

## **Application of Criteria for a Project of Air Quality Concern**

**Project Title: Transit Performance Initiative ACT Line 51 Corridor Delay Reduction & Sustainability  
Project Summary for Air Quality Conformity Task Force Meeting: May 23, 2013**

---

### **Description**

- Project will provide the following key capital investments resulting in corridor travel time relief:
  - Conduit and Hardware upgrades for Signal Interconnectivity
  - Signal Installations/Modification Improvements
  - Upgraded Signal Timing and Coordination Plans
  - Key Transit Performance Mitigations (Queue Jumps, Bus Lanes, Bus Bulbs, Bus stop relocations)
- Signal Improvements at key intersections along the route will enhance timing/coordination efficiency
- Channelization Configuration Improvements at key intersections will improve traffic flow and vehicle speeds along the corridor

### **Background**

- Environmental Assessment: NEPA conformity check list in process
- Seeking air quality conformity determination on or before May 23, 2013
- Schedule based on funding requirements

### **Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))**

*(i) New or expanded highway projects with significant number/increase in diesel vehicles?*

- Not a new or expanded highway project
- No change in traffic volume or truck percentages

*(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?*

- Diesel vehicles represent 2% of intersection traffic volume
- Intersections at LOS D, E, or F improve, and delays decrease (2035)
- No project changes to land use that would affect diesel traffic percentage

*(iii) New bus and rail terminals and transfer points?—Not Applicable*

*(iv) Expanded bus and rail terminals and transfer points?—Not Applicable*

*(v) Affects areas identified in PM<sub>10</sub> or PM<sub>2.5</sub> implementation plan as site of violation?*

- No state implementation plan for PM<sub>2.5</sub>
- Therefore, not identified in plan as an area of potential violation

<b>RTIP ID#</b> <i>(required)</i>					
<b>TIP ID#</b> <i>(required)</i>					
ALA110100					
<b>Air Quality Conformity Task Force Consideration Date</b>					
05/23/13					
<b>Project Description</b> <i>(clearly describe project)</i>					
<p>The 51 Lines stretch from East Oakland/East Alameda to the 4th Street District in Berkeley's west side, serving some of the highest population densities, and employment centers in the east bay. The Line 51 has been plagued by low speeds and reliability challenges for many years. This project would provide key capital investments that represent a major investment in capital infrastructure needed to provide travel time relief. These investments include: Conduit and Hardware for Signal Interconnectivity, Signal Retiming, Signal Cabinet Upgrades to facilitate modernization, Signal Modifications, a small number of additional signals, Queue Jump Lanes, Bus Bulbs, Stop Relocations.</p>					
<b>Type of Project:</b>					
Transit Performance Initiative					
<b>County</b>		<i>Narrative Location/Route &amp; Postmiles</i>			
Alameda		Caltrans Projects – EA#			
<b>Lead Agency:</b> AC Transit					
<i>Contact Person</i>		<i>Phone#</i>	<i>Fax#</i>	<i>Email</i>	
Wil Buller		510-891-5414		<a href="mailto:wbuller@actransit.org">wbuller@actransit.org</a>	
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>					
X	<i>Categorical Exclusion (NEPA)</i>	<b>EA or Draft EIS</b>	<b>FONSI or Final EIS</b>	<b>PS&amp;E or Construction</b>	<i>Other</i>
<b>Scheduled Date of Federal Action:</b>					
<b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>					
X <i>Exempt</i>		<b>Section 6004 – Categorical Exemption</b>		<b>Section 6005 – Non-Categorical Exemption</b>	
<b>Current Programming Dates</b> <i>(as appropriate)</i>					
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>	
<b>Start</b>					
<b>End</b>					
<b>Project Purpose and Need (Summary):</b> <i>(please be brief)</i>					
<p>The project will improve reliability and reduce travel time for two of AC Transit's most heavily used bus lines, lines 51A &amp; 51B.</p>					

***Surrounding Land Use/Traffic Generators*** (especially effect on diesel traffic)

Downtown Businesses for Oakland, Alameda, and Berkeley. Schools – UC Berkeley, Alameda Junior College. Corridor route passes under SR 24 and I-880. Mostly business, some residential.

### **Brief summary of assumptions and methodology used for conducting analysis**

Line 51A operates from Fruitvale BART through Alameda, Downtown Oakland, along Broadway and College Ave. to Rockridge BART. Line 51B operates from Rockridge BART to Downtown Berkeley, along College Ave., Bancroft, and Shattuck, to University Ave.. Both lines operate for approximately 19.5 hours a day, 7 days a week. Hourly "Allnighter" service is operated between midnight and 5 a.m. On weekdays, the lines operate every 10-12 minutes, for a total of over 200 one-way trips each. Both Lines carry over 10,000 passengers on a typical weekday. Combined they carry over 20,000 passengers on a typical weekday.

This project is designed to relieve overall congestion to all modes of travel along the route corridor, especially transit. It would also improve overall AQ by encouraging transit use and thus reducing overall traffic volumes. The project does not increase diesel truck traffic along the corridor. The only impact to diesel truck traffic along the corridor is a reduction to dwell time at signals for all vehicles including diesel vehicles, a beneficial impact. Transit – bus preferential treatments are designed to improve reliability and reduce delays without negatively impacting other traffic modes. Information used to provide graphics, tables, and feedback on this form are taken from AC Transits Route 51 Service and Reliability Report, EIR traffic studies for BRT & other City Projects.

### **Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility**

#### **Opening Year 2015 Build**

As indicated above, the project entails a series of signalization and bus circulation improvements to improve 51-line running times and to enhance service reliability to be implemented by 2015. Existing 51-line service frequencies and diesel bus capacity will be retained. The speed and reliability improvements are expected to reduce dwell times at major intersections and attract more riders. As such, these improvements would diminish diesel emissions generated by longer idle times at bus stops and encourage use of bus instead of auto for some local trips, potentially decreasing VMT on local roads. To ensure that air quality would not be adversely affected by project-related improvements installed at heavily traveled intersections, AC Transit will examine LOS at major intersections along the 51-line, focusing on those operating at LOS D, E, and F during the weekday when bus volumes are greatest. At those intersections, signalization improvements and queue jump lanes will, in general, move buses and vehicular traffic, including delivery trucks, more quickly through the intersection. However, those intersections proposed to have bus bulbs, which would allow buses to board in the traffic lane rather than at the curb, could be affected by vehicle queuing behind the stopped bus. Where traffic volumes are substantial and queuing could result in vehicle delays through one signal cycle, AC Transit will determine if the delay could result in air quality deterioration and require removal of the bus bulb from the project list.

Because many of the various intersections along the 51-line corridor have already been studied as part of other projects, AC Transit has a good understanding of specific areas of concern. Existing signalized intersections along the 51-line corridor currently known to operate at LOS E or F during weekday AM or PM periods are the following:

- MacArthur Blvd/Broadway
- 51st Street/Pleasant Valley Ave/Broadway
- Claremont Ave/College Ave
- Alcatraz Ave/College Ave
- Ashby Ave/College Ave
- University Ave/Sixth Street
- University Ave/San Pablo Ave

The intersections listed above will be studied closely to help ensure proposed 51-line improvements do not deteriorate operating conditions. 51-line improvements that are shown to exacerbate conditions at these intersections listed above or other intersections found to be operating at LOS D, E, or F will be considered for elimination from the project.

**RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility -**

**Opening Year 2035 Build**

The proposed speed and reliability improvements do not include service frequency or bus capacity increases and therefore would not produce long term effects on the environment. Furthermore, the short term benefits of reduced diesel and auto emissions and increased ridership generated by the proposed improvements would be expected to continue beyond Opening Year into the future.

**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See discussion above.

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See discussion above.

**Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not an intermodal facility/terminal/transfer point.

**RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses**

Not an intermodal facility/terminal/transfer point.

**Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)**

No redistribution expected

**Comments/Explanation/Details (please be brief)**

Lines 51A and 51B are among the most important in the AC Transit system. Line 51B is the most productive regular route in our system in terms of passengers per revenue hour, line 51A is fourth (out of 65 routes). Together the lines serve numerous important East Bay destinations. They serve Downtown Berkeley, UC Berkeley, the Elmwood District, the Rockridge District, Kaiser Hospital, Pill Hill, Downtown Oakland, Oakland Chinatown, the Webster St. commercial district in Alameda, the Park St. Alameda commercial district and Fruitvale BART. In addition to UC Berkeley, the lines serve numerous other important educational institutions including Berkeley City College and California College of the Arts. Many of the areas served have grown and are projected to grow in terms of population, employment, or both. Thus the 51 corridor has great potential to serve even more transit passengers.

However, the lines have been plagued with congestion and operational problems leading to delays and unreliable operation, which in turn makes the service less attractive to passengers. The Transit Performance Initiative in this corridor seeks to assemble an array of modest improvements which together will provide a significant cumulative improvement in travel speed and reliability. From an air quality perspective, the project should reduce air emissions both by improving bus (and other vehicle) operations and intersections, and by shifting trips from automobiles to the bus. We also hope to use the 51 corridor project as a model for similar projects on other high volume congested transit corridors.

## 2. GENERAL CHARACTERISTICS

### 2.1 Route Structure

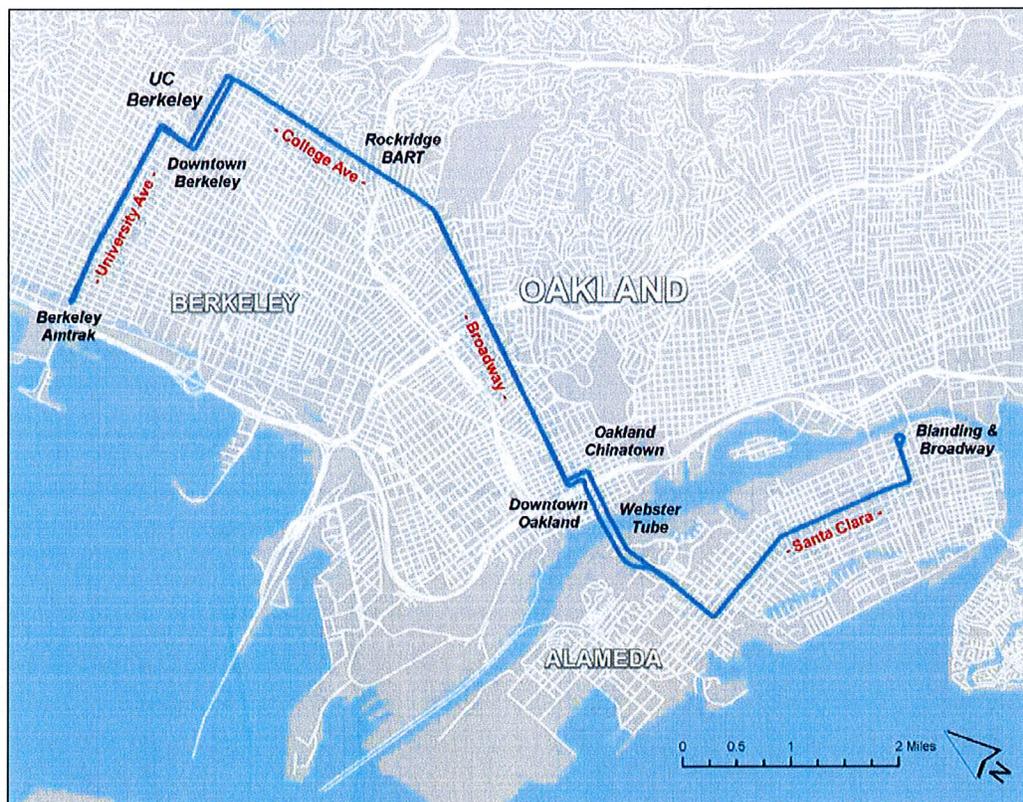
Line 51 is a 12.7 mile route with a northern terminus at the Berkeley Amtrak and a southern terminus on Blanding Avenue at Broadway in Alameda.

The southbound route operates via University Avenue, right Shattuck Avenue, left Durant Avenue, right College Avenue, right Broadway, left 7<sup>th</sup> Street, right Webster Street into the Webster Street tube, into Webster Street, left Santa Clara Avenue, left Broadway, right Tilden Way, left Blanding Avenue to the southern terminus.

The northbound routes operates via Blanding Avenue, left Broadway, right Santa Clara Avenue, left Webster Street into Posey Tube, into Harrison Street, left 8<sup>th</sup> Street, right Broadway, left College Avenue, left Bancroft Way, right Shattuck Avenue, left University Avenue to the northern terminus.

There are 79 stops in the southbound direction and 77 stops in the northbound direction. Figure 2.1 provides a graphical depiction of the route.

**Figure 2.1 – 51 Route Map**



# AC Transit LINE 51 Transit Improvements Initiative (TPI)

## Project Proposed Improvements Matrix

21-Mar-13

Queue Jump Right/Left Turn Lanes
Queue Jump Continuous Lanes (from 4 to 7pm)
Bus Bulbs
Tow-Away Lanes during Peak Hours (12 - 7pm)
Lengthening Bus Stop

X
X
Relocate Stop
Near to Far
New Signal

Stop Removal  
 Stop Removal  
 Relocate stop to another intersection  
 Relocate bus stop from Nearside to Farside

Line	City	No.	Route Segment	Cross Street	Intersection Control	Proposed Improvements	
						NB	SB
51A	Alameda	11	BROADWAY	CLEMENT AVE	UNCONTROLLED		
51A	Alameda	12	BROADWAY	TILDEN WY	SIGNALIZED	Relocate Stop	Relocate Stop
51A	Alameda	13	BROADWAY	BUENA VISTA AV	SIGNALIZED		
51A	Alameda	14	BROADWAY	NOBLE AVE	UNCONTROLLED		
51A	Alameda	15	BROADWAY	LINCOLN AVE	UNCONTROLLED		
51A	Alameda	16	BROADWAY	ST. MARGARET CT	UNCONTROLLED		
51A	Alameda	17	SANTA CLARA AV	BROADWAY	SIGNALIZED		
51A	Alameda	18	SANTA CLARA AV	EVERETT ST	UNCONTROLLED		
51A	Alameda	19	SANTA CLARA AV	PARK ST	SIGNALIZED		
51A	Alameda	20	SANTA CLARA AV	OAK ST	SIGNALIZED	Lengthen Bus Stop	
51A	Alameda	21	SANTA CLARA AV	WALNUT ST	UNCONTROLLED	Near to Far	
51A	Alameda	22	SANTA CLARA AV	WILLOW ST	UNCONTROLLED	Near to Far	Near to Far
51A	Alameda	23	SANTA CLARA AV	CHESTNUT ST	STOP SIGN CONTROLLED		
51A	Alameda	24	SANTA CLARA AV	LAFAYETTE ST	UNCONTROLLED		
51A	Alameda	25	SANTA CLARA AVE	SCHILLER ST	UNCONTROLLED		
51A	Alameda	26	SANTA CLARA AVE	UNION ST	UNCONTROLLED		
51A	Alameda	27	SANTA CLARA AV	GRAND ST	SIGNALIZED	Near to Far	Near to Far
51A	Alameda	28	SANTA CLARA AV	PARU ST	UNCONTROLLED		
51A	Alameda	29	SANTA CLARA AVE	STONEHENGE/COTTAGE ST	UNCONTROLLED		
51A	Alameda	30	SANTA CLARA AVE	STANTON ST	UNCONTROLLED		
51A	Alameda	31	SANTA CLARA AVE	BENTON ST	UNCONTROLLED		
51A	Alameda	32	SANTA CLARA AVE	MORTON ST	UNCONTROLLED	Near to Far	Near to Far
51A	Alameda	33	SANTA CLARA AVE	SHERMAN ST	UNCONTROLLED		
51A	Alameda	34	SANTA CLARA AVE	BAY ST	UNCONTROLLED		Near to Far
51A	Alameda	35	SANTA CLARA AVE	ST CHARLES ST	UNCONTROLLED		
51A	Alameda	36	SANTA CLARA AVE	VERDI ST	UNCONTROLLED		
51A	Alameda	37	SANTA CLARA AVE	CAROLINE ST	UNCONTROLLED		
51A	Alameda	38	SANTA CLARA AVE	MOZART ST	UNCONTROLLED		
51A	Alameda	39	SANTA CLARA AVE	9TH ST	UNCONTROLLED		
51A	Alameda	40	SANTA CLARA AV	8TH ST	SIGNALIZED	Near to Far	Near to Far
51A	Alameda	41	SANTA CLARA AV	PAGE ST	UNCONTROLLED		
51A	Alameda	42	WEBSTER ST	SANTA CLARA AV	SIGNALIZED		Priority Left / Resignalize
51A	Alameda	43	WEBSTER ST	HAIGHT AV	SIGNALIZED		
51A	Alameda	44	WEBSTER ST	LINCOLN AV	SIGNALIZED		
51A	Alameda	45	WEBSTER ST	PACIFIC AVE	FUTURE SIGNAL		
51A	Alameda	46	WEBSTER ST	BUENA VISTA AV	SIGNALIZED	Near to Far	Near to Far
51A	Alameda	47	WEBSTER ST	ATLANTIC AV	SIGNALIZED	Q-Jump/Rt Ln	
51A	Alameda	48	WEBSTER ST	WILLIE STARGELL AVE	SIGNALIZED		
51A	Oakland	50	8 <sup>TH</sup> ST	HARRISON ST	7TH ST	SIGNALIZED	6' Bus Bulb
							Left turn Q jump
51A	Oakland	51	8 <sup>TH</sup> ST	WEBSTER ST	#REF!	SIGNALIZED	RT Q Bypass
51A	Oakland	52	8 <sup>TH</sup> ST	FRANKLIN ST	#REF!	SIGNALIZED	Right Turn Only
51A	Oakland	53	8 <sup>TH</sup> ST	BROADWAY	#REF!	SIGNALIZED	6' Bus Bulb
							Left turn Q jump
							RT Q Bypass
51A	Oakland	54	BROADWAY	9 <sup>TH</sup> ST	SIGNALIZED		Near to Far
51A	Oakland	55	BROADWAY	10 <sup>TH</sup> ST	SIGNALIZED		
51A	Oakland	56	BROADWAY	11TH ST (12TH ST BART STATION)	SIGNALIZED	Near to Far	
51A	Oakland	57	BROADWAY	12 <sup>TH</sup> ST	SIGNALIZED		
51A	Oakland	58	BROADWAY	13TH ST (12TH ST BART STATION)	SIGNALIZED		
51A	Oakland	59	BROADWAY	14 <sup>TH</sup> ST	SIGNALIZED		
51A	Oakland	60	BROADWAY	15 <sup>TH</sup> ST	SIGNALIZED		
51A	Oakland	61	BROADWAY	LATHAM SQ (16th)	SIGNALIZED		
51A	Oakland	62	BROADWAY	17TH ST	SIGNALIZED		
51A	Oakland	63	BROADWAY	19TH ST (19TH ST BART STATION)	SIGNALIZED		
51A	Oakland	64	BROADWAY	20TH ST (19TH ST BART STATION)	SIGNALIZED	6' Bus Bulb	
51A	Oakland	65	BROADWAY	21 <sup>ST</sup> ST	SIGNALIZED		
51A	Oakland	66	BROADWAY	22 <sup>ND</sup> ST	SIGNALIZED		
51A	Oakland	67	BROADWAY	GRAND AV	SIGNALIZED	RT Q Bypass	
51A	Oakland	68	BROADWAY	23RD ST	UNCONTROLLED		
51A	Oakland	69	BROADWAY	24TH ST	UNCONTROLLED	New Signal	
51A	Oakland	70	BROADWAY	25TH ST	SIGNALIZED	Near to Far	

# AC Transit LINE 51 Transit Improvements Initiative (TPI)

## Project Proposed Improvements Matrix

21-Mar-13

- Queue Jump Right/Left Turn Lanes
- Queue Jump Continuous Lanes (from 4 to 7pm)
- Bus Bulbs
- Tow-Away Lanes during Peak Hours (12 - 7pm)
- Lengthening Bus Stop

- X
- X
- Relocate Stop
- Near to Far
- New Signal

- Stop Removal
- Stop Removal
- Relocate stop to another intersection
- Relocate bus stop from Nearside to Farside

Line	City	No.	Route Segment	Cross Street	Intersection Control	Proposed Improvements	
						NB	SB
						6' Bus Bulb	
51A	Oakland	71	BROADWAY	26 <sup>TH</sup> ST	SIGNALIZED		
51A	Oakland	72	BROADWAY	27 <sup>TH</sup> ST	SIGNALIZED		RIGHT Turn Q-Jump Lane
51A	Oakland	73	BROADWAY	28TH ST	SIGNALIZED		
51A	Oakland	74	BROADWAY	29TH ST	SIGNALIZED	Far to Far	
51A	Oakland	75	BROADWAY	30TH ST	SIGNALIZED	6' Bus Bulb Extension	Near to Far
							6' Bus Bulb
51A	Oakland	76	BROADWAY	BROOKS ST/HAWTHORNE AVE	SIGNALIZED		
51A	Oakland	77	BROADWAY	PIEDMONT AV	SIGNALIZED	Near to Far	Near to Far
						RT Q Bypass	
51A	Oakland	78	BROADWAY	34TH ST	UNCONTROLLED		
51A	Oakland	79	BROADWAY	#3506 BROADWAY	SIGNALIZED		Q-Jump Lane
51A	Oakland	80	BROADWAY	FUTURE KAISER MAIN ENTRANCE	SIGNALIZED	Near to Far	
51A	Oakland	81	BROADWAY	W MACARTHUR BLVD	SIGNALIZED		Q-Jump/Rt Ln
51A	Oakland	82	BROADWAY	KAISER PARKING GARAGE	SIGNALIZED		
51A	Oakland	83	BROADWAY	38TH ST (EAST OF BROADWAY)	UNCONTROLLED	x	
51A	Oakland	84	BROADWAY	38TH ST (WEST OF BROADWAY)	SIGNALIZED		X
51A	Oakland	85	BROADWAY	40TH ST	SIGNALIZED	Near to Far	Near to Far
						RT Q Bypass	
						Bus Bulb	Right Turn Pocket
51A	Oakland	86	BROADWAY	41 <sup>ST</sup> ST	SIGNALIZED		
51A	Oakland	87	BROADWAY	RIDGEWAY AVE	UNCONTROLLED		
51A	Oakland	88	BROADWAY	GARNET ST	UNCONTROLLED		
51A	Oakland	89	BROADWAY	42ND ST/ MATHER ST	SIGNALIZED		
						Bus Bulb	RT Q Bypass
51A	Oakland	90	BROADWAY	45TH ST/ WHITMORE ST	SIGNALIZED		RT Q Bypass
51A	Oakland	91	BROADWAY	49TH ST	UNCONTROLLED		
51A	Oakland	92	BROADWAY	PLEASANT VALLEY AV / 51st ST	SIGNALIZED	Coordinate Improvements with SAFEWAY Project	
51A	Oakland	93	COLLEGE AVE	BROADWAY	SIGNALIZED		Q-Jump Lane
51A	Oakland	94	COLLEGE AVE	CLIFTON ST	UNCONTROLLED		Q-Jump Lane
51A	Oakland	95	COLLEGE AVE	BRYANT AVE	UNCONTROLLED		
51A	Oakland	96	COLLEGE AVE	MANILA AV	SIGNALIZED	Near to Far	Near to Far
51A	Oakland	97	COLLEGE AVE	KALES AVE	UNCONTROLLED		
51A	Oakland	98	COLLEGE AVE	TAFT AVE	UNCONTROLLED		
51A	Oakland	99	COLLEGE AVE	FOREST ST/ LAWTON AVE	UNCONTROLLED	Lengthen Bus Stop 80'	Near to Far
51A	Oakland	102	COLLEGE AVE	KEITH AVE	UNCONTROLLED		
51A	Oakland	105	ROCKRIDGE BART	BTW MILES AVE & KEITH AVE			
51B	Oakland	106	ROCKRIDGE BART	BTW KEITH AVE & MILES AVE			
51B	Oakland	107	COLLEGE AVE	MILES AV	SIGNALIZED		
51B	Oakland	108	COLLEGE AVE	OAK GROVE AVE	UNCONTROLLED		
51B	Oakland	109	COLLEGE AVE	CHABOT RD	UNCONTROLLED	Near to Far	Near to far
51B	Oakland	110	COLLEGE AVE	HARWOOD AVE	UNCONTROLLED		
51B	Oakland	111	COLLEGE AVE	ARMANINO CT	UNCONTROLLED		
51B	Oakland	112	COLLEGE AVE	CLAREMONT AV	SIGNALIZED		
51B	Oakland	113	COLLEGE AVE	63RD ST	UNCONTROLLED		
51B	Oakland	114	COLLEGE AVE	ALCATRAZ AV	SIGNALIZED	Near to Far	Near to far
51B	Oakland	115	COLLEGE AVE	WOOLSEY ST	UNCONTROLLED		
51B	Oakland	116	COLLEGE AVE	PRINCE ST	UNCONTROLLED		
51B	Berkeley	117	COLLEGE AVE	WEBSTER ST	UNCONTROLLED		
51B	Berkeley	118	COLLEGE AVE	ASHBY AV	SIGNALIZED	Left Turn Pocket	
51B	Berkeley	119	COLLEGE AVE	RUSSELL ST	STOP SIGN CONTROLLED	New Signal	New Signal/ Q-JUMP Near to far
51B	Berkeley	120	COLLEGE AVE	STUART ST	UNCONTROLLED		
51B	Berkeley	121	COLLEGE AVE	GARBER ST	UNCONTROLLED		
51B	Berkeley	122	COLLEGE AVE	FOREST AVE	UNCONTROLLED		Q-Jump/Rt Ln
51B	Berkeley	123	COLLEGE AVE	DERBY ST	STOP SIGN		
51B	Berkeley	124	COLLEGE AVE	PARKER ST (WEST OF COLLEGE)	UNCONTROLLED		
51B	Berkeley	125	COLLEGE AVE	PARKER ST(EAST OF COLLEGE)	UNCONTROLLED		
51B	Berkeley	126	COLLEGE AVE	DWIGHT WAY	SIGNALIZED		
51B	Berkeley	127	COLLEGE AVE	HASTE ST	SIGNALIZED		
51B	Berkeley	128	COLLEGE AVE	CHANNING WY	SIGNALIZED		
51B	Berkeley	130	BANCROFT WY	COLLEGE AVE	STOP SIGN CONTROLLED	New Signal	New Signal

# AC Transit LINE 51 Transit Improvements Initiative (TPI)

## Project Proposed Improvements Matrix

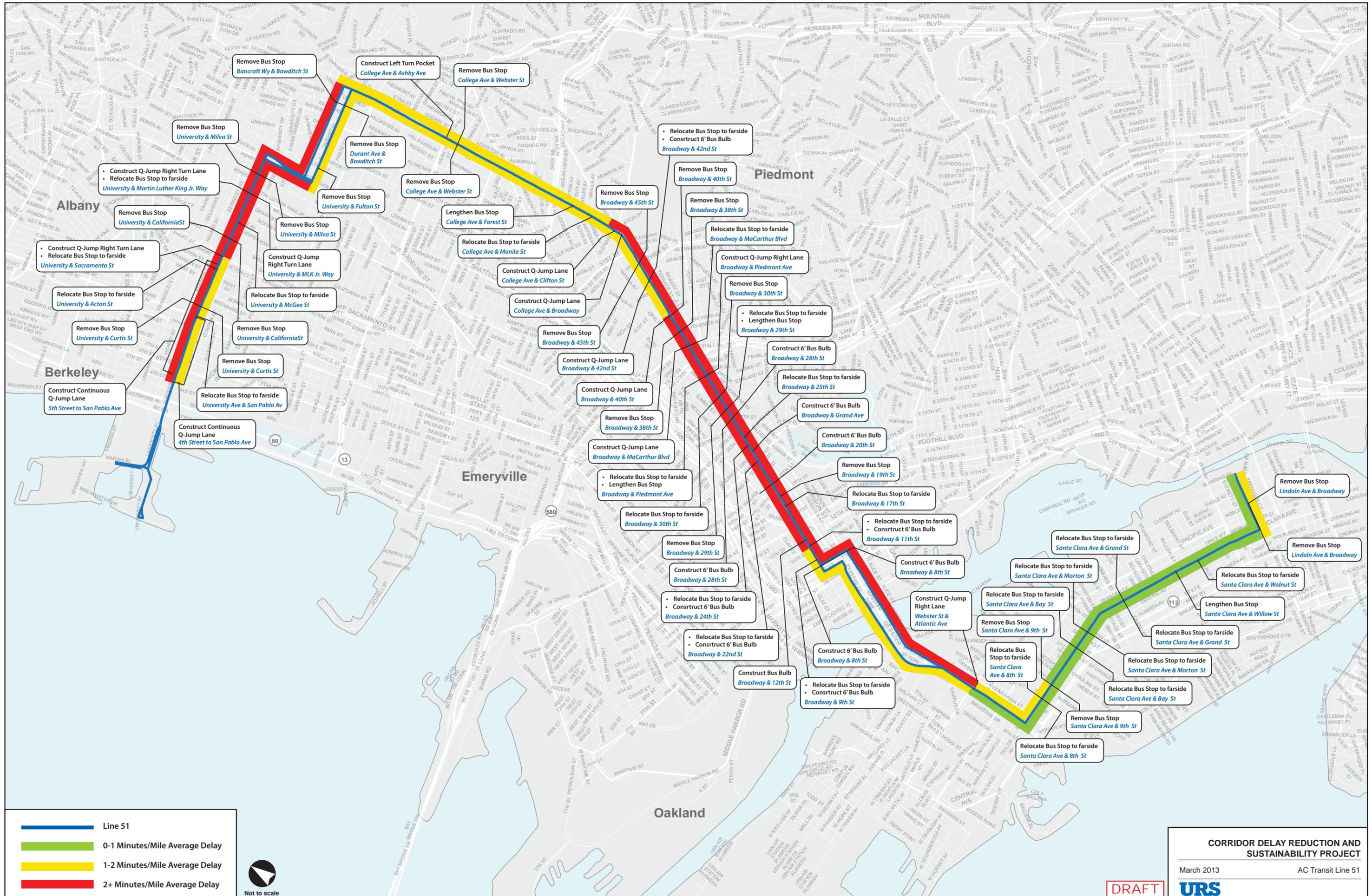
21-Mar-13

- Queue Jump Right/Left Turn Lanes
- Queue Jump Continuous Lanes (from 4 to 7pm)
- Bus Bulbs
- Tow-Away Lanes during Peak Hours (12 - 7pm)
- Lengthening Bus Stop

- X
- X
- Relocate Stop
- Near to Far
- New Signal

- Stop Removal
- Stop Removal
- Relocate stop to another intersection
- Relocate bus stop from Nearside to Farside

Line	City	No.	Route Segment	Cross Street		Intersection Control	Proposed Improvements	
							NB	SB
							Bus Bulb	
51B	Berkeley	131	BANCROFT WY	BOWDITCH ST	#REF!	UNCONTROLLED		
51B	Berkeley	132	BANCROFT WY	BARROW LN		UNCONTROLLED		
51B	Berkeley	133	BANCROFT WY	TELEGRAPH AV	#REF!	SIGNALIZED	X	X
51B	Berkeley	134	BANCROFT WY	MID BLOCK CROSSING		SIGNALIZED		
51B	Berkeley	135	BANCROFT WY	DANA ST	#REF!	UNCONTROLLED	New Signal	
51B	Berkeley	136	BANCROFT WY	ELLSWORTH ST	#REF!	UNCONTROLLED		
51B	Berkeley	137	BANCROFT WY	FULTON ST	#REF!	SIGNALIZED		Lengthen Bus Stop
51B	Berkeley	138	BANCROFT WY	SHATTUCK AVE	#REF!	SIGNALIZED		
51B	Berkeley	139	SHATTUCK AVE	KITTREDGE ST		SIGNALIZED		
51B	Berkeley	140	SHATTUCK AVE	ALLSTON WY		SIGNALIZED		
51B	Berkeley	141	SHATTUCK AVE	CENTER ST		SIGNALIZED		
51B	Berkeley	142	SHATTUCK AVE	ADDISON WY		SIGNALIZED		
51B	Berkeley	143	SHATTUCK AVE	UNIVERSITY AV		SIGNALIZED		
51B	Berkeley	144	UNIVERSITY AVE	SHATTUCK AV		SIGNALIZED		Lengthen Bus Stop
51B	Berkeley	145	UNIVERSITY AVE	MILVIA ST		SIGNALIZED		
51B	Berkeley	146	UNIVERSITY AVE	BONITA AVE		UNCONTROLLED		
51B	Berkeley	147	UNIVERSITY AVE	MARTIN LUTHER KING JR WY		SIGNALIZED	Q-Jump/Rt Ln	Q-Jump/Rt Ln
51B	Berkeley	148	UNIVERSITY AVE	GRANT ST		UNCONTROLLED		Rt-Turn Only / Except buses
51B	Berkeley	149	UNIVERSITY AVE	MCGEE ST		UNCONTROLLED	X	X
							Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	150	UNIVERSITY AVE	JEFFERSON AVE		UNCONTROLLED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	151	UNIVERSITY AVE	CALIFORNIA ST		SIGNALIZED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	152	UNIVERSITY AVE	SACRAMENTO ST		SIGNALIZED	Q-Jump/Rt Ln	Rt-Turn Only / Except buses
							Near to Far	
51B	Berkeley	153	UNIVERSITY AVE	ACTON ST		SIGNALIZED	Near to Far	
							Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	154	UNIVERSITY AVE	OHLONE GREENWAY( WEST ST)		SIGNALIZED	Rt-Turn Only / Except buses	
51B	Berkeley	155	UNIVERSITY AVE	BONAR ST		SIGNALIZED	Rt-Turn Only / Except buses	Near to Far
51B	Berkeley	156	UNIVERSITY AVE	CHESTNUT ST		UNCONTROLLED	Rt-Turn Only / Except buses	
51B	Berkeley	157	UNIVERSITY AVE	CURTIS ST		UNCONTROLLED	Rt-Turn Only / Except buses	
							X	X
51B	Berkeley	158	UNIVERSITY AVE	SAN PABLO AV		SIGNALIZED		Near to Far
							Q-Jump Lane	Rt-Turn Only / Except buses
51B	Berkeley	159	UNIVERSITY AVE	10 <sup>TH</sup> ST		UNCONTROLLED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	160	UNIVERSITY AVE	9TH ST		SIGNALIZED	Near to far	
							Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	161	UNIVERSITY AVE	8TH ST		UNCONTROLLED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	162	UNIVERSITY AVE	7TH ST		UNCONTROLLED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	163	UNIVERSITY AVE	6TH ST		SIGNALIZED	Rt-Turn Only / Except buses	Rt-Turn Only / Except buses
51B	Berkeley	164	UNIVERSITY AVE	5TH		UNCONTROLLED		
51B	Berkeley	165	UNIVERSITY AVE	4TH		STOP SIGN		
51B	Berkeley	166	BERKELEY AMTRAK	3RD				



**CORRIDOR DELAY REDUCTION AND SUSTAINABILITY PROJECT**

March 2013 AC Transit Line 51

**DRAFT**

03/2013 hb\_TACT-Line-51GraphicsIssues\_Maps.mxd

Trips by Segment by Direction

From	To	Weekday-Daily Trips					Saturday- Trips				Sunday- Trips				Annual Weekday	Annual Sat	Annual Sun	Annual Trips
		51A	51B	634	851	Combined	51A	51B	851	Combined	51A	51B	851	Combined	Trips	Trips	Trips	
3rd & University	Center & Shattuck	n/a	95	0	0	95	0	67	0	67	0	67	0	67	24225	3484	3886	31595
Center & Shattuck	Rockridge BART	n/a	95	0	5	100	0	67	5	72	0	67	5	72	25500	3744	4176	33420
Rockridge BART	42nd & Broadway	99	0	0	5	104	66	0	5	71	66	0	5	71	26520	3692	4118	34330
42nd & Broadway	9th & Broadway	99	0	3	5	107	66	0	5	71	66	0	5	71	27060	3692	4118	34870
9th & Broadway	Fruitvale BART	99	0	0	5	104	66	0	5	71	66	0	5	71	26520	3692	4118	34330
From	To	Weekday-Daily Trips					Saturday- Trips				Sunday- Trips				Annual Weekday	Annual Sat	Annual Sun	Annual Trips
		51A	51B	634	851	Combined	51A	51B	851	Combined	51A	51B	851	Combined	Trips	Trips	Trips	
Fruitvale BART	11th & Broadway	97	0	0	5	102	67	0	5	72	67	0	5	72	26010	3744	4176	33930
11th & Broadway	Rockridge BART	97	0	1	5	103	67	0	5	72	67	0	5	72	26190	3744	4176	34110
Rockridge BART	Center & Shattuck	0	96	0	5	101	0	67	5	72	0	67	5	72	25755	3744	4176	33675
Center & Shattuck	3rd & University	0	96	0	0	96	0	67	0	67	0	67	0	67	24480	3484	3886	31850