0.287	3.1	0	10	2.6	2.7	2.88	3.35	0.58	1.88	1.63	28.7
Implement Parking Vehicle Detection Technology	0.262	0	0	12.1	2.6	1.8	5.75	1.12	0.35	2.25	0.32	26.2
Parking Access Revenue Control System	0.259	6.2	3.69	6.03	1.3	0.45	0	3.35	0.47	1.5	0.65	25.9
Parking Facilities State of Good Repair (Program)	0.21	3.1	5.53	0	2.17	2.7	0	3.35	0.7	0	1.95	21
Electric Vehicle Charging Infrastructure	0.13	0	0	6.03	1.3	1.35	0	1.12	0.7	0	0.98	13

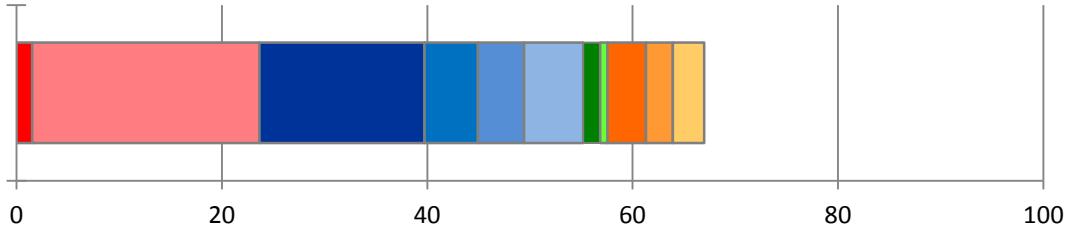
Pedestrian Program Priorities



Pedestrian Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Citywide Pedestrian Strategy Full Build-Out	2.59	22.1	24.1	5.2	5.4	5.75	5.58	1.17	4.5	3.9	6.1364	86.3
Citywide Pedestrian Strategy Core Projects and Pilots	2.59	22.1	24.1	5.2	5.4	4.8	5.58	1.17	4.5	3.9	4.6	83.8

School Program Priorities

School Streets Traffic Calming (Program)



Goal 1
- Security
- Safety

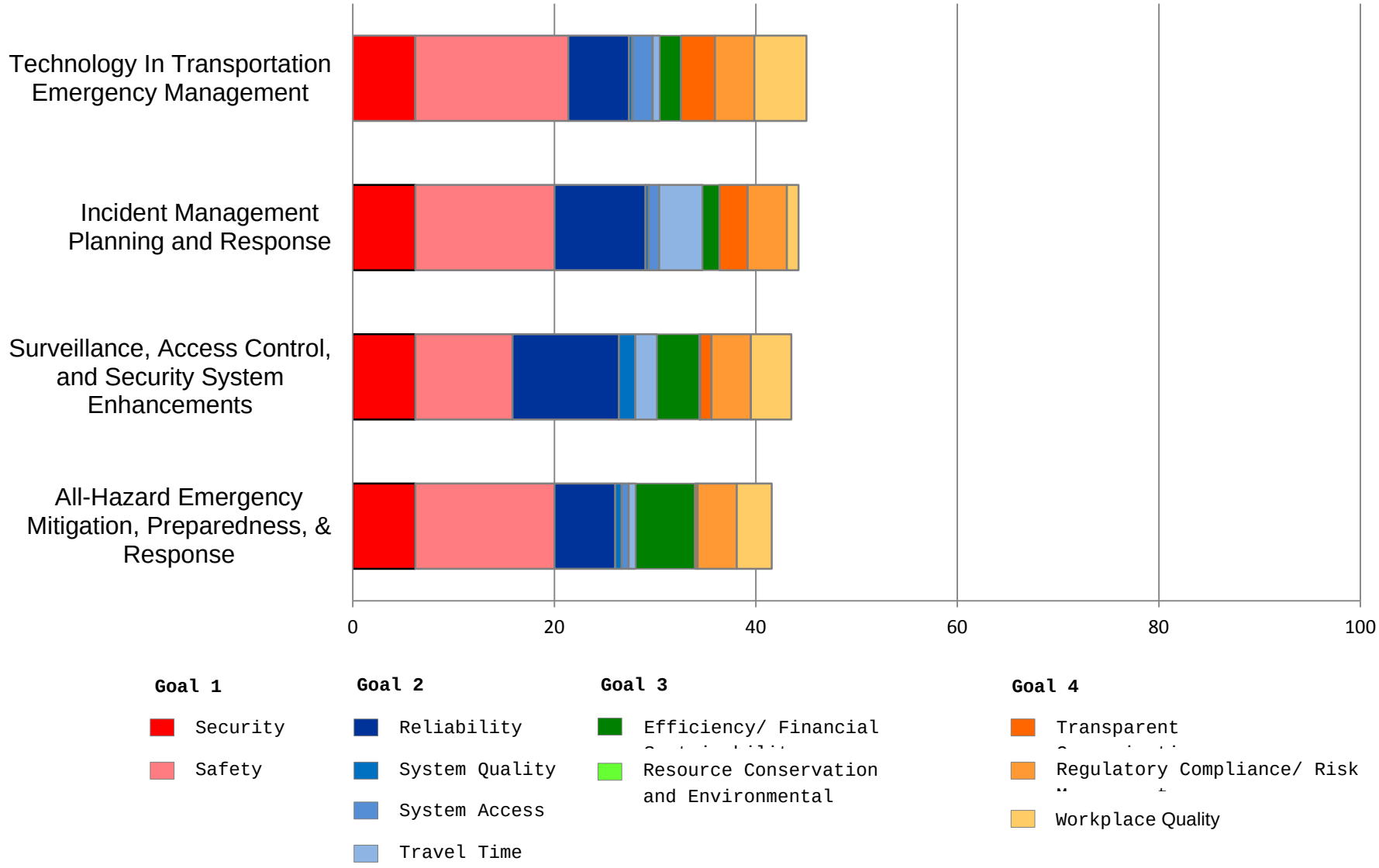
Goal 2
- Reliability
- System Quality
- System Access
- Travel Time

Goal 3
- Efficiency/ Financial
- Resource Conservation and Environmental

Goal 4
- Transparent
- Regulatory Compliance/ Risk
- Workplace Quality

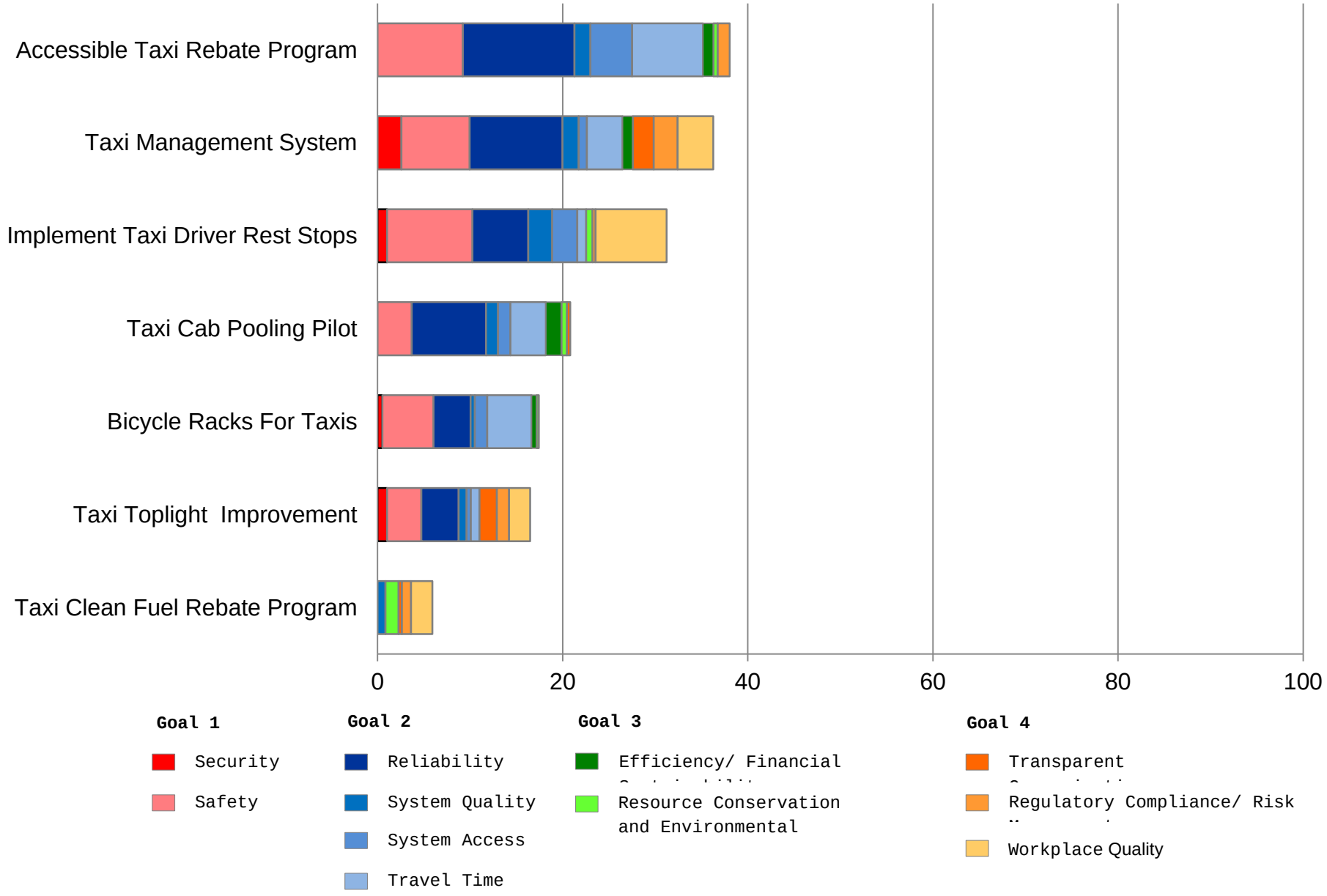
School Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance /Risk Management	Workplace Quality	**Score**
School Streets Traffic Calming (Program)	1.55	22.1	16.0747	5.2	4.4982	5.75	1.675	0.7	3.7485	2.6013	3.0636	66.8

Security Program Priorities



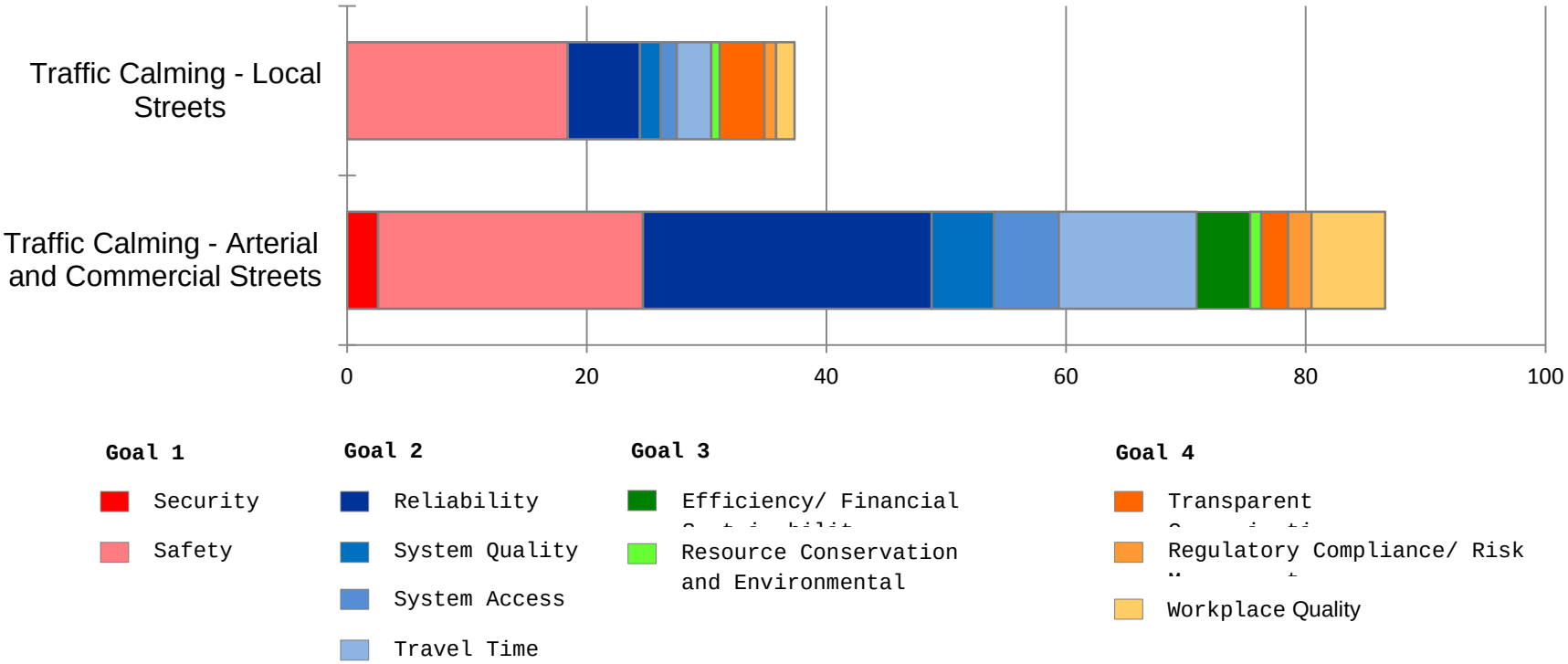
Security Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Technology In Transportation Emergency Management	6.2	15.2	6.03	0.32	2.03	0.72	2.09	0	3.38	3.9	5.1704	44.9
Incident Management Planning and Response	6.2	13.8	9.04	0.32	1.02	4.31	1.68	0	2.81	3.9	1.15	44.1
Surveillance, Access Control, and Security System Enhancements	6.2	9.66	10.6	1.62	0	2.16	4.19	0.09	1.13	3.9	4.0296	43.5
All-Hazard Emergency Mitigation, Preparedness, & Response	6.2	13.8	6.03	0.65	0.68	0.71	5.86	0	0.28	3.9	3.45	41.5

Taxi Program Priorities



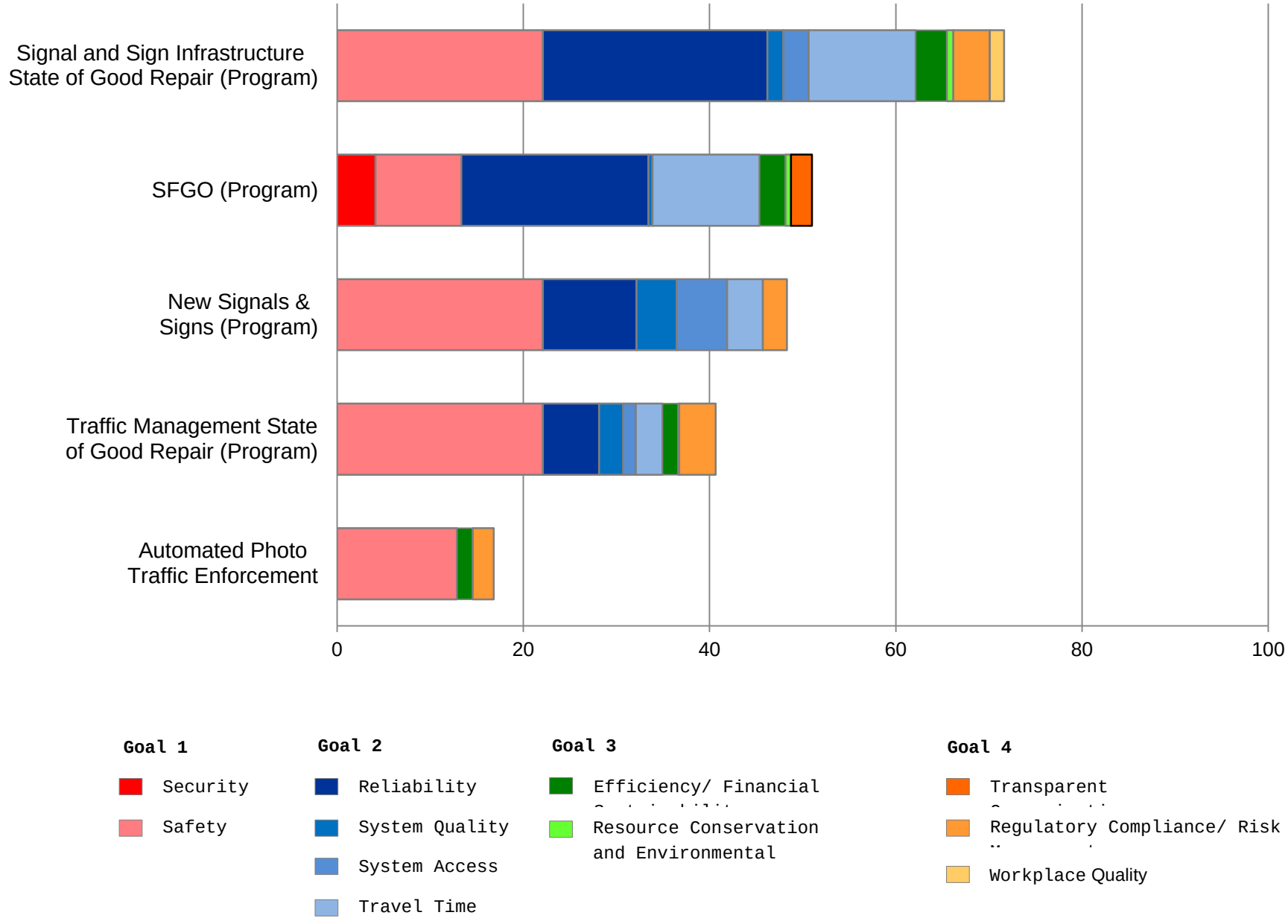
Taxi Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Accessible Taxi Rebate Program	0	9.2157	12.05	1.7316	4.4982	7.6705	1.1189	0.4662	0	1.2987	0	38
Taxi Management System	2.5854	7.3593	10.0497	1.7316	0.9018	3.8295	1.1189	0	2.25	2.6013	3.8364	36.2
Implement Taxi Driver Rest Stops	1.0354	9.2157	6.025	2.6	2.7	0.9545	0	0.7	0	0.3237	7.6636	31.1
Taxi Cab Pooling Pilot	0	3.6907	8.0253	1.3	1.35	3.8295	1.675	0.5838	0.3735	0	0	20.8
Bicycle Racks For Taxis	0.5146	5.525	4.0247	0.4316	1.35	4.7955	0.5561	0.2338	0	0	0	17.4
Taxi Toplight Improvement	1.0354	3.6907	4.0247	0.8684	0.4482	0.9545	0	0	1.8765	1.2987	2.3	16.4
Taxi Clean Fuel Rebate Program	0	0	0	0.8684	0	0	0	1.4	0.3735	0.975	2.3	5.9

Traffic Calming Program Priorities



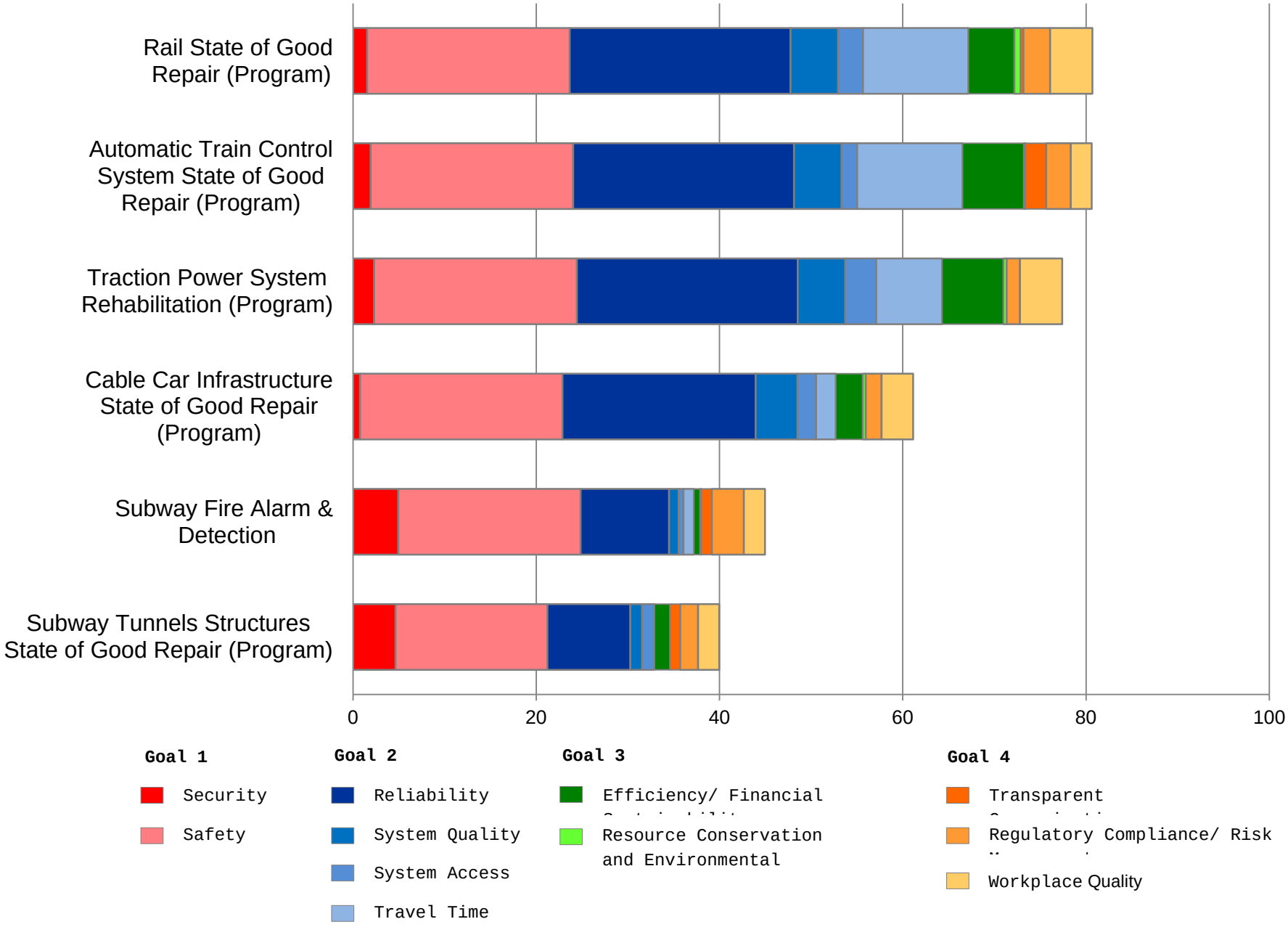
Traffic Calming Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance /Risk Management	Workplace Quality	**Score**
Traffic Calming - Arterial and Commercial Streets	2.5854	22.1	24.1	5.2	5.4	11.5	4.4689	0.9338	2.25	1.95	6.1364	86.4
Traffic Calming - Local Streets	0	18.4093	6.025	1.7316	1.35	2.875	0	0.7	3.7485	0.975	1.5364	37.3

Traffic Signals and Signs Program Priorities

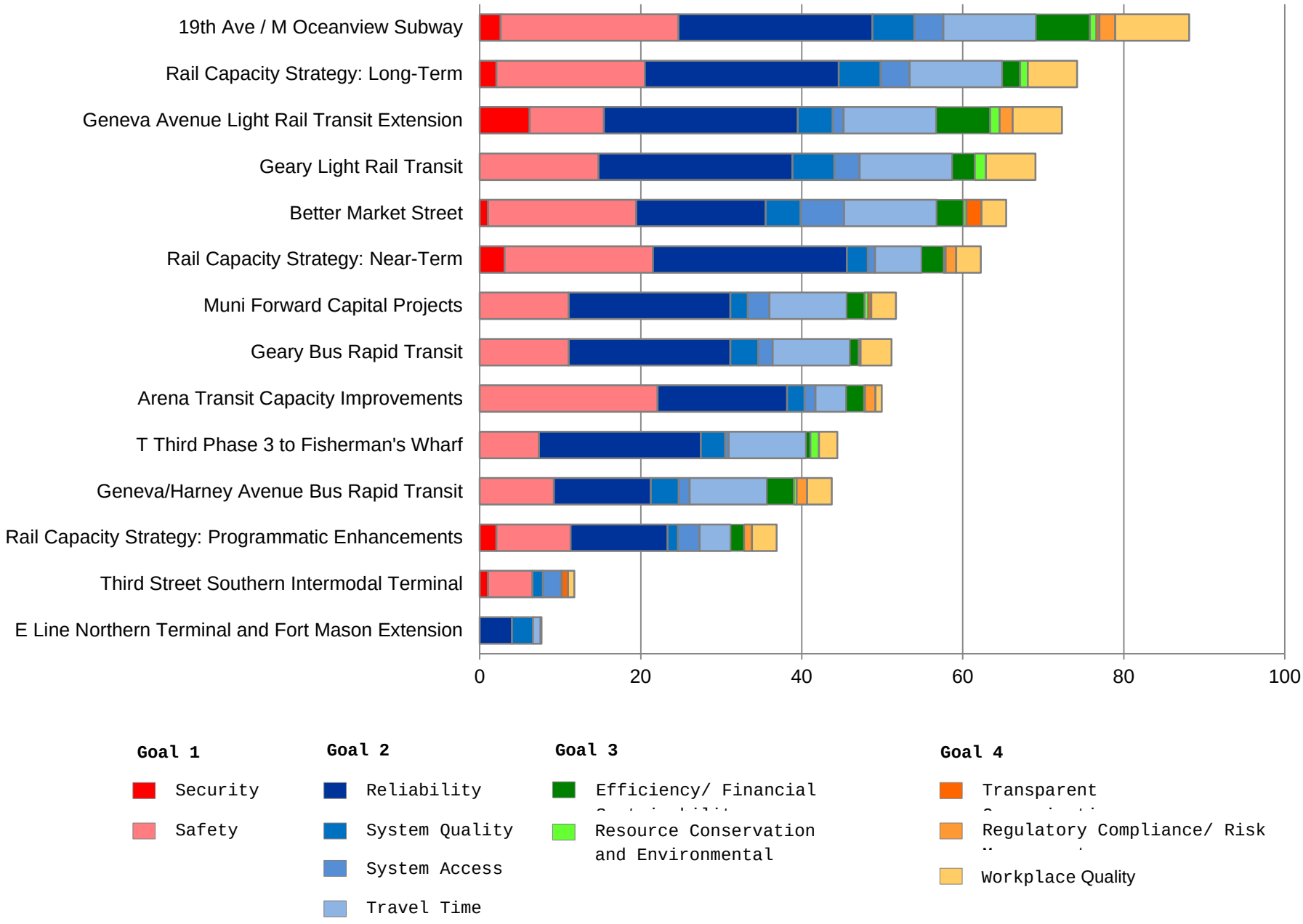


Traffic Signals and Signs Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
Signal and Sign Infrastructure State of Good Repair (Program)	0	22.1	24.1	1.7316	2.7	11.5	3.35	0.7	0	3.9	1.5364	71.5
SFGO (Program)	4.1354	9.2157	20.0753	0.4316	0	11.5	2.7939	0.5838	2.25	0	0	50.9
New Signals & Signs (Program)	0	22.1	10.0497	4.3316	5.4	3.8295	0	0	0	2.6013	0	48.2
Traffic Management State of Good Repair (Program)	0	22.1	6.025	2.6	1.35	2.875	1.675	0.1162	0	3.9	0	40.6
Automated Photo Traffic Enforcement	0	12.8843	0	0	0	0	1.675	0	0	2.2737	0	16.8

Transit Fixed Guideway Program Priorities



Transit Fixed Guideway Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	**Score**
Rail State of Good Repair (Program)	1.55	22.1	24.1	5.2	2.7	11.5	5.025	0.7	0.2835	2.925	80.6
Automatic Train Control System State of Good Repair (Program)	1.9344	22.1	24.1	5.2	1.6848	11.5	6.7	0.175	2.25	2.6832	80.5
Traction Power System Rehabilitation (Program)	2.325	22.1	24.1	5.2	3.375	7.1875	6.7	0.35	0	1.4625	77.3
Cable Car Infrastructure State of Good Repair (Program)	0.775	22.1	21.0875	4.55	2.025	2.1505	2.9346	0.35	0	1.7082	61
Subway Fire Alarm & Detection	4.96	19.89	9.64	1.04	0.54	1.15	0.67	0.14	1.125	3.51	44.9
Subway Tunnels Structures State of Good Repair (Program)	4.65	16.575	9.0375	1.3	1.35	0	1.675	0	1.125	1.95	39.9


19th Ave / M Oceanview Subway
Rail Capacity Strategy: Long-Term
Geneva Avenue Light Rail Transit Extension
Geary Light Rail Transit
Better Market Street
Rail Capacity Strategy: Near-Term
Muni Forward Capital Projects
Geary Bus Rapid Transit
Arena Transit Capacity Improvements
T Third Phase 3 to Fisherman's Wharf
Geneva/Harney Avenue Bus Rapid Transit
Rail Capacity Strategy: Programmatic Enhancements
Third Street Southern Intermodal Terminal
E Line Northern Terminal and Fort Mason Extension
0
20
40
60
80
100
Goal 1
Security
Safety
Goal 2
Reliability
System Quality
System Access
Travel Time
Goal 3
Efficiency/ Financial
Resource Conservation and Environmental
Goal 4
Transparent
Regulatory Compliance/ Risk
Workplace Quality

Transit Optimization & Expansion Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
19th Ave / M Oceanview Subway	2.5854	22.1	24.1	5.2	3.6018	11.5	6.7	0.8162	0.3735	1.95	9.2	88
Rail Capacity Strategy: Long-Term	2.0646	18.4314	24.1	5.2	3.6018	11.5	2.2311	0.9338	0	0	6.1364	74
Geneva Avenue Light Rail Transit Extension	6.2	9.2157	24.1	4.3368	1.35	11.5	6.7	1.1676	0	1.6263	6.1364	72.2
Geary Light Rail Transit	0	14.7407	24.1	5.2	3.1536	11.5	2.7939	1.4	0	0	6.1364	68.9
Better Market Street	1.0354	18.4093	16.0747	4.3316	5.4	11.5	3.35	0.35	1.8765	0	3.0636	65.2
Rail Capacity Strategy: Near-Term	3.1	18.4093	24.1	2.6	0.9018	5.75	2.7939	0.2338	0	1.2987	3.0636	62.2
Muni Forward Capital Projects	0	11.05	20.0753	2.1684	2.7	9.5795	2.2311	0.4662	0.3735	0	3.0636	51.6
Geary Bus Rapid Transit	0	11.05	20.0753	3.4632	1.7982	9.5795	1.1189	0.2338	0	0	3.8364	51.1
Arena Transit Capacity Improvements	0	22.1	16.0747	2.1684	1.35	3.8295	2.2311	0.1162	0	1.2987	0.7636	49.9
T Third Phase 3 to Fisherman's Wharf	0	7.3593	20.0994	3.0368	0.4482	9.5795	0.5561	1.05	0	0	2.3	44.4
Geneva/Harney Avenue Bus Rapid Transit	0	9.2157	12.05	3.4632	1.35	9.5795	3.35	0.35	0	1.2987	3.0636	43.6
Rail Capacity Strategy: Programmatic Enhancements	2.0646	9.2157	12.05	1.3	2.7	3.8295	1.675	0	0	0.975	3.0636	36.8
Third Street Southern Intermodal Terminal	1.0354	5.525	0	1.3	2.2518	0	0	0.1162	0.7515	0	0.7636	11.7

Transit Optimization & Expansion Program Priorities	Security	Safety	Reliability	System Quality	System Access	Travel Time	Efficiency/Financial Sustainability	Resource Conservation and Environmental Impacts	Transparent Communications	Regulatory Compliance/Risk Management	Workplace Quality	**Score**
E Line Northern Terminal and Fort Mason Extension	0	0	4.0006	2.6	0	0.9545	0	0.1162	0	0	0	7.7

Appendix E. Capital Need Descriptions

Accessibility Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-AC01	Accessible Light Rail Stops (Program)	Enhance	68	Design and construct 13 new accessible light rail stops at the 7 locations identified in the Accessible Key Stops Feasibility Study (M679.0), then continue with other high-priority stops at the same rate (approximately one location per year).	This project will improve passenger access to light rail transit, particularly for people with mobility impairments.	$29,615,000
CN15-AC02	Accessible Station Escalators And Elevators	Enhance	73	Rehabilitation of street and platform elevators at Muni-only transit stations. Project includes 12 elevators that will be upgraded with new cabs, glass-paneled doors, door operators, hydraulics, controllers and cameras. Existing escalators in transit stations will be rehabilitated or replaced to conform with current building codes and incorporate modern safety features. Project includes a total of 23 more escalators (five outdoor escalators have already been rehabilitated). Additions of Americans with Disabilities Act (ADA) compliant elevators are included in the Muni Metro Elevator Augmentation Program.	The project will improve the reliability of station elevators and escalators and ensure consistent and safe access to stations for persons with disabilities.	$3,000,000
CN15-AC03	Accessible Stop Spot Improvement Program	Enhance	69	Implement small light rail and bus and stop improvements to improve accessibility for persons with disabilities. Improvements could include: repair/replacement of damaged railings, signage and attenuators at Key Stops; installation of NextMuni/Push-to-Talk at transit shelters; improving crosswalks, and installing or upgrading curb ramps adjacent to transit stops.	This project will improve passengers' access, wayfinding, and safety to transit stops, particularly for people with mobility impairments.	$1,500,000
CN15-AC04	Accessible Wayside Platforms at San Jose/Geneva	Enhance	78	Replaces the wayside mechanical lifts at San Jose and Geneva with wayside platforms. New wayside platforms will be fully ADA compliant. The four mechanical lifts on Market Street will be replaced as part of the Better Market Street project.	Replacement of wayside lifts with platforms will improve system access by ensuring that passengers using mobility aids can access the light rail system. Providing accessible boarding platforms will reduce boarding time and maintenance while improving system reliability.	$1,275,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-AC05	Muni Metro Elevator Augmentation (Program)	Expand	80	Install new ADA compliant street and platform elevators at Muni Metro stations with level changes, including shared BART/Metro stations. Initially, elevators would be installed at stations that currently only provide one elevator, or where a fully ADA compliant elevator is not available. The full build-out would provide at least one ADA-compliant elevator at every Muni Metro access point.	The new elevators will ensure consistent and fully ADA compliant access to the underground Metro stations for people with mobility impairments and others needing the elevator for access to the stations.	$144,000,000
CN15-AC06	SF Paratransit Operations & Maintenance Facility	Enhance	70	Includes the planning, design and construction of a Paratransit Operations & Maintenance Facility.	The project will provide a fully equipped permanent City-owned Paratransit facility. The cost ranges from $40M - $100M.	$65,000,000
CN15-AC07	Transit Stop Boarding Islands And Features (Program)	Enhance	35	Provides for the phased rehabilitation and upgrade of the light rail system's 136 passenger boarding platforms. Each boarding island has a useful life of 50 years.	Provide a safe and accessible transit system by keeping assets in a state of good repair. Enhance the customer experience.	$126,594,000
Total						$416,000,000

Bicycle Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-BI01	Bicycle Parking (Program)	Expand	61	Includes the installation of 1,200 bicycle racks per year (e.g., sidewalk racks, on-street racks); wheel stops; bollards; corrals and other measures to facilitate bicycle parking at various locations throughout San Francisco. Also includes the installation of 2-3 bicycle parking stations, which are self-service or attended facilities that have controlled access for secure storage of a bicycle; and the installation of 100 bicycle lockers per year. Secure bicycle lockers provide flexible, shared use, on-demand bicycle parking options.	These facility improvements serve the entire system through the provision of safe, convenient bicycle parking so that cyclists can access desired land uses at the end of their trips. These facilities serve the entire system by providing for bicycle storage needs, making bicycle transportation a safer, more viable, attractive mode in San Francisco.	$48,352,000
CN15-BI02	Bicycle Safety Education (Program)	Enhance	71	Provides educational courses on bicycle safety for both bicyclists and motorists who interact with bicyclists as part of their job (taxi, truck, Muni Operators, etc.). Courses for bicyclists are taught for all skill levels. Topics covered include proper handling of a bicycle, rules of the road, hazards for bicyclists, and legal responsibilities.	Providing proper training and education allows for new cyclists to feel more comfortable and experienced cyclists to refresh their knowledge or get up to date on the most recent laws. Educating non-cyclists may result in a greater understanding of the rights and responsibilities of both cyclists and non-cyclists.	$13,000,000
CN15-BI03	Bicycle Sharing (Program)	Expand	62	Coverage area will expand as bicycle sharing fleet increases from the initial launch of 350 bicycles in 2013. Includes replacement of bicycles every seven years.	Bicycle sharing facilities encourage bicycling as a viable transportation option, primarily for short trips, which contributes towards a reduction in automobile trips and transit overcrowding. Can help public transit users complete their trip, often called a “last mile” solution and eliminate the need to bring a bicycle on board transit vehicles. Reduces noise and air quality impacts through a reduction in the number of auto trips.	$58,000,000
CN15-BI04	Citywide Bicycle Strategy - Full Build Out	Expand	80	San Francisco’s Bicycle Strategy, building on the 2009 Bicycle Plan, lays out the key investments needed for the City to promote cycling for everyday transportation. The Strategy proposes investments to enhance and expand the City’s bike network to accomplish its goal of 20% bicycle mode share. Full Build-Out of the Bicycle Strategy is designed to provide a system in San Francisco that offers cycling as an equal choice for transportation compared to other modes. Investments in this category will lead to safer routes and connections for bikes citywide, secure parking for bikes, and access to shared bicycles. The Bicycle Strategy Expanded Full Build-Out proposes improvements that will increase mode shift up to 20%.	As the population of San Francisco grows and increases in density, traffic congestion will increase unless the City is thoughtful and efficient about the limited use of the public right-of-way. Currently, the existing bicycle network accommodates a 3.5% bicycle mode. SFMTA’s Bicycle Strategy builds upon the 2009 Bicycle Plan and lays out key investments needed to promote cycling for everyday transportation. As cycling becomes a more popular mode, it is important that the streets of San Francisco are safe and accessible for everyone. Additionally, the more people that use the system, the more it will need to be expanded.	$780,000,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-BI05	Bicycle Network State of Good Repair (Program)	Restore	82	Rehabilitates bicycle network elements such as soft hit posts, green bicycle lanes, sharrows, bicycle signals, striping and signage, bicycle racks and corrals, and bicycle counters.	Rehabilitating the bicycle network encourages bicycling and maintains the network in a State-of-Good-Repair. These investments contribute to meeting the goals established in the SFMTA's Bicycle Strategy.	$36,585,000
Total						$936,000,000

Communications & Information Technology Infrastructure Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-IT01	Communications/Information Technology Infrastructure State of Good Repair Program	Restore	64	Provides for the replacement of various existing Communications/Information Technology assets, including SCADA, Bus On-Board Video, and the Incident Management/Tracking system.	Providing for the timely replacement of these systems supports a safe and reliable transit system.	$148,494,000
CN15-IT02	On Board Clipper Reader Replacement and Upgrades	Restore	45	Replacement of the existing Clipper readers (approx. 3500 units). Currently the readers are not able to integrate with Radio and only support Clipper. Replacing the existing readers with units that integrate with Radio, support NFC (open payment), QR/Barcodes and are field proven will address future compatibility issues and current equipment performance issues.	The Clipper system is due to be replaced by 2019; however the existing equipment was installed in 2007 and has an operating life of 5 years. The current equipment needs to be replaced to address its ongoing performance reliability issues. Replacing the equipment at this juncture will allow for integration with the new Radio system providing single sign on for operators and enable the agency to leverage newer technology as an adjunct to the Clipper system.	$9,300,000
CN15-IT03	SFMTA Disaster Recovery Site	Enhance	5	Planning and implementation of an IT server site to provide operations in the event of a disaster. This would be approached in two phases, implement and test key systems, and then expand the site to support all systems. High Availability is not covered by this site and is already addressed with the agency's existing infrastructure.	The SFMTA currently does not have a disaster recovery site and in the event of a disaster that renders both of its primary data centers inoperable it would not be able to operate any of its IT systems in any capacity. A Disaster Recovery site is required to enable the operation of key systems in the event of a disaster.	$2,807,000
CN15-IT04	VoIp Implementation	Restore	18	Migrate the agency phone system from the legacy PBX system(s) that are currently utilized across the various facilities to a unified Lync Based Voice over Internet Protocol (VoIP) solution. This will reduce the operating cost for telephone service while adding features to the phone system that will integrate with Lync and Exchange. With an estimated useful life of 10 years this program provides for the replacement of the current system and two subsequent replacements over the next 20 years.	Implementation of a VoIP solution will provide additional features and communications options while reducing the operational costs of Telephony in the agency. The capital investment is primarily for desktop phones that are Session Initiation Protocol (SIP) compatible.	$3,433,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-IT05	Wi-Fi Across Entire Agency	Expand	25	This project will implement Wi-Fi across all of the agency facilities and offices. Currently Wi-Fi is only readily available in a managed manner at 1 South Van Ness and is not distributed across the other offices or facilities. Expanding Wi-Fi connectivity to all sites will allow the agency to leverage mobile/portable computing and supports agency initiatives like Enterprise Asset Management (EAM) and Virtual Mobile Infrastructure (VMI).	Implementing a standard Wi-Fi solution will allow the agency to leverage Wi-Fi dependent technologies and improve communications. Utilization of tablets and portable computers to improve efficiencies is dependent on a solid enterprise Wi-Fi network. As part of this implementation fiber connectivity will be completed to all SFMTA sites and redundant links will be implemented for key facilities.	$3,100,000
Total						$604,000,000

Facility Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FA01	Beach Track Rebuild	Restore	27	Rebuild tracks at Beach Yard (formerly Geneva), which is located across the street from Green Division. Once old maintenance building and canopy removed (or not), reconfigure and rebuild tracks for storage. The historical streetcar canopy must also be removed.	Storage is needed to accommodate future projected SFMTA LRV and historic streetcar fleets.	$16,700,000
CN15-FA02	Burke Facility Reconfiguration	Expand	32	Reconfigure Burke to improve storage capacity, and move component rebuild from Woods to Burke.	Maximize use of building owned by SFMTA, free up maintenance space at Woods by moving component rebuild to Burke.	$14,800,000
CN15-FA03	Cable Car Barn Facility Safety Improvements	Enhance	35	Constructs office space on the first floor mezzanine level of the building for maintenance management and staff. Includes the construction of an emergency fire escape hatch from the welding shop. Also installs and replaces the fresh air and exhaust ventilation systems for the cable car machinery area.	Improvements will enhance maintenance efficiency and safety for the cable car system. It will indirectly result in safer, more reliable service and increases in cable car use. Improvements will also help maintain a healthy working environment for employees.	$7,000,000
CN15-FA04	Cable Car Museum Renovation	Restore	5	Renovates and improves the Cable Car Museum, located at the Cable Car Barn at 1201 Mason Street.	While this project will not provide operational benefits, it will help maintain a key tourist attraction, as well as a source of agency revenue.	$14,000,000
CN15-FA05	Electronic L.E.D. Signage System - Expansion To NextMuni (Program)	Enhance	35	Includes purchase and installation of public information signage at the entrances of all subway stations to alert and inform Muni passengers of the status of Muni services, i.e., a modernization and expansion of the NextBus system.	This project will improve safety and reliability, and allow passengers to make informed transit access decisions.	$2,100,000
CN15-FA06	Facility Safety Improvements	Enhance	40	Features a series of facility safety improvement projects at all SFMTA facilities, as appropriate. Projects include: Eye Wash Stations, Pigeon Abatement, Pit Drain Sump Systems, Pit Safety Nets, Motive Power Emergency Lights, Potrero Storeroom Isolative Wall, and Presidio Power Shutoff Switches.	These project improve the safety of the work environment. Investments in safety infrastructure also assist in promoting a culture of safety.	$4,350,000
CN15-FA07	Implement Fall protection improvements at multiple facilities	Enhance	43	Implement fall protection improvements at Flynn, Kirkland, Scott, Green, Potrero, Cable Car Barn, Presidio, MME and Duboce.	Remain in compliance with safety regulations.	$1,600,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FA08	Implement Fire Safety improvements at multiple facilities	Enhance	45	Implement fire safety improvements at Flynn, Kirkland, Scott, Green and Potrero.	Remain in compliance with safety regulations.	$5,900,000
CN15-FA09	Install New Operator Convenience Stations (Program)	Expand	46	Includes major rehabilitation, preservation, and improvement of 15 new restroom facilities at 9 locations, including Operations Central Control (OCC), subway stations, etc. and construction of new operator restrooms.	This project will improve and enhance employee facilities, potentially leading to healthier working environments.	$12,938,000
CN15-FA10	Interim Paint Booth Implementation	Restore	20	Replace obsolete and too small paint booths at Woods and Potrero to bridge period until new Paint and Body Facility is built at Muni Metro East in 5-7 years.	Existing paint booths are obsolete, too small, and borderline concerning safety issues.	$3,300,000
CN15-FA11	Cable Car Barn Rehabilitation	Restore	39	Rehabilitate and replace major systems of the Cable Car Barn facility. Major functions of the facility including storage and running repair of vehicles, as well as the cable and winding machines that moves the cable car.	Maintaining existing cable car facility and fixed equipment in a state of good repair will help ensure safe and reliable transit service.	$182,230,000
CN15-FA12	Facility Infrastructure (Non-Real Estate Vision Projects) State of Good Repair	Restore	49	Rehabilitate and replace facility infrastructure and fixed equipment, primarily the building structure and internal systems (e.g., HVAC, piping, electrical). Projects identified in the Real Estates Vision are listed separately.	Timely replacement and rehabilitation of SFMTA facilities improves the agency's ability to provide reliable service. This project is critical to maintaining facilities in a state-of-good-repair.	$521,746,000
CN15-FA13	Operator Convenience Station Rehabilitation	Restore	47	Includes major rehabilitation, preservation, and improvement of 25 existing restroom facilities at 6 locations, including Operations Central Control (OCC), subway stations, etc. and construction of new operator restrooms.	This project will improve and enhance employee facilities, potentially leading to healthier working environments.	$3,100,000
CN15-FA14	Marin Site - New Use Project	Expand	13	Use for storage of buses and light maintenance in the short term (through 2020).	Muni needs space to store buses and trolley buses, and this space located next to the Islais Creek Division will serve well as an annex type of facility.	$1,300,000
CN15-FA15	Metro Muni East - Upgrade Existing Shops to become a Fully Functional Rail Facility	Expand	34	Fully equip shops at MME to end requirement of shuttling LRVs or historic streetcars to Green, because some maintenance functions are only available at Green.	Make MME fully operational and eliminate hours lost to shuttling LRVs and historic streetcars between the SFMTA rail divisions.	$23,600,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FA16	Muni Metro East - Build Paint and Body Shop for the Entire Muni Fleet	Expand	39	Build a new paint and body shop to serve the entire Muni fleet of LRVs, streetcars, buses and trolley buses. The shop would also assist with mid-life overhaul of transit vehicles.	Moving paint and body to one location will result in a cost savings, and end duplication of this function that currently exists at Muni facilities.	$152,100,000
CN15-FA17	Muni Metro East - Historic Streetcar Canopy	Expand	17	Build a new historic streetcar canopy or shelter at MME on the site formerly to receive a paint and body shop.	As historic streetcars are a long-term investment, they are better protected with sheltered storage.	$23,700,000
CN15-FA18	Muni Metro Station Wayfinding Project	Enhance	43	The project will design and install new wayfinding signage at the Metro Muni stations (on-street, concourse and platform levels). All signage will adhere to MTC/BART Station Style Guidelines. At Embarcadero, Montgomery, Powell, and Civic Center, signage will be designed for the Muni-paid areas. At Van Ness, Church, Castro, Forest Hill and West Portal, signage will be designed for the street, concourse and platform levels.	Comprehensive wayfinding can support trip making, enhance the transit user experience, highlight desired paths of travel, and orient travelers to correct trains as well as towards final out-of-station destinations. Wayfinding programs are especially useful for new or infrequent system users.	$1,625,000
CN15-FA19	Operations, Maintenance, Administration Shop Equipment (Program)	Restore	68	Provides for ongoing acquisition and replacement of the equipment needed to support all aspects of SFMTA operations, maintenance and administrative functions.	Timely replacement and enhancement of the shop equipment increases SFMTA's ability to provide reliable service and reduce incidents stemming from faulty equipment. This project is critical to maintaining a state-of-good-repair of the equipment that support operations, maintenance, and administration functions.	$172,319,000
CN15-FA20	Real Estate Vision for the 21st Century - Real Estate Property Acquisition (Program)	Expand	42	Allows for the selective leasing or acquisition of new property to better accommodate the real estate needs of the agency, particularly transit operations. This program allows the agency to be proactive in planning for its future needs.	A new bus operations facility would provide the flexibility to implement the RE Vision in a shorter timeline, increasing SFMTA vehicle facility capacities and maintenance capabilities sooner.	$80,000,000
CN15-FA21	Real Estate Vision for the 21st Century - Transit Oriented Development (Program)	Expand	14	SFMTA owns many properties that are no longer necessary for the operation of the system and that are, in some cases, functionally obsolete. These sites include Presidio South, Potrero, and the Upper Yard. By selling or ground leasing the land to developers, revenue earned through the TODs can be used to finance the Real Estate Acquisition Program or the Facility Rehabilitation Program.	Fully utilizing existing SFMTA properties provides resources to operate and maintain the Muni fleet.	$20,000,000
CN15-FA22	Rebuild Kirkland Division	Restore	48	Complete rebuild Kirkland Division - fleet moves to pivot facility to remain in service while rebuild is underway.	The division facility is over 60 years old and is obsolete and needs to be replaced. It is too small, and is located among non-conforming interests. The resulting improvements will provide safer and healthier working conditions and will ensure that the transportation system is more efficient. Efficient and properly designed facilities are key to maintaining the Muni Fleet in a state of good repair.	$50,700,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FA23	Rebuild Potrero Division	Restore	50	Complete rebuild Presidio Division - fleet moves to pivot facility to remain in service while rebuild is underway.	The division facility is over 100 years old and is obsolete and needs to be replaced. The resulting improvements will provide safer and healthier working conditions and will ensure that the transportation system is more efficient. Efficient and properly designed facilities are key to maintaining the Muni Fleet in a state of good repair.	$94,000,000
CN15-FA24	Rebuild Presidio Division	Restore	61	Complete rebuild Presidio Division - fleet moves to pivot facility to remain in service while rebuild is underway.	The division facility is over 100 years old and is obsolete and needs to be replaced. The resulting improvements will provide safer and healthier working conditions and will ensure that the transportation system is more efficient. Efficient and properly designed facilities are key to maintaining the Muni Fleet in a state of good repair.	$71,500,000
CN15-FA25	Reconfiguration of Flynn as "pivot" facility	Enhance	27	Reconfigure Flynn by adding overhead wires and other changes to allow it to serve as a division for buses and trolley buses. It would become the "pivot division that would host division fleets from other locations as the other division is rebuilt.	A pivot facility is needed to implement the Real Estate vision recommendations. It will likely be located at Flynn, or at the projected new division.	$31,100,000
CN15-FA26	Rubber Tire Division Wash Rack Replacement	Restore	11	Provides new industry standard wash racks for all five Rubber Tire Transit Divisions. Wash racks will be able to handle standard and/or articulated motor coaches depending on the division in which they are installed.	This project will result in cleaner buses, with the potential of improving customer satisfaction. It will also improve the working environment by providing more effective and modernized equipment that reduces water resource consumption and efficiently utilizes necessary cleaning chemicals.	$12,000,000
CN15-FA27	Security, Investigations and Enforcement Group Consolidation - Acquisition of Real Estate and Outfit of New Facility	Enhance	22	Consolidate diverse work groups in SIE (Security, Investigations and Enforcement) into one facility owned - or long term leased by SFMTA.	Improved coordination of SIE Group, end short-term lease of inferior facilities, provide adequate space for SIE group job functions.	$10,200,000
CN15-FA28	Subway Station Rehabilitation (Program)	Restore	60	Provides for ongoing rehabilitation and improvement projects in the Metro Subway stations. It includes rehabilitation of substructure, superstructure, Heating, Ventilating, and Air Conditioning (HVAC) systems, electrical systems, plumbing systems, as well as painting and platform edge detection tile replacement.	Well-maintained subway station facilities will reduce the risk of safety hazards due to deteriorating systems. Timely replacement of assets allows for consistent and efficient station operations, i.e., replaces old systems with energy-efficient ones.	$1,163,370,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FA29	Transit Operations Facilities Solar Panels	Enhance	8	Installation of solar panels at the Woods, Potrero, Presidio and Flynn Transit Facilities. Each facility has an abundance of open, clear roof space where solar panels could be installed. The resulting electrical generation could be used to power each facility and excess energy could be returned to the power grid.	This project will improve energy efficiency and would result in cost savings. It would also support the agency's sustainability goals by reducing SFMTA's use of non-renewable resources.	$20,000,000
CN15-FA30	Woods Division Facility Renovations	Enhance	46	Replace paint booth, replace wash racks with washer that can handle 60' buses, improve maintenance areas after component rebuild is moved to Burke, modify some maintenance bays to accept 60' buses, upgrade existing equipment throughout the facility.	Upgrade Woods to achieve better performance in maintenance areas, and to have facilities that can accommodate 60' buses.	$52,000,000
Total						$2,769,000,000

Fleet Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FL01	Light Rail Vehicle Fleet Expansion (45 Vehicles)	Expand	65	Current contract provides for the option to purchase 45 additional light rail vehicles to increase the level of transit service. To a total of 260 LRVs. Earlier expansions of 24 and 40 LRVs are already funded. Central Subway LRVs accounted for.	This project will provide for increased service along existing and under construction light rail lines. Expansion of the Light Rail fleet with modern vehicles should allow for greater speed, reliability and comfort.	$280,280,000
CN15-FL02	Bus Operator Training Simulators	Restore	88	Includes purchase and installation of two 360-degree, computer-based graphic training stations. These simulators will be used to train transit operators to provide control over difficult weather conditions, equipment malfunctions, traffic behaviors and other real-world situations. Potential locations for the simulators include Muni Metro East or 2650 Bayshore.	This project will provide for greater safety training, for the purposes of being better prepared in times of emergency and under inclement weather conditions. Operators will have a better understanding of the vehicles they operate.	$1,000,000
CN15-FL03	Cable Car Vehicle Rehabilitation (Program)	Restore	94	Encompasses phased overhaul and reconstruction of the 40 vehicle Cable Car fleet. Includes major rehabilitation of 17 Powell Cars and 11 California Cars, and minor rehabilitation of 10 Powell Cars and 2 California Cars.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to this top tourist attraction.	$31,586,000
CN15-FL04	Historic Vehicle Rehabilitation (Program)	Restore	96	This program consists of the systematic rehabilitation of all currently in use historic streetcar vehicles (44 total), featuring an end-of-life rehabilitation (to like-new condition). A rehabilitation is needed every 15 years at a unit cost of $1.2M to $1.5M. It includes Americans with Disabilities Act (ADA) rehabilitation, brake interlock system, backup master controller, major overhaul, and fare box procurement.	This program will maintain a high level of system reliability, safety, and productivity, providing quality service to patrons.	$127,373,000
CN15-FL05	Light Rail Vehicle Midlife Overhauls (Program)	Restore	97	Includes the systematic midlife rehabilitation and overhaul of 175 Siemens light-rail vehicles and new vehicles from future expansion. This program includes Heating Ventilating and Air Conditioning (HVAC), brakes, couplers, pantograph, propulsion, doors, car body, seats, and cab. Per rehabilitation and replacement schedule, 76 out of the 151 of today's vehicles will need to complete rehabilitations between 2015 and 2034.	This rehabilitation will ensure a higher state of system reliability throughout the life of the vehicles and will reduce maintenance costs.	$221,265,000
CN15-FL06	Light Rail Vehicle Replacement (Program)	Restore	98	Includes replacement of the entire fleet of Breda light rail vehicles when they reach the end of their useful life, with 151 new light rail vehicles (LRVs) that meet the operational and capacity needs of the Metro light rail system. Replacement every 25 years. Central Subway LRVs accounted for.	This project will provide for the modernization of the existing light rail vehicle (LRV) fleet and will also allow for greater speed, reliability and comfort.	$879,235,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FL07	Replace On-Board Fare Collection Equipment	Restore	69	Includes the following activities: replaces 1,250 fare boxes; procures new probing equipment; refurbishes vault equipment; procures 72 additional fare boxes to serve as a float when a batch of fare boxes is being refurbished; and purchases a data collection system at the yard and a new central computer for reporting and data storage.	This project will effectively improve system accountability as well as passenger boarding. In addition, it will lead to better system reliability and reductions in travel time.	$49,443,000
CN15-FL08	Motor Coach Expansion (Program)	Expand	97	Expansion of the motor coach fleet, both in number of vehicles and vehicle capacity, to accommodate projected growth. Between 2013 and 2032, the motor coach fleet will expand from 460 to 581 buses (increase of 121 buses), as shown in the Transit Fleet Management Plan. These expansion vehicles include those needed to provide expanded service to planned major developments (Parkmerced, Treasure Island, Hunters Point/Candlestick Point Shipyard).	The expansion of the motor coach fleet is needed to meet projected ridership demand. In addition, new fleet procurements will help meet operational needs for larger capacity vehicles and help meet zero emissions targets.	$180,188,000
CN15-FL09	Motor Coach Midlife Overhaul (Program)	Restore	98	Provides for the systematic mid-life overhaul of all 564 vehicles in the motor coach fleet and new vehicles from future expansion. The program includes rehabilitation and replacement of engines; transmissions; differentials; suspension systems; wheelchair lifts; passenger and driver seats; glass; and body repair and paint.	The primary focus of this program is to maintain the motor coach fleet in a state of good repair by replacing key components midway through the vehicle's useful life. Mid-life rehabilitation of the motor coach fleet ensures that the vehicles operate in a safe and secure manner, reducing safety hazards and vandalism. In addition, this rehabilitation program will allow each vehicle to reach its full useful life before needing to be replaced. Timely rehabilitation of the motor coach fleet reduces the number of breakdowns and improves service reliability.	$363,332,000
CN15-FL10	Motor Coach Replacement (Program)	Restore	98	Entails the replacement of 511 existing standard and articulated motor coaches (hybrid and diesel) with hybrid motor coaches through 2034. This program seeks to replace the existing aging fleet to a state of good repair, replacing old, severely overtaxed equipment with the latest and most advanced hybrid technology available. Replacement every 12 years.	The new coaches will offer greater reliability and safety with enhanced transmission-based brake retarders, composite materials, slip resistant flooring, and better mirrors. As a result, this project will improve agency safety and security, as well as improved transit reliability, on-time efficiency, and customer satisfaction.	$804,528,000
CN15-FL11	Non-Revenue Vehicle Replacement (Program)	Restore	49	Consists of the purchase and replacement of non-revenue vehicles, such as specialized maintenance vehicles, as well as light and heavy duty trucks and sedans that are used throughout the agency. This project will replace existing non-revenue vehicles at the end of their useful life.	On-time replacement of non-revenue vehicles ensures that employees can effectively support the operations of the transportation system and efficiently access locations where there are service incidents and perform corrective measures.	$223,361,000
CN15-FL12	Paratransit Fleet Replacement (Program)	Restore	71	Provides for the purchase of approximately 67 large-sized vans, designed to carry one to two wheelchairs and 12 seated passengers, based on a replacement cycle of five years. Revenue vehicles only.	This project will replace the current fleet, providing for newer, modern vehicles and better access for persons with disabilities that are unable to access the fixed route transit system.	$18,243,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FL13	Rail Training Simulator (LRV simulator to be delivered as part of the Siemens LRV contract.	Enhance	63	Purchase and installation of one full-scale rail training simulator and virtual learning environment. The project also includes the purchase of Audio Visual and multimedia setup for five classrooms. This project will modernize SFMTA's existing training system with state-of-the-art rail training simulators and a virtual learning environment. Potential sites for the simulator include Muni Metro East and 2650 Bayshore.	Trained operators would use what they have learned to improve the comfort and safety of the passengers that they carry. Personnel would have a better understanding of the rail vehicle and the rail system and would be better prepared to pass required operational exams.	$2,000,000
CN15-FL14	Trolley Coach Midlife Overhaul (Program)	Restore	97	Implements systematic mid-life overhauls of all 333 vehicles in the trolley coach fleet and new vehicles from future expansion. This program includes the rehabilitation and replacement of frames, inverter replacement, battery management, and minor overhaul of major components. This program of rebuilds and overhauls involve modernization of equipment to meet current standards (e.g., accessibility).	The primary focus of this program is to maintain the trolley coach fleet in a state of good repair by overhauling vehicle components midway through the vehicle's useful life.	$230,400,000
CN15-FL15	Trolley Coach Replacement (Program)	Restore	98	Provides for the systematic replacement of the 333 vehicles in the trolley coach fleet. This project replaces the trolley coach vehicles at the end of their 15-year useful life, maintaining the trolley coach fleet in a state-of-good-repair. During replacement the mix of vehicles sizes may be adjusted to align with the Transit Fleet Management Plan projections of ridership (more 60' vehicles, fewer 40' vehicles). Replacement every 15 years.	Timely replacement of trolley coach vehicles reduces the number of incidents and breakdowns from vehicle deterioration and age, contributing to greater reliability and a cleaner and more comfortable experience for the customer and employee.	$921,600,000
Total						$4,332,000,000

Parking Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-PA01	Electric Vehicle Charging Infrastructure	Enhance	13	To enable drivers to shift from gasoline to Electric Vehicles (EVs), San Francisco has begun providing public chargers at city-owned parking garages to extend the range EV drivers can travel away from their "home" chargers. The City is installing public chargers at 20 city-owned locations – primarily at parking garages that already have sufficient electrical service to support the EV chargers. In order to broaden the public infrastructure to all parts of the City, EV chargers will be installed at city-owned locations, such as parking garages and surface parking lots, including locations that will need power upgrades. Charging infrastructure will also be needed for EVs added to the City fleet.	Providing EV chargers at multiple locations throughout the city encourages the use of EV by the public and the municipal fleet, thus reducing greenhouse gas emissions, noise pollution, and other harmful pollution.	$11,900,000
CN15-PA02	Implement Parking Vehicle Detection Technology	Enhance	26	Implement vehicle detection technology to measure parking occupancy. This will support demand-responsive meter rate adjustments and help provide parking availability information to the public.	Improving parking availability and providing information to the public will make it easier to find a parking space. This reduces vehicle miles traveled and greenhouse gas emissions.	$34,517,000
CN15-PA03	Parking Facilities State of Good Repair (Program)	Restore	21	Restoration of 38 parking facilities that provides nearly 15,000 parking spaces, 90,000 sq. ft. of retail space and generate over $85M in annual gross revenues. Includes major rehabilitation, preservation, and improvement of existing parking facilities to enhance parking infrastructure and improve parking management. Implements improvements to elevators, energy efficient lighting, and mechanical systems (e.g., HVAC, sump pumps), CCTV surveillance systems, and bike parking as well as compliance with ADA regulations and various Planning, Building and Fire Codes.	When completed, this project will extend the useful life of major revenue-generating assets, enhance safety of public facilities, as well as help provide better services for those bicycling, carpooling and carsharing.	$744,557,000
CN15-PA04	Parking Meters State of Good Repair (Program)	Restore	29	Replaces and modernizes equipment for all 27,000 metered parking spaces. All on-street parking meters were replaced in 2014. This estimate accounts for two additional replacements within the next 20 years.	Modernizing existing parking meters will improve reliability and increase driver convenience by accepting non-cash forms of payment. Modernized meters will also allow for demand-responsive pricing.	$79,476,000
CN15-PA05	Parking Access Revenue Control System	Enhance	26	Replacement of the Parking Access and Revenue Control Systems (PARCS) software, hardware, ticket dispensers, gate arms, registers, ticket acceptors, ticket readers, and pay stations at 20 SFMTA off-street parking garages.	The PARCS equipment is antiquated and requires regular maintenance. Due to the different hardware and software versions, staff cannot get a coherent report from the parking garages. Parking equipment replacement parts in some of the garages are no longer available.	$45,000,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-PA06	Parking Facility Structural and Seismic Upgrades	Expand	60	Most of SFMTA's parking structures are at least 20 years old (oldest garage was built in 1941). Performing a structural analysis to assess the integrity of the SFMTA garages is the first and necessary step to ensure the viability of SFMTA parking assets. The second step is to implement structural and seismic upgrades, where needed.	Improving the seismic and structural integrity of existing parking structures increases the resiliency of the facilities in the event of a natural disaster.	$79,000,000
Total						$994,000,000

Pedestrian Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-PE01	Citywide Pedestrian Strategy Core Projects and Pilots	Enhance	84	Core Projects as identified in the Pedestrian Strategy include implementation of proven engineering tools that improve safety on streets for those who choose to walk, particularly on high injury corridors and intersections, including: installing 15 mph speed signs; re-opening closed crosswalks; installing countdown signals and other engineering improvements. This program will also implement pilot tests for innovative treatments to improve safety and walkability throughout San Francisco.	Implementing these projects will makes streets safer and more accessible for all users, specifically vulnerable citizens - seniors, people with disabilities, and children, who are more likely to be severely injured if involved in collisions. Increasing walking by improving street safety results in many benefits, not only for individual health, but also for economic development, neighborhood vitality, and environmental sustainability. The strategy will reduce injuries and collisions in neighborhoods and increase walking trips by improving the walking environment for those who choose to walk, contributing to the City's mode-shift goal.	$71,386,000
CN15-PE02	Citywide Pedestrian Strategy Full Build-Out	Enhance	86	A Full Build-Out of the Pedestrian Strategy would include the permanent implementation of pilot treatments that have proven successful in improving the safety and walkability of the streets of San Francisco. The City will make these improvements in concert with other planned construction wherever possible to save costs and minimize disruption to residents and businesses.	Fully funding the implementation of the San Francisco Pedestrian Strategy will reduce collisions and injuries by half in ten years with strategic capital investment on 70 key city miles. This project aims to meet Mayor Ed Lee's goal to reduce severe injuries and fatalities on San Francisco streets by 50% by 2021. This project would fund targeted investment in key permanent safety countermeasures on the 70 miles of High Injury Corridors.	$689.735,000
Total						$761,121,000

School Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-SC01	School Streets Traffic Calming (Program)	Restore	67	Provides for the evaluation, design, and implementation of context specific traffic calming measures at approximately 150 schools. Traffic calming measures range from improved signals and signage to pedestrian bulbs and streetscape measures, to in-road treatments such as speed humps.	These projects will improve pedestrian safety, and promote walking for all school aged children in San Francisco.	$162,000,000
Total						$162,000,000

Security Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-SE01	All-Hazard Emergency Mitigation, Preparedness, & Response	Enhance	42	Implementation of high-priority emergency mitigation and preparedness projects to protect critical SFMTA facilities, assets and infrastructure. Projects include facility improvements/renovations, equipment procurement, and/or contractual services to address natural or manmade disaster needs of the SFMTA, with an emphasis on Rail Transit Security projects.	Improve safety and security for employees and customers and reduce the costs and consequences of disasters.	$13,778,000
CN15-SE02	Incident Management Planning and Response	Enhance	44	Implementation of facilities improvements at the Department Operation Center, satellite communications equipment, and a dedicated incident response vehicle. Projects are driven by after-action reports from incident response exercises.	These projects provide the proper equipment and supplies for the Emergency Operations Center, which greatly enhances SFMTA incident planning and response capabilities. Further, an audit finding will result if the SFMTA does not review and implement the recommendations in the exercise after-action reports and improvement plans.	$3,195,000
CN15-SE03	Surveillance, Access Control, and Security System Enhancements	Enhance	44	Implementation of recommendations in Threats and Vulnerability Assessment (TVA) Studies. Encompasses a set of security enhancement programs, centered on surveillance, access control, employee preparedness, and cyber security systems.	The implementation of TVA recommendations is mandated by the Transportation Security Administration (TSA) and California Public Utilities Commission (CPUC). Failure to comply will result in audit findings.	$28,631,000
CN15-SE04	Technology In Transportation Emergency Management	Expand	45	Implementation of technology projects from industry best practices to enhance rail system security and employee/customer protection during normal operations as well as to augment response capabilities for all-hazard disasters on the rail system. Systems include PROTECT chemical and contaminant detection and modeling system, digital message boards, and redundant communication systems.	These projects enhance the transportation operations and emergency management capabilities of SFMTA.	$20,475,000
Total						$67,000,000

Taxi Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TX01	Accessible Taxi Rebate Program	Expand	38	Establish a rebate program for new purpose built accessible vehicles purchased by companies or medallion holders to incentivize the purchase of wheelchair accessible vehicles. This program will subsidize costs for one of the more expensive vehicle types in the taxicab fleet which provides arguably one of the most important services. Greater incentives may be provided to operators willing to purchase alternative fuel accessible vehicles.	Improve mobility options for those unable to use other transportation options for some or all trips.	$20,000,000
CN15-TX02	Bicycle Racks For Taxis	Enhance	17	This will start as a pilot program, providing bicycle racks to willing drivers. The program will then expand to ensure that every taxi vehicle will have bicycle racks.	This allows for taxis to better serve multi-modal connections, allowing those who own or rent bicycles a higher connectivity to the rest of San Francisco.	$575,000
CN15-TX03	Implement Taxi Driver Rest Stops	Expand	31	Analyze the need for taxi operator break facilities and implement across the city. Could include parklets, restrooms, or other facilities to improve taxi driver break conditions. The predevelopment phase includes a $250,000 planning study to assess demand for these facilities.	This installation would provide multiple benefits, including: 1) provide a rest stop to the drivers, 2) disperse taxis throughout the city, and 3) act as a pseudo-taxi stand.	$10,000,000
CN15-TX04	Increase Taxi Stands (and Pilot Increase Special Event Monitoring of Taxi Zones)	Enhance	50	In an effort to increase service to the outer city, 15 additional taxi stands will be established around major hail hubs to better manage and direct taxi flow and utilization. A pilot program will also test using monitoring personnel during special events to improve taxi flow.	Taxi stands establish locations so that taxis can be easier found throughout the city and aids in movement throughout the city for individuals or groups who chose, or require, taxis as their travel mode.	$10,000,000
CN15-TX05	Taxi Cab Pooling Pilot	Enhance	21	Taxis would operate to augment existing overburdened transit service to focus on common origins/destinations. Taxis would be provided a Scrolling LED light to indicate the Cab-Pooling service. Drivers will then utilize a standard rate and drive along established set pickup locations. The driver will then pick-up as many riders along the route and drop off riders at any point along the route, allowing a faster, more flexible transportation alternative if you require a seat, storage, or are in a rush.	Provides for supplementary service along corridors with transit capacity or congestion constraints for persons with personal belongings that require space on overcrowded vehicles or when shared ride services are preferred over transit.	$750,000
CN15-TX06	Taxi Clean Fuel Rebate Program	Enhance	6	Rebate program to incentivize the purchase of clean fuel vehicles. Greater incentives are provided to operators willing to purchase the cleanest vehicles available.	In an effort to make a 100% green taxi fleet; the SFMTA offers drivers a rebate incentive for the purchase of a clean fuel vehicle. This incentive is given to offset the increased costs of purchasing a non-clean fuel vehicle.	$37,200,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TX07	Taxi Management System	Enhance	36	Provide funding for the creation and implementation of a fleet management system for taxicabs. This system would include the ability to monitor vehicle location, affiliation, insurance and inspection status. There will also be an interface that allows the system to integrate driver information from other databases which will allow staff to track driver history, complaints, and compliments as well as allow staff to issue real-time citations to drivers in the field. There will also be a function that allows drivers and taxi companies to pay fees through various user interface portals.	This project will help streamline taxicab regulation management by allowing multiple functions to be managed in one database through one system. Currently there are numerous databases and paper files to track activity in the industry including vehicle management, and as the industry expands it is becoming increasingly difficult to manage the growth through paper files.	$10,000,000
CN15-TX08	Taxi Toplight Improvement	Restore	16	Provide or incentivize new toplights that will provide taxi vehicles with higher visibility, emergency/panic lights on exterior, advertising space that does not interfere with the availability indicator, and unique SF brand identity. These toplights will not be controlled by the meter and will be operated manually.	Toplights will clearly communicate taxi availability, increase driver and passenger safety, and emulate the unique look and feel of San Francisco.	$1,350,000
Total						$90,000,000

Traffic Calming Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TC01	Traffic Calming - Arterial and Commercial Streets	Enhance	86	Program to calm traffic along 7 high-injury arterial or busy commercial corridors. Examples include implementing road diets, narrowing travel lanes, and installing landscaping. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding along arterial and commercial streets. These projects also enhance the comfort of people walking and bicycling.	$151,000,000
CN15-TC02	Traffic Calming - Local Streets	Enhance	37	Program to install traffic calming devices such as speed humps, pedestrian bulb-outs, traffic circles, median islands at various locations in the city. Some of the more intensive traffic calming projects may include features such as chicanes, traffic diverters, signalized pedestrian crosswalks and street closures. Program is comprised of Application-Based Residential Traffic Calming, and Proactive Residential Area Improvement sub-programs. Public spaces can also be created or enhanced by traffic calming projects.	Traffic calming projects improve safety by reducing speeding in neighborhoods. These projects also enhance the comfort of people walking and bicycling.	$59,000,000
Total						$210,000,000

Traffic Signals and Signs Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TS01	Automated Photo Traffic Enforcement	Enhance	17	Provides for the upgrade of photo enforcement for 14 approaches from wet film to digital technology, and theoretical expansion of red light or turn restriction enforcement to 14 approaches.	Automated Photo Enforcement systems improve intersection safety by improving compliance, reducing the number of vehicle crashes. Established systems include red light photo and illegal turn enforcement. Others, like speed, require state legislature approval.	$7,000,000
CN15-TS02	Signal and Sign Infrastructure State of Good Repair (Program)	Restore	72	Encompass upgrades of existing traffic control devices, including modifications to existing signals that lack a pedestrian feature, mast arms or related amenities. The project also includes the upgrade or replacement of signal equipment that is at the end of its useful life (50 years). Funded sign work in this category includes the graffiti program, where existing signs are replaced with signs that have higher reflectivity, and a coating that eases graffiti removal.	Support the Vision Zero program by improving safety, reducing the number of injuries through improved traffic control (e.g., where pedestrian countdown signals and signal visibility improvements are provided as part of a signal modification effort).	$578,945,000
CN15-TS03	Traffic Management State of Good Repair (Program)	Enhance	41	This includes street paint marking/striping, parking control curb painting, and existing traffic management infrastructure (e.g., CCTV & video detection cameras).	Restoring existing infrastructure in a state of good repair will help ensure a safe and reliable street network.	$26,399,000
CN15-TS04	New Signals & Signs (Program)	Enhance	48	Provides for installation of new traffic signals, signs, pavement markings and related traffic control hardware, with an emphasis on new locations. This program anticipates installing five new signals, five new signal beacons and 1,250 new signs per year over a 20-year period.	Support the Vision Zero project to improve safety at crash or other problem locations. This project reduces vehicle delays, travel time and injuries by improved traffic control, often where STOP signs are inappropriate, i.e., due to traffic volumes, intersection configuration, and other such factors.	$52,500,000
CN15-TS05	SFgo (Program)	Enhance	51	This citywide intelligent transportation management system gathers and analyzes real-time information on current transit and auto traffic flow and congestion; responds to changes in roadway conditions; provides transit priority and emergency vehicle preemption; disseminates real-time traveler and parking information to the public; facilitates the management of special events; and enhances day-to-day parking and traffic operations. It will significantly improve obsolete and deteriorating traffic signal communications facilities, and will implement a number of Intelligent Transportation System (ITS) technologies.	The SFgo Program will replace obsolete and deteriorating traffic signal communications facilities and provide real-time information on current transit and auto traffic to improve transit flow and reliability.	$106,080,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
Total						$771,000,000

Transit Fixed Guideway Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FG01	Automatic Train Control System State of Good Repair (Program)	Restore	81	Provides for the phased rehabilitation and replacement of the Automatic Train Control System (ATCS). ATCS equipment is stored at Central Control, wayside control rooms, on the tracks, and in light rail vehicles and is composed of four distinct subsystems: Vehicle, Wayside, Vehicle Control Center, and System Management Center. On board vehicle equipment includes computers that control the propulsion and braking systems. Wayside equipment includes communications systems that controls signals and switches. The Vehicle Control Center is a system that calculates and controls safe movements. The System Management Center operates and manages the overall ATCS.	A proper functioning ATCS is vital to the day-to-day operations of the San Francisco transit system. Without the ATCS trains in the Muni Metro Tunnel would be required to operate manually which increases travel time and reduces overall capacity of the Muni Metro Tunnel and the overall Muni System. Muni Metro travel time reliability is directly reliant on a functional ATCS.	$343,323,000
CN15-FG02	Cable Car Infrastructure State of Good Repair (Program)	Restore	61	Covers a wide variety of track work, cable machinery, traffic priority control, office, and maintenance equipment, totaling 19 projects through 2020 and 60 projects through 2029.	To replace track work, machinery, and communications equipment improve overall safety and increase the likelihood of attaining operational performance standards by providing updated and modern equipment which cable cars utilize.	$384,770,000
CN15-FG03	Subway Tunnels Structures State of Good Repair (Program)	Restore	40	This provides for the rehabilitation of the Market Street, Sunset and Twin Peaks tunnel structures on the Muni Metro system. This would include seismic upgrades.	Properly Restoring tunnels will support safe and reliable transit service.	$22,184,000
CN15-FG04	Rail State of Good Repair (Program)	Enhance	81	Provides for the phased design and replacement of the trackway and related systems serving the light rail and cable car lines.	The primary focus of this program is to Restore the light rail and cable car trackways in a state of good repair by replacing components that have reached the end of their useful life.	$417,439,000
CN15-FG05	Subway Fire Alarm Detection	Expand	45	This project will upgrade the current fire alarm and detection system at shared Muni Metro/BART stations. The work involves voluntarily upgrading the facilities to the fire alarm and detection requirements of San Francisco Code (2010 edition) and National Fire Protection Association (NFPA) 72 Alarm Code (2010 edition) which is currently adopted by San Francisco Fire Department. The scope of work is to replace and install fire alarm control panel (FACP), emergency voice system, audible alarm notification appliances, strobes, alarm annunciator, power supply to the FACP and emergency voice/alarm communication system. This project would be initiated and led by BART.	This system will be monitored by a Underwriters Laboratories (UL) Listed Monitoring Station and will also interface with the Central Control System and the San Francisco Fire Department (SFFD) system. This project will result in a properly functioning fire detection system, quicker detection of minor incidents, elimination of false alarms, and a universal design for the fire alarm and detection equipment.	$27,040,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-FG06	Traction Power System Rehabilitation (Program)	Restore	77	Provides for the rehabilitation, replacement, and improvement of all components of the existing Muni overhead and traction power infrastructure to support electrically-powered trolley coaches, light rail vehicles, and historic streetcars. This includes overhead wires, support poles, switches, substations, feeders, related hardware, underground infrastructures, communications, power cables, and OCS.	The primary focus of this program is to Restore the overhead system in a state of good repair by replacing components that have reached the end of their useful life.	$1,453,708,000
Total						$2,648,000,000

Transit Optimization & Expansion Program

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TE01	19th Ave / M Oceanview Subway	Enhance	88	The 19th Avenue/M Ocean View Project is the byproduct of the 19th Avenue Transit Study and aims to improve service of all modes within the area and better serve key destinations such as San Francisco State University, Parkmerced and Stonestown Galleria. The study was approved in early 2014 and the SFMTA was charged with further planning of the project. The project calls for major capital investment to construct a light-rail tunnel under 19th Avenue between Saint Francis Circle and Parkmerced, a new track through Parkmerced, and a multimodal bridge connecting Junipero Serra Boulevard to the west of 19th Avenue with Randolph Street to the east. The project proposes completely redesigning 19th Avenue to add wider sidewalks, street greening, improved bus stop conditions, and an off-street bicycle path. Furthermore, the project benefits the capacity and reliability of the entire Muni Metro system. Cost estimate ranges $420M-780M.	Provides for improved safety and security, reduced travel time, and increased reliability. These enhancements will also provide improved transit operations for lines serving the Parkmerced development and enable SFMTA to meet projected ridership demand.	$780,000,000
CN15-TE02	Arena Transit Capacity Improvements	Enhance	50	"The Arena Transit Capacity Improvements Project is identifying transportation improvements needed to accommodate growth and planned development in the Arena neighborhood. Improvements might include track crossovers to allow for trains to be staged; a 6-inch raised area along existing tracks; a platform extension to accommodate crowds; other trackway modifications; and a traction power study to ensure that the power grid can accommodate a large number of idling vehicles."	Transit infrastructure needs to be substantially enhanced to accommodate planned growth and address current deficiencies. In addition, visitor travel may increase substantially with the recent opening of the Exploratorium, and with the proposed Warriors Arena retail development at Mission Rock (Seawall Lot 337) and Pier 70.	$27,670,000
CN15-TE03	Better Market Street	Enhance	65	Includes planning, conceptual engineering, environmental review, public outreach and construction of the transportation portion of the Better Market Street Project. Concepts will be developed and evaluated for urban design of sidewalks and boarding islands, transit facilities and operations, pedestrian facilities (e.g., crosswalks), signal timing, and bicycle facilities (e.g., cycle tracks, bike lanes, parking). The study area is bounded by blocks just north of Market St., Folsom St., Octavia Blvd. and The Embarcadero.	This project will improve the quality of the public realm and optimize sustainable mobility modes (transit, walking and cycling), so that they are pleasant, reliable, efficient and comfortable for all users.	$400,000,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TE04	E Line Northern Terminal and Fort Mason Extension	Expand	8	Consists of two separate projects. One project creates a northern terminal that consists of an independent E-Line track loop & terminal that allows for operational independence of the F-Line, including layovers, from E-Line service. The second project extends the current F-Line terminal west from Fisherman's Wharf to Fort Mason through an abandoned railroad tunnel underneath Fort Mason. The E-Line would likely operate along this extension. Cost estimate ranges $50M-60M.	E-Line service is a component of the planned TEP service improvements and will serve the projected growth in trips along the waterfront area. A northern terminal is needed to provide the operational flexibility required for overlapping E-Line and F-Line services. A Fort Mason terminal provides access to Fort Mason and areas to the west, which have limited transit access options.	$60,000,000
CN15-TE05	Geary Bus Rapid Transit	Expand	51	Designs and implements a rail-ready BRT project on Geary Blvd., from the Transbay Terminal to 33rd Ave. The project includes planning, environmental, design and construction. Project elements may include dedicated lanes, better shelters, and passenger information systems.	This project would increase service reliability, person capacity, passenger comfort and attractiveness and reduce travel time along the corridor.	$328,000,000
CN15-TE06	Geary Light Rail Transit	Expand	69	Constructs a surface-subway, light rail transit (LRT) line to replace the 38 Geary bus lines. Geary is in the county's Four Corridors plan and is the next priority for major investment after the Central Subway. This is a long-term proposal with Geary Bus Rapid Transit Service providing near-term improvements until funding for the LRT can be identified.	This project will provide a higher capacity service along the corridor, providing passengers with improved speed, reliability and comfort.	$1,896,000,000
CN15-TE07	Geneva Avenue Light Rail Transit Extension	Expand	72	Entails extending light rail track 2.7 miles along Geneva Avenue from the Green Railyard to Bayshore Boulevard and then to the existing T-Third terminus at Sunnydale Station. Operations would occur at-grade with station locations to be determined.	This project would provide for the operational flexibility needed to meet long-term rail service needs.	$603,945,000
CN15-TE08	Geneva/Harney Avenue Bus Rapid Transit	Expand	44	The project includes BRT facility development along Geneva and Harney Way, supporting the Candlestick Point/Hunters Point Shipyard project and linking development to Caltrain, BART, and the T-Third line. Along the route, vehicle conflicts will be minimized through traffic control.	This project will reduce travel time and improve reliability along the corridor that links regional transit services, Priority Development Areas, and the Candlestick Point/Hunters Point Shipyard Development.	$5,300,000
CN15-TE09	Muni Forward Capital Projects	Enhance	52	These improvements may include small signal upgrades or modifying signal phases at an intersection, adding bus or pedestrian bulbs to coordinate with a paving project, or street design changes to reduce delays for transit at busy intersections. The proposed program would increase transit ridership and improve the path of travel to transit stops and stations. It would also minimize delays encountered by Muni transit vehicles associated with customer boarding and alighting, the time required to pull into and out of bus zones, and the delays associated with traffic signals. Priority will be given to Lines 6, 7, 8, M, 1, 22, K, 5, and 28 through 2025, then to lines that have high existing or projected ridership at a rate of three miles per year through 2040.	The improvements result in greater transit travel time reliability and on-time performance. Improved reliability and on-time performance should also result in decreased operational resource needs.	$443,084,000

CAPITAL NEED NUMBER	CAPITAL NEED NAME	INVESTMENT TYPE	PRIORITY SCORE	DESCRIPTION	JUSTIFICATION	2015 COST (rounded)
CN15-TE10	Rail Capacity Strategy: Long-Term	Enhance	74	Major corridor and infrastructure investments that provide significant increases in operating capacity of existing Muni light rail system or expansion of the existing system.	Travel demand forecasts indicate over an 80 percent increase in the numbers of peak hour light rail boarding by 2040. These major enhancements to the existing system will allow San Franciscans to continue to move efficiently even with this growth. The system expansion will provide high capacity transit service to the areas and corridors that otherwise would be over capacity. These investments are critical to the continued economic growth, enhancing urban mobility, and Restoring the quality of life in San Francisco.	$1,010,000,000
CN15-TE11	Rail Capacity Strategy: Near-Term	Enhance	62	Investments at key bottleneck locations in the existing system to bring near term relief to crowded conditions. Investments include reducing and removing modal conflicts at portal areas, improved train signalization and prioritization, and additional turnback capacity.	The SFMTA light rail system operates at capacity on a daily basis. Even minor disruptions to service have significant impacts to customers due to the overcrowded nature of the system. The RCS Near-Term investments will provide incremental capacity improvements to allow the system to continue functioning until more significant increases in capacity can be realized.	$25,000,000
CN15-TE12	Rail Capacity Strategy: Programmatic Enhancements	Restore	37	The Rail Capacity Technical Panel conducted a line-by-line review of current operational pain points and impediments. While major enhancements were identified along every line, a reasonable delivery timeline for these enhancements given their cost and benefits relative to the prioritized mid- and long-term concepts is beyond the horizon of the Rail Capacity study. However, less significant improvements were identified that would be implemented at a programmatic level as part of regular rail replacement or enhancement projects.	The current Muni light rail system was not designed with consideration for flexible service operations or adjustments to service disruptions. The Rail Capacity Strategy Programmatic Enhancements will leverage State of Good Repair investments to provide a necessary increase in the flexibility of both service design and adjustments, and allow for more efficient delivery of service.	$62,000,000
CN15-TE13	Third Street Southern Intermodal Terminal	Enhance	12	Extends the T-Line to the Bayshore Caltrain Station. Combined with intermodal station area improvements, this will improve transit connectivity with the existing Caltrain service and with the future Geneva BRT service.	Provides for increased transit travel options and greater connectivity for residents of southeast San Francisco and Caltrain passengers.	$54,426,00
CN15-TE14	T Third Phase 3 to Fisherman's Wharf	Expand	44	Provides for the study and extension of the T-Third rail line approximately 1 mile north, from the planned Central Subway terminal at Stockton/Clay through North Beach and into Fisherman's Wharf. This project will provide a higher capacity service along the corridor, introducing improved speed, reliability and comfort. Cost estimate ranges from $643M - $2.6B. Future studies might include the Lombard Corridor.	Extension would connect Fisherman's Wharf and North Beach, a regional trip generator and one of the densest neighborhoods in San Francisco, with efficient and reliable rapid transit service.	$61,408,000,000
Total						$7,103,000,000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