RTD's Performance Management System

Transit Asset Management Roundtable

"Why Set Targets?"

August 29, 2017

Donna DeMartino
Chief Executive Officer (CEO)
San Joaquin Regional Transit District (RTD)

San Joaquin RTD: Who We Are

- San Joaquin Regional Transit District (RTD) is the regional transportation provider for San Joaquin County, located in California's Central Valley

- The public transportation provider:
  - Stockton Metropolitan Area (since 1965)
  - San Joaquin County (since 1994)

- Service area: San Joaquin County (over 1,400 sq. mi.)
  - Approximately 680,000 people
    - 7 incorporated cities
    - Rural communities
    - Unincorporated areas
- Services:
  - Fixed-route, BRT, deviated fixed-route, commuter, mobility on demand, vanpools, and a variety of ADA options

- Where are we?
- Where do we want to go?
- How do we get there?
- What have we got?
- What do we need?

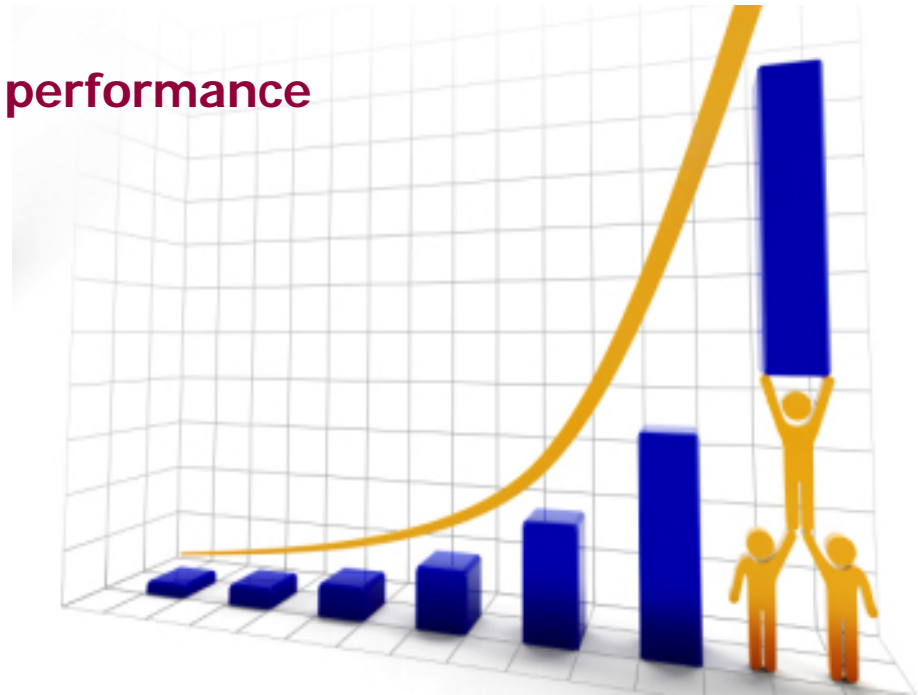SUCCESS AHEAD
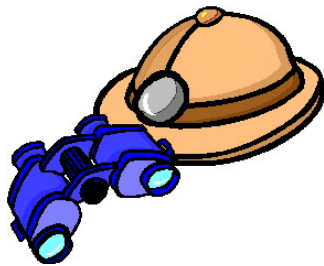
We wanted to measure our performance

- How are we doing?
  - Productivity
  - Efficiency
  - Effectiveness
- How do we compare?
- How can we improve?

*"You can't manage what you don't measure."*

Where should we look?

Lots of Data

- Various systems/sources
- Financials (old system vs. new system)
- Operations
- Fare Collection System
- Excel spreadsheets (lots of them)
- Asset lists
- Fleet plans
- Capital plans and budgets

Great People

- Committed to the organization
- Process-oriented
- Need to understand the bigger picture
- Need to be motivated to manage, not just list or count
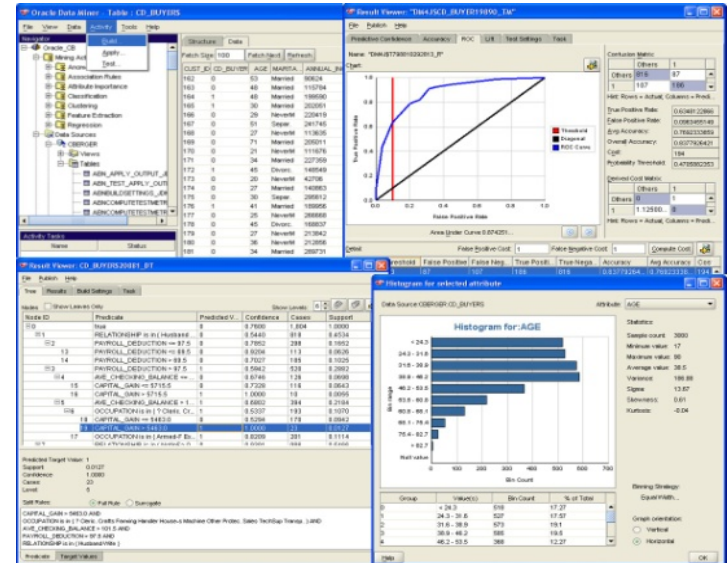
What should we do?

- **Provide support and direction from the top**
- **Assign process owners and make them accountable**
  - Educate (system, data, relationships)
  - Assign responsibility for validating numbers
  - Allow them to tell the story (make sure the story is correct)
  - Encourage challenging the **status quo** and the **myths**
- **Automate as much as possible**
  - Minimize manual entries and corrections
  - Get data from the actual source (if an integrated system is used)
- **Define what is important to the organization**
  - develop key performance indicators, but
  - avoid KPI overload
- **Benchmark with peers**

Measuring and Benchmarking Performance

RTD struggled with data management and performance planning
- Some internal solutions
  - Route Scorecards
  - TransTrack
  - Strategic Planning

RTD struggled with establishing effective performance metrics
- An external solution
 - American Bus Benchmarking Group

SAN JOAQUIN RTD DRIVEN BY PRIDE

RTD formalized and improved a ranking system for its routes

- Initial Scorecard outlined: passenger volume, passengers per revenue hour, cost per revenue hour, and fare recovery
- Scorecard was reviewed quarterly by RTD staff to outline service effectiveness and prepare recommendations based on route performance

February 01, 2013
Quarterly Service Performance Report

Figure 4 – Q2 FY 2013 YTD – Route Service Efficiency

Q2 FY13 YTD - Service Efficiency (Passengers per Revenue Hour)

February 01, 2013
Quarterly Service Performance Report
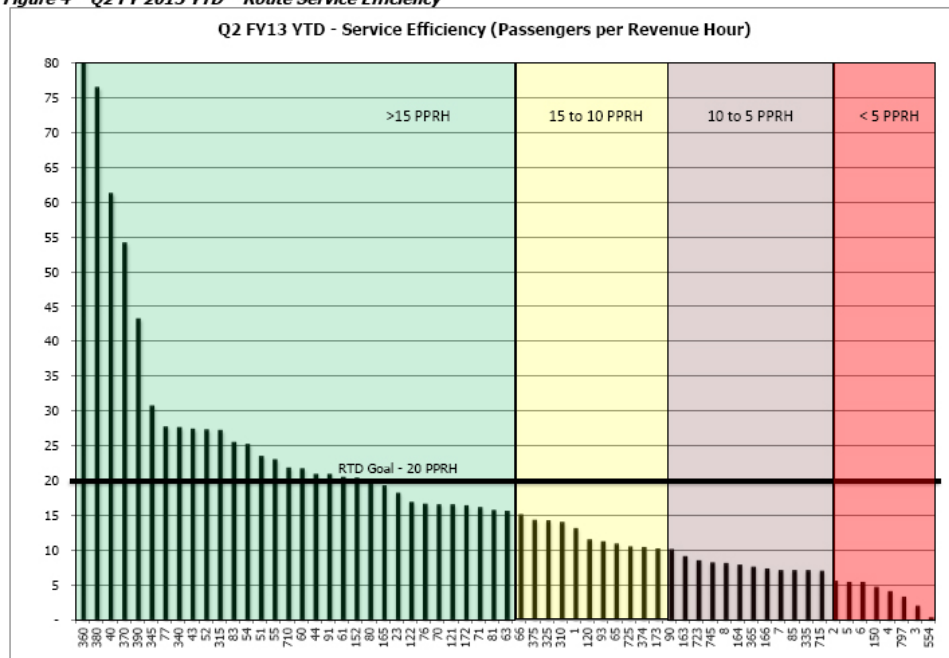
	Passenger Performance Index	Service Efficiency Index	Revenue Efficiency Index	Cost Efficiency Index	Average Score
Metro Express					
40	1	3	6	12	5.5
43	2	9	18	23	13.0
44	3	18	22	10	13.3
Metro Fixed Routes					
77	13	7	16	5	10.3
83	8	12	19	4	10.8
54	10	13	21	3	11.8
52	6	10	23	14	13.3
51	4	14	27	13	14.5
80	5	22	33	7	16.8
55	12	15	26	21	18.5
61	7	20	32	17	19.0
70	9	27	38	2	19.0
60	15	17	30	19	20.3
76	18	26	37	8	22.3
81	27	31	25	6	22.3
71	16	30	39	18	25.8
63	23	32	40	25	30.0
66	20	33	44	28	31.3
65	60	40	35	11	36.5
85	24	52	50	20	36.5

SAN JOAQUIN RTD

DRIVEN BY PRIDE

- **RTD uses TransTrack to manage its data**
    - TransTrack is a data integration solution that takes information from a variety of data sources and rolls it up into an NTD-ready report

American Bus Benchmarking Group:

20 Members Across the U.S. in a Wide Range of Urban and Suburban Environments

STA (Spokane)

C-TRAN (Vancouver)

LTD (Eugene)

UTA (Salt Lake City)

RTD (Stockton)

Omnitrans (San Bernardino)

FWTA (Fort Worth)

Capital Metro (Austin)

DART (Des Moines)

PACE (Chicago)

MTA (Flint)

RTA (Dayton)

MTA (Nashville)

PSTA (St. Petersburg)

RTS (Rochester)

NFTA Metro (Buffalo)

GCRTA (Cleveland)

RIPTA (Providence)

HRT (Hampton Roads)

LYNX (Orlando)

SAN JOAQUIN RTD

DRIVEN BY PRIDE
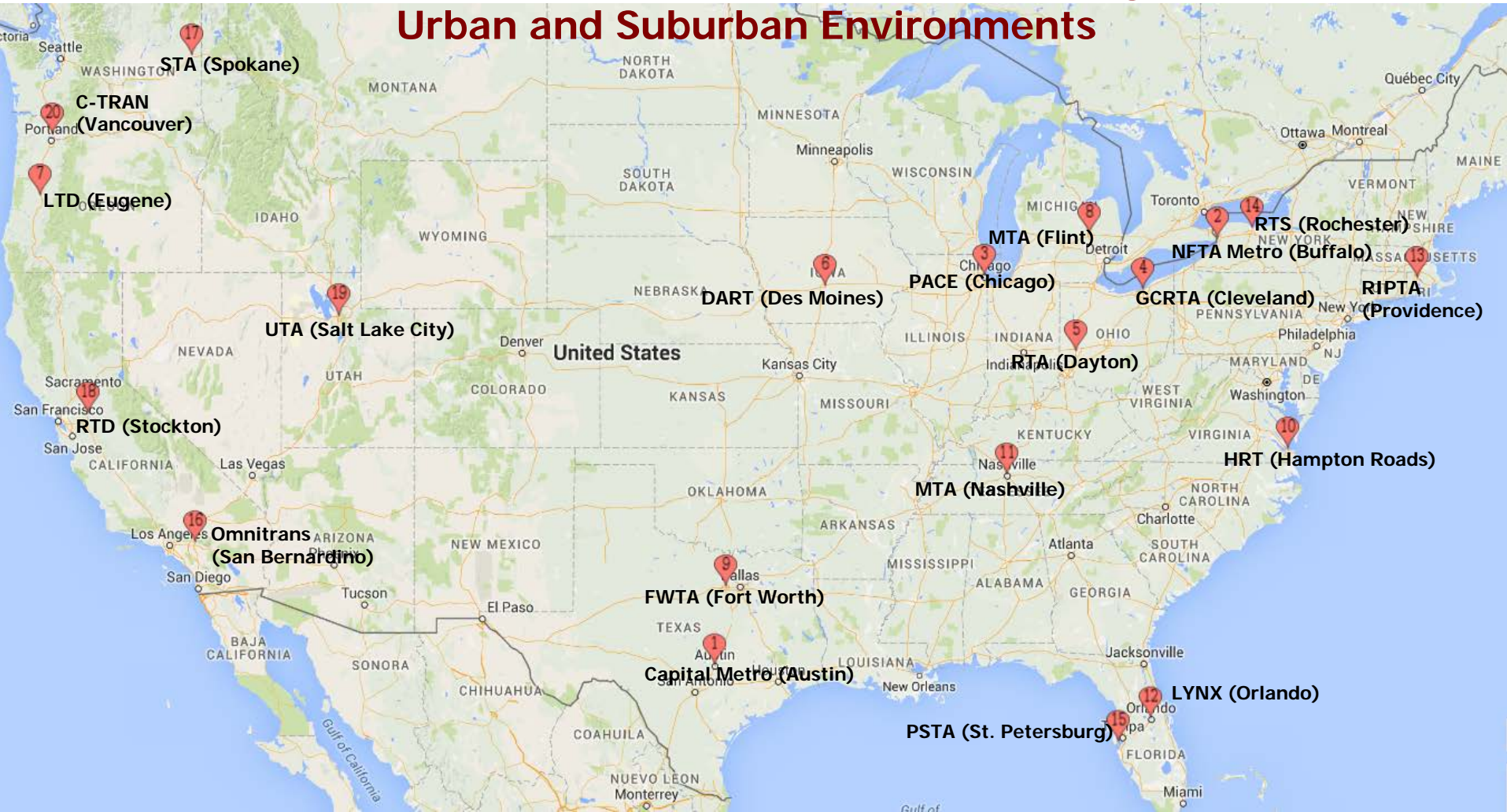
Based on the Balanced Scorecard, Customized for Transit

Growth & Learning

G1 **Passenger Boardings** (5-year % change)
G2 **Vehicle Miles and Hours** (5-year % change)
G3 **Passengers per Revenue Mile & Hour**
G4 **Staff Training** (by staff category)

Customer

C1 **Customer Information** (scheduled and real-time)
C2 **On-Time Departure Performance** (0 <> + 5)
C3 **Passenger Miles per Revenue Capacity Mile**
C4 **Passenger Miles per Revenue Seat Mile**
C5 **Lost Vehicle Miles**

Internal Processes

P1 **Peak Fleet Utilization** (fleet not used split by cause)
P2 **Network Efficiency** (revenue miles & hours per total miles & hours, non-revenue split by category)
P3 **Staff Productivity** (total vehicle hours & miles per labor hour, overall and by category)
P4 **Staff Absenteeism Rate** (by staff category)
P5 **Mean Distance/Time Between Road Calls**

Financial

F1 **Total Cost per Total Vehicle Mile & Hour**
F2 **Total Operating Cost per Total Vehicle Mile & Hour**
(F3 service operation, F4 maintenance, F5 administration)
F6 **Service Operation Cost per Revenue Mile & Hour**
F7 **Total Operating Cost per Boarding & Pax Mile**
F8 **Operating Cost Recovery**
(fare revenue & commercial revenue per operating cost)
F9 **Fare Revenue per Boarding & Pax Mile**

Safety

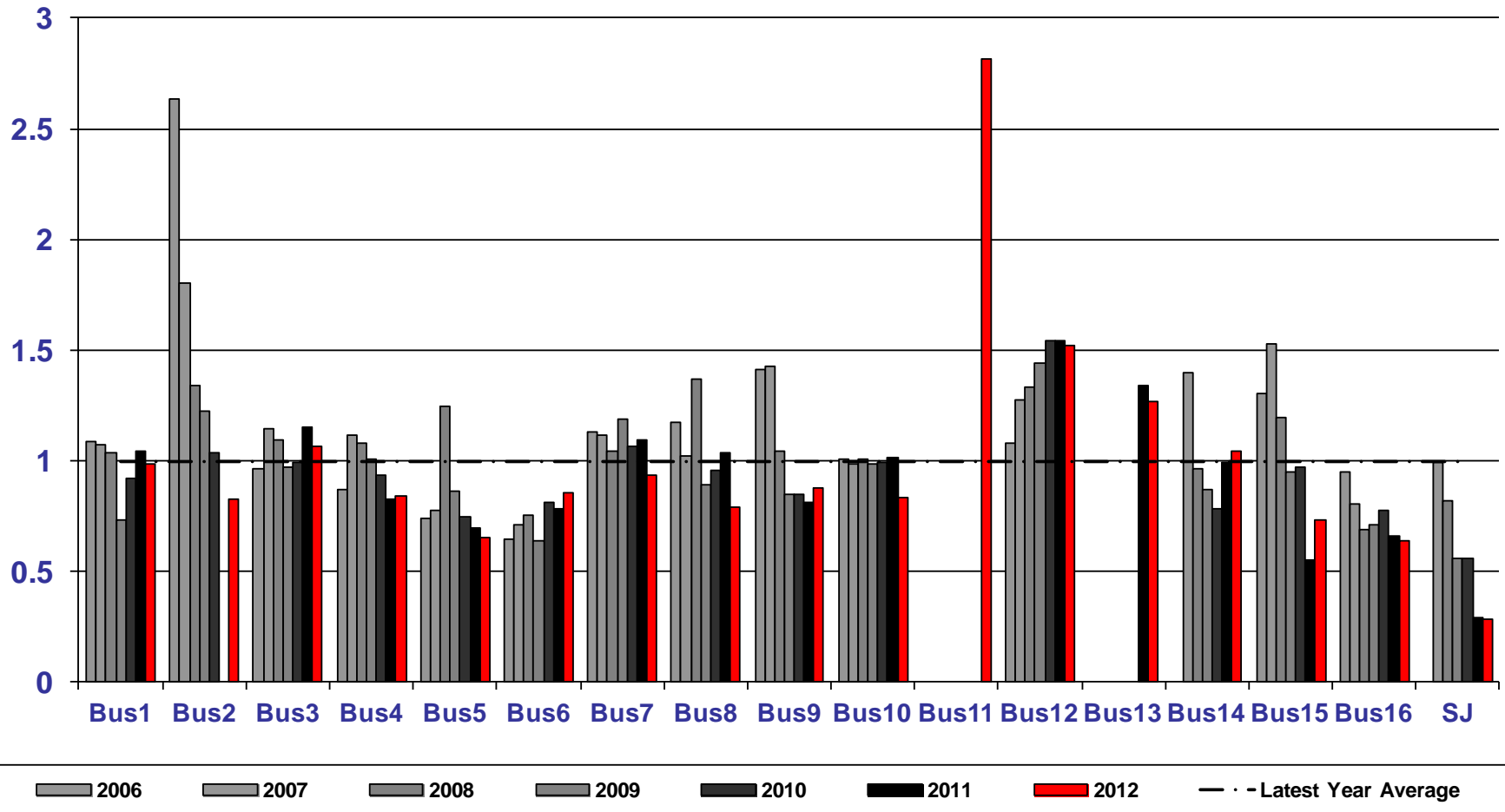**S1** **Number of Vehicle Collisions per Vehicle Mile & Hour**
(preventable & non-preventable)
S2 **Number of Staff Injuries per Staff Work Hours**
S3 **Staff Lost Time from Accidents per Staff Work Hours**
S4 **Number of Passenger Injuries per Boarding & Pax Mile**
S5 **Number of 3rd Party Injuries per Vehicle Mile & Hour**

Environmental

E1 **Diesel Fuel Consumption**
E2 **CNG Fuel Consumption**
(per total vehicle mile, per pax mile, and per capacity mile)
E3 **CO_2 Emissions per Total Vehicle Mile & Pax Mile**

Example where RTD Performs Well: Safety

Vehicle Collisions per Total Vehicle Miles
Indexed to group average

Legend: 2006, 2007, 2008, 2009, 2010, 2011, 2012, Latest Year Average

Assessing RTD's Service Delivery Model

PF1a: Total Paratransit Operating Cost per Passenger Boarding

RTD: Service delivery models: (Hopper, UCP, taxi)

SJ

2007 2008 2009 2010 2011 2012 2013 2014 Avg '14

Over a Decade of Strategic Planning

Downtown Transit Center (DTC) *2006*

BEFORE
AFTER
BEFORE
AFTER
BEFORE
AFTER
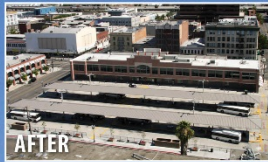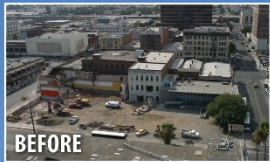
DTC Facts:

- RTD's primary transfer point, it replaced the on-street bus stops and transfers at the "Pulse"
- 20 sheltered, off-street bus stops on two boarding platforms, with additional stops on Channel Street and Weber
- Estimated visits/day: 7,400
- On-site customer service center, police/security office, and snack bar/restaurant tenant
- Important component of downtown revitilization
- Historic preservation and restoration of three facades

Project Total: $14,000,000

Funding Sources
Federal: $10,000,000
State: $2,000,000
Local: $2,000,000

Regional Transportation Center (RTC) *2015*

RTC Facts:

- Completed in November 2015 – three months early and under budget
- Replaced the former "Metro" facility built in 1970 for 50 buses
- Consolidates Maintenance and Operations into a facility designed for 250 buses
- Ten-acre, 136,000 square-foot footprint provides room for future growth
- Centrally located siting reduces trip times and associated emissions
- Landscaping swales recharge the groundwater aquifer
- Bus wash facility captures and recycles 97% of the water used

- LED lighting reduces electrical consumption and maintenance costs
- Computerized lighting and air conditioning controls streamline operations
- Fuel and fluid monitoring systems improve fleet maintenance and data accuracy

Project Total: $51,100,000

Funding Sources

FTA:	$17,700,000
Prop 1B:	$11,000,000
Measure K:	$16,300,000
Other Local:	$6,100,000

NEW RTC FACILITY

OLD OVERCROWDED "METRO" YARD

BEFORE

AFTER

BEFORE

AFTER

BEFORE

AFTER

Challenges: Environmental concerns
A severe non-attainment area for air quality

In 2013, through a California Energy Commission grant and its partnership with Proterra, RTD introduced northern California's first 100% battery-electric buses into service.

- ~ 20.1 miles per gallon
- diesel fuel savings
- greenhouse gas emissions reductions
- environmental benefits

In August 2017, RTD introduced the nation's first all-electric BRT Corridor

By 2025, RTD plans to have an all-electric fleet in the City of Stockton

Metro Express *2007*

Proposed BRT
SYSTEM
MAP

□ Transfer Station
○ Transfer Point
PARK RIDE — Park-N-Ride Location
━━ Proposed BRT Corridors
━━ Existing BRT Corridors
━━ Future BRT Corridor

Metro Express Facts:

· Provides 50% of RTD's annual systemwide ridership
· Three major cooridors in the Stockton Metropolitan Area
· Uniquely-branded buses and shelters, use of pre-paid fares, and 10-, 15-, and 20-minute peak frequencies
· Operates 60-foot articulated buses to accomodate its ever-increasing ridership
· In June 2015, RTD received a $6.8 million grant to fund two new Bus Rapid Transit corridors

Project Total: $27,769,556
Funding Sources
Federal:	**$21,788,230**
State:	**$3,761,932**
Local:	**$2,219,394**

41 EIGHT MILE CORRIDOR
46 LODI CORRIDOR
42 WEST LANE CORRIDOR
43 HAMMER LANE CORRIDOR
45 MARCH LANE CORRIDOR
40 PACIFIC CORRIDOR
47 DOWNTOWN CORRIDOR
44 AIRPORT CORRIDOR
49 MARTIN LUTHER KING CORRIDOR
48 ARCH - SPERRY CORRIDOR

We are not there…. Yet!

While RTD planning has helped achieve significant goals, we hope the TAM process not only help internally, but will improve the relationship and planning process with our MPO

- Next steps:
- Strengthen our data managers; we have established a TAM Team at RTD
- Continue to learn from our peers
- Make good business decisions and long-term capital plans based upon solid data

It will help us continue on our road to reality-based planning and management.

It will help our planning and funding partners understand our needs and hopefully fund our futures.

- What have we got?
- How long can we expect it to last?
- Can it do the job?
- What do we need?
- How much will it cost?

Questions?