



Solano Transportation Authority

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SOLANO TRANSPORTATION AUTHORITY

Member Agencies:

Benicia • Dixon • Fairfield • Rio Vista • Suisun City • Vacaville • Vallejo • Solano County

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TECHNICAL ADVISORY COMMITTEE (TAC)
AGENDA

1:30 p.m., Wednesday, June 26, 2013
Solano Transportation Authority
One Harbor Center, Suite 130
Suisun City, CA 94585

ITEM

STAFF PERSON

1. CALL TO ORDER

Daryl Halls, Chair

2. APPROVAL OF AGENDA

3. OPPORTUNITY FOR PUBLIC COMMENT
(1:35 -1:40 p.m.)

4. REPORTS FROM CALTRANS, METROPOLITAN
TRANSPORTATION COMMISSION (MTC), AND STA STAFF
(1:40 -1:45 p.m.)

5. CONSENT CALENDAR

Recommendation:

Approve the following consent items in one motion.
(1:45 – 1:50 p.m.)

A. Minutes of the TAC Meeting of May 29, 2013

Johanna Masielat

Recommendation:

Approve TAC Meeting Minutes of May 29, 2013.
Pg. 5

B. Fiscal Year (FY) 2013-14 Transportation Development Act (TDA)
Matrix - July 2013

Liz Niedziela

Recommendation:

Forward a recommendation to the Board to approve the FY 2013-14
Solano TDA Matrix – July 2013 as shown in Attachment B for Cities
of Dixon and Rio Vista.

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TAC MEMBERS

Table with 8 columns: Name, City of Benicia, City of Dixon, City of Fairfield, City of Rio Vista, City of Suisun City, City of Vacaville, City of Vallejo, County of Solano.

- C. Fiscal Year (FY) 2013-14 State Transit Assistance Funds (STAF) Initial Projects** Liz Niedziela
Recommendation:
 Forward a recommendation to the STA Board to approve the FY 2013-14 STAF priorities as specified in Attachment C.
Pg. 17
- D. Transit Corridor Study - SolanoExpress Service Design and Performance Metrics and Proposed Service Alternatives and Capital Plan** Tony Bruzzone
Recommendation:
 Forward a recommendation to the STA Board to approve the Intercity SolanoExpress Performance Measures as shown in Table 1.
Pg. 23
- E. Coordinated Short Range Transit Plan Status Update and Coordination Report** Liz Niedziela
Recommendation:
 Forward a recommendation to the STA Board to approve the coordinated SRTP Coordination Report shown in Attachment B.
Pg. 35
- F. Mobility Management Travel Training Scope of Work** Sofia Recalde and Elizabeth Richards
Recommendation:
 Forward a recommendation to the STA Board to approve the following:
 1. The draft Travel Training scope of work; and
 2. Authorize the Executive Director to issue a request for proposal and enter into an agreement for Travel Training Consultant Services.
Pg. 49
- G. Solano Napa Commuter Information (SNCI) Fiscal Year (FY) 2013-14 Work Program** Judy Leaks
Recommendation:
 Forward a recommendation to the STA Board to approve the Solano Napa Commuter Information Work Program for FY 2013-14 as shown in Attachment A.
Pg. 61

6. ACTION FINANCIAL ITEMS

- A. STA Regional Transportation Impact Fee (RTIF) Nexus Report** Robert Guerrero
Recommendation:
 Forward a recommendation to the STA Board to approve the Solano County Regional Transportation Impact Fee Nexus Report.
 (1:50 – 2:00 p.m.)
Pg. 65

- B. Solano County Regional Measure 2 (RM 2) Implementation Plan** Janet Adams
Recommendation:
Forward a recommendation to the STA Board to approve the Regional Measure 2 Implementation Plan as shown on Attachment A.
(2:00 – 2:15 p.m.)
Pg. 95

7. ACTION NON FINANCIAL ITEMS

- A. I-80 Ramp Metering Study and Implementation Plan and Ramp Metering MOU** Robert Guerrero
Recommendation:
Forward a recommendation to the STA Board to approve the following:
1. I-80 Ramp Metering Implementation Plan based on the comments provided in Attachment B; and
2. Authorize the STA Executive Director to enter into a Memorandum of Understanding with Caltrans for the I-80 Ramp Metering Implementation.
(2:15 – 2:25 p.m.)
Pg. 101
- B. Safe Routes to School (SR2S) Two-Year Work Plan for Fiscal Year (FY) 2013-14 and FY 2014-15** Danelle Carey
Recommendation:
Forward a recommendation to the STA Board to approve the Solano SR2S 2-year Work Plan for Fiscal Years 2013-14 and 2014-15 as described in Attachment A.
(2:25 – 2:35 p.m.)
Pg. 195
- C. Safe Routes to School Advisory Committee (SR2S-AC) Engineer Voting Member Appointment** Danelle Carey
Recommendation:
Nominate a voting member from the engineering profession.
(2:35 – 2:40 p.m.)
Pg. 199

8. INFORMATIONAL ITEMS – DISCUSSION

- | | |
|---|-----------------|
| A. Public-Private Partnership (P3) Update
(2:40 – 2:50 p.m.)
Pg. 201 | Jessica McCabe |
| B. STA Alternative Fuel and Infrastructure Plan Status
(2:50 – 2:55 p.m.)
Pg. 211 | Robert Guerrero |
| C. Legislative Update
(2:55 – 3:00 p.m.)
Pg. 213 | Jayne Bauer |

NO DISCUSSION NECESSARY

- | | |
|---|------------------|
| D. Fiscal Year (FY) 2012-13 Abandoned Vehicle Abatement (AVA) Program Third Quarter Report
Pg. 227 | Susan Furtado |
| E. Local Project Delivery Update (SR2S Capital Projects)
Pg. 231 | Jessica McCabe |
| F. Mobility Management Plan Update
Pg. 247 | Sofia Recalde |
| G. Summary of Funding Opportunities Summary
Pg. 251 | Sara Woo |
| H. STA Board Meeting Highlights of June 12, 2013
Pg. 257 | Johanna Masiclat |
| I. Draft Meeting Minutes of STA Advisory Committees
Pg. 263 | Johanna Masiclat |
| J. STA Board and Advisory Committee Meeting Schedule for Calendar Year 2013
Pg. 271 | Johanna Masiclat |

9. ADJOURNMENT

The next regular meeting of the Technical Advisory Committee is scheduled at **1:30 p.m. on Wednesday, August 28, 2013.**



TECHNICAL ADVISORY COMMITTEE
Minutes for the meeting of
May 29, 2013

1. CALL TO ORDER

The regular meeting of the STA's Technical Advisory Committee (TAC) was called to order at approximately 1:30 p.m. in the Solano Transportation Authority (STA)'s Conference Room 1.

TAC Members Present:

Mike Roberts	City of Benicia
Joe Leach	City of Dixon
George Hicks	City of Fairfield
Dave Melilli	City of Rio Vista
Dan Kasperson	City of Suisun City
Shawn Cunningham	City of Vacaville
Jill Mercurio	City of Vallejo
Matt Tuggle	Solano County

TAC Members Absent:

Melissa Morton	City of Benicia
David Kleinschmidt	City of Vallejo

STA Staff Present: *(In Alphabetical Order by Last Name)*

Janet Adams	STA
Jayne Bauer	STA
Robert Guerrero	STA
Daryl Halls	STA
Johanna Masielat	STA
Jessica McCabe	STA
Liz Niedziela	STA
Sofia Recalde	STA
Sara Woo	STA

Others Present: *(In Alphabetical Order by Last Name)*

Tony Bruzzone	ARUP Consulting
Nick Burton	County of Solano

2. APPROVAL OF THE AGENDA

On a motion by Mike Roberts, and a second by Joe Leach, the STA TAC approved the agenda to include the following changes:

- Item 5.B, Amend the TDA Fiscal Year (FY) 2013-14 Transportation Development Act (TDA) Matrix - June 2013
- Item 7.C, Transit Corridor Study - SolanoExpress Service Design and Performance Metrics was tabled until the next meeting in June.

3. OPPORTUNITY FOR PUBLIC COMMENT

None presented.

4. REPORTS FROM CALTRANS, MTC AND STA STAFF

Jayne Bauer provided a brief update on the development of the Marketing Plan for SolanoExpress.

Robert Guerrero informed the TAC that the Alternative Fuels Working Group is scheduled to meet on June 6, 2013 (10 a.m. at STA). He noted that after comments are received from the Working Group, the Alternative Fuels Study will be brought back to the Consortium and TAC for review and comment.

5. CONSENT CALENDAR

On a motion by Dan Kasperson, and a second by George Hicks, the STA TAC approved Consent Calendar Items A through C to include amendment to Item B, FY 2013-14 TDA Matrix – June 2013 as shown below in *bold italics*.

A. Minutes of the TAC Meeting of April 24, 2013

Recommendation:

Approve TAC Meeting Minutes of April 24, 2013.

B. Fiscal Year (FY) 2013-14 Transportation Development Act (TDA) Matrix - June 2013

At an earlier meeting and with concurrence from the SolanoExpress Intercity Transit Consortium, *the SolanoExpress Intercity Transit Funding Working Group voted to reduce the Vacaville local transit claim from \$667,439 to \$639, 919 and deleted Note (4a).*

Recommendation:

Forward a recommendation to the STA TAC and Board to approve the FY 2013-14 Solano TDA Matrix – June 2013 as shown in Attachment A for City of Fairfield, Solano County Transit, Solano Transportation Authority, and City of Vacaville *to include reducing the Vacaville local transit claim from \$667,439 to \$639, 919 and deleting Note (4a).*

C. Compressed Natural Gas (CNG) Feasibility Study for Benicia

Recommendation:

Forward the following recommendations to the STA Board to:

1. Authorize the Executive Director to enter into an agreement with the City of Benicia to develop a Compressed Natural Gas (CNG) Feasibility Study; and
2. Approve dedicating \$10,000 in State Transit Assistance Funds (STAF) to match the City of Benicia's contribution for the CNG Feasibility Study.

Mike Roberts commended Robert Guerrero for the job well done on writing this staff report.

6. ACTION FINANCIAL ITEMS

A. None presented.

7. ACTION NON FINANCIAL ITEMS

A. Proposed STA Overall Work Plan (OWP) for Fiscal Years (FY) 2013-14 and 2014-15

Janet Adams noted that as part of the development of the FY 2013-14 and FY 2014-15 OWP, staff has combined and consolidated some of the tasks and updated the status, milestones and estimated completion dates for a number of the tasks. She added that the STA TAC and Transit Consortium have expressed concerns about the volume of planning efforts currently included as part of STA's OWP and the shortage of staff resources needed to review these documents. In recognition of this concern, STA staff has focused this draft OWP on completing existing tasks included in the current OWP.

Recommendation:

Forward a recommendation to the STA Board to approve STA's OWP for FY 2013-14 and FY 2014-15 as specified in Attachment B.

On a motion by Matt Tuggle, and a second by Joe Leach, the STA TAC approved the recommendation.

B. Transit Sustainability Study – Financial Assessment of Solano County Transit Operators

Liz Niedziela noted that at their April 23rd meeting, the SolanoExpress Intercity Transit Consortium requested to wait until the Short Range Transit Plan is reviewed and to add language to the TSP to clarify the difference between the TSP and the SRTP financial 10-year budget.

Liz Niedziela also noted that at an earlier meeting, the SolanoExpress Intercity Transit Consortium recommended to modify the recommendation to read as follows:

Recommendation:

Forward the following recommendation to the STA Board to:

1. ~~Assess the financial status of Solano County transit operators~~ **Receive and file the Transit Sustainability Study of Solano County Transit Operators;** and
2. ~~Approve the~~ **Transit Agency Peer Review: Comparative Analysis.**

On a motion by Matt Tuggle, and a second by George Hicks, the STA TAC approved the recommendation as amended above in ~~strikethrough~~ **bold italics**.

- C. **This item was tabled until the next meeting in June at the request of the Transit Consortium - Transit Corridor Study - SolanoExpress Service Design and Performance Metrics**

8. INFORMATIONAL - DISCUSSION

- A. **Coordinated Short Range Transit Plan Status Update and Coordination Report**
Tony Bruzzone, ARUP, provided an update to the coordination report provided to the transit operators on May 21, 2013. He cited that comments on the draft coordination report are due to the STA and the consulting team by June 6, 2013. He added that comments will be incorporated into the report and the final report to be considered for approval by the Consortium at its meeting on June 25, 2013. He concluded by stating that the final report will be made available for approval by City Councils and the SolTrans Board after June 25, 2013.
- B. **Mobility Management Plan Update**
Sofia Recalde provided an update to the new Countywide In-Person ADA Eligibility Program which will start on July 1, 2013. She noted that on June 17, interested ADA applicants and current ADA certified passengers whose eligibility is about to expire can call to start the ADA certification or re-certification process. She also noted that the assessment site locations have been selected in each city, except for Benicia. In addition, she announced that open houses will be held at each of the assessment locations from June 10th through June 12th. The Open Houses will be an opportunity for the local officials and the public, including potential users and social service and health providers, to see where the in-person assessments will occur and to learn more about the new program. Lastly, she cited that Vacaville City Coach has volunteered to host the next Mobility Management meeting with a focus on Countywide Travel Training.
- C. **Draft OneBayArea Grant (OBAG) Funding Agreement**
Jessica McCabe reviewed the sample OBAG funding agreements, and summarized specific feedback. The feedback included suggestions to simplify the project schedule to include major project delivery milestones, adding Caltrans and FHWA major deadline dates, and modification to language in Part II, Section B and C, of the agreement. STA staff plans to incorporate feedback from the TAC into each OBAG funding agreement, and then send draft agreements to TAC members for review and approval. Once final versions are agreed upon by the STA and project sponsors, staff is anticipating getting authorization from the STA Board in July to enter in these funding agreements.
- D. **Local Project Delivery Update**
Jessica McCabe noted that once MTC adopts the Plan Bay Area in June/July 2013, a 2013 TIP amendment will add or remove projects not included in the new RTP. She added that August 1st is the deadline for submitting changes, including new projects, to be included in the first amendment to the 2013 TIP. She also cited that to adhere to this deadline, STA will need to submit new projects to be amended into the 2013 TIP to MTC by July 30, 2013.

E. Legislative Update

Jayne Bauer noted that U.S. DOT announced the availability of \$474 million for the TIGER 5 program, with applications due on June 3, 2013. She cited that the STA Board approved support for the submittal of the Fairfield/Vacaville Intermodal Station for the TIGER V. She concluded by stating that MTC has decided to endorse this project for a \$9M rural area submittal in this round of TIGER V, thanks to the efforts of Solano's MTC Commissioner, Supervisor Jim Spring.

NO DISCUSSION

F. Funding Opportunities Summary

G. STA Board Meeting Highlights of May 8, 2013

H. Draft Meeting Minutes of STA Advisory Committees

I. STA Board and Advisory Committee Meeting Schedule for Calendar Year 2013

9. ADJOURNMENT

The meeting was adjourned at 2:30 p.m.

The next regular meeting of the Technical Advisory Committee is scheduled at **1:30 p.m. on Wednesday, June 26, 2013.**

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DATE: June 10, 2013
TO: STA TAC
FROM: Liz Niedziela, Transit Program Manager
RE: Fiscal Year (FY) 2013-14 Transportation Development Act (TDA) Matrix
– July 2013

Background:

The Transportation Development Act (TDA) was enacted in 1971 by the California Legislature to ensure a continuing statewide commitment to public transportation. This law imposes a one-quarter-cent tax on retail sales within each county for this purpose. Proceeds are returned to counties based upon the amount of taxes collected, and are apportioned within the county based on population. To obtain TDA funds, local jurisdictions must submit requests to regional transportation agencies that review the claims for consistency with TDA requirements. Solano County agencies submit TDA claims to the Metropolitan Transportation Commission (MTC), the Regional Transportation Planning Agency (RTPA) for the nine Bay Area counties.

After several years of growth, Solano TDA revenue began to decline after FY 2006-07. At its peak in FY 2006-07, the TDA available countywide was \$15.9 million. TDA funding then steadily declined for several years. By FY 2010-11, it decreased approximately 16% compared to the 2006-07 allocation from 15.9 million to \$13.3 million. Since FY 2010-11, TDA has been modestly increasing for Solano transit operators. The TDA fund estimate for FY 2013-14 is 15.1 million is now at a 5% decrease from FY 2006-07 funding. The Solano FY 2013-14 TDA fund estimates by jurisdiction are shown on the attached TDA matrix (Attachment A).

Discussion:

TDA funds are shared among agencies to fund joint services such as SolanoExpress intercity bus routes and Intercity Taxi Scrip Program. To clarify how the TDA funds are to be allocated each year among the local agencies and to identify the purpose of the funds, the STA works with the transit operators and prepares an annual TDA matrix. The TDA matrix is approved by the STA Board and submitted to MTC to provide MTC guidance when reviewing individual TDA claims. At this time, the TDA for the FY 2013-14 Matrix (Attachment B) will be submitted to the STA Board for approval July 10, 2013.

The cost share for the intercity routes per the Intercity Funding Agreement is reflected in the TDA Matrix. The intercity funding formula is based on 20% of the costs shared on population and 80% of the costs shared and on ridership by residency. Population estimates are updated annually using the Department of Finance population estimates and ridership by residency is based on on-board surveys conducted March 2012. The Intercity funding process includes a reconciliation of planned (budgeted) intercity revenues and expenditures to actual revenues and expenditures. In this cycle, FY 2011-12 audited amounts were reconciled to the estimated amounts for FY 2011-12. The reconciliation amounts and the estimated amounts for FY 2013-14 are merged to determine the cost per funding partners.

Due to lower than planned costs, higher than planned fare revenues, and additional subsidies for the intercity routes in FY 2011-12, the reconciliation offset FY 2013-14 subsidy requirements from all funding partner. The offset amount for SolTrans resulted in a rebate of TDA funds to Dixon in the amount of \$1,114, FAST for \$112,547 and Vacaville for \$27,540.

City of Dixon

The City of Dixon is claiming \$481,663 in TDA funds. TDA funds in the amount of \$481,663 will be used for operations.

City of Rio Vista

City of Rio Vista is claiming \$200,00 in TDA funds. TDA funds in the amount of \$155,000 will be used for operating and the amount of \$45,000 will be used for capital projects. Rio Vista's capital projects include cameras and automatic vehicle locators.

Fiscal Impact:

The STA is a recipient of TDA funds from each jurisdiction for the purpose of countywide transit planning. With the STA Board approval of the June TDA matrix, it provides the guidance needed by MTC to process the TDA claim submitted by the transit operators and STA.

Recommendation:

Forward a recommendation to the STA Board to approve the FY 2013-14 Solano TDA Matrix – July 2013 as shown in Attachment B for Cities of Dixon and Rio Vista.

Attachment:

- A. FY 2013-14 TDA Fund Estimate for Solano County
- B. FY 2013-14 Solano TDA Matrix – July 2013

**FY 2013-14 FUND ESTIMATE
REGIONAL SUMMARY**
*Attachment A
Res No. 4086
Page 1 of 16
2/27/2013*
TDA REGIONAL SUMMARY TABLE

<i>Column</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H=Sum(A:G)</i>
	6/30/2012	FY 2011-13	FY 2012-13	FY 2012-13	FY 2012-13	FY 2013-14	FY 2013-14	FY 2013-14
Apportionment Jurisdictions	Balance¹	Outstanding Commitments, Refunds, & Interest²	Original Estimate	Revenue Adjustment	Revised Admin. & Planning Charge	Revenue Estimate	Admin. & Planning Charge	Available for Allocation
Alameda	17,195,834	(64,128,191)	57,533,049	3,741,179	(2,450,969)	61,274,228	(2,450,969)	70,714,160
Contra Costa	12,658,809	(32,389,136)	33,569,164	1,932,329	(1,420,060)	37,986,598	(1,519,464)	50,818,239
Marin	894,628	(10,671,934)	10,186,399	490,412	(427,072)	10,890,811	(435,632)	10,927,612
Napa	14,217,688	(13,587,857)	6,180,000	320,000	(260,000)	6,695,000	(267,800)	13,297,031
San Francisco	6,325,595	(43,440,160)	39,194,100	1,401,930	(1,623,841)	42,610,680	(1,704,426)	42,763,877
San Mateo	5,180,236	(34,825,817)	32,583,185	2,704,110	(1,411,492)	35,287,295	(1,411,491)	38,106,027
Santa Clara	3,738,765	(85,267,332)	86,804,000	2,834,571	(3,585,543)	91,431,000	(3,657,240)	92,298,221
Solano	8,716,717	(17,856,314)	14,461,543	1,221,049	(627,304)	15,682,592	(627,304)	20,970,981
Sonoma	11,255,049	(16,497,485)	18,500,000	350,000	(754,000)	19,510,000	(780,400)	31,583,164
TOTAL	\$80,183,322	(\$318,664,226)	\$299,011,440	\$14,995,580	(\$12,560,281)	\$321,368,203	(\$12,854,726)	\$371,479,313

STA, AB 1107, & BRIDGE TOLL REGIONAL SUMMARY TABLE

<i>Column</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E=Sum(A:D)</i>
	6/30/2012	FY 2011-13	FY 2012-13	FY 2013-14	FY 2013-14
Fund Source	Balance (w/interest)¹	Outstanding Commitments²	Revenue Estimate	Revenue Estimate	Available for Allocation
State Transit Assistance Total					
Revenue-Based	12,863,411	(115,386,714)	110,103,133	102,525,536	110,105,366
Population-Based	57,952,875	(53,484,965)	40,446,429	37,708,787	82,623,125
SUBTOTAL	70,816,286	(168,871,679)	150,549,562	140,234,323	192,728,491
BART District Tax - AB 1107 (25% Share)	0	(67,000,000)	65,200,000	69,000,000	69,000,000
Bridge Toll Total					
AB 664 Bridge Revenues	39,726,567	(37,900,071)	10,789,000	10,789,000	23,404,496
MTC 2% Toll Revenue	7,897,641	(8,990,029)	4,127,000	8,750,000	11,784,612
5% State General Fund Revenue	12	(3,111,764)	3,116,461	3,147,625	3,152,334
SUBTOTAL	47,624,220	(50,001,864)	18,032,461	22,686,625	38,341,442
GRAND TOTAL	\$118,440,506	(\$285,873,543)	\$233,782,023	\$231,920,948	\$300,069,933

Please see Attachment A pages 2-14 for detailed information on each fund source.

1. Balance as of 6/30/12 is from MTC FY 2011-12 Audit, and it contains both funds available for allocation and funds that have been allocated but not disbursed.

2. The outstanding commitments figure includes all unpaid allocations as of June 30, 2012, and FY 2012-13 allocations as of January 31, 2013.

**FY 2013-14 FUND ESTIMATE
TRANSPORTATION DEVELOPMENT ACT FUNDS
SOLANO COUNTY**

Attachment A
Res No. 4086
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FY 2012-13 TDA Revenue Estimate Adjustment			FY 2013-14 TDA Estimate		
FY 2012-13 Generation Estimate Adjustment			FY 2013-14 County Auditor's Generation Estimate		
1. Original County Auditor Estimate (Feb, 11)	14,461,543		13. County Auditor Estimate		15,682,592
2. Revised County Auditor Estimate (Feb, 11)	15,682,592		FY 2013-14 Planning and Administration Charges		
3. Revenue Adjustment (Lines 2-1)		1,221,049	14. MTC Administration (0.5% of Line 13)	78,413	
FY 2012-13 Planning and Administration Charges Adjustment			15. County Administration (0.5% of Line 13)	78,413	
4. MTC Administration (0.5% of Line 3)	6,105		16. MTC Planning (3.0% of Line 13)	470,478	
5. County Administration (0.5% of Line 3)	6,105		17. Total Charges (Lines 14+15+16)		627,304
6. MTC Planning (3.0% of Line 3)	36,631		18. TDA Generations Less Charges (Lines 13-17)		15,055,288
7. Total Charges (Lines 4+5+6)		48,841	FY 2013-14 TDA Apportionment By Article		
8. Adjusted Generations Less Charges (Lines 3-7)		1,172,208	19. Article 3.0 (2.0% of Line 18)	301,106	
FY 2012-13 TDA Adjustment By Article			20. Funds Remaining (Lines 18-19)		14,754,182
9. Article 3 Adjustment (2.0% of line 8)	23,444		21. Article 4.5 (5.0% of Line 20)	0	
10. Funds Remaining (Lines 8-9)		1,148,764	22. TDA Article 4 (Lines 20-21)		14,754,182
11. Article 4.5 Adjustment (5.0% of Line 10)	0				
12. Article 4 Adjustment (Lines 10-11)		1,148,764			

TDA APPORTIONMENT BY JURISDICTION

Column	A	B	C=Sum(A:B)	D	E	F	G	H=Sum(C:G)	I	J=Sum(H:I)
	6/30/2012	FY 2011-12	6/30/2012	FY 2011-13	FY 2012-13	FY 2012-13	FY 2012-13	6/30/2013	FY 2013-14	FY 2013-14
Apportionment Jurisdictions	Balance (w/o interest)	Interest	Balance (w/interest) ¹	Outstanding Commitments ²	Transfers/ Refunds	Original Estimate	Revenue Adjustment	Projected Carryover	Revenue Estimate	Available for Allocation
Article 3	543,542	3,183	546,725	(420,016)	0	277,662	23,444	427,815	301,106	728,921
Article 4.5										
SUBTOTAL	543,542	3,183	546,725	(420,016)	0	277,662	23,444	427,815	301,106	728,921
Article 4/8										
Dixon	338,475	2,325	340,800	(647,899)	0	605,092	51,091	349,084	651,873	1,000,957
Fairfield	2,208,126	20,380	2,228,506	(5,634,090)	0	3,440,340	290,483	325,239	3,793,108	4,118,347
Rio Vista	206,824	1,578	208,402	(179,317)	0	243,973	20,600	293,658	264,500	558,158
Solano County	472,625	2,581	475,206	(556,879)	0	622,882	52,593	593,802	669,987	1,263,789
Suisun City	119,590	1,444	121,033	(1,046,746)	0	926,002	78,186	78,475	997,599	1,076,074
Vacaville	4,271,751	26,566	4,298,317	(4,355,562)	0	3,052,898	257,769	3,253,422	3,283,683	6,537,105
Vallejo/Benicia ⁴	555,785	4,526	560,312	(5,078,388)	0	4,714,233	398,043	594,200	5,093,431	5,687,631
SUBTOTAL³	8,173,175	59,400	8,232,575	(17,498,881)	0	13,605,420	1,148,765	5,487,880	14,754,181	20,242,061
GRAND TOTAL	\$8,716,717	\$62,583	\$8,779,300	(\$17,918,897)	\$0	\$13,883,082	\$1,172,209	\$5,915,694	\$15,055,287	\$20,970,981

- Balance as of 6/30/12 is from MTC FY 2011-12 Audit, and it contains both funds available for allocation and funds that have been allocated but not disbursed.
- The outstanding commitments figure includes all unpaid allocations as of June 30, 2012, and FY 2012-13 allocations as of January 31, 2013.
- Where applicable by local agreement, contributions from each jurisdiction will be made to support the Intercity Transit Funding Agreement.
- Beginning in FY 2012-13, the Benicia apportionment area is combined with Vallejo, and available for SolTrans to claim.

**FY 2013-14 FUND ESTIMATE
STATE TRANSIT ASSISTANCE
REVENUE-BASED FUNDS (PUC 99314)**

Attachment A
Res No. 4086
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2/27/2013

FY 2012-13 STA Revenue Estimate Adjustment	FY 2013-14 STA Revenue Estimate
FY 2012-13 Original Generation Estimate ³ \$110,103,133	FY 2012-13 Projected Carryover \$7,579,830
FY 2012-13 Actual Generation	FY 2013-14 Original Generation Estimate ⁴ \$102,525,536
FY 2012-13 Generation Adjustment	FY 2013-14 Total Funds Available \$110,105,366

STA REVENUE-BASED APPORTIONMENT BY OPERATOR						
<i>Column</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D=Sum(A:C)</i>	<i>E</i>	<i>F=Sum(D:E)</i>
	6/30/2012	FY 2011-13	FY 2012-13	6/30/2013	FY 2013-14	Total
Apportionment Jurisdictions	Balance	Outstanding	Revenue	Projected	Revenue	Available For
	(w/interest)¹	Commitments²	Estimate³	Carryover	Estimate⁴	Allocation
ACOMA - Corresponding to ACE	44,973	(44,832)	146,774	146,915	139,903	286,818
City of Benicia⁵	19,723	0	8,412	28,135	7,831	35,966
Caltrain	2,098,535	(6,300,132)	5,432,557	1,230,960	5,056,954	6,287,914
CCCTA	130,794	(764,730)	621,535	(12,401)	578,563	566,162
City of Dixon	439	(5,600)	4,791	(370)	4,460	4,090
ECCTA	85,311	(345,674)	275,272	14,909	256,239	271,148
City of Fairfield	927,271	(1,047,143)	123,196	3,324	114,678	118,002
GGBHTD	1,923	(4,820,900)	4,823,205	4,228	4,489,733	4,493,961
City of Healdsburg	7,765	0	4,904	12,669	4,565	17,234
LAVTA	233,752	(215,503)	247,613	265,862	230,493	496,355
NCTPA	10,753	(46,423)	49,391	13,721	45,976	59,697
City of Petaluma	42	0	0	42	21,093	21,135
City of Rio Vista	5,366	(8,681)	9,832	6,517	9,153	15,670
SamTrans	1,136,574	(4,987,662)	5,205,039	1,353,951	4,845,167	6,199,118
City of Santa Rosa	20	0	110,949	110,969	103,278	214,247
Sonoma County Transit	28,651	(194,657)	169,272	3,266	157,569	160,835
City of Union City	23,100	(70,544)	47,465	21	44,183	44,204
City of Vallejo - Ferry Service⁶	0	0	0	0	360,340	360,340
City of Vallejo - Motor Bus Service⁶	548,928	(1,126,201)	577,767	494	177,481	177,975
VTA	0	(13,318,870)	13,318,870	0	12,398,014	12,398,014
VTA - Corresponding to ACE	0	(190,685)	190,685	0	187,976	187,976
WCCTA	89,005	(372,904)	312,286	28,387	290,695	319,082
SUBTOTAL	5,392,925	(33,861,141)	31,679,815	3,211,599	29,524,344	32,735,943
AC Transit	1	(10,071,094)	10,071,444	351	9,376,254	9,376,605
BART	898,903	(24,878,292)	28,342,006	4,362,616	26,252,816	30,615,432
SFMTA	6,571,583	(46,576,187)	40,009,868	5,264	37,372,122	37,377,386
SUBTOTAL	7,470,486	(81,525,573)	78,423,318	4,368,231	73,001,192	77,369,423
GRAND TOTAL	\$12,863,411	(\$115,386,714)	\$110,103,133	\$7,579,830	\$102,525,536	\$110,105,366

- Balance as of 6/30/12 is from MTC FY 2011-12 Audit, and it contains both funds available for allocation and funds that have been allocated but not disbursed.
- The outstanding commitments figure includes all unpaid allocations as of June 30, 2012, and FY 2012-13 allocations as of January 31, 2013.
- The FY 2012-13 STA revenue generation based on the \$420 million estimated in the enacted FY 2012-13 State Budget.
- The FY 2013-14 STA revenue generation based on the \$392 million estimated in the proposed FY 2013-14 State Budget.
- Beginning in FY 2012-13, the City of Benicia allocation will be distributed to SolTrans.
- In FY 2012-13, the City of Vallejo's allocation will be distributed to SolTrans. Beginning in FY 2013-14, the City of Vallejo's allocation will be distributed between SolTrans and WETA based on an analysis of qualifying revenue, and pending determination of eligibility to claim STA funds.



DATE: June 10, 2013
TO: STA TAC
FROM: Liz Niedziela, Transit Program Manager
RE: Fiscal Year (FY) 2013-14 State Transit Assistance Funds (STAF) Initial Projects

Background:

The Transportation Development Act (TDA) of 1971 established two sources of funds that provide support for public transportation services statewide – the Local Transportation Fund (LTF) and the Public Transportation Account (PTA). Solano County receives TDA funds through the LTF and State Transit Assistance Funds (STAF) through the PTA. State law specifies that STAF be used to provide financial assistance for public transportation, including funding for transit planning, operations and capital acquisition projects.

In FY 2007-08 and FY 2008-09, Solano’s share of all types of STAF funds (revenue-based; population-based/Northern Counties-Solano; Regional Paratransit-Solano; Lifeline STAF) was about \$3 million per year. STAF funds had been used for a wide range of activities, including providing funds for STA transit planning and programs administration, transit studies, transit marketing activities, matching funds for the purchase of new intercity buses and covering new bus purchase shortfalls on start-up new intercity services when the need arises.

The FY 2009-10 State budget eliminated the funding of STAF for one year. This decision was contested in court and a ruling was made in favor of restoring STAF. In the Spring of 2011, the STAF was funded through a fuel tax swap. The FY 2011-12 State Budget by the Governor proposed the funding of STAF at only a slightly reduced statewide level of \$330 million as compared to FY 2010-11 level of \$350 million. FY 2012-13 STAF revenue-based and population-based estimates remain flat as compared to the previous year. There is almost a 7% decrease from FY 2012-13 to FY 2013-14 in Northern County Population Base STAF. The FY 2013-14 STAF revenue projections were approved by the Metropolitan Transportation Commission (MTC) on February 22nd.

Discussion:

For FY 2012-13, STA Board approved projects in June 2012 as shown in Attachment B. At this time, staff is recommending approval of a comprehensive list of studies and projects to be funded by the FY 2013-14 STAF. These proposed projects are listed on Attachments C and discussed below.

Population-Based STAF

The STA uses STAF to conduct countywide transit planning, marketing, coordination, and provide matching funds for replacement of SolanoExpress buses. These have been typical activities funded by STAF funds with a focus on countywide services and priorities. In recent years, STAF funds averaging \$500,000 per year has been set aside to be used for the

local match for the replacement of SolanoExpress buses. In future years, STA has committed to dedicating \$600,000 per year towards the SolanoExpress Capital Replacement Plan. In addition, STA has committed to being the lead funding agency for the implementation of the new Mobility Management Program. Funding is recommended for Mobility Management Program.

Regional Paratransit STAF

These funds have been typically used in part for the STA to manage the Paratransit Coordinating Council (PCC) and the Seniors and People with Disabilities Advisory Committee. Last fiscal year, the STA Board approved funding to projects that support mobility for Seniors and People with Disabilities. The Solano County Mobility Management program which was identified as a priority project through the Seniors and People with Disabilities Transportation Advisory Committee. This funding will match STAF Northern County, and Job Access Reverse Commute (JARC) resulting in a fully funded Mobility Management Program for FY 2013-14.

Fiscal Impact:

This initial project list to be funded with State Transit Assistance funds includes several activities performed by the Solano Transportation Authority. Approval of this list provides the guidance MTC needs to allocate STAF to the STA.

Recommendation:

Forward a recommendation to the STA Board to approve the FY 2013-14 STAF priorities as specified in Attachment C.

Attachments:

- A. FY 2013-14 STAF Solano population-based fund estimate (MTC Reso. 4086, 2/27/13)
- B. Population-based STAF FY 2012-13 approved projects
- C. Population-based STAF FY 2013-14 recommended projects

**FY 2013-14 FUND ESTIMATE
STATE TRANSIT ASSISTANCE
POPULATION-BASED FUNDS (PUC 99313)**

Attachment A
Res No. 4086
Page 12 of 16
2/27/2013

FY 2012-13 STA Revenue Estimate Adjustment		FY 2013-14 STA Revenue Estimate				
FY 2012-13 Original Generation Estimate ³	\$40,446,429	FY 2012-13 Projected Carryover	\$44,914,339			
FY 2012-13 Actual Generation		FY 2013-14 Original Generation Estimate ⁴	\$37,708,786			
FY 2012-13 Generation Adjustment		FY 2013-14 Total Funds Available	\$82,623,125			
STA POPULATION-BASED APPORTIONMENT BY JURISDICTION & OPERATOR						
Column	A	B	C	D=Sum(A:C)	E	F=Sum(D:E)
	6/30/2012	FY 2011-13	FY 2012-13	6/30/2013	FY 2013-14	Total
Apportionment Jurisdictions	Balance (w/interest) ¹	Outstanding Commitments ²	Revenue Estimate ³	Projected Carryover	Revenue Estimate ⁴	Available For Allocation
Northern Counties/Small Operators						
Marin	0	(1,215,900)	1,216,253	353	1,133,930	1,134,283
Napa	103,845	(788,160)	657,280	(27,035)	612,791	585,756
Solano/Vallejo ⁵	2,690,186	(1,257,026)	1,979,442	3,412,602	1,845,462	5,258,064
Sonoma	155,421	(1,700,682)	2,326,211	780,950	2,168,760	2,949,710
CCCTA	369,051	(2,674,424)	2,305,658	285	2,149,598	2,149,883
ECCTA	216,140	(1,668,266)	1,392,720	(59,406)	1,298,453	1,239,047
LAVTA	903,381	(945,542)	952,819	910,658	888,327	1,798,985
Union City	0	(333,561)	333,561	0	310,984	310,984
WCCTA	51,122	(372,386)	307,177	(14,087)	286,385	272,298
SUBTOTAL	4,489,146	(10,955,947)	11,471,121	5,004,320	10,694,691	15,699,010
Regional Paratransit						
Alameda	10,939	(1,264,181)	1,259,535	6,293	1,174,283	1,180,576
Contra Costa	73,257	(997,440)	891,603	(32,580)	831,254	798,674
Marin	1	(172,000)	172,031	32	160,387	160,419
Napa	38,566	(161,890)	139,516	16,192	130,072	146,264
San Francisco	184,054	(1,233,741)	999,339	(50,348)	931,698	881,350
San Mateo	103,512	(491,881)	492,722	104,353	459,372	563,725
Santa Clara	0	(1,411,211)	1,411,211	0	1,315,693	1,315,693
Solano	579,167	(170,000)	385,271	794,438	359,194	1,153,632
Sonoma	1	(372,866)	551,839	178,974	514,488	693,462
SUBTOTAL	989,498	(6,275,210)	6,303,067	1,017,355	5,876,440	6,893,796
Lifeline						
Alameda	5,577,231	(7,864,882)	2,680,199	392,548	2,614,533	3,007,081
Contra Costa	2,411,537	(3,277,632)	1,513,730	647,635	1,476,643	2,124,278
Marin	280,477	(558,856)	294,028	15,649	286,824	302,473
Napa	310,641	(206,499)	247,566	351,708	241,501	593,209
San Francisco	3,905,419	(992,562)	1,478,271	4,391,128	1,442,052	5,833,180
San Mateo	1,185,893	(1,625,554)	855,242	415,581	834,288	1,249,869
Santa Clara	3,722,804	(0)	2,676,975	6,399,779	2,611,388	9,011,167
Solano	941,032	(736,982)	655,876	859,926	639,807	1,499,733
Sonoma	1,144,742	(888,271)	884,291	1,140,762	862,626	2,003,388
MTC Mean-Based Discount Project	457,540	11,425	522,782	991,747	0	991,747
SUBTOTAL	19,937,316	(16,139,813)	11,808,960	15,606,463	11,009,663	26,616,125
MTC Regional Coordination Program⁶	31,847,109	(20,113,995)	10,863,281	22,596,395	10,127,993	32,724,388
BART to Warm Springs	325,706	0	0	325,706	0	325,706
eBART	325,706	0	0	325,706	0	325,706
SamTrans	38,393	0	0	38,393	0	38,393
GRAND TOTAL	\$57,952,875	(\$53,484,965)	\$40,446,429	\$44,914,339	\$37,708,787	\$82,623,125

1. Balance as of 6/30/12 is from MTC FY 2011-12 Audit, and it contains both funds available for allocation and funds that have been allocated but not disbursed.

2. The outstanding commitments figure includes all unpaid allocations as of June 30, 2012, and FY 2012-13 allocations as of January 31, 2013.

3. The FY 2012-13 STA revenue generation based on the \$420 million estimated in the enacted FY 2012-13 State Budget.

4. The FY 2013-14 STA revenue generation based on the \$392 million estimated in the proposed FY 2013-14 State Budget.

5. Beginning in FY 2008-09, the Vallejo allocation is combined with Solano, as per MTC Resolution 3837.

6. Committed to Clipper® and other MTC Customer Service projects.

Fiscal Year 2012-13 Approved Funding Priorities
State Transit Assistance Funds (STAF) Population-Based
Northern County and Regional Paratransit

		Approved FY2012-13	
		Northern County	Regional Paratransit
	Carryover Project FY 2011-12	\$ -	\$ 100,534
	STAF Estimates	\$ 2,112,081	\$ 459,343
	Beginning Balance	\$ 2,112,081	\$ 559,877
FY 2012-13 Approved Priority Projects	Claimant	Northern County STAF	Regional Paratransit STAF
Transit Planning and Coordination	STA	\$ 260,857	
Intercity Bus Replacement	FAST/SolTrans	\$ 1,210,224	
Water Transportation Plan	STA	\$ 50,000	
Rail Facility Plan Update	STA	\$ 50,000	
Rio Vista Local Match Capital	Rio Vista	\$ 30,000	
Transit Coordination Implementation	STA	\$ 80,000	
P3 (Public Private Partnerships) at Transit Facilities Study	STA	\$ 150,000	
Lifeline	STA	\$ 16,000	
Solano Express Marketing	STA/Transit Op	\$ 75,000	
Coordinated SRTP/Transit Corridor	STA	\$ 90,000	
PCC	STA		\$ 45,000
Senior & People w/Disabilities Committee	STA		\$ 25,000
Projects for Seniors and People with Disabilities	STA		\$ 100,000
Mobility Management Implementation	STA	\$ 100,000	\$ 289,343
Projects for Seniors and People with Disabilities (FY 2011-12)	STA		\$ 100,534
	Total	\$ 2,112,081	\$ 559,877
	Ending Balance	\$ -	\$ -

Fiscal Year 2013-14 Recommended Funding Priorities

State Transit Assistance Funds (STAF) Population-Based

Northern County and Regional Paratransit

		Proposed	
		FY2013-14	
		Northern County	Regional Paratransit
	Beginning Balance	\$ 1,845,462	\$ 359,194
FY2013-14 Recommended Funding Priorities	Claimant	Project Amount	Project Amount
Transit Planning and Coordination	STA	\$ 280,333	
Intercity Bus Replacement	FAST/SolTrans	\$ 600,000	
Alt Fuel Study/CNG Feasibility Study Match to Benicia and SolTrans	STA	\$ 70,000	
P3 (Public Private Partnerships) at Transit Facilities Study (Phase 2) \$150k	STA	\$ 75,000	
Suisun City Amtrak Station Rehab and Signage	Suisun City/STA	\$ 150,000	
Transit Coordination Clipper Implementation	STA	\$ 150,000	
Transit Coordination Implementation-Rio Vista	STA	\$ 50,000	
Lifeline	STA	\$ 17,000	
Solano Express Marketing	STA/Operators	\$ 150,000	
Coordinated SRTP/Transit Corridor/Transit Analysis/Implementation	STA	\$ 150,000	
Mobility Management Program Implementation	STA	\$ 153,129	\$ 129,194
ADA In Person Eligibility	STA		\$ 150,000
PCC	STA		\$ 50,000
Senior & People w/Disabilities Committee	STA		\$ 30,000
Total		\$ 1,845,462	\$ 359,194
Balance		\$ -	\$ -

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DATE: June 6, 2013
 TO: STA TAC
 FROM: Tony Bruzzone, Arup Consultant
 RE: Transit Corridor Study - SolanoExpress Service Design and Performance Metrics and Proposed Service Alternatives and Capital Plan

Background:

The STA’s consultant, Arup, has been developing both the Coordinated Short Range Transit Plans for the Solano County Operators and the I-80/I-680/I-780/State Route (SR) 12 Transit Corridor Study. The Consortium has provided the primary forum for discussion of key initial issues related to the study. The Arup team has briefed the Consortium on the Transit Corridor Study in the past and will continue to work through the Consortium to complete the Study.

Discussion:

Service Design and Performance Metrics

The attached report details the current status of the Transit Corridor Study and the work completed to date. It includes proposed service design and performance metrics for development of Intercity SolanoExpress services. As requested at the May 28, 2013 Consortium meeting, a peer comparison of the performance metrics is provided with this version of the report. Based on the peer comparison, adjustments to the suggested standards may be warranted.

The service design and performance metrics provide quantitative and qualitative means to guide the Study. As such, STA staff and the consultant team seek the Consortium’s final review and comments on the service design and performance metrics before it is forwarded to the STA Board.

Table 1 - Proposed Intercity/SolanoExpress Performance Measures

Measure	Standard
<i>Service Design Requirements</i>	
Connects Solano County cities	Yes
Connects to regional transit	Yes
Meets unmet transit needs	Yes
User friendly	15 minutes frequency peak/ 94% on time/reliability
Speed (mph average)	35
<i>Service Productivity Measures</i>	
Passengers per vehicle revenue hour	25
Passengers per trip	20
Passengers per vehicle revenue mile	1.0
Peak corridor demand (hourly demand/capacity)	85%

Measure	Standard
Capacity utilization (passengers miles/seat miles)	35%
<i>Cost Efficiency Measures</i>	
Cost per vehicle revenue hour	\$105.00
Cost per vehicle revenue mile	\$4.00
Cost per revenue seat mile	8.0 cents
<i>Cost Effectiveness Measures</i>	
Subsidy per passenger trip	\$1.50
Revenue per revenue seat mile	4.0 cents
Farebox recovery ratio	50%

Service Alternatives and Capital Plan

The Arup team will present a range of alternatives to providing express bus service based on the draft service design and performance metrics. These alternatives and the capital plan will be presented to the Consortium for discussion purposes on June 25, 2013. A final set of service alternatives and capital plan will be presented to the Consortium at the August 2013 meeting.

Recommendation:

Forward a recommendation to the STA Board to approve the Intercity SolanoExpress Performance Measures as shown in Table 1.

Attachment:

- A. Arup Memorandum on Transit Corridor Status and Service Design and Performance Metrics

Memorandum

ARUP

To	Nancy Whelan Liz Niedziela	Date June 7, 2013
Copies		Reference number 227047
From	Anthony Bruzzone	File reference 04-05
Subject	Summary of Restructured Transit Corridor Plan: Sections 1-5 Condensed Rev 2	

Summary

Arup has been developing both the Coordinated Short Range Transit Plans for the Solano County Operators and the Transit Corridor Study. Based on comments from STA staff, Arup has restructured and rescheduled the Transit Corridor Plan to allow more consideration and refinement. This memo details the current status of the Transit Corridor Study and summarizes the work completed to date; the Plan is now anticipated to be completed in September 2013.

Action Requested

Action is requested on the adoption of service design and performance metrics for Intercity/SolanoExpress services as detailed in the Section 5 discussion.

Study/Report Outline

A major change is in the outline of the study. This change provides more background than previously assumed. The new outline is as follows:

Transit Corridor Study – Proposed TOC

1. Purpose of Study
2. History of Regional/Intercity Service
3. Regional Planning Context /Best Practices
4. Travel Market Forecasts/Market Assessment
5. Goals and Performance Metrics
6. Assessment of Existing Service

Memorandum

7. Recommended Transit Strategy (and why)
8. Service Alternatives
9. Recommended Service Plan
10. Next Steps

Sections 1-5 Condensed

Section 1 – Purpose

The purpose of the I-80/I-680/I-780 Transit Corridor Study is to update previous plans for regional/intercity transit service within and connecting into Solano County. These updates will align regional/intercity transit services with:

- The core principles of the Solano Intercity Transit Funding Agreement focusing on stability, efficiency and flexibility
- Demographic changes that have occurred over the last decade
- Forecast changes in land use and density resulting from state mandates and the Bay Area’s Sustainable Communities Strategy – *Plan Bay Area*.
- Advancements in regional bus transit best practices and transit facilities design
- Recognition of the current financial environment.

Section 2 – History of Regional/Intercity Service

Vallejo Transit instituted the Baylink Route 80 in Fall 1987 operating along a route essentially the same as the current route. Route 85 and Route 90 began as Vallejo Transit services in the early 1990s. Route 78 began as a Benicia service about the same time, and Routes 20 and 30, operated by FAST, were also initiated in 1990 and 1991. Route 40 began in 1996, initially operating to Pleasant Hill BART and then eventually extended to Walnut Creek BART.

Route 90 was initially funded as a mitigation measure during the construction of HOV lanes on Interstate 80 in Contra Costa and Alameda Counties. The Vallejo routes qualified for RM1 bridge toll funds (and had high farebox recoveries) when initiated and RM2 currently supports all the existing services that cross the Carquinez Strait. The other services’ costs are shared among the STA, the County and the local operators.

Memorandum

This service pattern has remained essentially unchanged since the mid 1990s. Service frequencies are also similar.

Section 3 – Regional Planning Context/Best Practices

Plan Bay Area – What is now will not be what is in the future. The Bay Area has embarked on the Plan Bay Area process, which uses Priority Development Areas to concentrate growth in order to meet land use greenhouse gas emissions targets. *This is not a no growth strategy* – in fact, Solano County is projected to increase from about 420,000 residents currently to about 490,000 residents by 2040. Highlights of Plan Bay Area 2040 forecasts include:

- 2.1 million new Bay Area residents
- 1.1 million new Bay Area jobs
- 27,000 new residential units in Solano County
- 47,000 new Solano County jobs
- 70,000 new Solano County residents

PDA's are proposed for Solano County in the following locations:

- Vallejo Ferry Terminal
- Northern Gateway - Benicia Industrial Park
- Fairfield/W Texas Transit Center
- Fairfield Downtown South/Jefferson-Texas
- Fairfield North Texas/Airbase Parkway
- Suisun City - Downtown
- Vacaville/Fairfield Train Station (Peabody Road)
- Suisun City Waterfront-Fairfield/Suisun Train Station
- Vacaville Davis/I-80
- Vacaville Allison Policy Plan Area
- Dixon – Downtown
- Rio Vista -- Downtown

Arup has identified several demographically similar counties to compare with Solano County, as well as recent Best Practices research on highway corridors.

TCRP Report 145 Reinventing the Urban Interstate provides guidance on repurposing existing Interstate Highways into multimodal corridors. The report suggests building transit lines and providing supporting pedestrian and bicycle facilities within these freeway corridors with the following goals:

- Enhancing corridor transportation capacity and performance without adding freeway capacity, by building and operating transit lines (including bus rapid transit, light rail, heavy rail, and commuter rail);

Memorandum

- Building and operating successful transit systems in multimodal corridors that attract high transit ridership and encourage livability and environmental sustainability; and
- Transforming a corridor's land uses and activities to a more transit-oriented pattern.

Relationship to Existing Solano Infrastructure – Solano County's interstate highways date from the 1920's, although most of the existing works were constructed in the mid-1960's with some widenings in the 1970s and improvements to the Carquinez crossings, along with HOV lanes, during this decade.

By 1970 Solano County population was about 170,000, or about 40 percent of current population. The current interstate system was designed for a mainly suburban, auto-commuting population. As the county has grown, STA and other local agencies have worked to evolve the freeways into managed facilities through a series of investments. These include HOV lanes, several park and ride lots, adjacent transit centers and forthcoming ramp metering. However, the interstate infrastructure still lacks complete multimodality. While the HOV lanes allow for fast service along the freeway, the requirement for transit to exit and re-enter the system via ramps and existing local streets makes transit slow and inhibits ridership. In essence, facility design constrains transit best practices. A network of strategically located on-line bus stations, as identified in TCRP Report 145, could substantially improve the provision of transit service and its marketability. This investment would be further enhanced by local jurisdictions developing station area plans that create transit-supportive land uses within walking distance of these stations and also providing associated traffic and priority transit access including signal priority, bus lanes and queue jumps, where appropriate.

Case Studies – Arup has identified two suburban counties with similar demographic and travel patterns to Solano County. One county – Snohomish in metropolitan Seattle – has extensive and well used express bus services that link the county with the region's central business district. The other – Rockland County in New York – has limited transit services to Manhattan. These two counties were selected because they are similar in travel patterns to Solano as well as their relationship to the regional CBD. Transit access from each county to the regional CBD is different.

Snohomish County, Washington Case Study – This 700,000 resident county is about 30 miles north of Seattle. The County, in partnership with the regional transit agency, operates extensive freeway express service using many of the principles suggested in TCRP Report 145. During weekdays 16 routes connect the county with downtown Seattle (only a few are peak period only), and ridership has increased from about 10,000 weekday passengers in 1994 to about 23,000 currently.

Rockland County, New York Case Study – This county is about 30 miles northwest of midtown Manhattan. Of the county's 300,000 residents, about 17,000 commute into Manhattan daily. Due to the poor transit connections in Rockland, about 35 percent drive to Manhattan (well above Westchester County, for example, where less than 20 percent drive to Manhattan for work. Another 12,000 people commute to Westchester County, on the east side of the Hudson, and almost all of these people drive.

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Demographic Comparisons – The following details per capita income comparisons between Solano County and Rockland and Snohomish Counties (with the suburban county being compared against the CBD county):

Table 1: Per Capita Income Comparison

Suburban County	CBD County	Adjacent Suburban County
Snohomish	78% (King County)	N/A
Rockland	59% (New York County)	73% (Westchester)
<i>Solano</i>	<i>61% (SF)</i>	<i>77% (Contra Costa)</i>

Note: Represents the Suburban County average per capita income compared to income of residents of the CBD or adjacent county.

Comparing transit access, it appears that better access to the regional CBD (i.e., Snohomish) results in higher incomes for residents compared to worse access (Rockland).

Section 4 – Travel Market Forecasts

Based on the land use and demographic forecasts in Plan Bay Area, Solano County AM peak period “intercity” trips are projected to be as follows:

Table 2: Projected Solano County Regional Trips 2010 to 2030

Market	2030 AM Peak Period Trips	Growth
Solano to San Francisco	6,400	13%
Solano to I-80 Corridor (including Oakland)	17,000	19%
Solano to I-680 Corridor (including Central Contra Costa)	20,000	20%
Solano to Davis/Sacramento	11,000	-1%
Intra-county (Non-Local)	89,000	40%

The models forecast growth in all trip markets (except for Sacramento/Davis), resulting in an even larger market for regional transit services, which should allow for more service, which should, in turn, create higher demand resulting from better service.

Memorandum

Section 5 – Proposed Goals and Objectives

The Proposed Intercity Service Goals and Objectives consider existing MTC performance metrics, as well as metrics that were studied in the MTC Transit Sustainability Project.

MTC has established performance standards for the Regional Express Bus (RM2) program. Those measures and standards are shown below:

Regional Express Bus Performance Measures

Measure	Standard
Farebox recovery	<ul style="list-style-type: none"> Peak Service: 30% All Day Service: 20%
Change in passengers per revenue vehicle hour	<ul style="list-style-type: none"> 0-3 years in operation: Positive change in passenger ridership 3-5 years in operation: 3-year averages calculated and compared Positive change between each 3-year cycle

In the MTC TSP, a number of goals, objectives, measures and standards/norms for regional bus services operating in the region’s primary transit corridors were considered. Examples include:

- **Goals and Objectives:**
 - Operate high quality, high frequency transit service in regional corridors
 - Create a regional transit network that achieves regional coordination and seamless connections
 - In multimodal corridors and facilities, prioritize transit access and speed
 - Achieve high cost effectiveness through operating efficiencies and high ridership
- **Measures and Standards:**
 - Regional All Day (RAD) Service:

Examples: SolTrans routes 78, 80 and 85; FAST routes 20, 30 and 90

Service Design Standards

Minimum service frequency: 15 minutes peak weekdays / LOS B

Minimum service frequency: 30 minutes base weekdays / LOS C

Span-of-service: 24/7 LOS A (within corridor, mode flexible at night)

Minimum operating speed: 21 mph is current norm

Minimum reliability: 94% on time / LOS B

Travel time vs. auto: No more than 15 minutes longer / LOS B

Memorandum

Service Performance Measures

Farebox recovery: 50% is current norm

Productivity: 85% peak load factor and 35% overall capacity utilization

○ Regional Commute Only Service:

Examples: FAST route 40

Service Design Standards

Minimum service frequency: 15 minutes weekdays / LOS B

Minimum span-of-service: Weekdays peak period only / LOS E

Minimum operating speed: 30 mph

Minimum reliability: 94% on time / LOS B

Travel time vs. auto: No more than 15 minutes longer / LOS B

Service Performance Measures

Farebox recovery: 50% is the current norm

Productivity: 85% peak load factor and 35% overall capacity utilization

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Recommended Intercity/SolanoExpress Performance Metrics – Pursuant to the Intercity Transit Funding Agreement, the following service and performance metrics are recommended for developing future Solano Express service:

Table 3: Proposed Intercity/Solano Express Performance Measures

Measure	Standard
<i>Service Design Requirements</i>	
Connects Solano County cities	Yes
Connects to regional transit	Yes
Meets unmet transit needs	Yes
User friendly	15 minutes frequency peak/ 94% on time/reliability
Speed (,mph average)	35
<i>Service Productivity Measures</i>	
Passengers per vehicle revenue hour	25
Passengers per trip	20
Passengers per vehicle revenue mile	1.0
Peak corridor demand (hourly demand/capacity)	85%
Capacity utilization (passengers miles/seat miles)	35%
<i>Cost Efficiency Measures</i>	
Cost per vehicle revenue hour	\$105.00
Cost per vehicle revenue mile	\$4.00
Cost per revenue seat mile	8.0 cents
<i>Cost Effectiveness Measures</i>	
Subsidy per passenger trip	\$1.50
Revenue per revenue seat mile	4.0 cents
Farebox recovery ratio	50%

These design objectives and performance metrics balance the need for a marketable and attractive service with fiscal constraints. Peer intercity/regional service farebox recoveries range from about 25 percent (in Snohomish) to 50 to 80 percent (east coast suburban systems, BART, as well as Route 80 and 90). These observations inform the development of the performance metrics. Once adopted, the metrics will be used to guide the intercity bus service development in the Transit Corridor Study.

Attachment A assesses the current SolanoExpress services against these proposed service design and performance metrics. Attachment B identifies peer systems performance against the selected metrics.

Attachment A

			FAST	FAST	FAST	SolTrans	SolTrans	SolTrans	FAST
		Standard	20	30	40	78	80	85	90
Service Productivity Measures									
Passengers per Vehicle Revenue Hour	Performance	25.0	14.1	10.8	7.1	8.5	25.5	13.1	16.2
Passengers per Trip	Performance	20.0	6.9	9.4	8.8	8.2	15.8	12.0	14.8
Passengers per Vehicle Mile	Performance	1.0	0.6	0.3	0.2	0.4	0.7	0.4	0.5
Peak Corridor Demand (Hourly Demand / Capacity)	Performance	85.0%	42%	52%	40%	42%	88%	35%	66%
Capacity Utilization (Passenger Miles / Seat Miles)	Performance	35.0%	11%	18%	15%	14%	20%	15%	27%
Cost Efficiency Measures									
Cost per Vehicle Revenue Hour	Performance	\$105.00	\$106.68	\$119.94	\$103.95	\$105.73	\$107.06	\$99.34	\$116.68
Cost per Vehicle Revenue Mile	Performance	\$4.00	\$4.31	\$3.40	\$3.43	\$5.39	\$3.01	\$3.29	\$3.38
Cost per Revenue Seat Mile	Performance	\$0.08	\$0.08	\$0.06	\$0.06	\$0.10	\$0.06	\$0.06	\$0.06
Cost Effectiveness Measures									
Subsidy per Passenger Trip	Performance	\$1.50	\$5.65	\$7.31	\$10.36	\$9.01	\$1.31	\$5.48	\$2.94
Revenue per Revenue Seat Mile	Performance	\$0.04	\$0.02	\$0.02	\$0.02	\$0.03	\$0.04	\$0.02	\$0.04
Farebox Recovery Ratio (STA)	Performance	50%	25%	34%	29%	28%	69%	28%	59%
Farebox Recovery Ratio (RM2 RC)	Performance	30%	N/A	34%	29%	N/A	N/A	N/A	N/A
Farebox Recovery Ratio (RM2 RAD)	Performance	20%	25%	N/A	N/A	28%	69%	28%	59%

Memorandum

Attachment B

Measure	Recommended Standard	Peer Systems										Variance: Median to Standard
		Rockland Cty, NY Tappan Zee	Rockland Cty, NY NYC Private Bus	Go Transit Bus Toronto	Sound Transit	Snohomish Transit	Academy Lines NJ	Loudon County VA	BART	Median (not including BART)		
Service Design Requirements												
Connects Solano County cities	Yes	No	No	Yes	Yes	Yes	No	No	Yes	Yes	None	
Connects to regional transit	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Meets unmet transit needs	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	
User friendly	15 Min Minimum Frequency/ 94% On-Time/Reliability	Peak Yes	Peak Yes	Peak Yes	Peak Yes	Peak Yes	Peak Yes	Peak Yes	Peak Yes	Yes	Peak Yes	None
Speed (mph average)	35	17	22.5		21.0	24.0	25.0	33.9	36	24	-31%	
Service Productivity Measures												
Passengers per vehicle revenue hour	25	20	10.0		26	38	13	26	63	26	None	
Passengers per trip (weekdays)	20	N/A	N/A	34	30					30	50%	
Passengers per vehicle revenue mile	1	1.15	0.45	0.75	1.25	1.56	0.51	0.77	1.75	1.25	25%	
Peak corridor demand (hourly demand/capacity)	85%											
Capacity utilization (passengers miles/seat miles)	35%	37%	26%		38%	60%	60%	49%	33%	49%	56%	
Cost Efficiency Measures												
Cost per vehicle revenue hour	\$105.00	\$129	\$164.31		\$171.55	\$274.73	\$101.73	\$186.35	\$253.79	\$171.55	69%	
Cost per vehicle revenue mile	\$4.00	\$7.63	\$7.30	\$5.81	\$8.16	\$11.43	\$4.06	\$5.50	7.11	\$7.30	83%	
Cost per revenue seat mile	8.0 cents	13.9 cents	13.3 cents	10.6 cents	16.3 cents	23.0 cents	8.1 cents	11.0 cents	10.5 cents	13.9 cents	74%	
Cost Effectiveness Measures												
Subsidy per passenger trip	\$1.50	\$5.15	\$4.42	N/A	\$4.76	\$3.96	\$0.84	\$1.46	\$0.97	\$4.42	243%	
Revenue per revenue seat mile	4.0 cents	2.7 cents	9.7 cents	N/A	4.4 cents	10.5 cents	7.3 cents	8.8 cents	8.0 cents	8.8 cents	120%	
Farebox recovery ratio	50%	19.4%	72.9%	N/A	27.1%	45.9%	89.5%	80%	76%	72.9%	66%	
				Note: Hours not reported; fare revenue combined with rail.		Note: High hourly cost due to dh.						
	MEETS STANDARD	NEAR TO STANDARD			OUTSIDE OF STANDARD							



DATE: June 7, 2013
TO: STA TAC
FROM: Nancy Whelan, Transit Consultant and Alan Zahradnik, Transit Consultant
RE: Coordinated Short Range Transit Plan Status Update and Coordination Report

Background:

Preparation of the Coordinated Short Range Transit Plan (SRTP) for Solano County and the I-80/I-680/I-780/State Route (SR) 12 Transit Corridor Study are being undertaken concurrently by the consulting team led by Arup. Since the start of the project in September 2012, many tasks have been completed and several deliverables have been reviewed by STA and the transit operators. The purpose of this memo is to provide an update on the status and schedule for completion of the Coordinated SRTP and to present the Draft Final Coordination Report.

Discussion:

Coordinated SRTP Status Update

The Coordinated Short Range Transit Plan covers all of the Metropolitan Transportation Commission (MTC) requirements for SRTPs for each of the five transit operators: Solano County Transit (SolTrans), Fairfield and Suisun Transit (FAST), Vacaville City Coach, Dixon Redit-Ride, and Rio Vista Delta Breeze. The SRTPs consist of four main sections:

1. Operator Overview
2. Goals, Objectives, Measures and Standards
3. Performance Evaluation
4. Service Plan

The Draft SRTPs for each operator were distributed for review and comment and as of this date, Final Draft SRTPs incorporating transit operator comments have been completed and transmitted to the Cities of Vacaville, Dixon, and Rio Vista. Final comments and financial plans for SolTrans are being incorporated by the Arup team now. Financial plans are near completion for FAST and FAST is preparing comments on the text of the draft.

The governing boards for each of the transit operators are expected to consider approval of their individual SRTPs before August 31, 2013.

Coordination Report

MTC further requested that the Coordinated SRTP address five specific areas of coordination:

1. Different Fare Structure and Discounts/Standard Fare Structure/Fare Reconciliation;
2. Separate ADA Contractors, Eligibility and Rules/Joint Contracting/Eligibility Determination of ADA Paratransit; (to be conducted in the Mobility Management Plan, separately from the Coordinated SRTP);
3. Enhanced Transit Coordination of Capital Planning;
4. Enhanced Coordination of Transit Service Planning; and
5. Integrate bus/rail scheduling software to facilitate schedule coordination and customer travel planning. Establish a regional schedule change calendar.

These requirements were included in STA's contract with MTC to develop the Coordinated Solano County Short Range Transit Plan and were also included in the Request for Proposals for the Coordinated SRTP and in the contract with Arup for this work. The basis for these requirements is rooted in MTC's Transit Sustainability Project (TSP). The TSP was developed to address shortfalls identified in the Regional Transportation Plan and focused on three project elements: financial, service performance and institutional frameworks. The TSP resulted in MTC's adoption of Performance and Investment Policies, and Service, Paratransit, and Institutional recommendations. MTC's Resolution 4060, adopted on May 23, 2012 documents the recommendations and is provided as Attachment A to this memo.

There are five recommendations in Resolution 4060 providing specific guidance to the development of the Solano Coordinated County SRTP, including:

1. Integrate bus/rail scheduling software to facilitate schedule coordination and customer travel planning. Establish a regional schedule change calendar.

The Commission finds that schedule coordination between connecting agencies will increase the attractiveness of public transit but that connecting agencies make schedule changes on different dates and in some cases use incompatible scheduling software systems that make schedule integration difficult. This recommendation would align the schedule change calendar for major schedule changes among the region's operators and require all connecting operators to implement a compatible scheduling software system. Implementation would be subject to each transit agency's future scheduling system procurement timeline, and, for some agencies, may be subject to negotiation of changes to existing labor contract provisions that govern schedule change dates.

2. Conduct multi-agency Short-Range Transit Plans (SRTPs) at the county or subregion level to promote interagency service and capital planning.

The Commission has historically provided federal planning funds for each transit agency to independently prepare an SRTP of the agency's 10-year operating and capital plan. This recommendation would strengthen the joint planning that has begun in the region and recommend that transit agencies in a county or multi-agency travel corridor collaborate on a 10-year plan. The multi-agency SRTPs should develop capital replacement priorities and schedules, consider connectivity in service planning, establish fare policy consistency, establish common performance measures, and identify opportunities for shared functions. Future funding for SRTPs will take into account coordination opportunities.

3. Support transit agency operations on major corridors by requiring local jurisdictions to consider transit operating speeds and reliability in projects affecting these corridors.

Travel time savings are a key component in building customer satisfaction and attracting new passengers. Under the Commission's proposed OneBayArea Grants program, local jurisdictions are required to adopt a complete streets resolution to be eligible for regional funding. Complete streets aims to consider all road network users including pedestrians, bicyclists and transit riders. MTC is further proposing to expand the scope of the Freeway Performance Initiative to include investments to improve transit operations on key arterial roadways.

4. Consider fare policies focused on the customer that improve regional/local connections.

Implement the Phase III Clipper requirements to revise existing operations and fare policies to a standardized set of business rules. Continue to work towards a more consistent regional standard for fare discount policies and minimize transfer penalties so that passengers can choose the most optimal route for their transit trip.

5. Recommendations specific to Solano County

The Commission is committed to achieving more rational service delivery in geographic areas served by multiple transit agencies by supporting the collaboration, coordination and consolidation efforts already underway to bring them to implementation stage.

Solano: County-level SRTP work is underway in Solano County. MTC will provide funding to the Solano Transportation Authority (STA) to complete the analysis to better inform service planning throughout the county. STA and the Solano transit operators are to use this process to identify service improvements, performance objectives and potential service functional and institutional consolidation opportunities.

For purposes of addressing these recommendations in the Coordinated SRTP, discussion of the schedule coordination and fare coordination began at the Consortium meeting on March 26, 2013. At that meeting the Arup team presented its findings on each of these areas and options for coordinating scheduling software, establishing a common schedule change timeline, and coordinating fares through the future implementation of Clipper.

The Draft Coordination Report identifies the current conditions for each of the areas studied, makes findings related to best practices, recommends adoption of a service change calendar and suggests that several items be included in the Consortium's Annual Work Plan for further study and follow up implementation tasks. The draft Coordination Report was provided to the transit operators on May 21, 2013 and a summary of the report was presented to the Consortium on May 28, 2013. Comments on the draft report were due on June 6, 2013.

As of this date, comments have been received from City of Vacaville, City of Rio Vista, County of Solano, and MTC staff. The Arup team and STA staff are incorporating the comments and will provide the revised Coordination Report to the Consortium prior to the June 25, 2013 meeting. Members of the Arup team will be available to discuss the draft coordination report at the Consortium meeting.

Recommendation:

Forward a recommendation to the STA Board to approve the coordinated SRTP Coordination Report shown in Attachment B.

Attachments:

- A. MTC Resolution 4060, May 23, 2013
- B. Draft Final Coordination Report (under separate cover)

Date: May 23, 2012
Referred by: TSP Select Committee

ABSTRACT
Resolution No. 4060

This resolution approves the recommendations of the Transit Sustainability Project.

Discussion of the recommendations made under this resolution is contained in the Executive Director Memorandum presented to the Select Committee on Transit Sustainability on April 11, 2012.

Date: May 23, 2012
Referred by: TSP Select Committee

Re: Transit Sustainability Project

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4060

WHEREAS, pursuant to Government Code § 66500 et seq., the Metropolitan Transportation Commission (“MTC”) is the regional transportation planning agency for the San Francisco Bay Area; and

WHEREAS, MTC develops a long-range Regional Transportation Plan (RTP), pursuant to Government Code §§ 66513 and 65080; and

WHEREAS, the last major update of the RTP, adopted in April 2009 (Transportation 2035 - MTC Resolution No. 3893), identified twenty-five year transit capital and operating shortfalls of \$17 billion and \$8 billion, respectively; and

WHEREAS, to address these shortfalls, as well as address immediate transit operators’ service reductions and budget shortfalls, to improve transit performance for the customer, and to attract more customers to the transit system, in January 2010, the Commission created the Select Committee on Transit Sustainability to guide the Transit Sustainability Project (TSP); and

WHEREAS, the TSP focused on three project elements: financial, service performance and institutional frameworks; and

WHEREAS, to inform the TSP, a Project Steering Committee was formed, made up of transit agency, government, labor, business, environmental and equity representatives to provide executive-level input into the project; and

WHEREAS, additional input and guidance was received from the MTC Policy Advisory Committee, as well as from multiple public events and forums sponsored by interested parties; now, therefore, be it

RESOLVED, that based on project findings related to the financial and service performance of the Bay Area transit system, MTC approves the performance measures and targets and investment recommendations set forth in Attachment A to this resolution; and, be it further

RESOLVED, that based on project findings related to the financial, service performance, and institutional framework of the Bay Area transit system, MTC approves the policy recommendations set forth in Attachment B to this resolution; and, be it further

RESOLVED, that MTC will conduct periodic reviews of progress toward the performance targets and policy recommendation implementation.

METROPOLITAN TRANSPORTATION COMMISSION



Adrienne J. Tissier, Chair

The above resolution was approved by the Metropolitan Transportation Commission at a regular meeting of the Commission held in Oakland, California, on May 23, 2012.

Performance and Investment Policies

Performance Measures and Targets

To monitor the performance of the seven largest transit agencies in the Bay Area, the Commission establishes the following TSP performance target, measures, and monitoring process:

Performance Target

5% real reduction in at least one of the following performance measures by FY2016-17 and no growth beyond CPI thereafter. To account for the results of recent cost control strategies at agencies, the baseline year will be set at the highest cost year between FY2007-08 and FY2010-11.

Performance Measures

- Cost Per Service Hour*
- Cost Per Passenger*
- Cost Per Passenger Mile*

**As defined by the Transportation Development Act*

Monitoring Process

In FY2012-13, agencies are to adopt a strategic plan to meet one or more of the targets and submit to MTC.

On an annual basis, starting in FY2013-14, the transit agencies submit performance measure data on all three targets to MTC.

In FY2017-18, MTC will analyze agency progress in meeting target

In FY2018-19, MTC will link existing and new operating and capital funds administered by MTC to progress towards achieving the performance target.

The following agencies, the largest seven transit agencies in the Bay Area, are subject to the performance measures and targets: AC Transit; BART, Caltrain, Golden Gate Transit, SFMTA, SamTrans, and Santa Clara VTA.

Transit Performance Initiative and Customer Satisfaction Survey

The Commission establishes an investment, incentive and monitoring strategy to improve service performance and attract new riders to the region's transit system. The target for each agency is to increase ridership levels at or above the rate of population growth in counties/corridors in which the agency operates service. Agencies are encouraged to utilize the Transit Competitive Index tool, developed for the Bay Area as part of the TSP, to achieve this target.

Investment

As part of the OneBayArea Grant program, the Commission has established an initial commitment of \$30 million to fund service improvements on major bus and light rail corridors, focusing on improvements to major corridors in the AC Transit, SFMTA, SamTrans, and Santa Clara VTA service areas. If successful in demonstrating achievement of operational and ridership goals, similar investments would be recommended in the future.

Incentive

The Commission will reward transit agencies that achieve ridership increases and productivity improvements and will allocate transit funds on the basis of performance, thereby encouraging *all* of the region's transit operators to continuously improve their service and attract more riders. Funding sources, amounts and distribution formulas shall be established by the Commission. In establishing distribution formulas, the Commission shall consider at least one alternative that does not reduce the cumulative current funding level for small operators for the fund sources established by the Commission for this incentive program.

Monitor

Maintaining and/or improving customer satisfaction ratings is an important indicator of whether transit is meeting the needs of the traveling public. The Commission will conduct a bi-annual regional customer satisfaction survey to provide a consistent region-wide mechanism to measure customer satisfaction and provide information to build new ridership and improve service. Agencies will be required to coordinate data collection efforts, either through cost sharing, resource sharing, or project management.

Service, Paratransit and Institutional Recommendations

Service

- 1. Integrate bus/rail scheduling software to facilitate schedule coordination and customer travel planning. Establish a regional schedule change calendar.**

The Commission finds that schedule coordination between connecting agencies will increase the attractiveness of public transit but that connecting agencies make schedule changes on different dates and in some cases use incompatible scheduling software systems that make schedule integration difficult. This recommendation would align the schedule change calendar for major schedule changes among the region's operators and require all connecting operators to implement a compatible scheduling software system. Implementation would be subject to each transit agency's future scheduling system procurement timeline, and, for some agencies, may be subject to negotiation of changes to existing labor contract provisions that govern schedule change dates.

- 2. Conduct multi-agency Short-Range Transit Plans (SRTPs) at the county or subregion-level to promote interagency service and capital planning.**

The Commission has historically provided federal planning funds for each transit agency to independently prepare an SRTP of the agency's 10-year operating and capital plan. This recommendation would strengthen the joint planning that has begun in the region and recommend that transit agencies in a county or multi-agency travel corridor collaborate on a 10-year plan. The multi-agency SRTPs should develop capital replacement priorities and schedules, consider connectivity in service planning, establish fare policy consistency, establish common performance measures, and identify opportunities for shared functions. Future funding for SRTPs will take into account coordination opportunities.

- 3. Support transit agency operations on major corridors by requiring local jurisdictions to consider transit operating speeds and reliability in projects affecting these corridors.**

Travel time savings are a key component in building customer satisfaction and attracting new passengers. Under the Commission's proposed OneBayArea Grants program, local jurisdictions are required to adopt a complete streets resolution to be eligible for regional funding. Complete streets aims to consider all road network users including pedestrians, bicyclists and transit riders. MTC is further proposing to expand the scope of the Freeway Performance Initiative to include investments to improve transit operations on key arterial roadways.

4. Consider fare policies focused on the customer that improve regional/local connections.

Implement the Phase III Clipper requirements to revise existing operations and fare policies to a standardized set of business rules. Continue to work towards a more consistent regional standard for fare discount policies and minimize transfer penalties so that passengers can choose the most optimal route for their transit trip.

5. Recommendations specific to Marin, Sonoma, and Solano Counties

The Commission is committed to achieving more rational service delivery in geographic areas served by multiple transit agencies by supporting the collaboration, coordination and consolidation efforts already underway to bring them to implementation stage.

Sonoma: County-level SRTP work is underway in Sonoma County. MTC will provide funding to the Sonoma County Transportation Authority to collect customer opinion and demographic survey data to better inform service planning throughout the county.

Marin/Sonoma: The commencement of SMART service in Marin and Sonoma counties will alter transit travel patterns. This presents an opportunity to strengthen coordination and service planning among Marin and Sonoma transit providers serving the 101 Corridor and local connections. In coordination with the SRTP process, MTC will work with transit operators and the Marin and Sonoma County CMAs to develop a two-county corridor transit plan for submittal and presentation to the Commission.

Solano: County-level SRTP work is underway in Solano County. MTC will provide funding to the Solano Transportation Authority (STA) to complete the analysis to better inform service planning throughout the county. STA and the Solano transit operators are to use this process to identify service improvements, performance objectives and potential service functional and institutional consolidation opportunities.

Paratransit Cost Containment and Service Strategies

The Commission finds that transit agencies must consider strategies to contain the cost of ADA paratransit service using tools that are available to them individually or collectively. MTC expects individual agencies to consider the following strategies:

1. Fixed Route Travel Training and Promotion to Seniors

Expanding fixed route travel training – through mobility orientation sessions and one-on-one individualized training – would increase mobility for the users and help reduce growth of ADA paratransit demand. Ideally, training and outreach should be conducted before individuals apply for paratransit service or, at a minimum, should be made available during the process of determining eligibility for these services.

2. Premium Charges for Service Beyond ADA Requirements

Where transit agencies provide paratransit service that goes beyond what the ADA requires, they may charge extra for those "premium" services. For example, transit agencies that serve an entire jurisdiction (for example they may serve an entire city or taxing district) can define a "two-tiered" service area, with the first tier being the ADA required service area within $\frac{3}{4}$ mile of the fixed route service and the second tier extending to the jurisdictional limits. A higher fare can then be charged for trips in that second tier. The transit agency can also adopt differing policies for that premium second tier, such as more limited service hours, denials of service once capacity is reached, and so forth.

3. Enhanced ADA Paratransit Certification Process

A robust certification process that includes in-person interviews as well as evaluations of applicants' functional mobility by trained professionals provides more accurate determinations of applicants' travel skills and may result in more applicants being referred to fixed route service based on their individual abilities. This may result in some reduction in ADA paratransit costs and also result in improving the mobility of riders due to the increased spontaneity afforded by fixed-route transit. Depending on the transit agency, available cost savings range from none to substantial. One centralized regional process is not needed, but many transit agencies can enhance their processes. Some smaller agencies could combine this function for efficiency and to support staff with specialized skills.

4. Implement Conditional Eligibility

Conditional eligibility finds that some applicants can use fixed-route service for at least some of their trips and specifies the particular conditions under which paratransit service is required. While this requires a more sophisticated eligibility certification process of conditional eligibility avoids ADA paratransit costs for those trips that ADA-eligible riders take on fixed-route service. Opportunities exist at several transit operators in combination with an enhanced eligibility process.

5. Creation of sub-regional Mobility Managers (e.g. CTSA) in one or more sub-regional area to better coordinate resources and service customers

National and local coordinated models exist and should be evaluated to deliver high quality and efficient paratransit services across transit agency boundaries and shared costs with social services. Several MTC programs, including Lifeline and New Freedom, have funded mobility management efforts to identify best practices and develop mobility management models for regional replication. The Commission will use the information from these efforts to recommend specific areas and agency leads for implementation of sub-regional mobility managers in the Bay Area.

6. Improve Fixed-Route Transit (per Plan Bay Area)

Continuous improvements to the fixed route system will shift some demand from paratransit to the fixed route system.

7. Walkable Communities, Complete Streets, and Land Use Planning (per Plan Bay Area)

The term “walkable communities” refers to communities that are pedestrian friendly, with sidewalks and pathways connecting residential areas with activity centers. Improving the “walkability” of a community is a more holistic approach to addressing ADA paratransit sustainability than other strategies. Similarly, planning efforts should, to the extent possible, ensure that senior housing and other senior-related facilities are sited in locations that are close to fixed-route services and close-in within the community and proximate to activity centers featuring shopping, medical and other services, as opposed to locations outside the community and isolated from activity centers. The ultimate impact of this recommended strategy is very large, even though this is a long-term strategy in which transit agencies will only play a supportive role. It requires an active role from cities and counties.

An integrated land-use/transportation plan is the primary goal of Plan Bay Area, under development and scheduled for adoption in 2013. In addition, the proposed OneBayArea grant program seeks to reward local jurisdictions for building housing near transit and conditions funding on adherence to complete streets policies.

Institutional

1. Complete service consolidations for Soltrans and ferry services (Vallejo, Alameda-Oakland, and Harbor Bay).

Per the Solano Transit Consolidation Study conducted by the Solano Transportation Authority – the cities of Vallejo and Benicia have formed a joint powers authority (Soltrans) to operate their transit service as a consolidated system. Senate Bill 1093 called for the consolidation of Vallejo, Alameda-Oakland, and Harbor Bay ferry services under WETA. WETA has adopted a transition plan to guide the consolidation of all ferry service, except the Golden Gate ferry services. WETA is currently operating the Alameda-Oakland and Harbor Bay ferry service and set to assume Vallejo service in 2012. Soltrans has completed the initial stages of the consolidation. The Commission will support these agencies and monitor progress during the consolidation process and support Solano County to move forward to consider further consolidations as supported through local planning.

2. Pursue functional and institutional consolidation among smaller operators where supported by local planning and input.

Through the local planning process and, as transit agencies do coordinated planning and fare policy setting, the benefits of functional and institutional consolidation should be further evaluated. Work with Congestion Management Agencies and operators, focusing on

Marin/Sonoma and Solano to continue to improve coordination and evaluate the benefits of additional functional and/or institutional consolidation to improve the financial stability and service for the customer. The appropriateness of these efforts and timeline will be established based on local planning and input.

3. Integrate multiple transportation functions (transit operating, planning, sales tax, etc).

The importance of other transportation decisions, such as roadway projects and pricing, in the success and performance of the public transit system was highlighted throughout the TSP. Therefore, opportunities to better integrate these decision-making authorities should be explored. Currently, the Santa Clara Valley Transportation Authority is the one example of an agency in the region that serves as the sales tax authority, transit agency, and congestion management agency. Work with transit operators and Congestion Management Agencies to identify potential vertical integration opportunities and local support for such integration.

4. Expand regional capital project planning/design to include sharing existing expertise (e.g., BRT) and facilities (e.g., maintenance shops).

Several transit agencies and congestion management agencies in the region have developed robust expertise in capital project development and delivery. As new projects or systems are developed, expertise should be shared across transit agencies to optimize resources. Using Plan Bay Area project listings, MTC will identify specific upcoming projects that may benefit from a sharing of resources and convene a joint discussion of county CMAs and transit agencies to identify specific projects and terms for sharing resources.

5. Formalize joint procurement of services and equipment.

Transit agencies currently have an informal process to monitor each other's bus purchases, allowing agencies to "piggy-back" on another Bay Area or national procurement. This reduces administrative costs of duplicative procurement processes and lowers the unit cost of the purchase because of the higher volume order. The TSP recommends that these joint procurements be strengthened and formalized.

The Commission will identify typical annual procurements (scope and cost) in addition to those included in the Regional Transit Capital Inventory (major capital replacements), convene transit agencies to identify strong candidate services and equipment for joint procurement, and work with transit operators to evaluate and implement joint procurement models.



DATE: June 10, 2013
TO: STA TAC
FROM: Sofia Recalde, Mobility Coordinator
Elizabeth Richards, Mobility Management Project Manager
RE: Mobility Management Travel Training Scope of Work

Background:

Since July 2012, STA has been working with consultants to develop a Mobility Management Plan for Solano County. The development of a Mobility Management Plan was identified in the 2011 Solano Transportation Study for Seniors and People with Disabilities as a strategy to assist seniors, people with disabilities, low income and transit dependent individuals with their transportation needs. The Solano Mobility Management Plan will identify existing services and programs, explore potential partnerships, and analyze how to address mobility needs in Solano County in a cost effective manner.

The Solano Mobility Management Plan will address four key elements to assist seniors, people with disabilities, and low income and transit dependent individuals with their transportation needs. These four elements are:

- One Stop Transportation Call Center
- Travel Training
- Countywide In-Person ADA Eligibility and Certification Process
- Older Driver Safety Information.

All of these strategies were included in the scope of work for the Solano Mobility Management Program and were identified as priorities in the Senior and People with Disabilities Study. These four elements have been presented to the Solano Seniors and People with Disabilities Transportation Advisory Committee, the Paratransit Coordinating Council (PCC), the Intercity Transit Consortium, the STA Board and the Senior Coalition.

The Mobility Management plan was presented and discussed several times at each of the STA committees. Initially to present an overview of the study and its elements as well as to solicit comments. As the elements were developed with more detail, the groups were presented to again and more detailed input was received. At each of the meetings, this project was presented, there has been good discussion and valuable input. Transit operators have been in attendance at many of these meetings and have been interviewed as well.

Discussion:

While the overall Mobility Management Plan document is being refined, two elements are moving forward: ADA In-Person Eligibility Process and Travel Training. The ADA In-Person Eligibility Process was approved by the STA Board in December 2012 is being initiated on July 1, 2013. As Travel Training will complement that process, there is an interest in moving forward this element of the Mobility Management Plan as well.

In response to the draft Mobility Management Plan that was circulated a few months ago, one operator expressed an interest in maintaining their existing Travel Training program (Vacaville City Coach) and two operators were interested in starting their own similar to Vacaville's (SolTrans and FAST). Two operators would prefer STA develop a centralized program to handle all their residents' travel training needs (Dixon and Rio Vista). This was supported by the Board at their March Board Workshop as well as several committee members who reviewed the draft plan. Like the other Mobility Management Plan elements, Travel Training is proposed to begin as a pilot program and be evaluated at the end of the pilot period to determine if and how the program would be continued.

To delve into the details of how the various elements of the pilot Travel Training programs would be handled by the various transit operators and STA. A meeting was held in late May among the transit operators and the STA staff. A summary of the meeting is shown on Attachment A. A general consensus was reached on how a 'countywide' Travel Training program could be developed with various elements being handled by multiple agencies.

In summary, the ultimate countywide Travel Training program is proposed to consist of the following:

- Vacaville City Coach would continue its existing Travel Training and Travel Ambassador programs primarily for local and some intercity Travel Training/bus familiarization, group meetings, existing training guide and training video. They would continue their local outreach. Longer and time-consuming Travel Training sessions (i.e. inter-county or extensive inter-city) may be referred to a central Travel Training program. This would be the case also for training people with developmental disabilities who would require multiple sessions. To date, there has not been a demand for these latter services.
- SolTrans and FAST would like to develop Travel Training/Transit Ambassador programs similar to City Coach's with assistance from City Coach and the STA. City Coach has offered to provide advice and is willing to share their materials' designs for replication in other locations. STA has been asked to provide resources to develop a training guide and video for SolTrans and FAST as well as support the set-up of Travel Training/Transit Ambassador programs, but these programs would be identified as locally operated. Like City Coach, the local Travel Training programs would focus on local and some inter-city trips, but would also like to be able to refer more extensive Travel Training to a centralized program.
- STA would manage a centralized Travel Training program through contracted services. Dixon Redit-Ride and Rio Vista Delta Breeze would refer interested individuals to the STA Travel Training program. STA would develop a training guide and video for these locations. The STA Travel Training would also handle Travel Training for people with developmental disabilities countywide as well as more extensive travel training referred by local operators (i.e. inter-city, inter-county, travel on transit services not based in Solano County). STA would also provide time and resources to assist SolTrans and FAST set-up Travel Training programs of their own as well as to outreach to the community to promote these new Travel Training programs.
- Agencies receiving funding from STA for Travel Training would track and report activity to conform with grant reporting requirements as well as to evaluate the programs at the conclusion of the pilot period. STA would compile and share the performance data.

A draft Scope of Work has been prepared (Attachment B) to identify the responsibilities of a STA Travel Training contractor consistent with the above. This is being presented for review, comment and approval by the Consortium. If an RFP can be released this summer, a contractor could be secured and available to begin implementing a Travel Training program in the Fall of 2013.

Fiscal Impact:

In June 2012, the STA Board approved \$289,343 in Regional Paratransit State Transit Assistance funds (STAF) for Mobility Management Program Implementation. In addition a Jobs Access Reverse Commute (JARC) grant was secured for Mobility Management programs implementation. These two fund sources will cover the costs associated with the establishment and implementation of a two-year County Travel Training Program.

Recommendation:

Forward a recommendation to the STA Board to approve the following:

1. The draft Travel Training scope of work; and
2. Authorize the Executive Director to issue a request for proposal and enter into an agreement for Travel Training Consultant Services.

Attachments:

- A. Transit Operator Meeting Summary
- B. Draft Travel Training Scope of Work

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Mobility Management
Travel Training

Meeting Summary
STA/Transit Operators
Wed, May 29, 2013
(9-11am)

Hosted by Vacaville City Coach
Agenda attached

Attendees

Vacaville City Coach: Brian McLean, Shannon Nelson
STA: Sofia Recalde, Elizabeth Richards (consultant)
SolTrans: Mona Babauta, Phil Kamhi, Elizabeth Romero
FAST: Debbie Whitbeck
County of Solano: Matt Tuggle

City Coach reiterated their intent on continuing their Travel Training program and shared more information about how it operates through a series of questions and answers from the group.

- Currently City Coach has two part-time volunteers as Transit Ambassadors. One is an ex-VVCC driver and the other is legally blind. One is a senior and the other middle aged. Both male. Considering two more ambassadors. When new ambassadors are brought on, they are interested in increasing diversity.
- 3 or 4 one-on-one trainings average monthly plus 6 or 7 group trainings of 10 or more since the program began. Have had quarterly group training sessions at senior housing locations that staff have been involved with.
- Transit Ambassadors have an ID badge, monthly pass, and shirt identifying them as Ambassadors
- Transit Ambassadors have other duties such as riding the bus (wearing the ID and shirts) and assisting people as needed, functioning as eyes on bus to be proactive with customer service, promote youth passes, etc.
- One volunteer works an average 4-5 hours a week and the other between 5-8 hours/week
- Advocated that it is important to screen potential volunteers as they rerepresent transit operator and City. City Coach has turned down some applicants. They are subject to background checks, are insured (City and CalTIP). The group concurred with this approach. SolTrans is not in CalTIP and noted that will have to address this insurance issue.
- The trainees receive free rides while in training.
- Vacaville trains people with physical disabilities. Trainees with physical disabilities may bring friends or family. Independent Living Resource Ctr (ILRC) may accompany. Faith in Action (FIA) volunteers have assisted to some degree.

- Have not had any requests to train individuals with developmental disabilities.
- Group said that it is difficult to gauge the demand for travel training for people with developmental disabilities, but it *appears* that there is little demand for it at this time.
- FAST finds that ADA applicants tend to have more physical disabilities than developmental.
- Vacaville has not seen a demand for regional trips other than to go to Fairfield Mall
- Vacaville's travel trainers do not contact dispatch to coordinate training. The training is supposed to be in real-life conditions.
- Vacaville does intensive marketing—newspaper, water bills, flyers, television ads
- Most trainees are seniors
- SolTrans and FAST are interested in having a Travel Training program like City Coach. They would like to be the face of the program, not a contractor.
- Transit Operators asked STA about funding available and Sofia gave a summary of funding.
- **Discussed how to use resources from STA's grants for Travel Training:**
 - Travel Guides - Model after VVCC's and localize for SolTrans and FAST. Create one more for balance of county
 - Training Video - Model after VVCC's and localize for SolTrans and FAST. One more for balance of County. VVCC noted that it took almost a year to produce. The production did yield not only the video, but also outtakes that could be used for other products. Produced in-house by PIO Mark Mazzaferro who may be available to do other videos.
 - At least initially, STA to assist in recruiting and manage Transit Ambassadors for each operator (SolTrans & FAST). Model after VVCC program. SolTrans and FAST would like eventually recruit on their own and STA to help with the management of Transit Ambassadors.
 - Assistance with monitoring and evaluation
 - Follow-up with trainee after training to see if he/she use transit
 - Follow-up survey
 - Consultant should do a resource assessment of Solano County
- SolTrans will have new contractor, National Express, conduct two Travel Training sessions per year. Would like to increase goal to 4-6/year.
- Brief discussion on ideas on how to outreach to promote Travel Training, particularly beyond senior population
 - Approach Head Start, pre-schools, high schools, transition schools
 - Presentations to social service providers
 - Another idea to reach out to stakeholders from Community Based Transportation Plans and Solano Senior and People with Disabilities Transportation Plan.
- There may be interest in Travel Training to Ed Roberts Center (in Berkeley) – center for disability rights and universal access. Concern about time involved with Travel Training that far.
- General consensus that City Coach, SolTrans, and FAST focus on local Travel Training and some intercity Travel Training. Be able to refer longer (intercity & intercounty) Travel Training to STA Travel Training program as well as more time-consuming developmentally disabled trips if they materialize.
- Interest in non-profits (ILR, Connections 4 Life, etc.) being involved with Travel Training for riders with significant disabilities.

- SolTrans expressed an interest in using funds for other outreach materials such as crayons and coloring books. Should operators submit a request for funds?
- County suggested bringing in Solano County services to see how they can help.
- County reported that Partnership Health Plan (PHP) has/will have(?) a five-county contract with American Logistics to transport their Plan members to dialysis which should reduce some demand from operators' paratransit systems. Motivation may be to save PHP the costly Emergency Room trips that result from missed dialysis treatments.
- County reported that new American Logistics contracted service via the MOU being finalized is not planning to provide service outside the county.
- STA reported that a new updated Senior and People with Disabilities Guide is under development

The end of the meeting included a discussion about the new countywide ADA Eligibility program at Sofia's request.

- Regarding the ADA ID card, the group agreed:
 - The ID card should be labeled "Solano County ADA Eligibility Card"
 - The logo should be the outline of Solano County
 - Local dispatch number should be on the back
- They requested a fact sheet or FAQs, which I have sent to the operators for review. Feedback due COB on June 6.
- SolTrans, FAST and Vacaville City Coach will be granting applicants presumptive eligibility until they can be seen by CARE after July 1.



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MEETING AGENDA

May 29, 2013 • 9-11AM

Vacaville City Hall, Public Works Department

TOPIC: Travel Training / Transit Ambassador Program

1.1. Approval or Changes to Agenda

1.2. Countywide Travel Training Program

Clarify roles, interests and areas for effective partnerships (i.e. When do the operators work together, separately, with non-profits, with STA's Mobility Management Coordinator, or with contracted staff?)

Elements proposed in the Mobility Management Study

- a. Intensive Travel Training for Persons with Developmental Disabilities
- b. Standard Travel Training or "Bus Familiarization"
- c. Transit Ambassador Program

Additional Training Needs for Regional Trips

Requirements to consider for each element of the Countywide Travel Training Program

- a. Training
- b. Staffing
- c. Management and Oversight
- d. Evaluation
- e. Marketing and Public Outreach

Wrap-up and Next Steps

STEVE HARDY
Mayor

DILENNA HARRIS
Vice Mayor

RON ROWLETT
Councilmember

CURTIS HUNT
Councilmember

MITCH MASHBURN
Councilmember

Travel Training

Draft Scope of services

Task 1: Administer Travel Training/Transit Ambassador programs:

A. Dixon, Rio Vista and unincorporated area residents

- Primary target market: Travel Training for Seniors, People with Disabilities, and Low-Income
- Initiate new Travel Training/Travel Ambassador programs
- To include in-field one-one one and group in-service training, bus familiarization sessions, and presentations
- Conduct travel training directly and/or recruit volunteers
- Maximize coverage, flexibility, and resources with use of volunteers. Recruitment to be conducted in collaboration with STA, Dixon, and Rio Vista.
- Train and manage volunteers.
- Work with STA in developing policies and procedures of the program
- Coordinate with transit operators and social service agencies.
- Travel train residents for travel within above jurisdictions and to locations outside Dixon and Rio Vista which could include not only locations in Solano County bus also outside the county. Depending upon clients' needs, Travel Training may be on locally operated public transit buses, but would also include on public transit connecting to these services (such as Yolobus, FAST, South County Transit, Tri-Delta, etc.) This could also include Travel Training on intercity ADA paratransit services.
- Work with STA on the development of an outreach plan
- Produce promotional collateral
- Assist with program outreach
- Work with STA to develop a customer service evaluation system
- Track activity and compile performance data to report at least monthly to STA

B. Support SolTrans, FAST and Vacaville City Coach local Travel Training programs

SolTrans and FAST will be initiating new Travel Training programs while Vacaville City Coach has a Travel Training program in place.

- Primary target market: Travel Training for Seniors, People with Disabilities, and Low-Income
- Initiate new Travel Training/Travel Ambassador programs at SolTrans and FAST
- To include in-field one-one one and group in-service training, bus familiarization sessions, and presentations
- Work with SolTrans, FAST, and STA in developing policies and procedures of the program
- Coordinate with SolTrans and FAST and social service agencies in their areas
- Assist SolTrans and FAST recruit, train and manage volunteer Travel Trainers
- Travel Train SolTrans, FAST, and City Coach clients who desire longer distance training such as intercity and intercounty trips as referred by these entities. This could involve travel on locally operated systems, connecting transit systems, and/or travel on local public transit services operated by others (Capitol Corridor, San Francisco Bay Ferry, Napa VINE, etc.)
- Work with SolTrans, FAST, and STA on development of an outreach plan and assist with program outreach
- Travel Training/Transit Ambassador program to be consistent with Transit Training video and Transit Rider Guide
- Track activity and compile performance data to report at least monthly to SolTrans, FAST, and STA.

Task 2: Produce 3-5 transit training videos

- Length of each video: approximately 5 minutes
- Primary target markets are seniors, people with disabilities, and low-income populations
- Create scripts structured similar to existing Vacaville City Coach training video
- Shoot and edit footage to produce videos specific to SolTrans, FAST, and balance of county transit services
- Work collaboratively with STA, SolTrans, and FAST in producing videos
- Narrate videos as needed and edit audio specifically for each transit system
- Produce for on-line viewing as well as DVD distribution directly to individuals as well as for group training purposes
- Video to be consistent and complementary with Travel Training/Ambassador program and Transit Rider Guide

Task 3: Design and print 3-5 full color Transit Rider Guides

- Size and design to be similar to Vacaville City Coach's current Rider Guide brochure
- Design to be easy to read especially for target market of seniors, people with disabilities and low-income
- Work collaboratively with STA, SolTrans, and FAST in design and printing of brochures specific to SolTrans, FAST, and balance of county
- Handle all aspects of print production
- Transit Rider Guide to be consistent and complementary with Travel Training/Ambassador program and Training Video
- Initial print-run of at least 5,000 of each brochure

Task 4: Administer Travel Training program for people with developmental disabilities

- Service is to be available countywide
- This is intended to be an intensive travel training program in which multiple training sessions are likely to be needed for each client. Process to include an initial assessment of rider's abilities to determine the course of the training.
- Preparations for training and the training itself may include some, or all, of the following: trip planning, path of travel review, route and scout, modeling, role playing, shadowing, fading, bus riding and navigation skills,
- Demand for service anticipated to be small initially. Contractor needs to have ability to adjust to increase and be flexible depending upon demand for service.
- Trainers to be experienced in working with people with developmental disabilities and transit with strong interpersonal skills
- Work with STA, transit operators, and social service agencies to promote Travel Training for people with developmental disabilities through the creation of an Outreach Plan
- Produce collateral materials for promotion of program.
- Program is to track activities, compile data and report to STA and transit operators on a monthly basis.

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DATE: June 10, 2013
TO: STA TAC
FROM: Judy Leaks, Program Manager/Analyst
RE: Solano Napa Commuter Information (SNCI) Fiscal Year (FY) 2013-14 Work Program

Background:

The Solano Napa Commuter Information (SNCI) program has been in existence since 1979. It began as a part of a statewide network of rideshare programs funded primarily by Caltrans. The SNCI program is currently funded and managed by the STA, through Metropolitan Transportation Commission (MTC) Regional Rideshare funds, Bay Area Air Quality Management District (BAAQMD), Eastern Congestion Mitigation Air Quality (ECMAQ) and Yolo Solano Air Quality Management District (YSAQMD) funds for the purpose of managing countywide and regional rideshare programs in Napa and Solano Counties and providing air quality improvements through trip reduction. The BAAQMD, ECMAQ and YSAQMD funds have allowed the SNCI program to introduce services that would not otherwise be available such as, commuter incentives, the emergency ride home program, the employer commute challenge, and a wide range of localized services. These services support efforts to reduce carbon emissions, address climate change concerns, and help improve mobility in Solano and Napa counties.

Background/ Discussion:

SNCI serves as a “one-stop-shop,” offering informational resources and programs for commuters interested in finding alternatives to driving alone, as well as transportation information for non-commuters. During FY 2012-13, SNCI conducted a Marketing Strategy and Action Plan Study. The findings of this study has helped shape the FY 2013-14 Work Program.

The FY 2013-14 SNCI Work Program includes the following major elements:

- Customer Service – commuter call center, display racks, website
- SNCI General Marketing Strategy
- Vanpool formation and support
- Employer Outreach Program
- Commuter Benefits Program (SB 1339) Implementation
- County Commute Challenges – Solano and Napa counties
- Emergency Ride Home Program
- Bike to Work Promotion/Bicycle incentive & map
- Partnerships w/other programs and outside agencies

The proposed FY 2013-14 SNCI Work Program is provided in Attachment A.

Fiscal Impact:

The SNCI program is fully funded by MTC Regional Rideshare Program funds, BAAQMD Transportation for Clean Air (TFCA) funds, and ECMAQ funds for an annual total of \$510,000.

Recommendation:

Forward a recommendation to the STA Board to approve the Solano Napa Commuter Information Work Program for FY 2013-14 as shown in Attachment A.

Attachments:

- A. Solano Napa Commuter Information Work (SNCI) Program FY 2013-14

**Solano Napa Commuter Information (SNCI)
Work Program
FY 2013-14**

The FY 2013-14 SNCI Work Program includes the following major elements:

- Customer Service – commuter call center, display racks, website
 - SNCI Marketing Strategy
 - Vanpool formation and support
 - Employer Outreach Program
 - Commuter Benefits Program (SB 1339) Implementation
 - County Commute Challenges – Solano and Napa counties
 - Emergency Ride Home Program
 - Bike to Work Promotion/Bicycle incentive & map
 - Partnerships w/ other programs and outside agencies
-
- **Customer Service:** Provide high quality, personalized rideshare, transit and other non-drive alone trip planning information to commuters and the public through the commuter call center, websites and other means. Continue to supply display racks throughout the counties with transportation materials/brochures and local and regional transit information and schedules. Personally visit each display rack location at least one time each year.
 - **SNCI Marketing Strategy:** Based on findings of the 2013 SNCI Marketing Strategy and Action Plan Study, increase awareness of SNCI through examining the program brand, improving web communications, updating the SNCI website and continue to reach commuters through employer outreach and community events.
 - **Vanpool Formation and Support:** Continue vanpool formation and support in Solano and Napa counties, in order to meet the 511 Rideshare goal of 27 vanpools formed. Provide incentives to assist the formation of vanpools. Support vanpools that travel to, from or through Solano and Napa counties.
 - **Employer Program:** Outreach to Solano and Napa employers to be a resource for commuter alternative information including setting up internal rideshare programs. Continue to concentrate efforts on large employers through distribution of materials, events, major promotions, surveying and other means.
 - **Commuter Benefits Program (SB 1339) Implementation:** Implement the Commuter Benefits Program (SB 1339) throughout Solano and Napa counties with employers having 50+ employees. Working with the Bay Area Air Quality Management District (BAAQMD) and the Metropolitan Transportation Commission (MTC), design and execute a program that supports affected employers to meet the requirements of the rule. Coordinate with Solano EDC to provide input in the creation of the rule.

- **County Commute Challenges**: Conduct one (1) employer challenge each in Solano and Napa counties that encourages employers and employees to encourage the use of commute alternatives to driving alone. These campaigns include an incentive element and enlist the support of local chambers of commerce.
- **Emergency Ride Home Program**: Focus on marketing the Emergency Ride Home Program, verify and update all current enrollees. Notify all currently enrolled employer and employee participants, determine activity status; provide updated information to all. Increase the number of employers registered by 10%.
- **Bike to Work Promotion/Bicycle incentive/BikeLinks map**: Take the lead in coordinating the regional 2014 Bike to Work campaign in Solano and Napa counties. Provide information and support for cyclists to promote bicycling locally. Assess the effectiveness of current Energizer Station locations and make adjustments. Increase the number of locations. Revise and update the Solano/Yolo BikeLinks map, print and distribute copies. Market the “Bucks for Bike” incentive through the Bike to Work promotion, employer and community outreach and the SNCI website and Facebook pages.
- **Partnerships w/ other programs and outside agencies**: Coordinate with other programs and outside agencies to support and advance the use of non-drive alone modes of travel in all segments of the community. This would include providing support to programs like Safe Routes to School (SR2S) and Seniors and People with Disabilities; and assisting local jurisdictions and non-profits implementing projects.



DATE: June 11, 2013
TO: STA TAC
FROM: Robert Guerrero, Project Manager
RE: STA Regional Transportation Impact Fee (RTIF) Nexus Report

Background:

Since 2008, the STA and its member agencies have studied the potential for a Regional Traffic Impact Fee (RTIF) to assist in addressing a regional transportation funding shortfall projected to occur in the next 30 years. In 2009, Economic Planning Systems (EPS) was selected to conduct an RTIF Nexus Report mandated by AB 1600 to address how a potential fee program would relate fees collected to improvement projects funded.

Several milestones have been met since then. More recently, on December 12, 2012, RTIF Policy Committee met and recommended the STA Board request the Solano County Board of Supervisors: 1) add transportation facilities to the County's Facility Fee Program, 2) designate the STA to manage a portion of the County fee dedicated to transportation projects, and 3) recommended a fee of \$1,500 per dwelling unit equivalent (contingent on the fee being less than the approved maximum nexus). The RTIF Policy Committee's recommendation was unanimously approved by the STA Board at their meeting also held on December 12, 2012.

Discussion:

On May 8, 2013, the STA Board approved seven construction packages to include in the RTIF Nexus Report. The construction packages include seven specific transportation projects and two general transportation categories: Express Bus Transit Centers and Train Stations and Unincorporated County Roadway Improvements. The approved projects list is included as Attachment A as reference.

STA staff, in coordination with EPS, has since completed the draft RTIF Nexus Report with the approved construction packages (Attachment B). The Nexus Report provides the calculation details for the maximum allowable fee that could be charged given the requirements of AB 1600. Based on the nexus analysis, the total estimated maximum fee revenue over 20 years is estimated to be \$227.8 million. The maximum allowable fee is provided by land use category on Table 1 on page 3 of Attachment B. It is important to note that the County may, as a matter of policy, decide to charge a fee below the maximum fee legally allowed based on the nexus calculation for any or all of the land uses. Section 4 of the Nexus Report describes in detail the methodology used for the maximum fee calculation.

STA staff is recommending approval of the RTIF Nexus Report and will provide a detailed presentation on this item at the June 26th TAC meeting. If approved by the STA Board, STA staff will continue to coordinate with the County of Solano to enact an RTIF of \$1,500 per dwelling unit, as part of County's Public Facilities Fee, dedicated to the approved transportation construction packages. Further discussion is anticipated related to the administration of the funding late Summer and early Fall.

Fiscal Impact:

No impact to the STA general fund. The Nexus Report provides an analysis for the maximum allowable fee for a Regional Transportation Impact Fee (RTIF) Program.

Recommendation:

Forward a recommendation to the STA Board to approve the Solano County Regional Transportation Impact Fee Nexus Report.

Attachments:

- A. RTIF Construction Implementation Packages
- B. Solano County RTIF Fee Nexus Report

Regional Traffic Impact Fee Implementation Packages

Agencies	Project
<i>Package 1, Jepson Parkway Corridor</i>	
Fairfield Vacaville City of Fairfield City of Vacaville Solano County	Remaining Segments of Jepson Parkway Remaining Segments of Jepson Parkway Unincorporated segment of Peabody Road Unincorporated segment of Peabody Road Unincorporated segment of Peabody Road
<i>Package 2, State Route 12 Corridor</i>	
Suisun City, Fairfield Rio Vista County of Solano	State Route 12 & Pennsylvania Ave Interchange State Route 12, Church Road Interchange
<i>Package 3, South County</i>	
City of Vallejo City of Benicia City of Benicia	SR37/Redwood St/Fairgrounds Dr I-680 Industrial Park Access Improvements Columbus Parkway Improvements Near I-780
<i>Package 4, Central County I-80 Reliever Route</i>	
City of Fairfield County of Solano	North Connector West
<i>Package 5, State Route 113 Corridor</i>	
City of Dixon Solano County	2009 State Route 113 Major Investment Study Priorities: TSM, TDM and ITS (<i>e.g. incentives for carpooling, transit services, Park and Ride facilities, advance swerve warning signs, speed feedback signs and fog detection or closed circuit TV</i>)
<i>Package 6, Express Bus Transit Centers and Train Stations</i>	
City of Benicia City of Dixon City of Fairfield City of Fairfield City of Suisun City City of Vacaville City of Vallejo Solano County	Benicia Industrial Park Multi-modal Transit Center Dixon Multimodal Transportation Center Fairfield Transportation Center, next phase Fairfield/Vacaville Train Station, next phase Suisun City Train Station improvements Vacaville Transportation Center, next phase Vallejo Station or Curtola Park & Ride, next phase 360 Project Area Transit Center
<i>Package 7, Unincorporated County Roadway Improvements</i>	
Countywide	Unincorporated County roadway improvements that address new growth impacts

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Draft Report

Solano County Regional Transportation Impact Fee Nexus Report

The Economics of Land Use



Prepared for:

Solano County Board of Supervisors
and
Solano Transportation Authority

Prepared by:

Economic & Planning Systems, Inc. and
Fehr & Peers

June 10, 2013

EPS #19016

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1. INTRODUCTION AND SUMMARY OF FINDINGS

This Technical Report (“Report”) is designed to provide Solano County with the necessary technical documentation and nexus analysis supporting the adoption of a Regional Transportation Impact Fee (RTIF). It has been prepared by Economic & Planning Systems, Inc. (EPS) and Fehr & Peers Associates Inc., for Solano County and the Solano Transportation Authority (STA). The RTIF program described herein is consistent with the most recent relevant case law and the principles of AB1600 or Government Code Section 66000 et seq (“Fees for Development Projects”; except where specific citations are provided, these statutes will be referred to in this Report as AB 1600).

This study effort was initiated by the STA and is being completed in connection with Solano County as part of its Public Facility Fee (PFF) update. The study process has included input from variety of stakeholders, including representatives from County jurisdictions as well as developer, housing, and environmental interests. Specifically, the methodology, assumptions and overall structure of the RTIF have been developed with both technical input from two Technical Working Groups (TWGs) consisting of staff from the County and its seven (7) municipalities. In addition, the Report incorporates guidance received by a Stakeholder Committee (SC) consisting of representatives from various community interest groups, and a Policy Committee (PC) composed of the members of the STA Board, the STA Executive Directors, and the Chief Executive Officers of the STA’s member agencies.

Following this introductory chapter, **Chapter 2** discusses population and employment growth potential used in this analysis and **Chapter 3** describes the methodology for identifying “priority RTIF project” and estimating their costs. **Chapter 4** describes the modeling techniques used to establish nexus for the RTIF and the resulting RTIF fee calculation by land use category. Finally, **Chapter 5** discusses implementation and legal considerations.

Nexus Report Overview

The RTIF program described in this Report will provide funding for regional transportation improvements required to serve new development and to ensure that desired service levels can be achieved and/or maintained. To the extent that required improvements serve both new and existing development, or travel through the Solano County, only the portion that is attributable to new development inside the region is included in the RTIF program. It is expected that the RTIF program funding will be augmented by other revenue sources to meet overall funding requirements, including local, State, and Federal sources.

This Report provides a schedule of fees to be established and collected as a part of the County Public Facilities Fee. The proposed RTIF program fee, if approved, will need to be included in the adoption of a County Resolution authorizing its collection as a component of the current County Public Facilities Fee program. The current enabling Ordinance allows the County to adopt, by Resolution, a fee schedule consistent with supporting technical analysis and findings. The Resolution approach to setting the fee allows periodic adjustments of the fee amount that may be necessary over time, without amending the enabling Ordinance.

This Report and the technical information it contains should be reviewed periodically by the County and STA as necessary to ensure its accuracy and to enable the adequate programming of funding sources. To the extent that improvement requirements, costs, or development potential changes over time, the RTIF program will need to be updated.

This Report does not determine, or advocate for, a particular fee level. Rather its purpose is to calculate the maximum allowable fee that could be charged pursuant to the requirements of AB 1600. In addition, the following considerations are important in reviewing this Report:

- The acceptance or approval of this Report does not, in itself, constitute the approval of the RTIF or a corresponding fee schedule. This can only occur through the approval of a required Resolution by the County Board of Supervisors.
- The acceptance or approval of this Report or the RTIF does not constitute approval for a particular transportation project or set of improvements. The funding and approval of the particular transportation improvements identified as part of the RTIF will be subject to the same approval and entitlement process that would be applicable in the absence of this fee program.
- The acceptance or approval of this Report or the RTIF does not constitute approval for any particular land use program or project. The entitlement and permitting process for future land use development in the County and its individual jurisdictions will remain the same regardless of whether the RTIF is approved.
- Any revenue generated from fees collected as part of the RTIF must be segregated into a designated account and only used for purposes prescribed therein (i.e., in the RTIF Resolution). In other words, fee revenue collected pursuant to the RTIF can only be used to fund RTIF projects.

Summary of Fees

A summary of the maximum fees calculated by land use category are provided in **Table 1**. The fees shown represent the maximum fee that can be charged based on the nexus findings described in this Report. The maximum fees estimated assume one County-wide fee for each land use. These fees are calculated to generate sufficient revenue to cover the RTIF capital facility costs associated with new development throughout the County.

Table 1 Maximum Allowable Fee Level

Land Use Category	Maximum Fee Amount / Unit
Residential	
Single Family Residential (SFR)	\$7,952 / Unit
Multi Family Residential (MFR)	\$4,930 / Unit
2nd SFR Unit/Accessory Unit	\$4,268 / Unit
MFR Senior/Retirement Housing	\$3,101 / Unit
Non-residentail	
Retail/Commercial	\$14,750 / 1,000 Sq.Ft.
Service Commercial	\$36,580 / 1,000 Sq.Ft.
Assembly Uses	\$2,799 / 1,000 Sq.Ft.
General/Medical Office	\$9,123 / 1,000 Sq.Ft.
Hotels/Motels	\$2,790 / Room
Industrial	\$5,948 / 1,000 Sq.Ft.
Warehouse/Distribution	\$1,081 / 1,000 Sq.Ft.
Institutional	
Health Care Facility	\$6,734 / 1,000 Sq.Ft.
Congregate Care Facility	\$1,590 / Unit
Private School/Day Care Facility	\$39,168 / 1,000 Sq.Ft.
Agricultural Uses	
Riding Arena ¹	\$7,634 / Acre
Barn	\$1,018 / 1,000 Sq.Ft.

[1] If a barn is included in the development than that portion of the project is charged separately based on the rate shown for "Barn".

A summary of the transportation projects and corresponding costs included in the RTIF program is provided in **Table 2**. As shown, the current project list includes eleven (11) "priority" RTIF transportation projects approved by the STA Board for a total cost of approximately \$402.5 million. Of this amount approximately \$227.8 million or 54 percent is allocated to the RTIF program based on the nexus analysis.

Table 2 Total RTIF Priority Project Costs

RTIF Project	Total RTIF Project Cost		% New Regional Trips	Total RTIF Project Cost	
	Amount	% of total		Amount	% of total
#1 - Jepson Parkway	\$208,100,000	52%	58%	\$122,779,000	54%
#2 - Peabody Road	\$5,000,000	1%	78%	\$3,900,000	2%
#3 - SR 12/Pennsylvania Avenue	\$50,000,000	12%	71%	\$35,500,000	16%
#4 - SR 12/Church Road	\$10,410,000	3%	35%	\$3,643,500	2%
#5 - SR 37/Redwood Pkwy/ Fairgrounds Dr.	\$65,000,000	16%	32%	\$20,800,000	9%
#6 - Benicia Industrial Park Access	\$20,000,000	5%	77%	\$15,400,000	7%
#7 - Columbus Parkway	\$1,000,000	0.2%	92%	\$920,000	0%
#8 - North Connector	\$37,990,000	9%	60%	\$22,794,000	10%
#9 - SR 113 Improvements	\$4,990,000	1.2%	41%	\$2,045,900	1%
#10 County Rd. Projects	\$12,626,431	3%	17%	\$2,189,726	1%
#11 Regional Transit Project	\$12,626,431	3%	17%	\$2,189,726	1%
	-----		-----	-----	
Total / Weighted Avg	\$402,490,000	100%	54%	\$227,782,400	100%

The County may as a matter of policy decide to charge a fee below the maximum fee legally allowed based on the nexus calculations presented herein for any or all of the land uses.¹

Key Issues and Assumptions

The calculation of the traffic impact fees is based on a variety of assumptions regarding land use, growth potential, service standards, and facility costs, as documented in subsequent chapters of this Report. However, some of the key issues that may warrant on-going consideration during the implementation of the RTIF program include:

- Land Use Assumptions.** The impact fee calculations are based on commercial, industrial, and residential growth potential at buildout in Solano County through 2033. If the growth does not materialize as expected, the corresponding facilities will not be needed and/or impact fee revenue will not be sufficient to pay for facilities planned to accommodate growth. Consequently, the estimates of development and population should be periodically reviewed and updated.
- Travel Demand Model.** The nexus calculations and analysis used to calculate maximum fees by land use category are based on the recently updated version of the STA travel demand model. Fehr & Peers worked with a modeling Technical Advisory Committee to validate and update the base year 2013 and build-out year 2033 assumptions embodied in

¹ The revenue shortfall to the RTIF program that would result from reducing the fees must ultimately be made up by other non-RTIF revenue sources to ensure that the projects actually get built.

this model. This model calculates the demand that projected growth will generate for regional transportation improvements and thus serves the basis for estimated a “fair share” cost allocation.

- **Eligible and Selected RTIF Projects:** The maximum fee calculated based on 11 specific transportation projects that were selected based on input from the TWG, SC, and PC and ultimately approved by the STA Board on May 8, 2013. These projects were also reviewed to ensure that they meet the nexus requirements of AB 1600.
- **Cost Estimates.** The fee calculations embody facility cost assumptions that have been developed based on published studies where available, City, County and STA staff estimates, as well as additional cost analysis provided by Mark Thomas & Company, Inc., a civil engineer retained by the STA as part of the Study. The cost estimates are intended for planning purposes, and will be further refined over time as individual capital improvement projects are designed. As with the estimates of growth, the cost estimates should be periodically reviewed and updated.

2. RTIF GROWTH PROJECTIONS

The RTIF is a one-time fee levied on new development at a rate proportional to its demand for transportation capital improvements. Thus, a forecast of new development in Solano County is required to calculate the fee. This Chapter documents the land use growth assumptions used to calculate the RTIF program fee. Specifically, it describes the amount of residential, retail, and commercial/industrial land use development expected to occur in Solano County through the year 2033. These estimates are used for the following primary purposes in the fee calculation:

- Estimates of existing and future development are used to evaluate future traffic levels and determine the need for transportation improvements in Solano County.
- Estimates of future development are used to allocate the costs of required transportation improvements and ultimately to calculate a fee per unit of new growth.

The following sections describe the development projections and the key assumptions underlying them.

Growth Projections

Table 3 provides the population and employment forecasts by jurisdiction used in the RTIF modeling process which, for consistency, are the same projections being used as part of Solano County's broader PFF update. The projections incorporate a variety of analytical steps and data sources, as summarized below:

1. The County-wide population and employment growth forecasts are based on the average growth rate estimates from the most recent Association of Bay Area Governments (ABAG), California Department of Finance (DOF), and Woods & Poole (employment excludes DOF) projections.
2. The baseline, year 2013, population and employment estimates at the jurisdiction level are based on benchmark estimates from the 2010 Census and ABAG, respectively. To obtain the 2013 baseline estimates, EPS applied countywide annual growth rates between 2010 and 2012 in population from DOF and job growth based on California Employment Development Department (EDD) to the 2010 benchmark estimates.
3. The allocation of growth between these areas is based on the existing STA traffic model. Specifically, the STA model jurisdiction level forecasts have been normalized to the County total but maintain their relative growth ratios. For example, if a jurisdiction accounted for 5 percent of the County's growth through 2033 in the STA model it is assumed to account for 5 percent of growth in the PFF projection (albeit the absolute growth is adjusted to conform to the revised County total).

Table 3 RTIF Growth Forecasts by Jurisdiction (2013-33)

Jurisdiction	Amount by Year		2013 - 2033 Growth ¹	
	2013	2033	Total	Avg. Annual
Population				
Benicia	27,141	28,495	1,354	0.24%
Dixon	18,433	25,862	7,429	1.71%
Fairfield	107,258	120,356	13,098	0.58%
Rio Vista	7,479	17,281	9,802	4.28%
Suisun City	28,209	33,352	5,143	0.84%
Vacaville	92,853	105,475	12,623	0.64%
Vallejo	116,885	132,420	15,535	0.63%
Unincorporated	<u>18,945</u>	<u>19,578</u>	<u>633</u>	<u>0.16%</u>
County Total²	417,203	482,821	65,617	0.73%
Employment				
Benicia	14,466	16,560	2,094	0.68%
Dixon	4,489	4,754	266	0.29%
Fairfield	40,286	49,424	9,139	1.03%
Rio Vista	1,965	3,591	1,626	3.06%
Suisun City	3,192	4,232	1,040	1.42%
Vacaville	30,336	35,304	4,968	0.76%
Vallejo	32,549	40,790	8,241	1.13%
Unincorporated	<u>8,074</u>	<u>8,667</u>	<u>593</u>	<u>0.35%</u>
County Total³	135,357	163,322	27,965	0.94%

[1] Growth allocation between jurisdictions is based on relative growth rates assumed in the STA model.

[2] County-wide population growth based on the average annual growth rates from ABAG, DOF, and Woods & Poole between 2010 and 2030.

[3] County-wide employment growth based on the average annual growth rate of ABAG and Woods & Poole.

Source: Economic & Planning Systems.

The regional household and employment projections provided above form the basis for developing growth forecasts by land use category that are used to estimate travel demand. Specifically, the 2013 through 2033 household and employment projections are used to estimate future residential, retail, and commercial/industrial development. For employment projections, approximately 350 square feet per retail employee and 375 square feet for all other employment categories are assumed to estimate the commercial/industrial development. **Table 4** summarizes these estimates.

Table 4 Land Use Growth Forecasts

Land Use Category	Existing (Year 2013)	Total Growth (2013 - 33)
Residential¹		
Single Family	102,349	14,675
Multi-Family	<u>37,314</u>	<u>8,959</u>
Subtotal	139,663	23,634
Employment		
Retail	29,302	6,233
Other	<u>106,767</u>	<u>22,030</u>
Subtotal	136,069	28,263
Square Feet		
Retail ²	10,255,700	2,181,550
Other ³	<u>40,037,625</u>	<u>8,261,250</u>
Subtotal	50,293,325	10,442,800

- [1] Based on population projections in Table 3 and allocation between single-family and multi-family developed as part of the STA Travel Demand Model.
 [2] Calculations assume 350 square feet per employee.
 [3] Calculations assume 375 square feet per employee.

Dwelling Unit Equivalent Calculations

This analysis relies on Dwelling Unit Equivalent (DUE) factors to compare and evaluate future development across land use categories. Specifically, DUE factors compare residential, retail, and commercial/industrial land uses to one another based on their vehicle trip generation rates in order to develop a common metric for analysis. The factors used to convert residential, commercial/industrial, and retail growth into DUEs are shown in **Table 5**, and are based on standard assumptions regarding trip generation and trip diversion.²

² Assumptions based on data from the Institute of Transportation Engineers (ITE) Trip Generation Model (9th Edition) and the San Diego Council of Governments (SANDAG) Brief Guide to Vehicular Traffic Generation Rates, July 1998.

Table 5 Dwelling Unit Equivalent Assumptions

Fee Category	Unit Type	Pk Hour	% New	DUE
		Trip Rate ¹	Trips ²	Calculation
		a	b	c = a * b
Residential				
Single Family Residential (SFR)	/ Unit	1.00	100%	1.00
Multi Family Residential (MFR)	/ Unit	0.62	100%	0.62
2nd SFR Unit/Accessory Unit	/ Unit	0.54	100%	0.54
MFR Senior/Retirement Housing	/ Unit	0.39	100%	0.39
Non-residential				
Retail/Commercial	/ 1,000 Sq.Ft.	3.71	50%	1.86
Service Commercial	/ 1,000 Sq.Ft.	9.02	51%	4.60
Assembly Uses	/ 1,000 Sq.Ft.	0.55	64%	0.35
General/Medical Office	/ 1,000 Sq.Ft.	1.49	77%	1.15
Hotels/Motels	/ Room	0.605	58%	0.35
Industrial	/ 1,000 Sq.Ft.	0.88	85%	0.75
Warehouse/Distribution	/ 1,000 Sq.Ft.	0.16	85%	0.14
Institutional				
Health Care Facility	/ 1,000 Sq.Ft.	1.16	73%	0.85
Congregate Care Facility	/ Unit	0.20	100%	0.20
Private School/Day Care Facility	/ 1,000 Sq.Ft.	11.59	43%	4.93
Agricultural Uses				
Riding Arena ³	/ Acre	1.50	64%	0.96
Barn	/ 1,000 Sq.Ft.	0.16	80%	0.13

[1] Reflects average number of trips at peak hour of day for the unit type indicated based on data from the Institute of Transportation Engineers (ETI)

[2] Discount to peak trip rate to account for pass-through or loaded trips.

[3] If a barn is included in the development than that portion of the project is charged separately based on the rate shown for "Barn".

The DUE factors described above are then used to calculate total DUE growth by land use and jurisdiction. Specifically, the land use growth forecasts presented in Table 4 are multiplied by the DUE factors in Table 5 to derive total DUE growth. The results of these calculations are presented in **Table 6**. It should be noted that the STA land use projections do not include the same level of detail as the Fee and DUE categories shown in **Table 5** (e.g., the STA land use projections do not specify the number of hotel rooms, riding arenas or barns that will be developed in the County through 2033). Consequently, the conversion from land use growth

(e.g., residential units and commercial square feet) to DUE growth aggregates certain land use categories. Overall these calculations result in a 17 percent increase in DUEs Countywide between 2013 through 2033.

Table 6 Growth Converted into DUEs (2013 – 33)

Category / Jurisdiction	Single Family	Multi-Family	Retail¹	Other Employment²	Total
Land Use Growth (units or jobs)					
Benicia	261	260	0	2,089	
Dixon	2,230	198	146	116	
Fairfield	1,603	3,182	1,839	7,373	
Rio Vista	2,858	1,446	392	1,356	
Suisun City	1,138	497	109	952	
Vacaville	3,897	700	1,633	3,335	
Vallejo	2,563	2,673	2,114	6,220	
Unincorporated	<u>125</u>	<u>3</u>	<u>0</u>	<u>589</u>	
Total	14,675	8,959	6,233	22,030	
DUE Conversion Factor (see Table 5)	1.00	0.62	1.86	0.60	
DUE Growth					
Benicia	261	161	0	467	889
Dixon	2,230	123	95	26	2,473
Fairfield	1,603	1,973	1,194	1,647	6,416
Rio Vista	2,858	897	255	303	4,312
Suisun City	1,138	308	71	213	1,730
Vacaville	3,897	434	1,060	745	6,136
Vallejo	2,563	1,657	1,373	1,389	6,982
Unincorporated	<u>125</u>	<u>2</u>	<u>0</u>	<u>132</u>	<u>258</u>
Total	14,675	5,555	4,047	4,920	29,196
Existing DUEs	102,349	23,135	19,024	23,844	168,352
% Growth	14%	24%	21%	21%	17%

[1] Calculations assume 350 square feet per employee.

[2] Calculations assume 375 square feet per employee.

3. RTIF CAPITAL PROJECTS AND COSTS

This chapter documents the transportation improvements included in the initial RTIF capital project list and their corresponding costs. The RTIF capital project list includes all the projects that are assumed to be funded, in full or in part, by RTIF revenue and thus form the basis for the fee calculation. To meet the requirements of AB 1600, the transportation facilities included in the RTIF project list are needed in whole or in part to accommodate the impacts of growth in the County.

RTIF Priority Projects and Costs

As part of the RTIF study process, the STA convened numerous study sessions and public meetings with staff from the County's eight jurisdictions and other stakeholders to identify the priority projects that would be included in the regional fee program that will be impacted by regional growth throughout the County.³ In addition, all of the projects proposed and ultimately included in the RTIF Priority Project list have been reviewed to ensure consistency with the requirements of AB 1600. Based on this input and analysis, a final "RTIF Priority Project" list has been approved by the STA Board on May 8, 2013.

A description of the RTIF Priority Project list used to develop the fee calculated in this Report is provided in **Table 7**. As shown, there are 11 separate proposed RTIF projects with an estimated total capital cost of about \$427.8 million. The cost estimates are based on the best information available at the time of this Report. To the extent that this project list and/or the corresponding cost estimates are updated, the maximum fee amount will change accordingly.

³ The project list was developed based on input from two Technical Working Groups (TWGs) consisting of staff from the County and its seven (7) municipalities. In addition, it incorporates policy guidance received by a Stakeholder Committee (SC) consisting of representatives from various community interest groups, and a Policy Committee (PC) composed of the members of the STA Board, the STA Executive Directors, and the Chief Executive Officers of the STA's member agencies.

Table 7 RTIF Priority Project Cost Estimates

RTIF Project	Description	Project Costs
#1 - Jepson Parkway	Construct remaining segments of Jepson Parkway	\$208,100,000 ¹
#2 - Peabody Road	Widen from 2 to 4 lanes	\$5,000,000
#3 - SR 12/Pennsylvania Avenue	Construct new interchange	\$50,000,000
#4 - SR 12/Church Road	Improve intersection	\$10,410,000 ²
#5 - SR 37/Redwood Pkwy/ Fairgrounds Dr.	Widen roads and improve interchanges	\$65,000,000
#6 - Benicia Industrial Park Access	Add traffic signals and better accommodate trucks at I-680/Lake Herman Rd, and I-680/Park/Industrial	\$20,000,000
#7 - Columbus Parkway	Add traffic signal at Columbus/ Rose and improve westbound approach	\$1,000,000
#8 - North Connector	Construct North Connector from Business Center Drive to SR 12	\$37,990,000
#9 - SR 113 Improvements	TSM, TDM and ITS (e.g. incentives for carpooling, transit services, Park and Ride facilities, advance swerve warning signs, speed feedback signs and fog detection or closed circuit TV)	\$4,990,000 ³
#10 County Rd. Projects	Unincorporated County roadway improvements that address new growth impacts	\$12,626,431 ⁴
#11 Express Bus Transit Centers and Train Stations	<ul style="list-style-type: none"> • Benicia Industrial Park Multi-modal Transit Center • Dixon Multimodal Transportation Center • Fairfield Transportation Center, next phase • 360 Project Area Transit Center • Vallejo Station or Curtola Park & Ride, next phase • Vacaville Transportation Center, next phase • Suisun City Train Station improvements 	\$12,626,431 ⁴
Total RTIF Priority Project Cost		\$427,742,862

[1] Based on Fairfield new estimate provided in May 8, 2013 letter of request to include Peabody Road

[2] Based on a 6.17% escalation factor from 2010 to 2013 from the ENR San Francisco March Indices averaged between Construction Cost Index

[3] Based on a 5.89% escalation factor from 2009 to 2013 provided from the ENR San Francisco March Indices averaged between Construction Cost Index

[4] Calculated based on 5% percent of total DUE revenue assuming a fee of \$1,500 / DUE.

It should be noted that in addition to discrete transportation projects, the RTIF program includes two additional packages of improvements to address the impact of growth on the regional transportation system. One package includes major regional transit facilities, which could be either train stations or intermodal transfer centers that serve regional and express bus lines. The other package includes improvements to rural roads in unincorporated County areas that are affected by growth in the incorporated cities. It is proposed that 5 percent

of the RTIF revenue be directed to each of these project packages. The total cost for these packages is based on the maximum allowable nexus, as described further in the subsequent chapter.

The fee calculations embody facility cost assumptions that have been developed based on published studies where available, City, County and STA staff estimates, as well as additional cost analysis provided by Mark Thomas & Company, Inc., a civil engineer retained as part of the Study. Costs from studies published before 2013 were translated into year 2013 dollars using the Engineering News Record (ENR) construction cost index for the San Francisco Bay Area. The cost estimates are intended for planning purposes only, and will be refined over time as individual capital improvement projects are further developed and designed.

Changes to RTIF Priority Projects

While the initial RTIF Priority Project List was established as part of this Nexus Report, it is recognized that the list of transportation projects may need to be amended over time as circumstances change. In other words, the STA and participating jurisdictions will need to update the RTIF priority project list on a periodic basis as development occurs. Typically this would occur on a 5-year basis concurrent with AB 1600 statutory requirements for updating development impact fee programs.

4. RTIF NEXUS ANALYSIS AND FEE CALCULATION

This chapter describes the modeling techniques used to establish the basis for calculating the fee for the RTIF program. The fee per DUE is based on the cost of RTIF Priority Projects that can be attributable to new growth within Solano County divided by projected number of DUEs in the County.

Existing Traffic Conditions

By definition, a fee program charges fees to new development in order to fund transportation improvements necessary to serve the demand and impacts generated by that new development. The following procedure was used to determine if any of the transportation projects identified for inclusion in the RTIF are at locations that experience current traffic problems.

Available traffic analysis studies and reports were consulted, and the analysis of current traffic operations reported in those studies was reviewed to determine if any of the proposed RTIF projects are located on road facilities that currently operate at a level worse than LOS D during the peak hour; if that is the case, then that RTIF project would be at a location that is currently an "existing deficiency", and the cost of the capital improvement at that location would need to be divided between existing development and new development in proportion to their relative contribution to the deficiency.

For any location where there is an existing deficiency, the cost share attributable to new development, and therefore included in the RTIF, is calculated as follows:

1. Quantify the existing deficiency by determining the current traffic volumes that exceed the available capacity. For example, if a facility with a theoretical capacity of 2,000 vehicles is currently carrying 2,100 vehicles, the existing deficiency would be calculated as $2,100 - 2,000 = 100$.
2. Determine the future traffic growth by subtracting the current traffic volumes from the forecasted future traffic volumes. For example, if the future demand on that facility is projected to be 2,500 vehicles, the future traffic growth would be calculated as $2,500 - 2,100 = 400$.
3. Define the overall benefit of the project as the correction of the existing deficiency (from number 1 above) plus the accommodation of future growth (from number 2). In our example, the overall benefit of improving the road would be to correct the existing deficiency of 100 vehicles and to accommodate the future growth of 400 vehicles, for a total benefit of 500.
4. Calculate new development's share of the benefit as the result of number 2 divided by number 3. In this case, the share of the benefit to new development would be 80 percent, or 400 divided by 500. Therefore, 80 percent of the project cost would be included in the fee program. The remaining 20 percent of the project cost would need to be funded through other sources.

Existing Deficiency Evaluation

The results of the review of existing traffic information are shown in **Table 8**. As shown in that table, there was one location along the proposed Jepson Parkway project (at the intersection of Peabody Road and Cement Hill Road) where the traffic analysis results from a recent traffic study indicated peak hour operations at worse than LOS D conditions. This location was thus identified as an existing deficiency. The other RTIF projects did not have existing deficiencies.

The Jepson Parkway project involves a long corridor that extends between Fairfield and Vacaville. An existing deficiency was identified at a single location along that corridor. While that single location does not reflect conditions along the entire corridor, for the purposes of presenting a very conservative fee calculation it was decided to apply an existing deficiency discount to the total cost of the Jepson Parkway project. As part of the recently-adopted City of Fairfield traffic impact fee program update, an existing deficiency discount was calculated, per the approach outlined above, for the intersection of Peabody Road and Cement Hill Road; the resulting discount was calculated at 1 percent. Therefore, it is recommended that the cost of the Jepson Parkway project that is included in the RTIF be reduced by 1 percent.

Transportation Modeling

The adopted regional Solano-Napa Travel Model, which is the modeling tool approved for use in regional transportation planning efforts in Solano County, was used to establish the nexus between new development in Solano County and the capital improvement projects proposed for inclusion in the RTIF program. Information related to the proposed RTIF program was incorporated into the STA regional travel model, and a series of analyses were conducted to determine the proportion of usage on each RTIF facility that comes from new development in the Solano County region.

Background Assumptions

For the purposes of conducting the year 2033 RTIF analysis, it was necessary to determine what other, non-RTIF capital improvements are anticipated to be constructed by 2033. Based on direction from STA staff, the following improvements were assumed to be in place regardless of the status of the RTIF program:

- HOV/HOT lanes on I-80 and I-680 throughout the County
- Completion of Phase 1 of the I-80/I-680/SR 12 interchange improvements
- Widening of SR 12 West (Jameson Canyon) to 4 lanes from Red Top Road to SR 29

This is not intended to be an exhaustive list of all projects that would be constructed by 2033, but is intended to capture the most significant, large regional projects that are planned to be completed during that period. Undoubtedly there would be a number of local projects that could be completed during this timeframe, but for the purposes of the RTIF it is most important to capture the major regional projects and the effects those might have on regional traffic patterns.

Table 8
Information on Existing Traffic Conditions at RTIF Project Locations
STA RTIF Nexus Study

RTIF Project	Source of Traffic Analysis Information	Traffic Analysis Result	Existing Deficiency?	Deficiency Percentage*
#1 - Jepson Parkway	Fairfield Train Station Specific Plan Recirculated Draft EIR, City of Fairfield, February 2011, Table 4.14-4.	Peak hour LOS E at intersection of Peabody Rd/ Cement Hill Rd; all other intersections in vicinity of Jepson Parkway at peak hour LOS D or better	Yes	1%
#2 - Peabody Road	Fairfield Train Station Specific Plan Recirculated Draft EIR, City of Fairfield, February 2011, Table 4.14-4.	Peak hour LOS D or better at all study intersections in vicinity of proposed project	No	N/A
#3 - SR 12/Pennsylvania Avenue	SR 12 Comprehensive Evaluation and Corridor Management Plan, STA, November 2012, page 4-15.	Peak hour LOS D or better	No	N/A
#4 - SR 12/Church Road	SR 12 Comprehensive Evaluation and Corridor Management Plan, STA, November 2012, page 4-15.	Peak hour LOS D or better	No	N/A
#5 - SR 37/Redwood Pkwy/ Fairgrounds Dr.	Redwood Parkway - Fairgrounds Drive Improvements Traffic Operations Analysis Report, STA, 2011, Table 16.	Peak hour LOS D or better at all study intersections in vicinity of proposed project	No	N/A
#6 - Benicia Industrial Park Access	Valero Improvement Project Addendum to VIP EIR, City of Benicia, June 2008, page 3-43.	Peak hour LOS D or better at all study intersections in vicinity of proposed project	No	N/A
#7 - Columbus Parkway	Bordoni Ranch Project EIR, City of Vallejo, July 2004, Table IV.C-8.	Peak hour LOS D or better at intersection of Columbus Parkway/Rose Drive	No	N/A
#8 - North Connector	North Connector Project Draft EIR, STA, January 2008, Table 4.2-2	Peak hour LOS D or better at all study intersections in vicinity of proposed project**	No	N/A
#9 - SR 113 Improvements	SR 113 Major Investment Study Final Report, STA, May 2009, Table 2.4	Peak hour LOS D or better at all roadway segments studied	No	N/A

* Deficiency Percentage is calculated as the amount of traffic volume that is currently over-capacity at that intersection, as a proportion of the total future growth in traffic volume projected. The project cost to be included in the STA RTIF program should be reduced by this deficiency percentage. For the intersection of Peabody Rd/Cement Hill Rd, the deficiency percentage was calculated as part of the City of Fairfield Traffic Impact Fee Program update, adopted by the Fairfield City Council in May 2013.

** The North Connector Project Draft EIR referenced above did find LOS F conditions at one intersection, at SR 12/Red Top Road. Since the study was completed, that intersection has been modified as part of the ongoing SR 12 Jameson Canyon widening project. Therefore, the LOS results reported at that intersection from the North Connector Project Draft EIR are no longer reflective of current operations, and that intersection is not identified as an existing deficiency.

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Modeling Procedure

Using the STA regional travel model, the trip tables were separated into “baseline” and “growth” trip tables. The baseline trip table came from the 2013 model, and was subtracted from the 2033 trip table to produce a “growth” table that would represent the trips generated by new development. This is an important step since the fee will be charged only to new development, and is based on an evaluation of that new development’s effects on the RTIF projects. The baseline and growth trip tables were then assigned simultaneously to a year 2033 network that reflected the assumed projects described above as well as the proposed RTIF projects. This method allows for the production of a year 2033 traffic assignment, while still allowing each trip to be characterized as either part of the baseline or part of the growth increment.

Since the RTIF is a regional fee program, it is also important to identify the proportion of traffic on each facility that is regional in nature. For the purposes of this analysis, three types of trips have been defined: local, regional, and through trips. Local trips are those that begin and end in the same jurisdiction within Solano County. Through trips are those that pass through Solano County, with neither an origin nor a destination in the County. Regional trips are those trips that travel between two different jurisdictions in the County, or that have one end inside the County and one end outside the County. One way of determining the “regional significance” of a project, then, would be to look at the percentage of regional trips that are anticipated to use that facility. Each trip in the model assignment was characterized as one of these three categories.

Results

The results are shown in the attached **Table 9**. The table lists each of the RTIF projects and shows the percentage of the new traffic on the facility (i.e., the traffic resulting from new growth in Solano County) that falls within the categories of local trips, through trips, and regional trips described above. The percentage of new regional traffic on each facility will be used as the percentage of that facility’s improvement cost that will be considered eligible for inclusion in the RTIF program. Please see **Appendix A** for a more detailed table of modeling results for each project.

Table 8 Regional Trip Percentages for Priority RTIF Projects

RTIF Project	Existing Deficiency (see Table 8) a	Percentage of New Vehicle Trips			RTIF Cost Allocation = (1-a) * b
		Local	Through	Regional b	
#1 - Jepson Parkway	1%	35%	6%	59%	58%
#2 - Peabody Road	0%	20%	2%	78%	78%
#3 - SR 12/Pennsylvania Avenue	0%	25%	4%	71%	71%
#4 - SR 12/Church Road	0%	20%	45%	35%	35%
#5 - SR 37/Redwood Pkwy/ Fairgrounds Dr.	0%	42%	26%	32%	32%
#6 - Benicia Industrial Park Access	0%	0%	23%	77%	77%
#7 - Columbus Parkway	0%	0%	8%	92%	92%
#8 - North Connector	0%	7%	33%	60%	60%
#9 - SR 113 Improvements	0%	0%	59%	41%	41%
#10 County Rd. Projects ¹	83%	0%	0%	100%	17%
#11 Regional Transit Projects ¹	83%	0%	0%	100%	17%

[1] Cost allocation assumed to equal 17% of total project costs, or the percent increase in County DUEs from 2013 - 33.

It should be noted that the intent of this analysis was solely for the purposes of the RTIF process. The primary result is the percentage of new trips projected to use each facility that are regional (i.e., that involve travel between Solano County jurisdictions, or between a jurisdiction inside the County and another outside the County). It is not intended for these results to be used to determine the appropriate size or configuration for any particular facility, or to directly support any project-specific planning activities.

As described earlier, the RTIF program also includes a set of regional transit and County road projects. Neither of these packages lends itself to being directly modeled using the regional Solano-Napa Travel Model described in this chapter. However, it is reasonable to include facilities such as these in a regional fee program, since by their nature they serve regional travel between jurisdictions in Solano County or between Solano County and neighboring counties.

These regional transit and County road projects are expected to benefit all County residents and workers, both those that are already in the County and those that will come to the County as a result of new development. Because it is not possible to directly model these projects using the regional Solano-Napa Travel Model, thus making it difficult to calculate the usage of these specific facilities by travelers generated by new development, it is instead proposed that the proportion of the projects' costs considered eligible for RTIF funding be calculated as the proportion of the total future population and employment in the County that is contributed by new development. That percentage is 17 percent; that is, 17 percent of the total future population and employment in Solano County is anticipated to occur as a result of new growth during the planning horizon covered by this study.

Calculation of Maximum Fee

As described in **Chapter 2**, this analysis relies on DUE factors to compare and evaluate future development across land use categories. The maximum fee calculation is based on the net RTIF capital project costs attributable to new growth throughout the County divided by the projected number of new housing units, retail and commercial square feet developed in the Solano County from 2013 through 2033. Specifically, the total DUE growth by land use, calculated in **Table 6**, is divided by the capital project costs (see **Table 7**) to obtain total cost per DUE. This calculation is summarized in **Table 10**.

Table 9 RTIF Project Cost Per DUE

RTIF Project	Total RTIF Project Cost a (see Table 7)	RTIF Cost Allocation b (see Table 9)	RTIF Costs c = a * b	Maximum Fee / DUE = c / Total DUE growth, or 29,196
#1 - Jepson Parkway	\$208,100,000	58%	\$122,779,000	
#2 - Peabody Road	\$5,000,000	78%	\$3,900,000	
#3 - SR 12/Pennsylvania Avenue	\$50,000,000	71%	\$35,500,000	
#4 - SR 12/Church Road	\$10,410,000	35%	\$3,643,500	
Fairgrounds Dr.	\$65,000,000	32%	\$20,800,000	
#6 - Benicia Industrial Park Access	\$20,000,000	77%	\$15,400,000	
#7 - Columbus Parkway	\$1,000,000	92%	\$920,000	
#8 - North Connector	\$37,990,000	60%	\$22,794,000	
#9 - SR 113 Improvements	\$4,990,000	41%	\$2,045,900	
#10 County Rd. Projects ¹	\$12,626,431	17%	\$2,189,726	
#11 Regional Transit Project ¹	\$12,626,431	17%	\$2,189,726	
Total / Weighted Avg.	\$427,742,862	54%	\$232,161,851	\$7,952

[1] Calculated based on 5% percent of total DUE revenue assuming a fee of \$1,500 / DUE. Cost allocation assumed to equal 17% of total project costs, or the percent increase in County DUEs from 2013 - 33.

A summary of the maximum RTIF per DUE by land use is provided in **Table 11**. The actual fees by land use category are derived based on the DUE factors shown in **Table 5** (total fee per DUE multiplied by the DUE factor by land use category). As noted, the RTIF provides a single fee representing the entire County. To the extent that the costs are reduced because of outside funding sources, changed facility requirements, or reduced DUE growth, the fee would be reduced by a proportionate amount.

Table 10 Maximum Allowable Fee by Land Use Category

Fee Category	Unit Type	Pk Hour	% New	DUE	Fee / Unit = c * \$7,952 (see Table 10)
		Trip Rate ¹	Trips ²	Calculation	
		a	b	c = a * b	
Residential					
Single Family Residential (SFR)	/ Unit	1.00	100%	1.00	\$7,952
Multi Family Residential (MFR)	/ Unit	0.62	100%	0.62	\$4,930
2nd SFR Unit/Accessory Unit	/ Unit	0.54	100%	0.54	\$4,268
MFR Senior/Retirement Housing	/ Unit	0.39	100%	0.39	\$3,101
Non-residential					
Retail/Commercial	/ 1,000 Sq.Ft.	3.71	50%	1.86	\$14,750
Service Commercial	/ 1,000 Sq.Ft.	9.02	51%	4.60	\$36,580
Assembly Uses	/ 1,000 Sq.Ft.	0.55	64%	0.35	\$2,799
General/Medical Office	/ 1,000 Sq.Ft.	1.49	77%	1.15	\$9,123
Hotels/Motels	/ Room	0.605	58%	0.35	\$2,790
Industrial	/ 1,000 Sq.Ft.	0.88	85%	0.75	\$5,948
Warehouse/Distribution	/ 1,000 Sq.Ft.	0.16	85%	0.14	\$1,081
Institutional					
Health Care Facility	/ 1,000 Sq.Ft.	1.16	73%	0.85	\$6,734
Congregate Care Facility	/ Unit	0.20	100%	0.20	\$1,590
Private School/Day Care Facility	/ 1,000 Sq.Ft.	11.59	43%	4.93	\$39,168
Agricultural Uses					
Riding Arena ³	/ Acre	1.50	64%	0.96	\$7,634
Barn	/ 1,000 Sq.Ft.	0.16	80%	0.13	\$1,018

[1] Reflects average number of trips at peak hour of day for the unit type indicated based on data from the Institute of Transportation Engineers (ETI)

[2] Discount to peak trip rate to account for pass-through or loaded trips.

[3] If a barn is included in the development than that portion of the project is charged separately based on the rate shown for "Barn".

APPENDIX A:
Project-Specific Trip Percentage Documentation



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DATE: April 15, 2013
TO: STA TAC
FROM: Janet Adams, Deputy Executive Director/Director of Projects
RE: Solano County Regional Measure 2 (RM 2) Implementation Plan

Background:

On March 2, 2004, Bay Area voters passed Regional Measure 2 (RM 2), raising the toll on the seven state-owned bridges in the Bay Area by \$1.00. This extra dollar is to fund various transportation projects within the region that have been determined to reduce congestion or to make improvements to travel in the toll corridors. The projects are specifically identified in Senate Bill (SB) 916. The Metropolitan Transportation Commission (MTC) manages the RM 2 funding for projects and programs, and both MTC and the STA are project sponsors for most of Solano County capital RM 2 projects for a total of \$184 M with the STA, the Cities of Benicia, Fairfield, Vacaville and Vallejo, and SolTrans serve as project implementing agencies, depending on the project.

Discussion:

MTC, RM 2 March 2014 Allocation Deadline

On April 10, 2013, MTC staff updated the Programming and Allocations Committee on the progress to deliver nearly \$1.5 B in RM 2 funding, \$300 M of RM 2 funds which has yet to be allocated. MTC staff discussed a policy proposal of requiring sponsors with unallocated balances to submit a proposal by October 2013 to direct unallocated balances towards ready-to-go usable segments by March 2014. On May 3, 2013, all project sponsors received a letter from MTC stating that a Implementation Plan is due to MTC by September 30, 2013 that demonstrates how the project sponsors intends to advance the projects so that an allocation request can be made by March 31, 2014 towards the completion of usable segments. This staff report outlines the proposed Implementation Plan for Solano County Projects.

Remaining Solano County RM2 Capital Projects

Below is a summary of all remaining Solano County RM 2 projects with remaining funds unallocated or have remaining balances of allocated funds. This summary includes \$13.424M for allocated balances and \$43.026M for unallocated balances.

RM 2 Transit Project	RM2 Project (Sponsor)	RM2 Programmed	Allocated	Allocation Balance	Unallocated Balance
Benicia Park/Industrial I/C Improvements and Park and Ride	17.4 (MTC)	\$1,250,000	\$0		\$1,250,000
Solano County Express Bus Intermodal Facilities - Fairfield Transportation Center	6.3 (STA)	\$5,500,000	\$1,000,000	\$985,000	\$4,500,000
Express Bus North - Fairfield Transportation Center	17.2 (MTC)	\$2,250,000	\$0		\$2,250,000
Solano County Express Bus Intermodal Facilities - Vacaville Intermodal Station	6.4 (STA)	\$5,500,000	\$5,500,000	\$2,263,578	\$0
Express Bus North - Vacaville Intermodal Station	17.3 (MTC)	\$1,750,000	\$1,750,000	\$951,548 (\$3,215,126)	\$0
Fairfield/Vacaville Intermodal Rail Station and Track Improvements	14.2 (CCJPA)	\$22,250,000		\$4,738,070	\$16,535,000
Vallejo Ferry Intermodal Station	5 (Vallejo)	\$28,000,000	\$17,959,354	\$4,103,466	\$10,040,646
Solano County Express Bus Intermodal Facilities - Vallejo Curtola Transit Center	6.1 (STA)	\$6,000,000	\$3,300,275	\$382,347	\$2,699,725
Express Bus North - Vallejo Curtola Transit Center	17.1 (MTC)	\$5,750,000	\$0		\$5,750,000
			Totals	\$13.424M	\$43.026M

Solano County RM2 Implementation Plan for Transit Facilities

After meeting with Project sponsors over the last month, the STA staff, in consultation with the project sponsors, is proposing the following:

Benicia Park/Industrial I/C Improvements and Park and Ride

The City of Benicia has presented an aggressive schedule to meet the regional deadline to have a construction allocation request to MTC for this facility by March 2014. To meet this deadline, the City has issued a RFP for environmental services and preliminary design. The City has made an allocation request to MTC for funding these services. The City has proposed to complete environmental certification at the by November 1, 2013, complete Right-of-Way by March 31, 2014 and request a construction allocation by March 31, 2014.

Fairfield Transportation Center

The Fairfield Transportation Center is in considerable need to construct additional parking capacity due to the existing demand at the Center. Today, the site is full by early morning and experiences an overflow to private shopping center lots. While the City of Fairfield and the STA fully support this project and recognize the priority for these planned improvements, they cannot be constructed with the current funding programmed for the project. As such, the City proposes to leave \$250,000 of allocated funding on the project to provide the necessary resources to have the project ready for a Design Build contract once the full \$25M is made available. The City of Fairfield recognizes that the existing funding is not sufficient to complete the necessary improvements and is proposing to shift the funds to the Fairfield Vacaville Intermodal Rail Station which will begin construction in 2013. The total amount proposed to be shifted to the Rail Station is \$7,470,000.

Vacaville Intermodal Station

The Vacaville Intermodal Station Phase 1 was successfully completed by the City. While the City does have a long range vision of completing a parking structure on the site as the demand grows, it is currently not needed. As a result, the City is seeking to shift the remaining allocated balance to the Fairfield Vacaville Intermodal Rail Station, which is a partnership project between the two cities. The Rail Station will begin construction in 2013. The total amount proposed to be shifted to the Rail Station is \$3,215,126.

Fairfield/Vacaville Intermodal Rail Station and Track Improvements

This Rail Station has been a priority of the City for several years. Throughout this time the City has been diligently working with the Union Pacific Railroad, the Capital Corridor, and the Federal Transit Administration to gain the necessary approvals needed to advance this project. This project has begun relocating utilities and expects to put the main construction contract out to bid in September 2013. Once the City's main construction contract has completed the overcrossing, the track work, and site improvements, the City will issue another construction contract to build the Rail Station amenities. The City did submit a TIGER request of \$9M to fund these improvements. As such, this project is on track and with the augmentation proposed of shifting funds from the Vacaville Intermodal Station and the Fairfield Transportation Center, this project will be on track.

Vallejo Ferry Intermodal Station

The City of Vallejo successfully built the Vallejo Station Phase A with the RM 2 funds. Completion of site work for Phase A remains on-going. The City anticipates the necessity to fully utilize the remaining allocated funds for this work. Completion of Phase B remains hindered by the need to relocate the United States Post Office which leases the building where the planned Phase B structure has been proposed for. The City has spent over four years working with the Post Office on a relocation plan. As such, the City has indicated they plan to propose a new site for the Phase B site. The new site will be adjacent to the Phase A structure. However, there are resources needed to make the required changes to the Waterfront Plan and develop new site plans. The construction of the Phase B remains a priority for the City, however, they cannot complete this work by the March 2014 deadline. Further, the City has been partnering with Solano County Transit (SolTrans) on a number of projects to help contribute to the success of this JPA. This work includes the Vallejo Curtola Transit Center and the SolTrans Maintenance Facility at 1850 Broadway. In addition, the City has been seeking to improve mobility on I-80 through the City. With the City's investment in making transit, carpooling, and riding the ferry more accessible, the City is also looking to improve I-80 through the construction of High Occupancy Vehicle Lanes and improved safe access to and from the City. This work can be accomplished through the initiation of the environmental documentation of Express Lanes. The STA previously completed a Project Study Report for this work. As such, the project is ready to advance into the Project Approval/Environmental Document (PA/ED) phase of the project. Based on these facts, the City is seeking to complete the following:

- Utilize the remaining \$4,103,466 of allocated balance on the Phase A site
- Shift \$2M of unallocated funds to Vallejo Curtola Transit Center, construction to begin before March 2014
- Shift \$0.5M of unallocated funds to the 1850 Broadway SolTrans Maintenance Facility, construction to begin before March 2014
- Keep \$0.5M of unallocated funds to complete the revised site development plans for Phase B
- Shift the remaining unallocated funds, \$7.04M, to I-80 Express Lanes in Vallejo

Vallejo Curtola Transit Center

SolTrans has entered into an agreement with the City of Vallejo to deliver the project. The project will consist of adding additional parking capacity to the existing site and complete operational improvements as well. The existing funding for this work is in need of \$2M to complete the planned improvements. The project will be ready to start construction by early 2014 once fully funded. The proposed shift of \$2M from Vallejo Ferry Intermodal will complete the funding gap to allow this project to move forward.

MTC Public Hearing Process to Shift Funds

Once this Plan is adopted by the STA Board, which is proposed in July 2013, staff will work with MTC on the multiple step process that will be required to complete the funding shift as proposed. MTC is required to hold a public hearing to shift funding between RM 2 projects, as required by RM2 legislation. In addition to approval by the STA, part of this process may include concurrence from the project sponsor, if it is not the STA. Staff will keep the TAC and Board apprised of the details and timing of this multiple step process.

Fiscal Impact:

For the STA budget, should MTC approve this Implementation Plan, the approximately \$7M for I-80 Express Lanes through Vallejo will be added to the STA overall work plan and budget.

Recommendation:

Forward a recommendation to the STA Board to approve the Regional Measure 2 Implementation Plan as shown on Attachment A.

Attachment:

- A. Solano County RM 2 Implementation Plan

ATTACHMENT A

RM 2 Transit Project	RM2 Project (Sponsor)	RM2 Originally Programmed	2013 Implementation Plan
Benicia Park/Industrial I/C Improvements and Park and Ride	17.4 (MTC)	\$1,250,000	\$1,250,000
Solano County Express Bus Intermodal Facilities - Fairfield Transportation Center	6.3 (STA)	\$5,500,000	\$265,000 ¹ <\$5,235,000> ²
Express Bus North - Fairfield Transportation Center	17.2 (MTC)	\$2,250,000	<\$2,250,000> ²
Solano County Express Bus Intermodal Facilities - Vacaville Intermodal Station	6.4 (STA)	\$5,500,000	<\$2,263,578> ³
Express Bus North - Vacaville Intermodal Station	17.3 (MTC)	\$1,750,000	<\$951,548> ³
Fairfield/Vacaville Intermodal Rail Station and Track Improvements	14.2 (CCJPA)	\$22,250,000	Add \$10,700,126 ⁴
Vallejo Ferry Intermodal Station	5 (Vallejo)	\$28,000,000	<\$9,540,646> ⁵
Solano County Express Bus Intermodal Facilities - Vallejo Curtola Transit Center	6.1(STA)	\$6,000,000	Add \$2,000,000 ⁶
Express Bus North - Vallejo Curtola Transit Center	17.1 (MTC)	\$5,750,000	
I-80 Express Lanes - Vallejo			Add \$7,040,646 ⁷

- 1 \$15,000 previously expended, \$250,000 remains on project to complete development work.
- 2 Shift a total of \$7,485,000 to the Fairfield Vacaville Intermodal Rail Station
- 3 Shift a total of \$3,215,126 to the Fairfield Vacaville Intermodal Rail Station
- 4 Addition of \$10,700,126 from Fairfield Transportation Center and Vacaville Intermodal Station
- 5 Shift \$2M to Vallejo Curtola Transit Center , shift \$0.5M to 1850 Broadway SolTrans Maintenance Facility, and shift \$7,040,646 to I-80 Express Lanes Vallejo
- 6 Addition of \$2,000,000 from Vallejo Ferry Intermodal Station
- 7 Addition of \$7,040,646 from Vallejo Ferry Intermodal Station

Attachment A
RM 2 Solano County Implementation Plan

RM 2 Transit Project	RM2 Project (Sponsor)	RM2 Originally Programmed	2013 Implementation Plan
Benicia Park/Industrial I/C Improvements and Park and Ride	17.4 (MTC)	\$1,250,000	\$1,250,000
Solano County Express Bus Intermodal Facilities - Fairfield Transportation Center	6.3 (STA)	\$5,500,000	\$265,000 ¹ <\$5,235,000> ²
Express Bus North - Fairfield Transportation Center	17.2 (MTC)	\$2,250,000	<\$2,250,000> ²
Solano County Express Bus Intermodal Facilities - Vacaville Intermodal Station	6.4 (STA)	\$5,500,000	<\$2,263,578> ³
Express Bus North - Vacaville Intermodal Station	17.3 (MTC)	\$1,750,000	<\$951,548> ³
Fairfield/Vacaville Intermodal Rail Station and Track Improvements	14.2 (CCJPA)	\$22,250,000	Add \$10,700,126 ⁴
Vallejo Ferry Intermodal Station	5 (Vallejo)	\$28,000,000	<\$9,540,646> ⁵
Solano County Express Bus Intermodal Facilities - Vallejo Curtola Transit Center	6.1 (STA)	\$6,000,000	Add \$2,000,000 ⁶
Express Bus North - Vallejo Curtola Transit Center	17.1 (MTC)	\$5,750,000	
I-80 Express Lanes - Vallejo			Add \$7,040,646 ⁷

- 1 \$15,000 previously expended, \$250,000 remains on project to complete development work.
- 2 Shift a total of \$7,485,000 to the Fairfield Vacaville Intermodal Rail Station
- 3 Shift a total of \$3,215,126 to the Fairfield Vacaville Intermodal Rail Station
- 4 Addition of \$10,700,126 from Fairfield Transportation Center and Vacaville Intermodal Station
- 5 Shift \$2M to Vallejo Curtola Transit Center , shift \$0.5M to 1850 Broadway SolTrans Maintenance Facility, and shift \$7,040,646 to I-80 Express Lanes Vallejo
- 6 Addition of \$2,000,000 from Vallejo Ferry Intermodal Station
- 7 Addition of \$7,040,646 from Vallejo Ferry Intermodal Station



DATE: June 11, 2013
TO: STA TAC
FROM: Robert Guerrero, Project Manager
RE: I-80 Ramp Metering Study and Implementation Plan and Ramp Metering MOU

Background:

The STA has been working with Caltrans, the Metropolitan Transportation Commission (MTC) and the local agencies located on the I-80 Corridor through the Solano Highways Partnership (SoHIP) to develop the I-80 Ramp Metering Study and Implementation Plan since January 2010. The Implementation Plan analyzes ramp metering impacts and benefits along the I-80 Corridor, provides a staging plan to implement meters, and recommend mitigations to reduce impacts on city streets and county roads. The plan was developed to guide the implementation for ramp metering in Solano County on I-80 before metering lights are activated.

MTC was the lead project manager for this effort and selected Kittelson and Associates, Inc. consultants to assist in the Plan's development. In January 2013, MTC released a draft version of the Implementation Plan for review in January 2013 (Attachment A). STA staff has since worked with the local member agencies participating on the SoHIP to develop comments on the I-80 Ramp Metering Implementation Plan.

In addition to the Implementation Plan, the SoHIP also had discussions on developing a Memorandum of Understanding (MOU) with Caltrans for implementing ramp meters on the I-80 corridor. This was direction given as a result of ramp metering policy discussions held by the STA Board at their Board Retreat on March 8, 2013. There was an early discussion about whether the Caltrans MOU should be a countywide MOU or a city by city MOU. Caltrans had precedence for entering in countywide Congestion Management Agency ramp metering MOU's before activating metering lights in other Bay Area counties. Caltrans preference at the time was to have countywide MOU's due to the extensive coordination and delays that could potentially occur with individual city MOU's. This discussion became somewhat moot when MTC approved an update to their Traffic Operation Systems Policy Resolution on May 22, 2013.

Discussion:

I-80 Ramp Metering Study and Implementation Plan

The Implementation Plan evaluated two horizon year conditions: 2015 and 2030. The 2015 horizon year was selected as the base analysis year since that is when ramp metering equipment was anticipated be complete and ready for activation for a major portion of the corridor within Solano County. The 2030 horizon year analysis was conducted to determine the staging of ramp metering on I-80 beyond 2015 conditions and to determine what additional mitigations might be desirable by 2030 to address possible diversions and ramp capacity constraints in the long term.

Attachment B includes comments from the local agencies on the SoHIP and STA staff. The main concern expressed by the local agencies continued to be in regards to the metering impacts on local agencies. The majority of the comments included in the attachment were clarifications and suggestions for further explanations regarding exhibits throughout the document. STA staff scheduled a meeting with Caltrans and MTC staff to discuss these comments with the local agencies on Wednesday, June 12th to discuss the local agency comments. In addition to the comments, STA staff discussed appropriate next steps to completing the Implementation Plan. A follow up meeting will be held to discuss any remaining technical inconsistencies directly with MTC consultant before the June 26th TAC meeting. The intention is to finalize the comments for MTC's consultants to address in a revised version of the Implementation Plan to be recommended to the STA Board approve at their July 10th meeting. In the meantime, STA staff has provided the TAC with MTC's draft Implementation Plan (Attachment A) and the STA/Local Agencies comments (Attachment B) which are to be addressed by MTC and their consultant. STA staff is recommending the TAC forward a recommendation to the STA Board to approve the Implementation Plan with the caveat that the revised Implementation Plan addresses STA/Local Agencies comments.

The Implementation Plan will be the foundation for initial steps to activate meters on the I-80 corridor. Further discussions are anticipated with the SoHIP in August to review additional data collected to determine actual metering rates before the meters are activated.

Solano County I-80 Ramp Meter MOU

The main purpose of an MOU with Caltrans for ramp metering is to establish roles and responsibilities to implementing the meters and provide participating agencies a process for addressing incidents as they occur. Ramp Metering MOUs were never a formal policy requirement for activating ramp meters statewide; however, Caltrans District 4 has successfully entered into MOUs with Bay Area CMAAs in San Mateo and Santa Clara Counties which has provided a basis for continuing operations discussion between Caltrans, the CMA, and affected local agencies.

In anticipation of ramp meter activation in Solano County, the STA Board considered options for entering into a MOU with Caltrans. However, before the STA Board could commit to either option, MTC passed Resolution 4104 which effectively updated their Traffic Operation Systems (TOS) Policy to formally not require MOU's for activating ramp meters. The approved TOS Policy also has a provision to penalize counties and individual agencies by withholding federal and state funding if do not activate existing ramp meters. MTC's Resolution 4104 is included as Attachment C to this report.

While MTC's Resolution 4104 does not require Caltrans MOU to activate ramp meters, it also doesn't preclude it. There is general consensus among STA staff and participating cities on the SoHIP that an MOU or similar type of agreement is preferred over an MOU to address the original purpose of establishing a partnership between Caltrans, STA and the affected local agencies to "establish roles and responsibilities to implementing the meters and provide participating agencies a process for addressing incidents as they occur". As such, STA staff developed a draft MOU based on VTA's Ramp Metering MOU with Caltrans (Attachment D). The STA's draft MOU highlights the STA's and local agency's continued involvement and partnership with Caltrans through the SoHIP. It also requires regular status updates and monitoring activities to refine ramp metering rates as needed.

STA staff is recommending the draft MOU included as attachment D for approval. The draft MOU was reviewed by the Solano participants on the SoHIP. The majority of their comments were included in the attached revised version. STA staff recommends the TAC recommend the STA Board authorize the STA enter into a MOU with Caltrans for I-80 Ramp Metering continuing the SoHip process to monitor and oversee the I-80 ramp metering and operations.

Fiscal Impact:

No impact to the STA General Fund. MTC funded the development of the I-80 Ramp Metering Implementation Plan to guide the implementation for ramp metering in Solano County on I-80. The I-80 Ramp Metering MOU has no fiscal commitment to enter into the agreement, but would require a commitment of staff time from STA and the participating local agencies.

Recommendation:

Forward a recommendation to the STA Board to approve the following:

1. I-80 Ramp Metering Implementation Plan based on the comments provided in Attachment B; and
2. Authorize the STA Executive Director to enter into a Memorandum of Understanding with Caltrans for the I-80 Ramp Metering Implementation.

Attachments:

- A. Draft Solano County I-80 Ramp Metering Study and Implementation Plan
- B. Solano County Comments on the I-80 Ramp Metering Study and Implementation Plan (dated 6/12/13)
- C. MTC Resolution 4104
- D. STA and Caltrans MOU for I-80 Corridor Ramp Metering Operations in Solano County

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DRAFT REPORT

SOLANO COUNTY I-80 RAMP METERING STUDY AND IMPLEMENTATION PLAN

January 2013

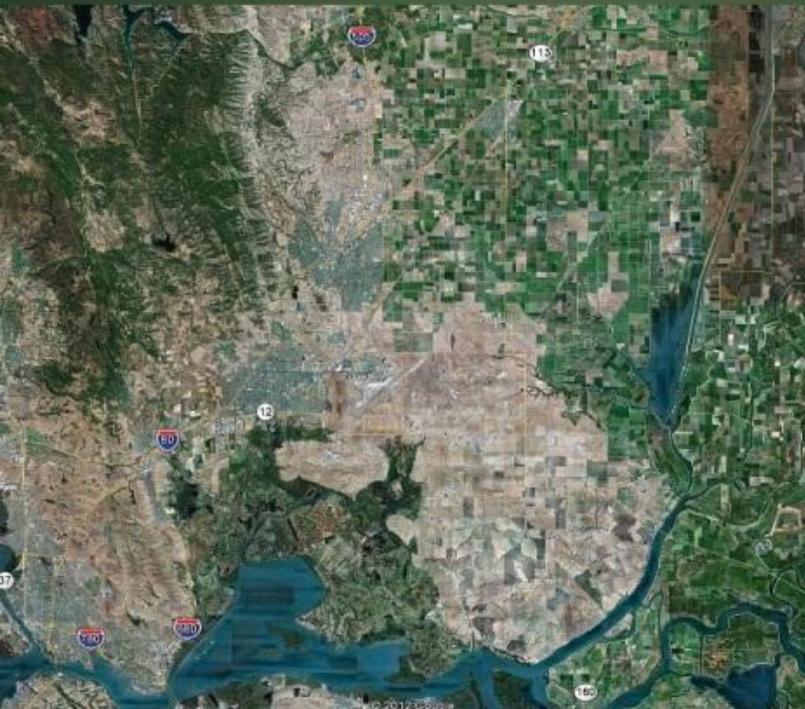
Prepared by:

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January 31, 2013

Project #: 17062.0

Ms. Joy Lee and Ms. Winnie Chung
Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607

Mr. Alan Chow
Caltrans District 4
Office of Traffic Systems, Mail Station 5F
111 Grand Ave
Oakland, CA 94612

***RE: Solano County I-80 Ramp Metering
Deliverable 3.4A –Draft Ramp Metering Feasibility and Implementation Plan***

Dear Ms. Lee, Ms. Chung, and Mr. Chow:

Kittelison & Associates, Inc. (KAI) is pleased to submit this draft report in support of the Solano I-80 ramp metering study. This report is Deliverable 3.4A of the project.

We would like to give credit to the engineers and planners at KAI who contributed greatly to this effort: Allen Huang, Lillian Tsang, Aaron Elias, and Mike Aronson.

Please call me at 510.839.1742 if you have any questions.

Sincerely,
KITTELSON & ASSOCIATES, INC.

Rick Dowling, PhD, PE
Senior Principal Engineer

Kevin Chen, PE
Associate Engineer

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1. EXECUTIVE SUMMARY

The Metropolitan Transportation Commission, Caltrans, the Solano Transportation Authority (STA) and the Solano Highways Partnership (SoHIP) have been working and meeting together since January 2010 to determine:

1. Is ramp metering an appropriate strategy to address existing and future congestion on I-80 as Solano County, the Bay Area, and Sacramento continue to grow?
2. What would be the impacts of ramp metering on local streets and how might they be mitigated?
3. If ramp metering is indeed desirable on Solano I-80, what would be an appropriate staging plan?

This report documents the results of this effort and provides a recommended staging plan for implementing ramp metering on the Solano I-80 freeway, along with recommended mitigations and metering policies built into the plan to reduce the impacts on city streets and county roads and assure that Solano County residents experience a net improvement in safety and travel times when using the I-80 freeway.

The study has involved an extensive amount of data collection on I-80 freeway traffic volumes and performance. The STA Solano travel demand model was used to predict future traffic demands for the I-80 freeway and city streets/county roads in the I-80 corridor. A freeway operations analysis model, *FREQ* (described in more details in Section 3.2), was used to assess freeway operations and suggest initial ramp metering plans. MTC, Caltrans, STA, and SoHIP jointly determined the scope of the analysis and have actively reviewed each of the intermediate products of this study.

This study evaluated two horizon year conditions. The Year 2015 was selected as the base analysis year as that is when ramp metering equipment will be complete and ready for activation for a major portion of the corridor within Solano County. The longer term Year 2030 analysis was conducted to determine the staging of ramp metering on I-80 beyond 2015 conditions and to determine what additional mitigations might be desirable by 2030 to address possible diversions and ramp capacity constraints in the long term.

The initial ramp metering plans produced using the computer models were thoroughly vetted by the project stakeholders (MTC, Caltrans, STA, and SoHIP) to identify an initial implementation segment for ramp metering and to set policies for how metering would be implemented in subsequent stages on the I-80 freeway in Solano County. These policies balance the desire for improved productivity and safety on I-80 with the equally strong desire to minimize delays for Solano County residents using the I-80 freeway. The overarching goal has been to ensure that any metering plan implemented on I-80 would improve safety in the I-80 corridor as well as result in a net savings in travel time for the majority of Solano County residents using the I-80 freeway during peak travel times. Ramp metering could also be implemented to proactively manage traffic congestion before it happens.

This Ramp Metering Study and Implementation Plan is the result of those efforts. The next step of this study, should the study participants choose to proceed, would be to develop a memorandum of understanding with local agencies, monitor traffic conditions following ramp meter activation, and conduct a “before and after” study of the effects of the initial implementation segment.

1.1 PROTOTYPE RAMP METERING PLAN FOR 2015

Based on the results of the traffic operations analysis, it is recommended that ramp meters be installed and activated in the eastbound direction of I-80 in Solano County as soon as possible. All freeway-to-freeway connector ramps (SR 37, SR 12 west, I-680, and I-505) would not be metered in 2015, based on input received from local representatives to SoHIP. However, meters at these freeway connectors may be turned on and rest as solid green when meters for the rest of the corridor is activated, which allows the system the ability to manage incidents, special events, or diversion traffic, as necessary.

The recommended short term (2015) metering plan is:

- Activate ramp meters in the eastbound direction during the Monday–Thursday PM peak period (3 PM to 7 PM);
 - Since recurring peak period congestion on I-80 is currently relatively minor in the eastbound direction, rates would be set at the demand volume rate for each ramp. As the I-80 eastbound mainline becomes more congested over time, it will be desirable to re-evaluate these initial metering rates. Based on current demand trends, the initial metering rates should be reevaluated sometime between the Year 2015 and the Year 2018.
- Activate ramp meters in the eastbound direction during the Friday PM peak period (3 PM to 8 PM);
 - Since recurring congestion is significant in the eastbound direction on Fridays, optimal metering rates (in the order of 1% to 3% below demand rate) would be set to optimize system operation. The 2015 analysis suggested that there would be great value to Solano County freeway users, as well as to through traffic, if the eastbound on-ramp meters were to hold back a few vehicles each hour on Friday afternoons. Barring an incident on the freeway or one of the ramps, all on-ramp queues would be stored within the ramps at all times.

Projected traffic conditions by Year 2015 indicated that activating ramp metering in the westbound direction during weekday AM peak period (5 AM to 10 AM) and Sunday PM peak period (3 PM to 8 PM) would not result in significant operational improvements to the freeway system. Therefore, from a traffic operations standpoint, ramp meters in the westbound direction could be activated later, beyond Year 2015. However, actual freeway mainline conditions should be monitored on a regular basis to determine the exact timing of activating these ramp meters, which could occur by 2015.

Implementation of ramp metering on Friday afternoons in the eastbound direction in 2015 would:

- Reduce vehicle-hours of delay on the freeway by 4% to 5%
- Provide net travel time savings to Solano County residents using I-80 of between 2 to 5 minutes, which takes into account the extra wait time for residents at the ramp meters.

1.2 METERING STAGING FOR BEYOND 2015

Additional analysis was conducted to determine an approximate timeline when ramp meters should be activated in the westbound direction. Based on evaluation of 2030 demand volumes:

- Due to current recurring congestion in the City of Vallejo, both the westbound on-ramps and eastbound on-ramps west of the Redwood Street interchange within Vallejo should be metered as soon as current geometric constraints can be alleviated and the necessary ramp metering equipment can be installed.
- Due to anticipated westbound AM peak and Sunday afternoon recurring congestion along the entire corridor, all on-ramps along the corridor should be metered by the following years:
 - **Westbound Monday through Friday AM Peak Period:** Install and activate ramp meters and set optimal metering rates for the westbound direction by about 2019 or as soon as possible thereafter.
 - **Westbound Sunday PM Peak Period:** Activate ramp meters and set optimal metering rates by about 2023 or as soon as possible thereafter.
- Due to anticipated congestion, on-ramps along the eastbound direction east of I-505 should be metered by the following years:
 - **Eastbound Monday through Thursday PM Peak Period:** Install and activate ramp meters and set demand volume rates as soon as possible after 2015. Based on projected traffic growth, the initial metering rates should be evaluated sometime between 2015 and 2017 as mainline becomes more congested over time.
 - **Eastbound Friday PM Peak Period:** Install and activate ramp meters and set optimal metering rates as soon as possible after 2015.
- Estimated timeline beyond 2015 presented above are based on the evaluation of future forecasting; actual freeway mainline conditions should be monitored on a regular basis to determine the exact timing of implementing ramp meters.

Comprehensive diversion analysis at a county wide level was also conducted for Year 2030 conditions with ramp metering. The analysis found that when metering rates are set appropriately to serve near demand volume rates and avoid potential queue spillback to arterial streets, ramp metering would not result in any substantial diversion.

2. INTRODUCTION

The Metropolitan Transportation Commission, Caltrans, the Solano Transportation Authority (STA) and the Solano Highways Partnership (SoHIP) have been working and meeting together since January 2010 to determine:

1. Is ramp metering an appropriate strategy to address existing and future congestion on I-80 as Solano County, the Bay Area, and Sacramento continue to grow?
2. What would be the impacts of ramp metering on local streets and how might they be mitigated?
3. If ramp metering is indeed desirable on Solano I-80, what would be an appropriate staging plan?

This report documents the results of this effort and provides a recommended staging plan for implementing ramp metering on the Solano I-80 freeway, along with recommended mitigations and metering policies built into the plan to reduce the impacts on city streets and county roads and assure that Solano County residents experience a net improvement in safety and travel times when using the I-80 freeway.

2.1 REASONS TO ACTIVATE RAMP METERING ON I-80

Ramp metering allows for consistent traffic flow on the mainline and more efficient use of freeway capacity. It also improves safety both in the merge area and on the mainline, particularly when mainline congestion is not already present downstream of the ramp. Other benefits of ramp metering include:

- Ability to manage freeway operations and control potential diversion
- Increased freeway capacity, and improved freeway travel times
- More vehicles served on the freeway, which would translate to reduced vehicle trips on parallel surface streets
- Improved highway safety at ramp merge areas and on the mainline by reducing collision rates. Ramp metering the I-580 freeway in the Tri-Valley area of Alameda County (Dublin, Pleasanton, Livermore) resulted in a reduction of 21 and 25 percent in total collisions¹. Other nation-wide studies indicate that the crash reduction could be as high as 50 percent.²

¹ Source: Caltrans District 4 Traffic Accident Surveillance and Analysis Systems (TASAS)

² Source: Lee, Chris, Bruce Hellinga, and Kaan Ozbay, "Quantifying Effects of Ramp Metering on Freeway Safety." Paper presented at the 84th Annual Meeting for the Transportation Research Board, Washington, D.C., January 9-13, 2005. Cambridge Systematics, *Twin Cities Ramp Meter Evaluation – Final Report*. Minnesota Department of Transportation, February 1, 2001

Ramp metering in Solano County is also consistent with the on-going I-80 Integrated Corridor Mobility (ICM) Project, which would implement ramp metering and incident management along I-80 from the San Francisco-Oakland Bay Bridge Toll Plaza in Alameda County to the Carquinez Bridge in Contra Costa County.

Recent studies of the Solano I-80 freeway have all recommended ramp metering as near term mitigation to projected congestion on the freeway:

- FPI Solano 80 Corridor Congestion Mitigation Strategies (authored on 4/16/2008)
- I-80/I-680/I-780 Corridors Highway Operations Study and Implementation Plan (7/8/2009) adopted by the STA Board 2/10/10
- Caltrans Interstate 80 East Corridor System Management Plan (authored in 10/2010)

2.2 HOW DOES MODERN RAMP METERING WORK?

The purpose of modern ramp metering is not to keep traffic from using the freeway, but to spread it out so that freeway flows are more evenly apportioned and freeway throughputs are increased throughout peak periods. As opposed to interchange traffic signals that send traffic to the freeway in surges every time the signal turns green, ramp meters work by apportioning out the traffic entering the freeway. When done correctly, ramp meters can actually boost the capacity of the freeway by 2% to 3% without backing up cars onto city streets.

Ramp meters are set to operate during peak traffic periods. The meters start out at a very high rate, allowing a single vehicle to enter the freeway every 4 seconds (900 vehicles per hour). Then, as traffic increases on the freeway, the metering rate (vehicles per lane per hour passing through the ramp meter) will gradually be reduced to its optimum rate; this rate has previously been specified and computed individually for each ramp to maximize freeway throughput without causing the queue of vehicles on the ramp to spill over onto city streets.

QUEUE DETECTOR OPERATION

At each metered on-ramp location, one or more queue detectors are typically installed near the upstream end of the on-ramp where the vehicles first enter the ramp from city streets. On-ramp queues can be detected by either:

- Measuring queue length: using an “in-out” count of vehicles at the queue detector (inbound) and the passage detector (outbound), with the count reset at the start of metering.
- Measuring queue average occupancy: using a 1-minute exponential running average updated every 15 seconds.

If a queue has been detected during metering, the metering rate will be increased by a pre-specified parameter every 15 seconds until either the queue has dissipated, or the maximum metering rate has been reached (typically 900 vehicles per hour per lane). Once the queue has been dissipated, the metering rate will be decreased by the same user entry parameter every 15 seconds until the metering rate is restored to its normal metering rate specified for the time period.

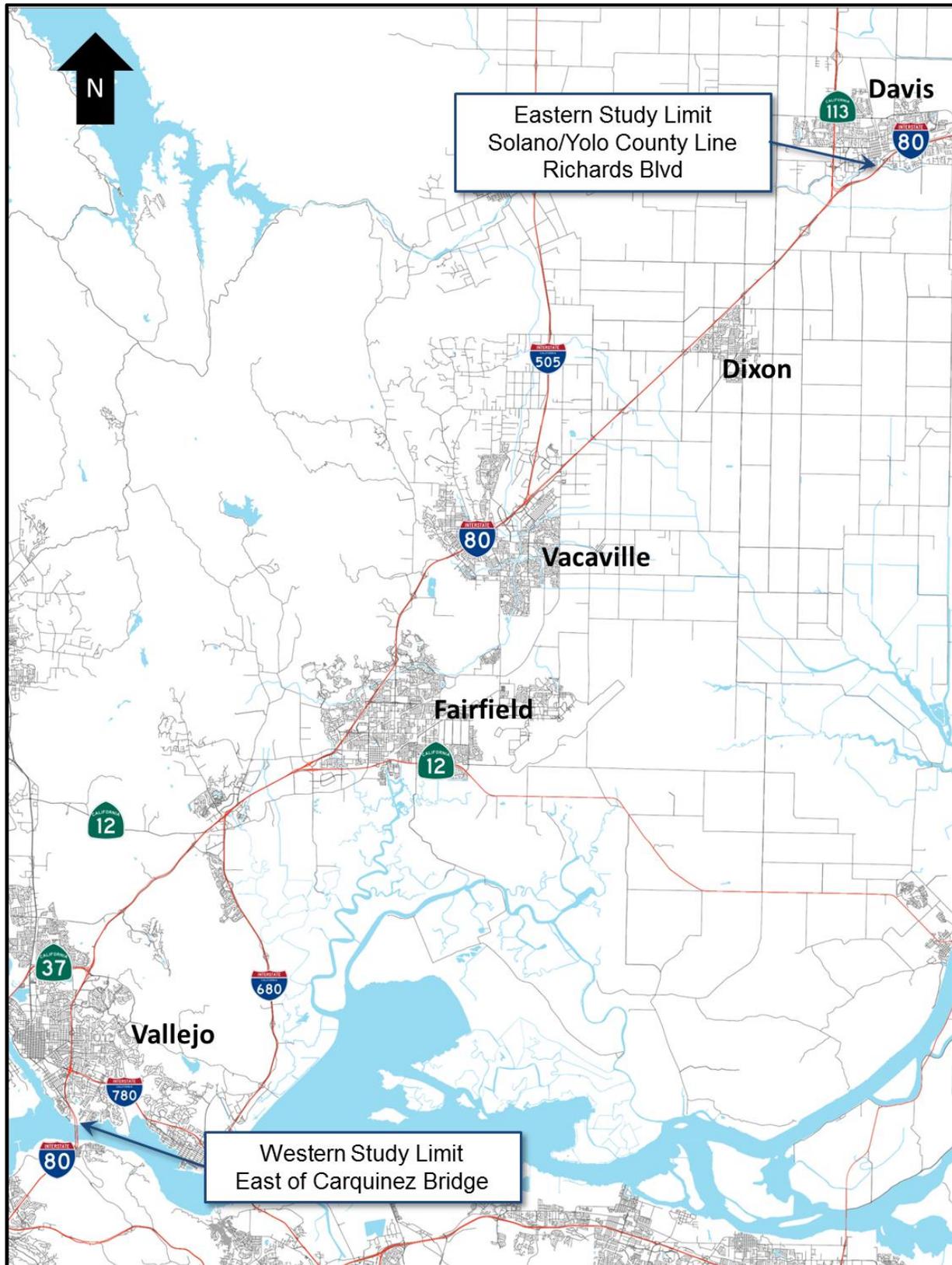
Note that metering rates are specified using the local traffic responsive metering method, based on freeway mainline traffic conditions. The ramp meter will be turned off at the end of the AM and PM peak periods.

2.3 STUDY AREA

The study area consists of two defined areas. The smaller study area applies to the actual stretches of I-80 being evaluated for ramp metering, which includes I-80 from the Solano-Contra Costa county line to the Solano-Yolo county line.

With concentrated input from county and city staff, a larger study area is defined and reflects the impact area of the ramp metering on the local streets. The probability of potential traffic diversion to other local street routes due to ramp metering was assessed at a countywide level, including all potential diversions within the county. Exhibit 1 displays a map of the study corridor and vicinity.

Exhibit 1: Study Area



3. STUDY APPROACH

This chapter provides a summary of traffic operations analysis and travel demand forecasting methodologies that were applied to develop the draft ramp metering plan presented in this report.

The study began with a compilation of traffic data and an evaluation of existing traffic conditions. Detailed near-term conditions (Year 2015) analysis was conducted, as that is the year when metering equipment would be available and ready to activate between Redwood Street in Vallejo and I-505 in Vacaville. Objectives of the Year 2015 analysis were to determine:

- A set of draft metering rates using the FREQ tool.
- The effects of the draft metering plan on the freeway mainline and ramps.
- The peak period(s) when metering rates should be set at or below demand traffic volumes.
- If ramp metering would cause undesirable diversions to local streets in Year 2015 conditions.

This study also included an evaluation of long-term 2030 conditions. The purpose of this evaluation was not to determine a set of metering rates for 2030, but to assess the long-term potential ramp metering effects to local surface streets. Objectives of the Year 2030 analysis were to determine:

- If ramp metering would cause undesirable diversions to local streets in Year 2030 conditions.
- The ramps that may need to be reconstructed in order to enable ramp metering.
- The ramps that need to be widened to continue ramp metering operations due to high demand volumes.
- When ramp meters should be activated along the corridor.

3.1 RECOMMENDED ANALYSIS TIME PERIODS

This facility is heavily used by regular commuters, freight and weekend travelers. Therefore, in addition to studying typical midweek AM and PM peak periods, this analysis also includes Friday eastbound traffic as travelers drive out of the Bay Area towards destinations such as Reno and Lake Tahoe, as well as the Sunday westbound traffic as travelers return to the Bay Area. Based on an examination of available existing traffic data, the following analysis time periods were recommended for evaluation of ramp metering on I-80 in order to fully capture the onset and dissipation of congestion:

- I-80 Westbound Direction:
 - Weekday 5-hour AM peak period: 5:00 AM to 10:00 AM
 - Sunday 5-hour PM peak period: 3:00 PM to 8:00 PM
- I-80 Eastbound Direction:
 - Midweek (Monday – Thursday) 4-hour PM peak period: 3:00 PM to 7:00 PM
 - Friday 5-hour PM peak period: 3:00 PM to 8:00 PM

3.2 TRAFFIC OPERATIONS ANALYSIS METHODOLOGIES

Traffic operations analysis for the I-80 corridor was conducted using the FREQ macroscopic simulation tool, developed by UC Berkeley Professor Emeritus Adolf May. FREQ12 was used to evaluate freeway operations and develop optimized metering rates for the corridor. Caltrans also typically uses this tool for other ramp metering studies.

3.3 TRAVEL DEMAND FORECASTING METHODOLOGIES

The current official version of the Solano Countywide Travel Demand Model (the 2010 Napa-Solano Model) was used to develop travel forecasts for 2015 and 2030 conditions.

Year 2015 and 2030 traffic forecast volumes were obtained using the current official version of the Napa-Solano Travel Demand Model (2010 version). The official model provided socioeconomic datasets for Year 2010 and 2030. The 2015 dataset was developed from a straight-line interpolation of those two datasets.

The 2010 Napa-Solano Model does not include forecasts for Friday evening or Sunday afternoon conditions. The traffic volumes for these time periods were determined by factoring the existing volumes by the ratio of the future years 2015 and 2030 weekday volumes to the existing volumes.

3.4 DIVERSION ANALYSIS

Potential traffic diversions due to ramp metering were evaluated using the CUBE Avenue dynamic traffic assignment (DTA) analysis tool. This is a mesoscopic simulation tool developed by Citilabs that can effectively measure impacts of upstream traffic congestion, and dynamically re-assignment travel path accounting for queuing effects. The process began by extracting a Solano County-only subarea network and trip table from the nine-county 2010 Napa-Solano Model.

Detailed procedures applied for the DTA analysis are summarized as follows:

1. An origin-destination matrix estimation (ODME) process was performed to better match the original countywide travel demand model's ramp and mainline segment volumes to the adjusted forecast ramp volumes. The ODME process creates trip table adjustment factors from the existing traffic counts that are applied to the trip tables during the peak hour assignment process. The trip table adjustment factors indirectly address the peak spreading phenomena in congested areas of the system. A revised subarea trip table was obtained from this process.
2. The revised trip table was then applied as an input and DTA was performed on the subarea. A two-hour simulation period was run, with the first hour to seed the empty network; the second hour results were aggregated for evaluation to represent the peak hour conditions. Intervals of 5 minutes were defined to better assess traffic dynamics, which equates to a total of 24 time intervals for the entire simulation of each study period.

Two DTA runs were performed for each scenario to determine the amount of potential traffic diversion, including a base model run without ramp metering and a second model run with ramp metering.

3.5 FUTURE ROADWAY NETWORK ASSUMPTIONS

Future foreseeable projects were included in the 2015 baseline conditions if those projects are anticipated to have completed construction and be operational by 2015. Based on the information provided by all stakeholders, the following project was included in 2015 baseline conditions:

- Phase 1 of the I-80/I-680/SR-12 Interchange Project

The main features of Phase I incorporated in the FREQ analysis are the construction of braided ramps between the Green Valley Road on-ramp and Route 12 West off-ramp in the westbound direction, and the widening of the Route 12 West off-ramp from one to two lanes.

On-ramp improvement plans provided by Caltrans for 2015 conditions have also been incorporated.

For the long term 2030 analysis, the roadway network was assumed to be consistent with projects that were included in the official Solano countywide model. Additional modifications to the network were made based on input from prior SoHIP meetings, including the I-80/I-680 interchange project described above, and the implementation of express lanes within Solano County:

- Existing HOV lane conversion to express lane from Red Top Road to Air Base Parkway through Fairfield
- Express lane extension from Air Base Parkway in Fairfield to I-505 in Vacaville

4. EXISTING CONDITIONS

This chapter describes existing conditions along the study corridor. I-80 is a national freeway facility connecting California and New Jersey. In Northern California, I-80 connects San Francisco, Alameda, Contra Costa, Solano, Yolo, and Sacramento counties between the cities of San Francisco and Sacramento. Within Solano County, I-80 traverses through the cities of Vallejo, Fairfield, Vacaville, and Dixon, as well as unincorporated Solano County. This facility is heavily used by regular commuters, freight traffic and weekend travelers.

4.1 EXISTING FREEWAY CONFIGURATION

Much of the corridor in the middle portion of the study area includes rolling terrain. There are also some sizeable horizontal curves.

The number of lanes for mixed-flow traffic on I-80 varies from between three and six lanes in both directions, including auxiliary lanes (see Appendix A for detailed existing lane configurations and peak hour volumes). An HOV lane exists between Red Top Road and Air Base Parkway in Fairfield.

In addition, auxiliary lanes exist between ramps at the following locations:

Eastbound:

- Georgia Street on-ramp and Solano Avenue off-ramp
- Solano Avenue on-ramp and Tennessee Street off-ramp
- Jameson Canyon Road (SR 12 West) on-ramp and I-680/Green Valley Road off-ramp
- Abernathy Road on-ramp and W. Texas Street off-ramp
- Beck Avenue on-ramp and Travis Boulevard off-ramp
- Allison Drive southbound on-ramp and I-505 off-ramp
- Kidwell Road on-ramp and SR 113 off-ramp

Westbound:

- SR 113 on-ramp and Kidwell Road off-ramp
- Travis Boulevard westbound on-ramp and W. Texas Street off-ramp
- Truck Rest area on-ramp and SR 37 off-ramp
- Tennessee Street on-ramp and Solano Avenue off-ramp
- Solano Avenue on-ramp and Georgia Street off-ramp

Additionally, there are a number of lane adds (i.e. mainline transitions from 3 to 4 lanes) and lane drops (i.e. mainline transitions from 4 to 3 lanes) throughout the 44-mile study corridor. Detailed freeway lane configurations are included in Appendix A.

4.2 EXISTING TRAFFIC VOLUMES

The existing traffic volumes along the corridor were provided by Caltrans in the form of hourly counts for ramps and select mainline freeway locations³. The data varied from 2002–2010, with the vast majority of locations having the more recent traffic data in 2008–2009 (more than 90% of all locations).

Average daily traffic (ADT) on I-80 at a few representative locations throughout the study corridor are presented in Exhibit 2 for typical weekday, Friday, and Sunday conditions.

Exhibit 2: Typical Existing Average Daily Traffic (ADT)

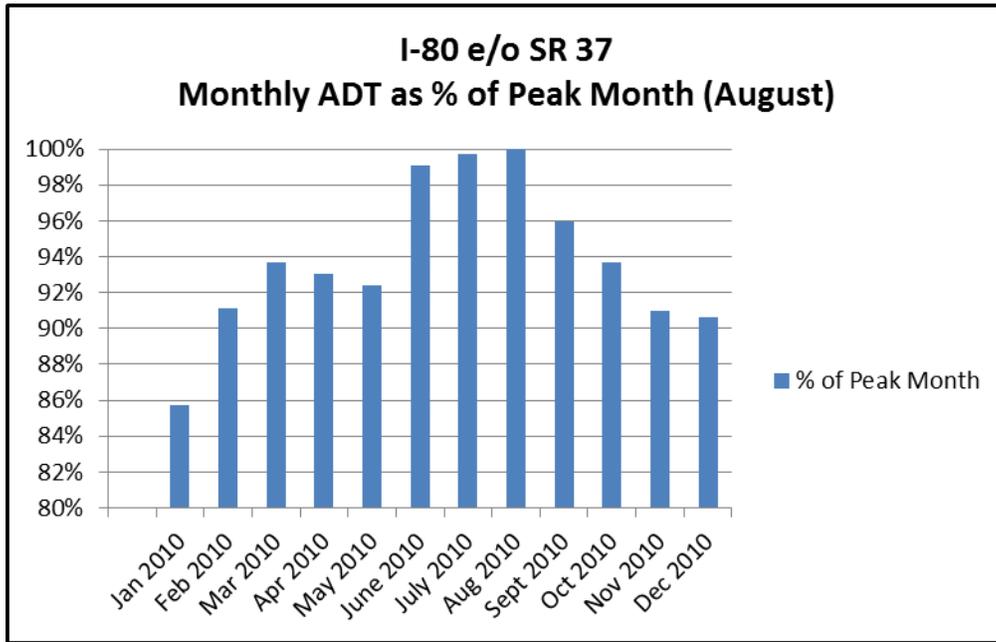
		Vallejo east of SR 29	Vacaville Monte Vista Ave	Yolo County Line
Midweek	WB	54,200	73,200	63,800
	EB	51,800	73,500	60,800
	Total	106,000	146,700	124,600
Friday	WB	59,900	83,200	69,300
	EB	60,000	88,700	69,900
	Total	119,900	171,900	139,200
Sunday	WB	60,800	76,600	66,500
	EB	54,300	74,200	57,600
	Total	115,100	150,800	124,100

Source: Caltrans census count database.

Monthly and seasonal variations in daily traffic flow on I-80 in the study area can be seen in Exhibit 3 and Exhibit 4. Note that August is the peak month and summer is the peak season.

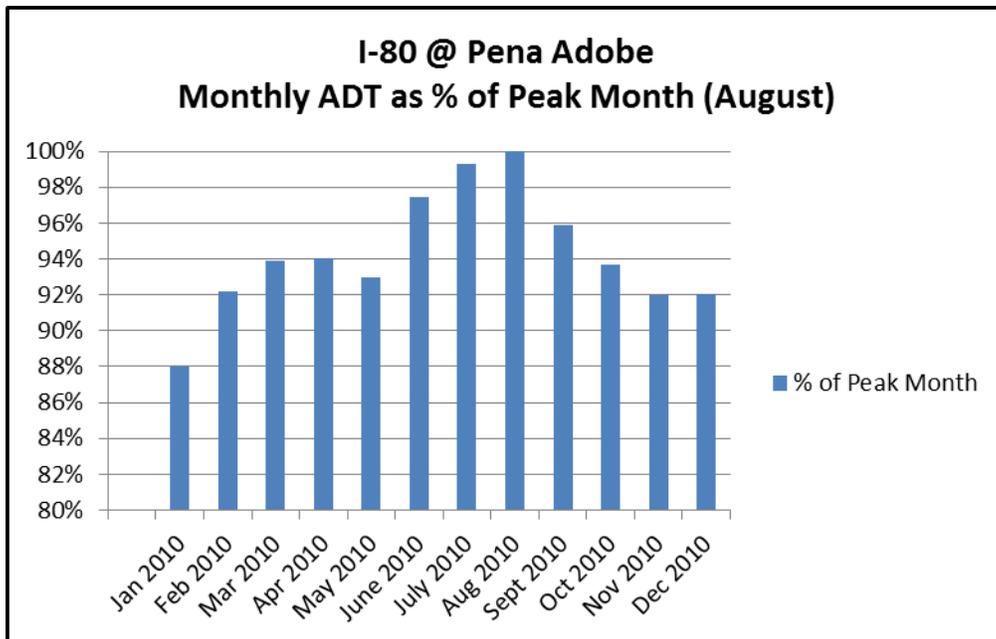
³ Since Caltrans already had extensive ramp count and select mainline count information from recent years and because up-to-the-minute PeMS data was available for several mainline locations on the freeway, new field counts were deemed unnecessary.

Exhibit 3: Monthly and Seasonal Traffic Variations on I-80 East of SR 37



Source: Caltrans census count database.

Exhibit 4: Monthly and Seasonal Traffic Variations on I-80 at Pena Adobe



Source: Caltrans census count database.

The traffic data were compiled for the periods of analysis which include:

- Typical Weekday (Tuesday/Wednesday/Thursday) 5 AM to 10 AM and 3 PM to 7 PM
- Friday Afternoon Eastbound 3 PM to 8 PM
- Sunday Afternoon Westbound 3 PM to 8 PM

The traffic volumes were processed by first determining the representative hourly traffic volumes for each location (ramps and mainline count stations). This was accomplished by taking the median of the multiple count dates from the most recent count year.

Next, these traffic volumes were examined to determine whether or not any sort of growth factoring or adjustments were needed to create a consistent set of existing 2010 traffic volumes. The traffic volumes were evaluated to determine any trends in growth that may require a factoring of counted volumes when deriving the existing 2010 conditions for this study. It was determined that the traffic volumes did not vary by much in year-on-year comparisons ($\pm 5\%$), and the variances were not consistently higher or lower, but rather a mixture of the two. As a result of that evaluation, the traffic volumes were not factored to reflect specific growth. Rather, the traffic volumes were taken to reflect 2010 conditions, which were then also used as input to the next step in FREQ analysis.

The traffic volumes were then evaluated and normalized to derive a set of volumes that reflected a conservation of traffic flow along the corridor to within a reasonable variance. Since data were collected on different dates, a threshold of $\pm 10\%$ was allowed in the variation between the calculated traffic volumes compared to the actual counts for all analysis time periods (mid-week, Friday, and Sunday) to account for the daily traffic variations.

The resulting traffic volumes are presented in Appendix A.

NON-PEAK DIRECTIONS

Traffic counts were examined for the non-peak directions (“reverse commute” or “Sacramento commute” conditions) to assess how the traffic compared to that of the peak directions for the midweek conditions. This included comparing traffic volumes at select locations by travel direction and by peak period (Appendix B). The comparison by travel direction compared the eastbound AM off-peak to the PM peak direction and the westbound AM peak to the PM off-peak direction. The comparison by peak period compared the AM off-peak direction (eastbound) to the AM peak direction (westbound) and the PM off-peak direction (westbound) to the PM peak direction (eastbound). The peak period traffic volumes for all comparisons did show that the traditional peak direction as defined for this study did have greater traffic volumes than the “reverse commute.”

4.3 EXISTING FREEWAY OPERATIONS

This section describes existing freeway operating conditions. Existing data—including freeway travel times, speeds, bottleneck locations, length of queues, as well as duration of congestion—were compiled based on several sources of information, as listed below:

- Caltrans tach runs: Caltrans provided tach run (GPS floating car survey) data collected in typical weekday AM and PM peak periods. Data were collected between April and May of 2010.
- KAI field observations made in May 2011, including weekday AM and PM peak periods, Friday PM peak period, and Sunday PM peak period.
- 511.org and other online traffic data monitoring sources, including CHP incident reports monitoring.
- Consultant’s monitoring of holiday weekend traffic during Memorial Day weekend and Presidents’ Day weekend travel in 2011.
- PEMS travel time data based on available electronic toll collector locations (ETC).

TYPICAL WEEKDAY (MIDWEEK) CONDITIONS

AM Peak Period: 5 AM to 10 AM

Westbound is the peak direction of travel during the AM peak period. There are currently no bottlenecks that cause congestion within the study area. Freeway speeds typically average higher than 65 miles per hour (mph) throughout the entire corridor, and it takes approximately 40 minutes to travel the 44-mile freeway corridor in the westbound direction.

Historically (pre-2008), there were regular and extensive westbound AM queues approaching the I-680 interchange. However, the recently completed HOV lane and prior improvements near the interchange, in addition to reductions in overall traffic volumes due to the economy, have eliminated this historical bottleneck location.

Eastbound was identified as the off-peak direction during typical AM peak period. Evaluation of available data and field observations verified that currently there is not a significant “Sacramento commute” travel pattern. It takes approximately 38 minutes to travel this 44-mile corridor in the eastbound direction. There were no observed bottlenecks or congestion, and traffic volumes are generally lower than in the westbound direction.

PM Peak Period: 3 PM to 7 PM

During the afternoon commute period, eastbound is the peak direction of travel. Based on field observation and available freeway speed data, there was no significant congestion within the study corridor. Through a section within the City of Vallejo, between Georgia Street and Redwood Street, traffic volume was apparently denser compared to other parts of the corridor, as freeway capacity is generally lower due to very-closely spaced interchanges. Based on evaluation of traffic volumes, this section of the freeway could also experience minor congestion on days where traffic volumes

fluctuate on the higher side of the range. Traffic volumes are highest between 3 PM to 6 PM. Without traffic congestion (on the day of observation), eastbound travel time is approximately 40 minutes for the entire trip length.

Historically (pre-2008), there were regular eastbound PM peak queues approaching the I-680 interchange. However, the recently completed HOV lane and other improvements in the weigh station area in combination with recent volume drops due to the economy have eliminated this historical bottleneck location.

Westbound was identified as the off-peak direction during typical PM peak period. Evaluation of available data and field observations verified that currently there is not a significant “Sacramento commute” travel pattern. It takes approximately 38½ minutes to travel this 44-mile corridor in the westbound direction. There were no observed bottlenecks or congestion, and traffic volumes are generally lower than in the eastbound direction.

Typical Friday PM Peak Period: 3 PM to 8 PM

Eastbound is the peak direction of travel during Friday afternoons, as weekend travelers are added to typical afternoon commuters. There are several bottlenecks along the corridor:

- A. Tennessee Street on-ramp to Redwood Street eastbound off-ramp (Vallejo): Near-capacity mainline volumes combined with moderate on-ramp volumes from Tennessee Street result in over-capacity on the freeway mainline. Queues typically extend to the vicinity between Georgia Street and I-780 interchanges and typically form after 3 PM and dissipate before 7 PM.
- B. Three-lane (mixed-flow) segment between signed HOVL end and striped HOVL end (Fairfield, in the vicinity of lane drop west of the North Texas Street off-ramp): The termination of the eastbound HOV lane in combination with a lane drop at right-most mixed-flow traffic lane and high traffic volumes in this section result in a bottleneck. Queues typically extend to the vicinity between Suisun Parkway and West Texas Street and typically form after 3 PM and dissipate before 7 PM.
- C. East of study limits (east of the Mace Boulevard interchange in Davis, leading up to the Yolo Causeway): The bottleneck occurs east of study limits. Queues typically extend into the study area in the vicinity of SR 113 (east) and typically form around 3 PM and dissipate before 8 PM.

Depending on the severity of congestion approaching the bottlenecks, travel times vary throughout the peak period. The first bottleneck resulted in delays in the range of one to two minutes. The second bottleneck resulted in delays in the range of 3 to 4 minutes. The third bottleneck located outside of the study area resulted in significant delays. Based on KAI’s field observation⁴, it took approximately 17 minutes to travel through less than 1½ miles of queue approaching the Richards Boulevard off-ramp in Davis. Delay times in this section vary significantly throughout the peak period.

⁴ May 20, 2011.

The total time to travel the entire 44-mile trip length was approximately 62 minutes for this particular observation.

No operational constraints were observed in the westbound direction, and the entire trip length was in free flow conditions.

Typical Sunday PM Peak Period: 3 PM to 8 PM

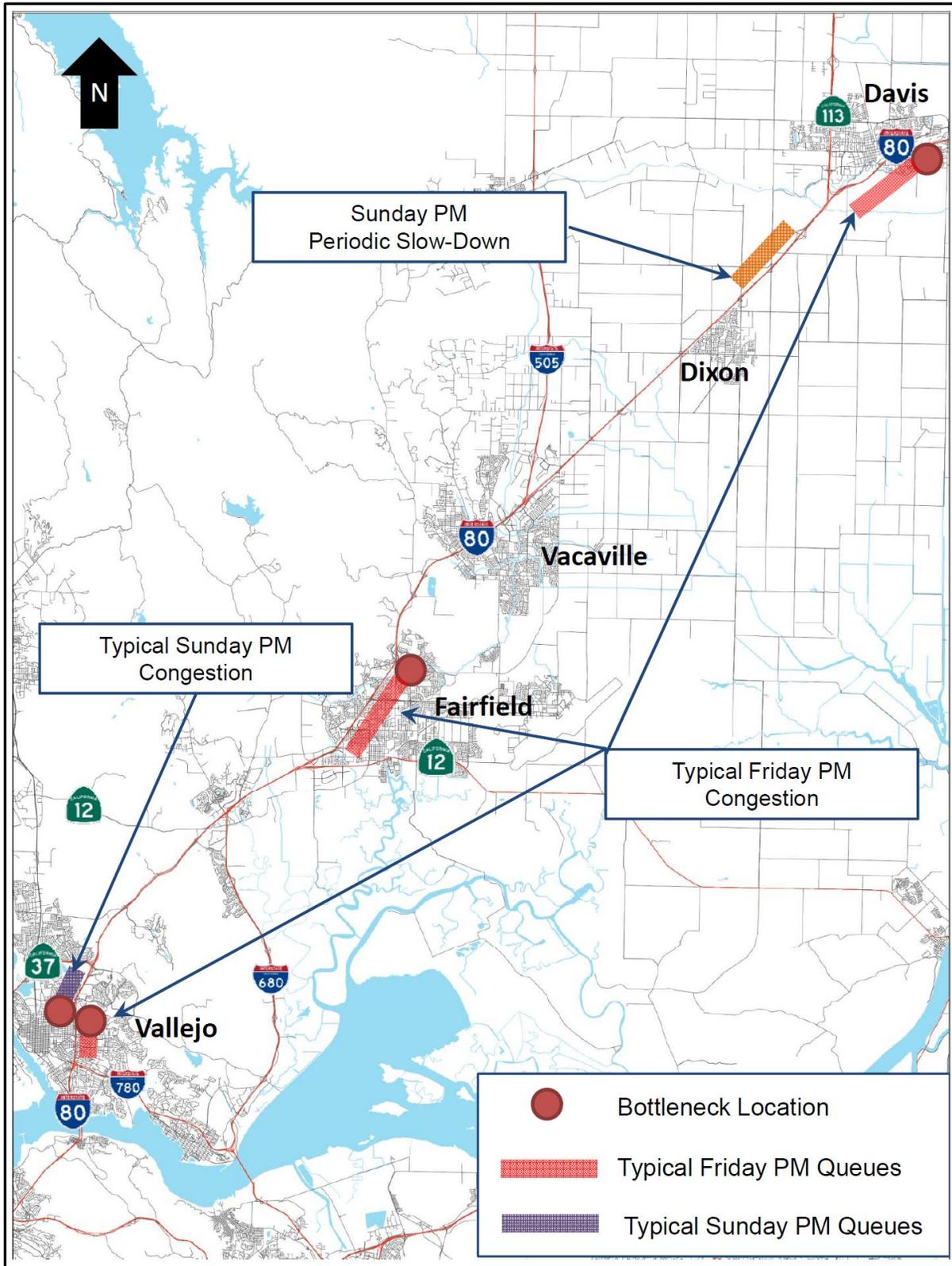
Westbound is the peak direction of travel during Sunday afternoon, as travelers return to the Bay Area at the end of the weekend. Based on field observations, the following operational constraints were found:

- A. Bottleneck between Redwood Street on-ramp and Tennessee Street off-ramp (Vallejo): Queues typically extend to the vicinity west of SR 37. Primary factors contributing to this bottleneck include high I-80 and on-ramp volumes from SR 37 for weekend travelers, and the moderately high on-ramp volumes from Redwood Street. Between Tennessee Street and the I-780 off-ramp, the freeway remains at or near capacity due to high mainline volumes and weaving activities caused by the closely spaced interchanges in Vallejo.
- B. Periodic slow-downs (minor) were observed between SR 113 west (Davis) and Kidwell Road : The lane drop between Kidwell Road and Pedrick Road results in minor congestion during parts of the peak period; however, travel speeds typically average 60 mph or higher.

It takes approximately 44 minutes to complete the 44-mile corridor, with an average speed of approximately 60 mph.

Typical Friday and Sunday freeway bottleneck and queue locations are illustrated on Exhibit 5.

Exhibit 5: Existing Freeway Bottleneck and Queues Diagram



HOLIDAY WEEKEND CONDITIONS

Memorial Day Weekend

KAI staff also conducted an observation of Memorial Day holiday weekend travel. In general, the freeway operations along the corridor were much more congested compared to typical weekend or weekday peak periods.

On Friday, May 27, 2011, the following congestion was observed for the eastbound direction during PM peak period, as travelers drive away from the Bay Area:

- Congestion between Carquinez Bridge and Redwood Street in Vallejo, starting at or before 3 PM and ending around 6:30 PM.
- Congestion between SR 12 East and North Texas Street in Fairfield starting around or before 3 PM and ending at approximately 6:15 PM.
- Congestion between I-505 and Meridian Road in Vacaville starting around or before 3 PM and ending around 4:15 PM.
- Congestion from SR 113 to east of the study limit starting around or before 3 PM and ending around 8 PM.

On Monday, May 30, 2011, the following operational constraints were observed for the westbound direction during PM peak period, as travelers return to the Bay Area:

- Congestion between SR 113 east and Pedrick Road starting at or before 3 PM and ending at approximately 5 PM.
- Minor slow-down between Dixon Avenue and Midway Road between approximately 3:30 PM to 4:30 PM.
- Congestion between Leisure Town Road and Cherry Glenn Road in Vacaville starting at or before 3 PM and ending at approximately 6:30 PM.
- Congestion between SR 37 and Tennessee Street in Vallejo starting at or before 3 PM and ending at approximately 7:30 PM.

Note that based on the CHP incident log, there were multiple recorded accidents along the corridor during the hours of traffic monitoring, which added severity to the congestion.

Presidents' Day Weekend

KAI staff also traveled the corridor on Friday, February 18, 2011, which was the Friday of the Presidents' Day weekend, from 4:15 PM to 5:15 PM. Observations included:

- I-80 eastbound bottleneck at Yolo Causeway, backed up traffic through Davis, into Yolo County at SR 113 N interchange.
- I-80 eastbound stop-and-go through Dixon (A Street to SR 113 S).

- I-80 eastbound bottleneck at lane drop east of Leisure Town Interchange in Vacaville, backed up to I-505.
- I-80 eastbound bottleneck at North Texas On-ramp, backed up a few 100 yards.
- I-80 eastbound bottleneck at HOV lane drop, just west of North Texas off ramp. Backed up through Fairfield to weigh station west of SR 12 east off-ramp. Eastbound HOV lane also queued the full length.
- I-80 eastbound bottleneck just east of Tennessee Street on-ramp, backed up through Vallejo to the Carquinez Bridge.
- No westbound bottlenecks or delays. One minor slow up between Vacaville and Fairfield due to fender bender that was then pulled into the median.

The weather conditions included steady to heavy rain, which could have added severity to the congestion. No website (511.org or CHP) monitoring was performed during this time period.

FREEWAY RAMP OPERATIONS

Based on field observations, a vast majority of freeway on-ramps and off-ramps operate at acceptable conditions without notable queues on the ramps under typical weekday and weekend conditions. Exceptions include the following locations:

- I-780 eastbound on-ramp to I-80 Eastbound loop connector: high on-ramp volume results in minor slow down on the connector.
- I-80 westbound off-ramp to Redwood Street: a relatively long queue was observed at this off-ramp due to moderate off-ramp volumes and ramp terminal intersection operations. Queues are typically stored within the available off-ramp storage without extending into the freeway mainline.

5. FUTURE BASELINE TRAFFIC FORECAST AND OPERATIONS TRENDS

This chapter describes results for future baseline travel forecast and trends. A set of calibrated and validated FREQ models were developed for existing conditions (details are included in Appendix C). The validated FREQ12 model was then applied using the projected volumes for 2015 conditions. This section summarizes the performance measures, congestion locations, bottlenecks, and causes along the corridor.

A 2015 land use dataset was obtained based on a straight-line interpolation of 2010 and 2030 datasets, which was then applied as inputs to develop forecast volumes for Year 2015 conditions. The 2015 traffic forecasts used in this operational analysis were determined by adding the raw model volume growth to the existing traffic volumes for the freeway mainline and ramps. For locations where the model forecasted negative growth, the volumes were capped to existing volumes for the purpose of a conservative analysis. Hourly forecasts were expanded to develop the hourly volume profiles throughout the (multi-hour) study periods by applying factors based on existing volume trends throughout the study period.

The Napa-Solano Travel Demand Model does not include forecasts for Friday evening or Sunday afternoon conditions. As such, the traffic volumes for these time periods were determined by factoring the existing volumes by the ratio of the Year 2015 weekday volumes to the existing volumes. The Year 2015 volumes for the Friday evening time period were determined by taking the ratio of the weekday Year 2015 volumes to the existing weekday volumes and multiplying that value by the existing Friday traffic volumes. Similarly, the ratio of the weekday Year 2015 volumes to the existing weekday volumes was multiplied by the existing Sunday afternoon volumes to determine the Sunday afternoon Year 2015 traffic volumes.

Detailed Year 2015 forecast results for the entire corridor are included in Appendix D. As described earlier, Phase I of the I-80/I-680 interchange is assumed to be complete by 2015 conditions. A detailed drawing of this proposed interchange reconstruction is included in Appendix E.

5.1 YEAR 2015 FREEWAY OPERATIONS

This section summarizes 2015 baseline FREQ simulation results. When future FREQ models were initially run, the analysis indicated that with 2015 traffic demand, eastbound freeway queues would extend about 4 miles west beyond the current study limit on the entry link. Based on previous experiences with the FREQ software, coding an unusually long entry link to capture such congestion upstream of the study area would not yield realistic results due to limitations of the software. Therefore, in order to properly evaluate and account for the queues extending beyond the study limit, supplemental computations were performed externally to evaluate queues and delays

associated with the 4-mile entry link in the eastbound direction for both midweek and Friday PM peak periods.

BOTTLENECKS AND QUEUES

Exhibit 6 provides a summary of freeway bottleneck and queues associated with each bottleneck. The approximate duration of congestion is also presented. Freeway congestion in 2015 conditions is also graphically illustrated in Exhibit 7.

Exhibit 6: Summary Freeway Bottleneck and Queues Summary

Bottleneck Location	Queue Length	Duration	
		Start	End
Eastbound Direction - Midweek PM Peak Period			
A - Tennessee Street on-ramp to Redwood Street eastbound off-ramp	Queues would extend as far as approximately 4 miles west beyond the study limit, to east of the Willow Ave interchange. (*)	3:00 PM	7:00 PM
B - Three-lane (mixed-flow) segment between signed HOVL end and striped HOVL end (Fairfield, in the vicinity of lane drop west of the North Texas Street off-ramp)	Queues would extend as far as to east of the Travis Blvd on-ramp	3:00 PM	7:00 PM
C - Lane Drop west of Richards Blvd off-ramp	A short queue would extend less than half mile west of Richards Blvd off-ramp	3:00 PM	5:00 PM
Eastbound Direction - Friday PM Peak Period			
A - Tennessee Street on-ramp to Redwood Street eastbound off-ramp	Queues would extend as far as approximately 2.7 miles west beyond the study limit, to west of the Cummings Skyway interchange	4:00 PM	7:00 PM
B - Three-lane (mixed-flow) segment between signed HOVL end and striped HOVL end (Fairfield, in the vicinity of lane drop west of the North Texas Street off-ramp)	Queues would extend as far as to east of I-680 off-ramp	3:00 PM	7:00 PM
C - Lane Drop west of Weber Road off-ramp	Queues would extend as far as to east of Leisure Town Roadway off-ramp	3:00 PM	6:00 PM
D - Lane Drop west of Richards Boulevard off-ramp	Queues would be overlapped by downstream bottleneck		
E - Yolo County Causeway	Queues would overlap with Richards Blvd bottleneck and extend as far as to east of Kidwell on-ramp	3:00 PM	8:00 PM
Westbound Direction - Midweek AM Peak Period			

Bottleneck Location	Queue Length	Duration	
		Start	End
A - Redwood Street on-ramp and Tennessee Street off-ramp	Queues would be overlapped by downstream bottleneck		
B - Georgia Street on-ramp to I-780 off-ramp	Queues would overlap with Redwood bottleneck and extend as far as east of Route 37 on-ramp	5:00 AM	8:00 AM
C - I-780 on-ramp to Magazine Street off-ramp	Queues would be very short and extend about 200 feet west of I-780 on-ramp	5:00 AM	6:00 AM
Westbound Direction - Sunday PM Peak Period			
A - SR 113 West to Kidwell Road	With projected traffic forecast volume growth, existing observed periodic slow-downs (minor) between SR 113 west (Davis) and Kidwell Road would continue or worsen: The lane drop between Kidwell Road and Pedrick Road results in minor congestion during parts of the peak period.	Periodic	
B - Redwood Street on-ramp and Tennessee Street off-ramp	Queues would extend as far as to west of American Canyon on-ramp	3:00 PM	8:00 PM

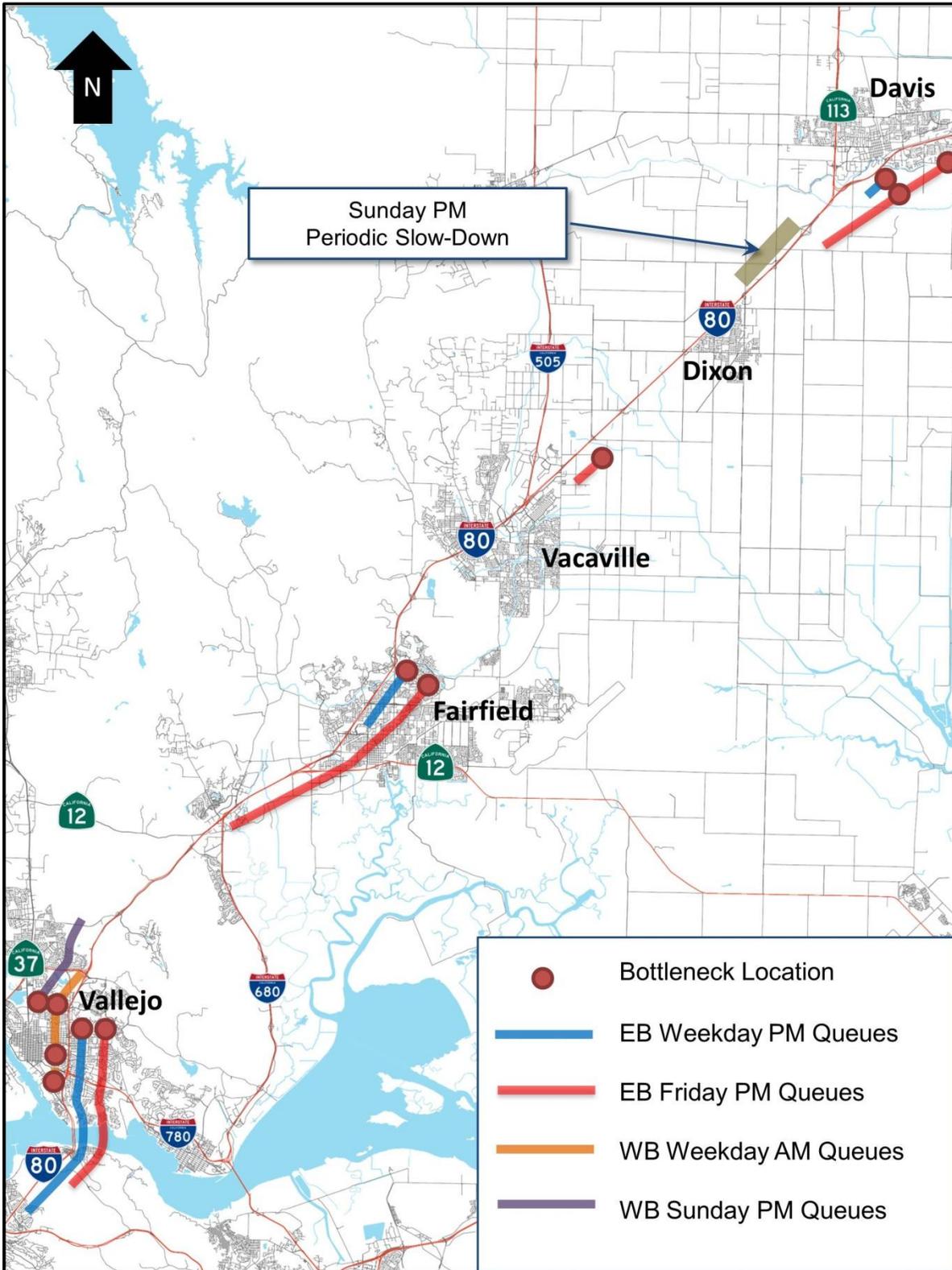
* Note that due to FREQ software limitations, queues extending beyond the study area is computed using an external spreadsheet program.

Compared to existing conditions, the freeway generally would experience more bottlenecks and congestion in both directions in the mixed-flow lanes. The HOV lanes would continue to operate under capacity at free flow conditions.

In the eastbound direction, new bottlenecks would occur at the Tennessee Street on-ramp, at lane drop locations west of Texas Street off-ramp, and west of the Richards Boulevard off-ramp during the midweek PM peak period. During the Friday PM peak period, bottlenecks would occur at the same locations as the existing conditions, except that new bottlenecks would occur west of the Weber Road off-ramp and west of the Richards Boulevard off-ramp. Queue lengths and duration of congestion would also be longer compared to existing conditions due to increased traffic demand.

In the westbound direction, new bottlenecks would occur at Redwood Street on-ramp, Georgia Street on-ramp, and I-780 on-ramp during midweek AM peak period. During Sunday PM peak period, the primary bottleneck would continue to occur at the Redwood Street on-ramp; however, queue length and duration of congestion would be longer compared to existing conditions.

Exhibit 7: Graphical Illustration of 2015 Freeway Bottleneck and Queue Locations



TRAVEL TIMES

Exhibit 8 and Exhibit 9 provide a comparison of travel times between existing conditions and 2015 baseline conditions across the entire corridor for the eastbound and westbound directions, respectively.

Exhibit 8: Travel Time Comparisons – Eastbound Direction

Start Time		Existing	2015	Difference	% Increase
		(mins)	(mins)	(mins)	
Eastbound Midweek PM	3:00 PM	45.2	58.5	13.3	30%
	4:00 PM	44.6	67.7	23.1	52%
	5:00 PM	44.9	77.6	32.7	73%
	6:00 PM	43.4	70	26.6	61%
	Average	44.5	68.5	24	54%
Eastbound Friday PM	3:00 PM	50.1	57.5	7.4	15%
	4:00 PM	57.3	86.2	28.9	51%
	5:00 PM	69.5	119.5	50	72%
	6:00 PM	56.3	103.9	47.6	84%
	7:00 PM	46.2	65.9	19.7	43%
	Average	52.3	86.6	34.3	66%

Note that travel times represent traveling through the entire length of I-80 within Solano County, from east of the Carquinez Bridge in Vallejo to Richards Boulevard off-ramp in Davis, approximately 44 miles in total.

With traffic congestion projected to increase along the corridor, freeway travel times for the eastbound direction during the midweek PM peak period would increase approximately 24 minutes for the entire length of the corridor on average when compared to existing conditions; this represents an increase of approximately 54%. During the Friday PM peak period, the travel time increase compared to existing conditions would average about 34 minutes, or a 66% increase.

Exhibit 9: Travel Time Comparisons – Westbound Direction

	Start Time	Existing	2015	Difference	% Increase
		(mins)	(mins)	(mins)	
Westbound Midweek AM	5:00 AM	38.7	39.3	0.6	2%
	6:00 AM	38.7	41	2.3	6%
	7:00 AM	38.9	41.5	2.6	7%
	8:00 AM	38.5	40.6	2.1	5%
	9:00 AM	38.4	38.5	0.1	0%
	Average	38.7	40.2	1.5	4%
Westbound Sunday PM	3:00 PM	40.5	42.8	2.3	6%
	4:00 PM	44.8	54.4	9.6	22%
	5:00 PM	46.3	59.5	13.2	29%
	6:00 PM	41.6	54.8	13.2	32%
	7:00 PM	38.5	43.9	5.4	14%
	Average	42.8	53.1	10.3	24%

Note that travel times represent traveling through the entire length of I-80 within Solano County, from Richards Boulevard on-ramp in Davis to east of the Carquinez Bridge in Vallejo, approximately 44 miles in total.

In the westbound direction, freeway travel times during the midweek AM peak period would be increased slightly by about 2 minutes, on average. During the Sunday PM peak period, the increase would be approximately 10 minutes on average, or approximately 24% longer.

6. DRAFT RAMP METERING PLAN FOR YEAR 2015

The 2015 baseline FREQ model was applied to develop a set of draft metering rates for 2015 conditions. Based on information provided by Caltrans, ramp metering equipment along both directions of the corridor would be completely installed between the Redwood Street interchange in Vallejo and I-505 interchange in Vacaville and could be operational by 2015, except for at the truck weigh station, truck rest area, and I-680 northbound to I-80 westbound connector. Furthermore, all freeway-to-freeway connector ramps (SR 37, SR 12 west, I-680, and I-505) will not be metered in 2015, based on input received from the SoHIP. However, meters at these freeway connectors may be turned on and rest as solid green when meters for the rest of the corridor is activated, which allows the system the ability to manage incidents, special events, or diversion traffic, as necessary. Note also that metering these freeway connectors would result in improved operations on I-80 and would not result in substantial diversions to local streets.

The status of ramp metering equipment for 2015 conditions is summarized in Exhibit 10 and Exhibit 11, and is illustrated in Exhibit 12.

Exhibit 10: Eastbound I-80 Metering Equipment for Year 2015

Eastbound On-Ramp	Jurisdiction	Equipment by 2015	Comment
Magazine St	Vallejo	No	Existing ramp is too short/needs improvement
I-780	Caltrans	No	
Georgia St	Vallejo	No	
Springs Rd	Vallejo	No	Existing ramp is too short/needs improvement
Tennessee St	Vallejo	No	
Redwood St	Vallejo	Yes	
Columbus Pkwy	Vallejo	Yes	
SR 37	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
American Canyon Rd	Solano	Yes	
Red Top Rd	Fairfield	Yes	
SR 12 (West)/Jamison Canyon Rd	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
I-680/Green Valley Rd	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
Suisun Valley Rd	Fairfield	Yes	
Truck weigh station	Caltrans	No	Truck weigh station not metered
Abernathy Rd	Fairfield	Yes	
Auto Mall Pkwy	Fairfield	Yes	

Eastbound On-Ramp	Jurisdiction	Equipment by 2015	Comment
Beck Ave	Fairfield	Yes	
Travis Blvd	Fairfield	Yes	
Air Base Pkwy	Fairfield	Yes	
N Texas St	Fairfield	Yes	
Cherry Glen Rd	Vacaville	Yes	
Pleasants Valley/Rivera Rd	Vacaville	Yes	
Alamo Ave	Vacaville	Yes	
Davis St	Vacaville	Yes	
Mason St/Cliffside Dr	Vacaville	Yes	
Allison Dr Loop	Vacaville	Yes	
Allison Dr Diag	Vacaville	Yes	
I-505	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
Orange Dr	Vacaville	Yes	
Leisure Town Rd Loop	Vacaville	No	
Leisure Town Rd Diag	Vacaville	No	
Meridian Rd	Vacaville	No	
Midway Rd	Solano	No	
Dixon Ave	Dixon	No	
Pitt School Rd	Dixon	No	
SR 113(S)/N 1st St	Dixon	No	
Pedrick Rd	Dixon	No	
Kidwell Rd	Solano	No	
SR 113 SB	Solano	No	
Old Davis Rd	Solano	No	

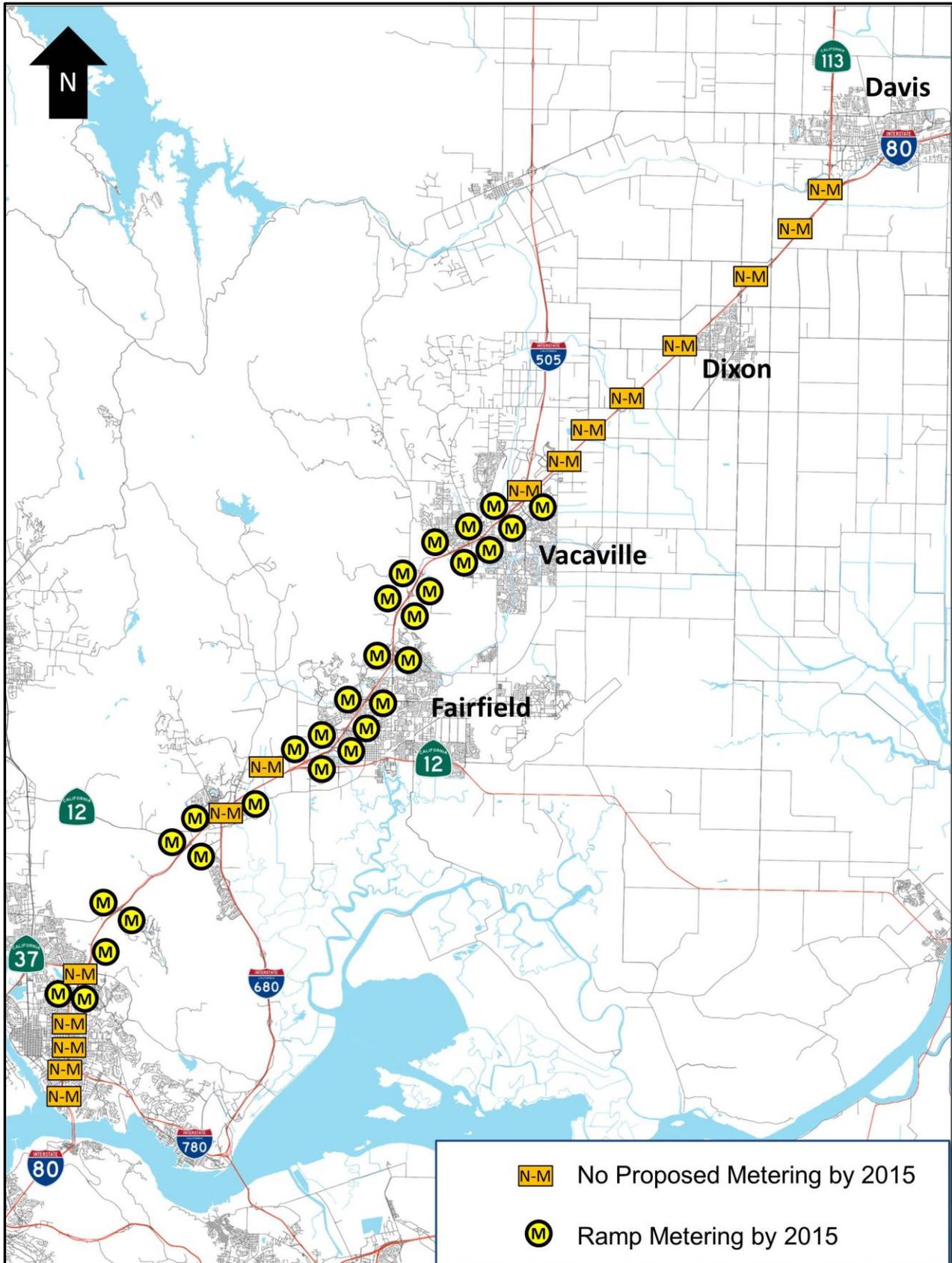
Exhibit 11: Westbound I-80 Metering Equipment for Year 2015

Westbound On-Ramp	Jurisdiction	Equipment by 2015	Comment
Old Davis Rd	Solano	No	
SR 113 SB	Caltrans	No	
Kidwell Rd	Solano	No	
Pedrick Rd	Dixon	No	
SR 113(S)/N 1st St	Dixon	No	
Currey Rd	Dixon	No	
Pitt School Rd	Dixon	No	
Dixon Ave	Dixon	No	

Westbound On-Ramp	Jurisdiction	Equipment by 2015	Comment
Midway Rd	Solano	No	
Meridian Rd	Vacaville	No	
Leisure Town Rd Loop	Vacaville	No	
Leisure Town Rd Diag	Vacaville	No	
I-505	Vacaville	Yes	Assume no freeway connector ramp metering by 2015
Monte Vista Ave (east)	Vacaville	Yes	
Browns Valley/Monte Vista Ave (west)	Vacaville	Yes	
Mason St	Vacaville	Yes	
Davis St	Vacaville	Yes	
Alamo Ave	Vacaville	Yes	
Pleasants Valley/Rivera Rd	Vacaville	Yes	
Cherry Glen Rd	Vacaville	Yes	
N Texas St	Fairfield	Yes	
Air Base Pkwy	Fairfield	Yes	
Travis Blvd Loop	Fairfield	Yes	
Travis Blvd Diag	Fairfield	Yes	
W Texas Rd	Fairfield	Yes	
Abernathy Rd	Fairfield	Yes	
SR 12 (East)	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
Truck weight station	Caltrans	No	Truck Weigh Station not metered
I-680	Caltrans	No	
Green Valley Rd	Fairfield	Yes	
Red Top Rd	Fairfield	Yes	
American Canyon Rd	Solano	Yes	
Truck rest area	Caltrans	No	Rest area not metered
Columbus Pkwy	Vallejo	Yes	
SR 37	Caltrans	Yes	Assume no freeway connector ramp metering by 2015
Redwood St	Vallejo	Yes	
Tennessee St	Vallejo	No	
Springs Rd	Vallejo	No	
Georgia St	Vallejo	No	
I-780	Caltrans	No	
Magazine St	Vallejo	No	Existing ramp is too short/needs improvement

Westbound On-Ramp	Jurisdiction	Equipment by 2015	Comment
Maritime Academy Rd	Vallejo	No	Existing ramp is too short/needs improvement
SR 29	Vallejo	No	

Exhibit 12: Illustration of 2015 Ramp Equipment



6.1 PROTOTYPE RAMP METERING PLAN FOR 2015

Once the ramps between the Redwood Street interchange in Vallejo and the I-505 interchange in Vacaville that could be metered by 2015 were determined, a preliminary analysis was then conducted using the FREQ model to determine which of those ramps should be metered at serving demand rate (meaning that the meters are set at the same hourly rate as the hourly demand rate for the ramp) and which ramps should have metering rates below the hourly demand rate for the ramp. Generally, ramps upstream of a freeway bottleneck were recommended for metering at rates below the hourly demand rate. Ramps downstream of a bottleneck were recommended for metering at the hourly demand rate for each ramp.

The following assumptions were made in the process of developing draft metering rates:

1. Ramp meters would operate with a policy of one car per green for all locations.
2. Preliminary rates were developed based on practical metering operation of 240 vehicles per hour per lane (vphpl) as a minimum limit and 900 vphpl as a maximum limit.
3. Ramp meter rates are based on the FREQ corridor optimization module to maximize vehicle-miles of freeway travel with the constraint that queue lengths would be limited to available storage. On-ramp storage lengths are shown graphically on aerial photos attached in the Appendix F.
4. The ramp metering implementation plan would increase freeway capacity in the metered section by approximately 2.5%. This is a conservative assumption based on capacity increases observed from other Bay Area freeway corridors where ramp meters were implemented.

Based on a review of predicted Year 2015 congestion on the freeway mainline, a recommended ramp metering plan for 2015 conditions has been developed and is described as follows:

1. Activate ramp meters in the eastbound direction during the Monday–Thursday PM peak period (3 PM to 7 PM); Since recurring peak period congestion on I-80 is currently relatively minor in the eastbound direction, rates would be set at the demand volume rate for each ramp. As the I-80 eastbound mainline becomes more congested over time, it will be desirable to re-evaluate these initial metering rates.
2. Activate Ramp meters in the eastbound direction during the Friday PM peak period (3 PM to 8 PM); Since recurring congestion is significant in the eastbound direction on Fridays, optimal metering rates (in the order of 1% to 3% below demand rate) would be set to optimize system operation. The 2015 analysis suggested that there would be great value to Solano County freeway users, as well as to through traffic, if the eastbound on-ramp meters were to hold back a few vehicles each hour on Friday afternoons. Barring an incident on the freeway or one of the ramps, all on-ramp queues would be stored within the ramps at all times.
3. Projected traffic conditions by Year 2015 indicated that activating ramp metering in the westbound direction during weekday AM peak period (5 AM to 10AM) and Sunday PM peak period (3 PM to 8 PM) would not result in significant operational improvements to the freeway system. Therefore, from a traffic operations standpoint, ramp meters in the

westbound direction could be activated later, beyond Year 2015. However, actual freeway mainline conditions should be monitored on a regular basis to determine the exact timing of activating these ramp meters, which could occur by 2015.

DETAILS OF DRAFT 2015 FRIDAY METERING PLAN DEVELOPMENT PROCESS

In order to refine the draft metering plan for the Friday PM peak period in the eastbound direction, several iterations of analysis were performed using the FREQ tool and by evaluation of simulation results.

The iterative process started with the 2015 baseline FREQ model, which provides a basis for freeway bottleneck locations and congestion and identified where ramp metering would be most effective. Input information regarding available ramp metering equipment, ramp storage, number of lanes at the on-ramps, and Caltrans' practical upper and lower metering rate limits were entered into the model. The FREQ model then optimized the system to produce a set of raw metering rates while attempting to maximize system throughput (VMT), with the constraint that queues would not spill beyond the available storage.

Next, raw FREQ rates were evaluated to determine the reasonableness of those rates in terms of potential ramp delays that vehicles would incur prior to entering the freeway, compared against potential travel time savings they would benefit from once they get on the freeway mainline. Consideration was also given to typical on-ramp metering delays that the general public is accustomed to here in the San Francisco Bay Area. Several iterative FREQ model runs were conducted in order to develop the optimal set of metering rates presented in this report, which provides a well-balanced system between expected ramp delays and potential mainline travel time savings.

6.2 RAMP METERING EFFECTS IN HIGHWAY SAFETY

Ramp metering not only allows for consistent traffic flow on the mainline and more efficient use of freeway capacity, it also improves safety both in the merge area and on the mainline, particularly when mainline congestion has not already occurred downstream of the ramp. In the merge area, ramp metering allows a single vehicle or a small platoon (usually two vehicles) to merge onto the mainline into traffic gaps that would result in minimal interference and reduce potential for sideswipe crashes. The speed differential would be reduced between entering vehicles and mainline vehicles because multiple vehicles would not have to compete for the same gaps in mainline traffic; also, queues would be less likely to form at the merge point and the full length of the acceleration distance could be used. On the mainline, the smoother merging process makes it unnecessary for mainline vehicles to slow down considerably, and sometimes unexpectedly, to let vehicles enter the freeway. Consequently, it is less likely to cause upstream backups, minimizes lane change maneuvers by impatient upstream drivers, and reduces rear-end collisions.

These safety benefits are well documented in a range of studies dating back to 1975, as presented in Exhibit 13. Implementation of ramp metering achieved safety benefits in all the locations. While the measures of effectiveness are different in the studies, the reduction in collisions is substantial in each case. For instance, the two studies along I-580 in the Tri-Valley region (Dublin, Pleasanton, Livermore) of the Bay Area indicated a reduction of 21 and 25 percent in total collisions measured for the same 10- to 12-month period before and after the implementation. Based on the other studies, the safety impact could be as high as 50 percent.

Exhibit 13: Ramp Metering Effects on Highway Safety

Location	Collision Reduction	Year of Evaluation
Pleasanton, CA	21% in total collisions	2004
Livermore, CA	25% in total collisions	2008
Sacramento, CA	50% (*)	1984
Los Angeles, CA	20% (*)	1975
Portland, OR	43% in peak period collisions	1982
Seattle, WA	38% in collision rate	1981–1987
Denver, CO	50% in rear-end & side-swipe collisions	1982
Minneapolis-St. Paul, MN	26% in peak hour collisions	2000
Detroit, MI	50% in total collisions	Not Known
Long Island, NY	15% in collision rate	1987–1991

* Source of data did not indicate whether the reduction was in total collision or collision rate.

6.3 EFFECTS OF THE PROTOTYPE 2015 RAMP METERING PLAN – EASTBOUND PM PEAK PERIODS

For Monday through Thursday PM when metering rates would be set to serve demand volumes in the eastbound direction, meters would be set to allow all vehicles arriving at the on-ramp to enter the freeway within a few seconds (meter at demand rate). Drivers would experience a few seconds of delay as they are stopped at the metering light and spaced out to enter the freeway. The result would be a slight gain in freeway capacity, improved on-ramp merging operations, and improved safety. Delays would not exceed a few seconds and queues would not exceed a few vehicles.

6.4 EFFECTS OF THE PROTOTYPE 2015 RAMP METERING PLAN – EASTBOUND FRIDAY PM PEAK PERIOD

Draft metering rates at each on-ramp, expected ramp delays, and queues are presented in Exhibit 14. As shown in the exhibit, expected queues at each on-ramp due to the draft metering rates would be contained within available storage and would not affect arterial street operations. These draft metering rates are subject to further refinement prior to actual field implementation based on new

traffic counts to be collected closer to the activation date. Mean waiting times on eastbound on-ramps in Solano County would range between less than 1 minute to about 5 minutes.

The effects of the Friday PM ramp metering schedule on freeway mainline congestion are shown in Exhibit 15. The metering schedule will have no effect on freeway queues inside Vallejo (because most ramps in Vallejo will not be metered due to lack of metering equipment). It will reduce queue lengths and increase the average speed of traffic through each of the bottlenecks east of Vallejo, including bottlenecks and queues through Fairfield, Vacaville, and in the vicinity of Davis.

In addition to the potential benefits described in the earlier section for setting metering rates to serve traffic demand, additional benefits would be observed for setting optimal metering rates. Freeway mainline travel time comparisons between 2015 baseline and 2015 with ramp metering are shown in Exhibit 16. Travel time savings through the study corridor ranges between approximately 2 to 7 minutes throughout the Friday afternoon peak period, with an average of about 4 minutes, or 5%.

Exhibit 17 provides a summary of potential travel time savings as a result of implementing these metering rates during the peak hour (within the peak period), while accounting for ramp delays through each interchange. In summary, the Friday afternoon metering schedule would result in travel time savings of generally between 2 and 5 minutes for residents of Solano County using I-80. These travel time savings results are also presented graphically in Exhibit 18. In order to help illustrate these travel time savings with the corresponding proportion of origin-destination (OD) trip pairs, home-based work trip distribution from the Solano countywide model was extracted and presented in Exhibit 19, this represents 2015 Friday PM peak hour conditions.

System-wide effects are shown in Exhibit 20. An approximately 2% system-wide savings in travel time (including ramp delays) would result from this draft metering plan, and a 3% increase in average speed on the freeway itself.

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Exhibit 14: Draft Ramp Metering Results for I-80 Eastbound – 2015 Friday PM Peak Period

Eastbound On-Ramp	No. of Lanes		Available Storage (veh.)	3-4 PM				4-5 PM				5-6 PM				6-7 PM				7-8 PM			
	Mixed-Flow	HOV		Demand	Metering Rate	Ramp Queue *	Avg Ramp Delay**	Demand	Metering Rate	Ramp Queue *	Avg Ramp Delay**	Demand	Metering Rate	Ramp Queue *	Avg Ramp Delay**	Demand	Metering Rate	Ramp Queue *	Avg Ramp Delay**	Demand	Metering Rate	Ramp Queue *	Avg Ramp Delay**
Redwood St	1	0	8	284	280	7	0.7	284	290	6	1.3	294	300	5	1.1	309	310	4	0.9	247	250	6	1.2
Columbus Pkwy	1	0	40	450	440	14	0.9	443	430	26	2.6	483	470	38	3.8	408	410	35	4.9	343	360	18	4.2
American Canyon Rd	1	0	24	388	380	8	0.6	393	380	22	2.2	348	350	20	3.4	317	320	22	3.7	226	240	11	3.9
Red Top Rd	1	0	13	587	580	12	0.6	545	550	9	1.1	737	740	6	0.6	266	270	6	1.3	235	240	4	1.2
Suisun Valley Rd (2-Ln)	2	1	38	869	370	17	0.7	880	380	22	1.5	914	400	15	1.4	580	250	23	2.2	440	240	0	1.5
Abernathy Rd	1	1	15	687	600	10	0.5	698	620	8	0.9	600	530	5	0.7	345	300	9	1.4	279	250	4	1.5
Auto Mall Pkwy	1	0	23	737	720	23	1.2	735	740	19	2.0	710	720	11	1.4	394	400	3	1.2	287	290	1	0.5
Beck Rd (2-Ln)	2	0	23	911	450	18	0.7	1063	530	14	1.0	1049	530	10	0.8	761	380	2	0.5	482	250	0	0.0
Travis Blvd (2-Ln)	2	0	47	1121	550	20	0.5	1178	580	38	1.5	1177	590	33	1.8	1014	510	28	1.8	963	480	31	1.8
Air Base Pkwy	1	1	25	713	700	13	0.6	752	750	17	1.2	820	820	16	1.2	556	560	12	1.5	357	360	10	1.8
N Texas St	1	1	17	662	540	16	0.9	666	560	15	1.6	689	580	13	1.4	555	470	8	1.3	402	420	0	0.2
Lagoon Valley Rd	1	0	21	130	900	0	0.0	160	900	0	0.0	166	900	0	0.0	84	900	0	0.0	43	900	0	0.0
Pena Adobe Rd	1	0	16	49	900	0	0.0	56	900	0	0.0	60	900	0	0.0	41	900	0	0.0	32	900	0	0.0
Alamo Ave	1	0	29	716	700	22	1.1	651	650	12	1.8	601	600	16	1.7	462	460	12	2.1	387	410	0	0.2
Davis St	1	0	12	369	360	11	1.0	361	360	3	1.3	341	350	9	1.3	291	300	4	1.5	220	240	0	0.1
Mason St (2-Ln)	2	0	16	555	280	0	0.0	521	270	0	0.0	423	240	0	0.0	361	240	0	0.0	281	240	0	0.0
Allison Dr SB	1	1	26	265	263	0	0.0	223	240	0	0.0	236	240	0	0.0	219	240	0	0.0	142	240	0	0.0
Allison Dr NB	1	1	31	238	240	0	0.0	233	240	0	0.0	228	240	0	0.0	174	240	0	0.0	162	240	0	0.0
Orange Dr	1	1	22	403	900	0	0.0	369	900	0	0.0	339	900	0	0.0	291	900	0	0.0	283	900	0	0.0

* Ramp queues in vehicles reported are based on the FREQ analysis, which reflects unserved demand at the end of each simulation hour and would accumulate into the next hour. Note that the queues shown in this and subsequent exhibits are steady state at the end of the hour, which compares the total hourly flow rate versus hourly metering rate. Ramps with zero steady state queues at the end of the hour would have transient short queues within the hour, which would vary throughout the hour when platoons of vehicles arrive from an upstream signal; however, the queues are expected to be of short duration (persisting for only a few signal cycles during the hour) and length. Monitoring of metering operation after initial activation would verify that the transient queues do not exceed the available storage. If they do, the metering rate could be adjusted accordingly.

** Average ramp delays in minutes reported based on FREQ analysis. This is the average delay for all on-ramp vehicles.

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Exhibit 15: I-80 Mainline Freeway Queues and Congested Speeds Comparison (2015)

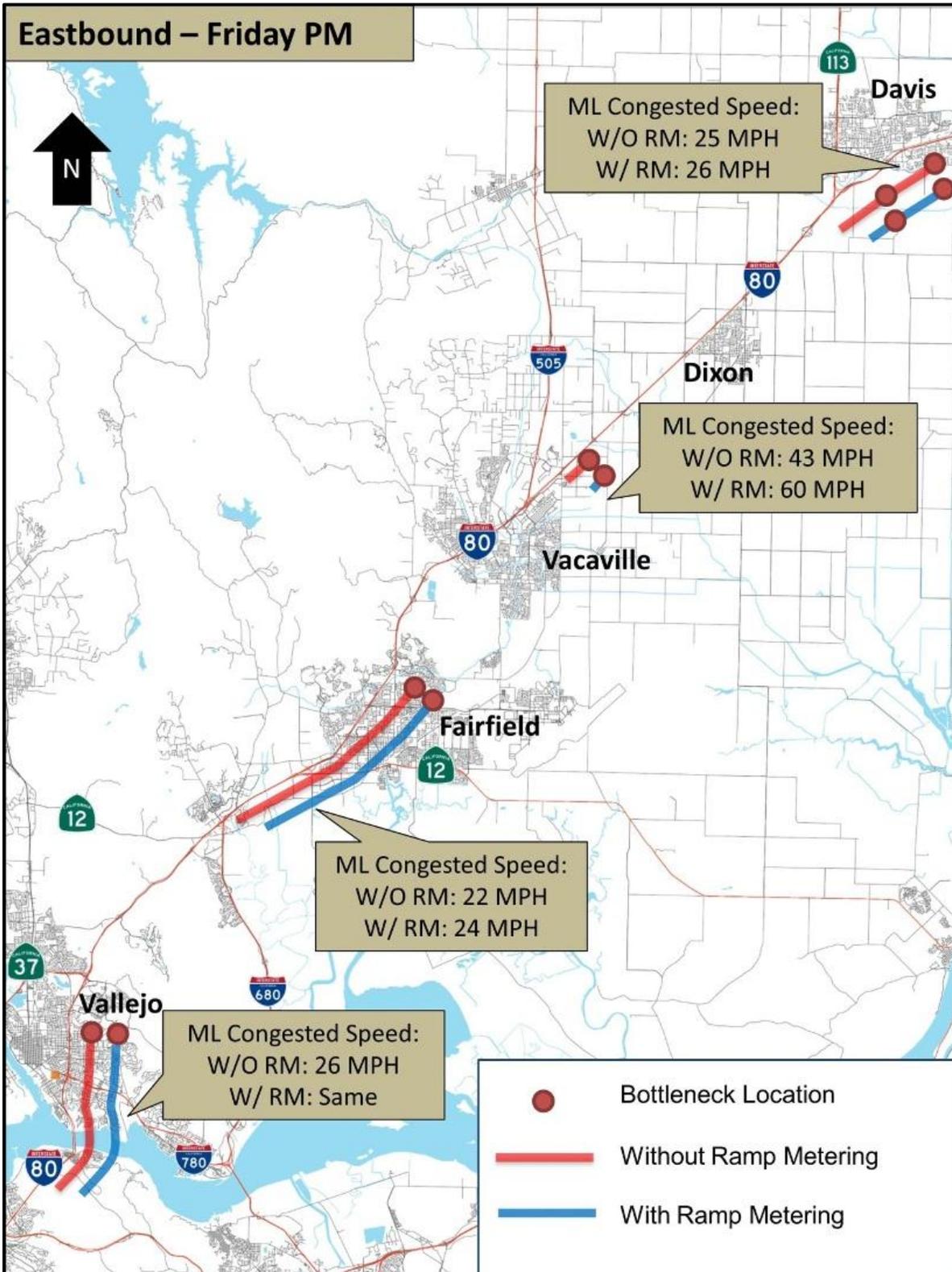


Exhibit 16: I-80 Mainline Travel Time Comparison for 2015 Friday Eastbound

Start Time	End Time	Baseline (minutes)	With Ramp Metering (minutes)	Difference	
				(minutes)	(%)
3:00 PM	4:00 PM	55.3	52.6	2.8	5%
4:00 PM	5:00 PM	78.8	72.4	6.5	8%
5:00 PM	6:00 PM	106.3	101.1	5.2	5%
6:00 PM	7:00 PM	88.1	84.7	3.5	4%
7:00 PM	8:00 PM	55.2	53.5	1.6	3%
Average		76.7	72.9	3.9	5%

Note that travel times represent traveling through the entire length of I-80 within Solano County, from east of the Carquinez Bridge in Vallejo to Richards Boulevard off-ramp in Davis, approximately 44 miles in total.

Exhibit 17: Peak Hour Travel Time Savings Friday Eastbound PM Metering Schedule (2015)

Origin	Destination				
	SF/ALA/CC	Vallejo	Fairfield	Vacaville	Yolo/Sac
SF/ALA/CC	N/A	N/A	3/57 minutes (4%)	3/75 minutes (3%)	5/106 minutes (5%)
Vallejo	N/A	Negligible	2/33 minutes (6%)	2/51 minutes (4%)	5/82 minutes (6%)
Fairfield	N/A	N/A	Negligible	-1/18 minutes (-5%)	2/50 minutes (3%)
Vacaville	N/A	N/A	N/A	Negligible	2/31 minutes (8%)
Yolo/Sac	N/A	N/A	N/A	N/A	Negligible

Note that travel times represent traveling through the entire length of I-80 within Solano County, from east of the Carquinez Bridge in Vallejo to Richards Boulevard off-ramp in Davis, approximately 44 miles in total.

Exhibit 18: Illustration of Peak Hour Travel Time Savings Friday PM Metering Schedule (2015)

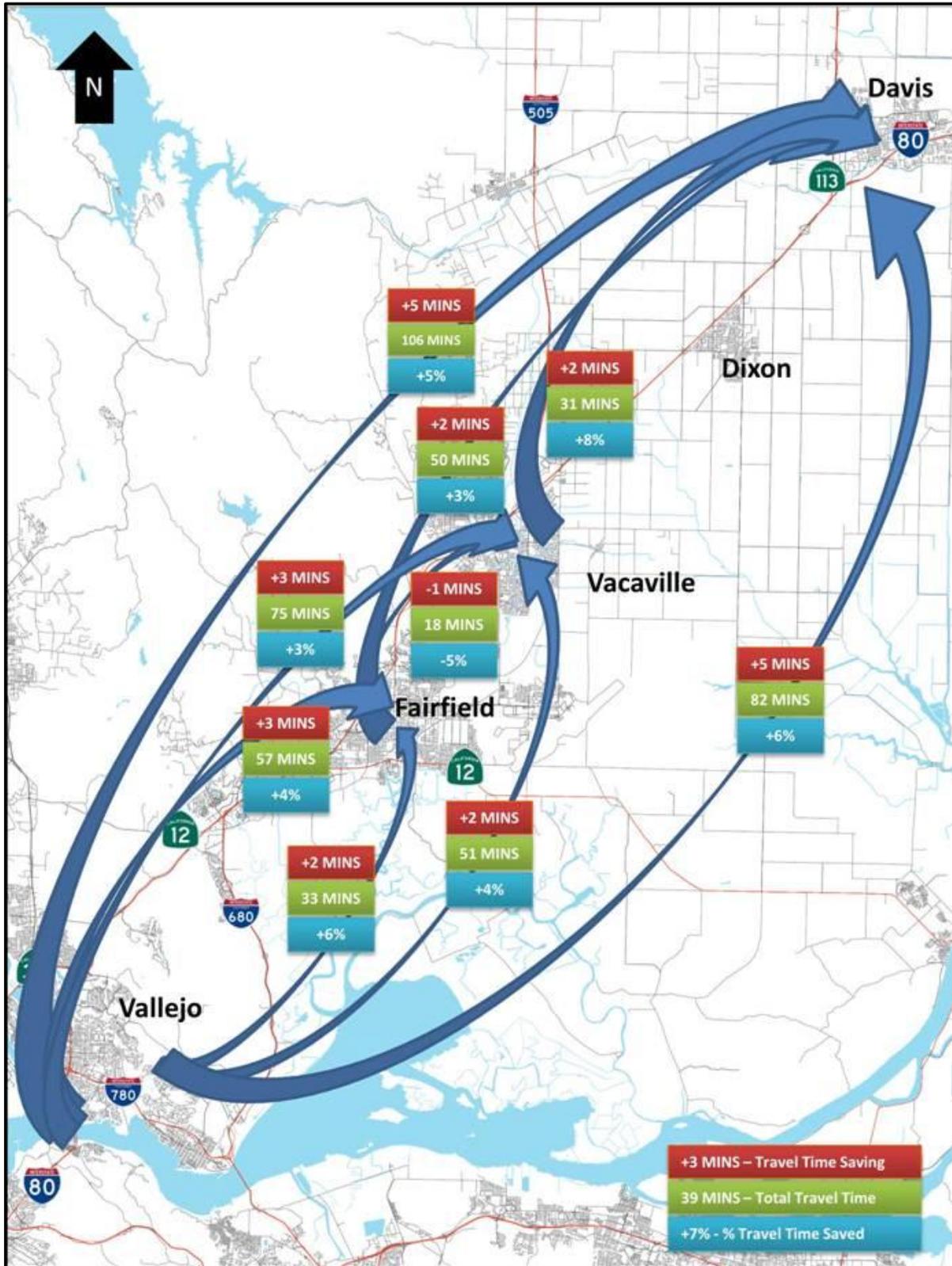


Exhibit 19: Home Based Work Trip Distribution Between Major Attraction and Production Points



Exhibit 20: System-wide Effects of Friday Afternoon Metering Schedule (2015)

Performance Measures	VHT (ML only)	VHT (System)	VMT (System)	Avg. ML Speed (MPH)
Without Ramp Metering	39,977	41,218	1,430,469	36
With Ramp Metering	38,178	40,228	1,427,289	37
Difference	-1,799	-990	-3,180	1
% Diff	-4.5%	-2.4%	-0.2%	2.8%

Note: System performance measures include both mainline and ramps.

VHT (ML only) = vehicle hours traveled on freeway mainline only

VHT (System) = vehicle hours traveled on freeway plus ramps, including ramp delays

VMT = vehicle miles traveled

7. DIVERSION ANALYSIS

Potential diversions due to ramp metering were evaluated using the CUBE Avenue dynamic traffic assignment (DTA) analysis tool. The analysis evaluated potential diversions for the entire Solano County.

7.1 2015 DTA RESULTS

Diversion effects of the prototype ramp metering plan developed for Friday PM peak period in the eastbound direction are summarized in Exhibit 21. For Monday through Thursday PM peak period, setting meter rates to serve demand volumes would not result in significant diversion traffic.

Exhibit 21: Potential Diversion of Friday Afternoon Metering Schedule (2015)

Eastbound On-Ramp	Peak Hour Demand (5-6 PM)	RM Rate/ Demands Ratio*	Diversion	
			Veh. Diverted**	% Change in Ramp Vol
Redwood St	294	99%	-3	-1.0%
Columbus Pkwy	483	97%	-15	-3.1%
SR 37 (2-Ln)	1308	N/A	+18	1.4%
American Canyon Rd	348	97%	Neg.	Neg.
Red Top Rd	737	99%	-9	-1.2%
SR 12 (W) (2-Ln)	1281	N/A	+9	0.7%
Green Valley/I-680 (3-Ln)	3329	N/A	Neg.	Neg.
Suisun Valley Rd (2-Ln)	914	98%	-4	-0.4%
Abernathy Rd	600	99%	+4	0.7%
Auto Mall Pkwy	710	97%	-3	-0.4%
Beck Rd (2-Ln)	1049	99%	-2	-0.2%
Travis Blvd (2-Ln)	1177	97%	-30	-2.5%
Air Base Pkwy	820	98%	-3	-0.4%
N Texas St	689	97%	Neg.	Neg.
Lagoon Valley Rd	166	100%	Neg.	Neg.
Pena Adobe Rd	60	100%	Neg.	Neg.
Alamo Ave	601	98%	-5	-0.8%
Davis St	341	98%	+5	1.5%
Mason St (2-Ln)	423	100%	Neg.	Neg.
Allison Dr SB	236	100%	Neg.	Neg.
Allison Dr NB	228	100%	Neg.	Neg.
I-505	286	N/A	Neg.	Neg.
Orange Dr	339	100%	Neg.	Neg.
Stay on Local Roads	N/A	N/A	+38	N/A
Net			0	

* This ratio reflects the worst case condition (lowest %) throughout the peak period, to conservatively assess potential diversions.

** Note: '+' means vehicles were diverted to this location from adjacent ramp(s).

As shown in the exhibit, ramp metering rates would be set to serve demand traffic volumes ranging from 97% to 100%. As a result, potential diversion at all on-ramps along the corridor would range from negligible (zero vehicles) to a maximum of 30 vehicles. Note that some short trips would elect to avoid using the freeway system and take local streets to reach their destinations.

Exhibit 22, Exhibit 23, and Exhibit 24 illustrate the diversion of traffic between ramps for the Friday PM ramp metering schedule. The amount of diverted traffic is small compared to existing volumes at the on-ramps and on city streets.

Exhibit 22: Diversion of Friday Eastbound Traffic in Vallejo with Metering (2015)

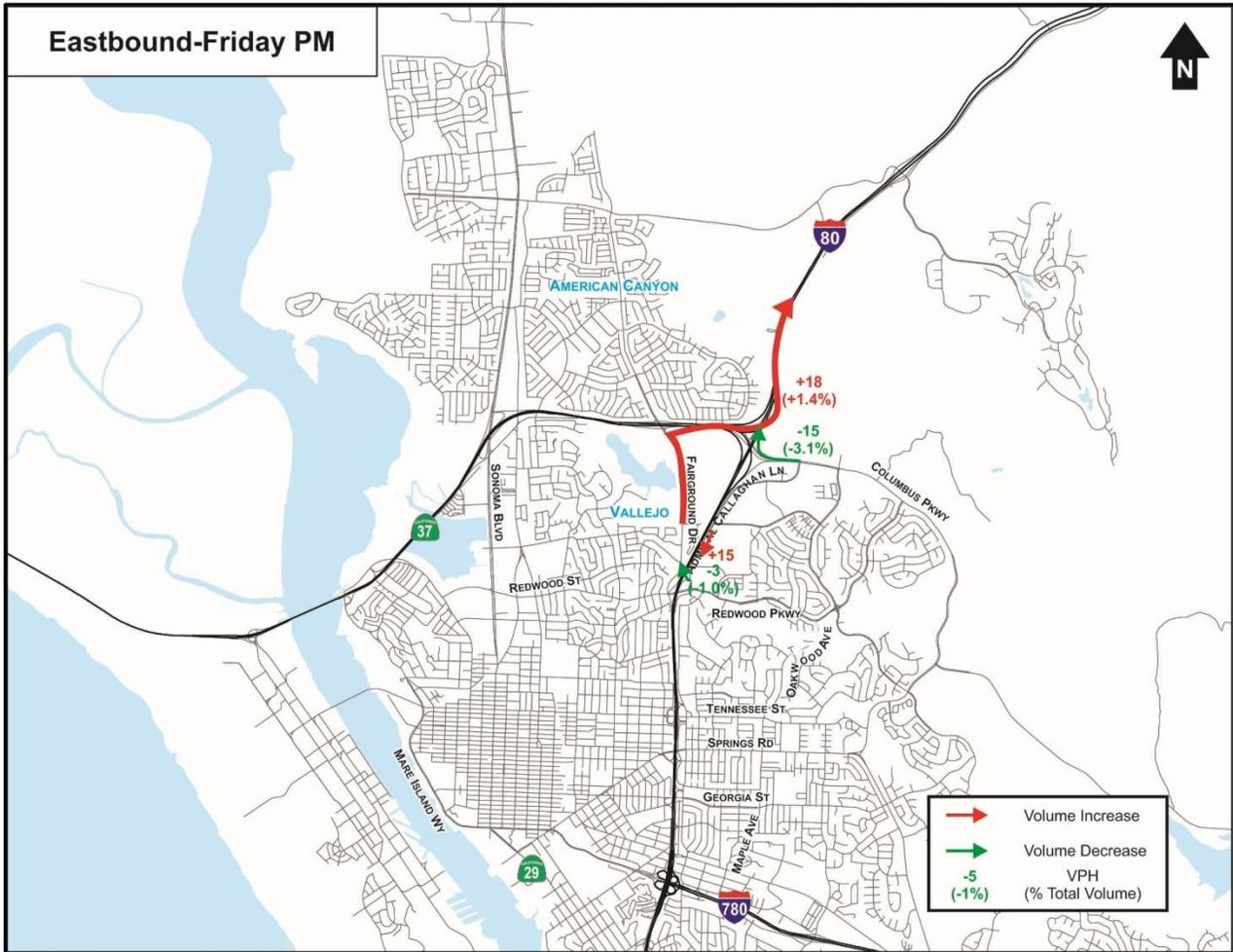


Exhibit 23: Diversion of Friday Eastbound Traffic in Fairfield with Metering (2015)

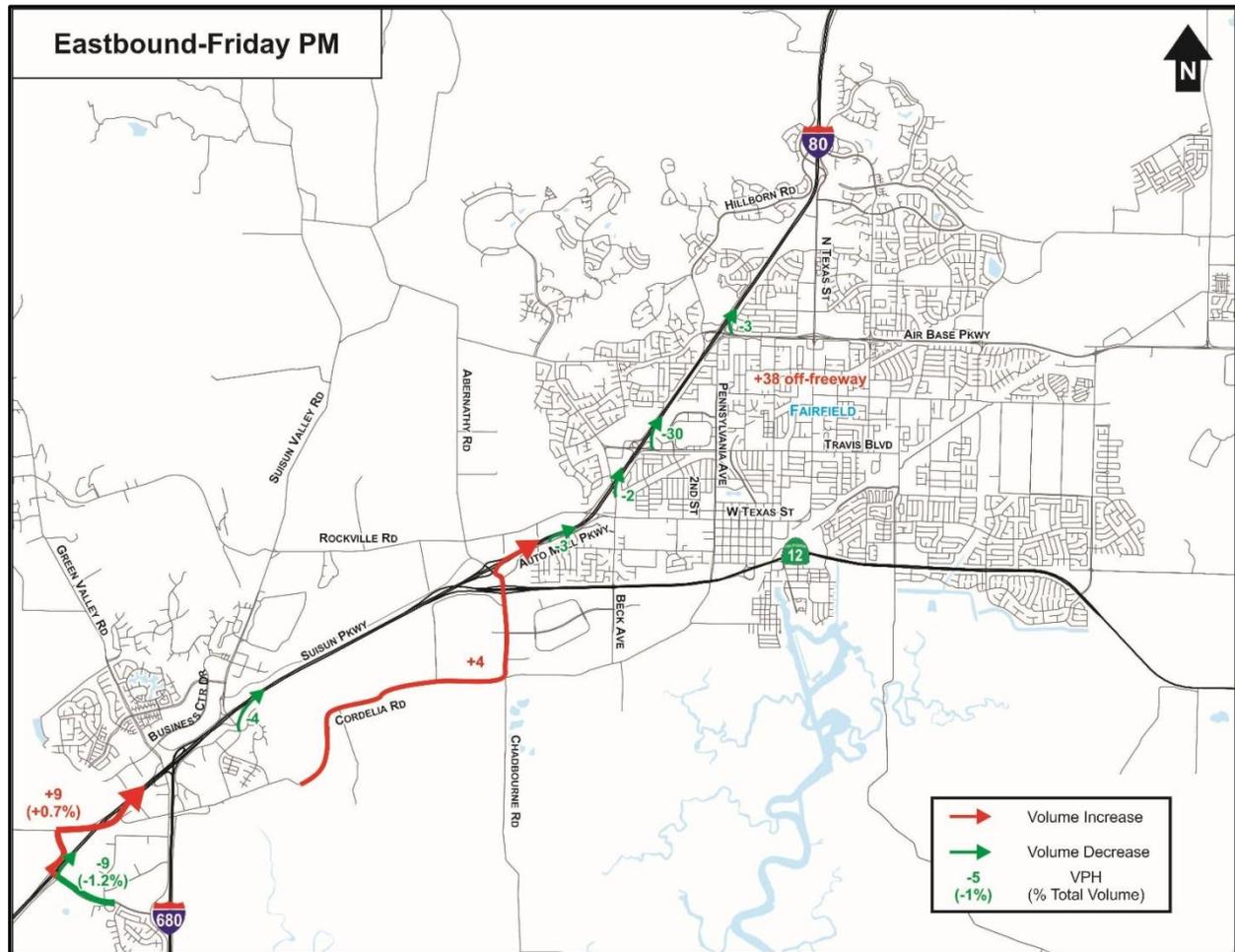
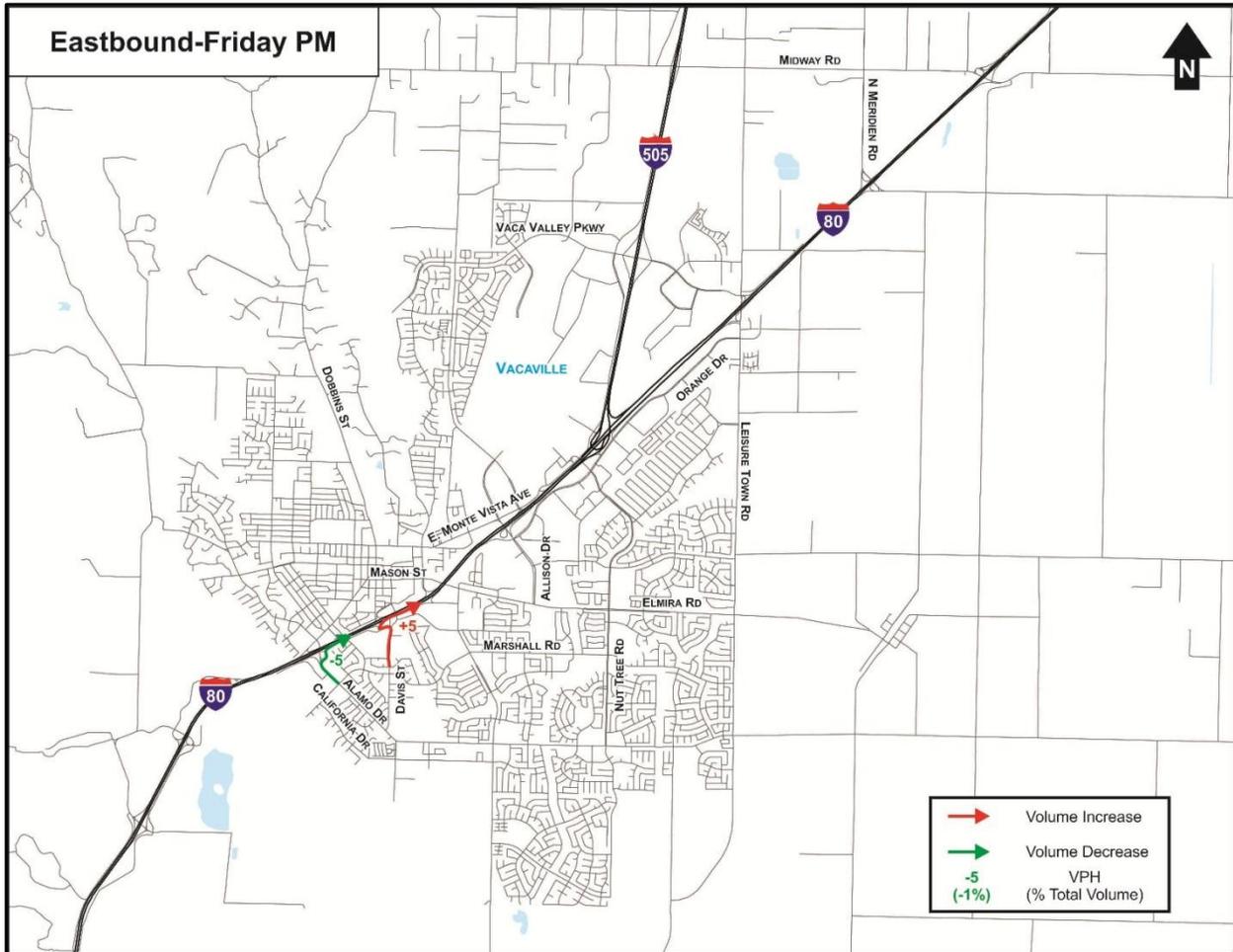


Exhibit 24: Diversion of Friday Eastbound Traffic in Vacaville with Metering (2015)



7.2 2030 DTA RESULTS

For the long term 2030 conditions, an evaluation of future travel demand volumes indicates that the I-80 corridor would experience congestion in all four study periods in the peak direction of travel; therefore, metering at below demand rates throughout the corridor would help manage freeway system efficiency. Input metering rates for the DTA model were set to maximize the use of available storage at each on-ramp, without spillback beyond on-ramps that would interfere with arterial traffic operations.

The purpose of conducting the 2030 DTA analysis was not to determine a specific set of metering rates for the Year 2030 conditions, but to assess potential ramp metering effects to local surface streets in the long term. The three primary objectives of the Year 2030 analysis were to determine:

- If ramp metering would cause undesirable diversions to local streets in Year 2030 conditions.
- Ramps that may need to be reconstructed in order to enable ramp metering and ramps that may need to be widened to continue ramp metering operations due to high demand volumes.
- Ramp metering implementation timing for the corridor.

Detailed specific on-ramp assumptions for ramp metering in Year 2030 are listed under Exhibit 25 and Exhibit 26.

A set of freeway mainline and ramp volume forecasts were computed for the study corridor. These forecasts were based on model growth estimated from the Solano countywide travel demand model and added onto the 2015 adjusted forecast volume set. Although ramp metering equipment was assumed to be available by 2030, projected 2030 on-ramp volumes were also evaluated to determine if metering is feasible in the event that ramp volumes are higher than maximum typical metering rates (i.e., greater than 900 vehicles per hour per lane). A conservative assumption was made that the freeway-to-freeway connectors would not be metered for the purpose of diversion evaluation. In practice, even when freeway connectors are not metered, the freeway system would still realize operational benefits from other surface street ramp meters along the corridor. Furthermore, a few on-ramps within the City of Vallejo currently have substandard design with very limited storage; ramp metering is assumed to be infeasible at these locations until further improvement plans are identified, which could be part of future express lane or other projects. There are also other locations in that may require modifications to accommodate future travel demand, as identified in Exhibit 25 and Exhibit 26.

The DTA model analysis procedures are similar to those described previously for the 2015 conditions analysis. CUBE Avenue was selected as the DTA tool for this evaluation. The process began with the Solano countywide travel demand model. A Solano county-only subarea network and trip table was then extracted from the nine-county model.

The roadway network for the DTA analysis was assumed to be consistent with projects that were included in the official Solano countywide model. Additional modifications to the network were made based on input from prior SoHIP meetings:

- Phase 1 of the I-80/I-680/SR 12 Interchange Project
- Express lane limits extended from Air Base Parkway to I-505

Detailed specific on-ramp assumptions for ramp metering in Year 2030 are listed under Exhibit 25 and Exhibit 26.

Exhibit 25: Ramp Metering Assumptions for 2030 DTA Analysis – Eastbound I-80

Eastbound On-Ramp	2030 Assumption	Comment
Magazine St	No Meter	Existing ramp is too short/needs improvement
I-780	No Meter	Freeway Connector. Further modifications to this ramp may need to be considered.
Georgia St	Meter	Further modifications to this ramp may need to be considered.
Springs Rd	No Meter	Existing ramp is too short/needs improvement
Tennessee St	Meter	Further modifications to this ramp may need to be considered for the northern ramp.
Redwood St	Meter	
Columbus Pkwy	Meter	
SR 37	No Meter	Freeway Connector
American Canyon Rd	Meter	
Red Top Rd	No Meter	On-ramp demand volume too high (Friday)
SR 12 (West)/Jamison Canyon Rd	No Meter	Freeway Connector
I-680/Green Valley Rd	No Meter	Freeway Connector
Suisun Valley Rd	Meter	
Abernathy Rd	Meter	
Auto Mall Pkwy	No Meter	On-ramp demand volume too high
Beck Ave	Meter	
Travis Blvd	Meter	
Air Base Pkwy	Meter	
N Texas St	No Meter	On-ramp demand volume too high
Cherry Glen Rd	Meter	
Pleasants Valley/Rivera Rd	Meter	
Alamo Ave	Meter	
Davis St	Meter	
Mason St/Cliffside Dr	Meter	
Allison Dr Loop	Meter	
Allison Dr Diag	Meter	
I-505	No Meter	Freeway Connector
Orange Dr	Meter	
Leisure Town Rd Loop	Meter	
Leisure Town Rd Diag	Meter	
Meridian Rd	Meter	
Midway Rd	Meter	
Dixon Ave	Meter	
Pitt School Rd	Meter	
SR 113(S)/N 1st St	Meter	
Pedrick Rd	Meter	
Kidwell Rd	Meter	

Eastbound On-Ramp	2030 Assumption	Comment
SR 113 SB	No Meter	Freeway Connector
Old Davis Rd	Meter	

Exhibit 26: Ramp Metering Assumptions for 2030 DTA Analysis – Westbound I-80

Westbound On-Ramp	2030 Assumption	Comment
Old Davis Rd	Meter	
SR 113 SB	No Meter	Freeway Connector
Kidwell Rd	Meter	
Pedrick Rd	Meter	
SR 113(S)/N 1st St	Meter	
Currey Rd	Meter	
Pitt School Rd	Meter	
Dixon Ave	Meter	
Midway Rd	Meter	
Meridian Rd	Meter	
Leisure Town Rd Loop	Meter	
Leisure Town Rd Diag	Meter	
I-505	No Meter	Freeway Connector
Monte Vista Ave (east)	Meter	
Browns Valley/Monte Vista Ave (west)	Meter	
Mason St	Meter	
Davis St	Meter	
Alamo Ave	Meter	
Pleasants Valley/Rivera Rd	Meter	
Cherry Glen Rd	Meter	
N Texas St	Meter	
Air Base Pkwy	Meter	
Travis Blvd Loop	Meter	
Travis Blvd Diag	Meter	
W Texas Rd	Meter	
Abernathy Rd	Meter	
SR 12 (East)	No Meter	Freeway Connector
I-680	No Meter	Freeway Connector
Green Valley Rd	Meter	
Red Top Rd	Meter	
American Canyon Rd	Meter	
Columbus Pkwy	Meter	
SR 37	No Meter	Freeway Connector
Redwood St	Meter	
Tennessee St	Meter	Further modifications to this ramp may need to be considered.

Westbound On-Ramp	2030 Assumption	Comment
Springs Rd	Meter	Further modifications to this ramp may need to be considered.
Georgia St	Meter	Further modifications to this ramp may need to be considered.
I-780	No Meter	Freeway Connector. Further modifications to this ramp may need to be considered.
Magazine St	No Meter	Existing ramp is too short/needs improvement
Maritime Academy Rd	No Meter	Existing ramp is too short/needs improvement
SR 29	No Meter	On-ramp demand volume too high

MIDWEEK WESTBOUND AM PEAK HOUR RESULTS

DTA analysis was conducted to evaluate potential diversion associated with on-ramp delays due to ramp metering. Note that as a result of the diverted traffic, background arterial traffic would also shift between different paths away from the freeway mainline. Potential diversion results are summarized in Exhibit 27. In addition, these potential traffic diversions are illustrated graphically in the Appendix G. Potential diversion at each on-ramp along the corridor ranges from negligible to a maximum of 58 vehicles, or approximately 4% of peak hour demand volume.

Exhibit 27: Westbound Midweek AM Peak Hour Potential Diversion

Westbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Old Davis Rd	66	100%	Neglig.	Neglig.
SR 113 SB	1145	NM	Neglig.	Neglig.
Kidwell Rd	80	100%	Neglig.	Neglig.
Pedrick Rd	143	100%	Neglig.	Neglig.
SR 113(S)/N 1st St	135	100%	10	7%
Currey Rd	7	100%	Neglig.	Neglig.
Pitt School Rd	355	96%	6	2%
Dixon Ave	849	96%	-35	-4%
Midway Rd	224	100%	14	6%
Meridian Rd	79	100%	6	7%
Leisure Town Rd Loop	151	100%	Neglig.	Neglig.
Leisure Town Rd Diag	335	90%	-17	-5%
I-505	1687	NM	17	1%
Monte Vista Ave (east)	67	100%	8	12%
Browns Valley/Monte Vista Ave (west)	1206	99%	-8	-1%
Mason St	742	96%	Neglig.	Neglig.
Davis St	507	96%	17	3%
Alamo Ave	1387	97%	-42	-3%

Westbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Pleasants Valley/Rivera Rd	193	100%	6	3%
Cherry Glen Rd	678	97%	19	3%
W Texas St	520	95%	-18	-3%
Air Base Pkwy	1500	96%	-58	-4%
Travis Blvd Loop	480	95%	-13	-3%
Travis Blvd Diag	390	97%	-12	-3%
W Texas Rd	446	97%	-9	-2%
Abernathy Rd	706	98%	-4	-1%
SR 12	3750	NM	Neglig.	Neglig.
I-680	421	NM	Neglig.	Neglig.
Green Valley Rd	765	97%	Neglig.	Neglig.
Red Top Rd	873	97%	Neglig.	Neglig.
American Canyon Rd	730	98%	Neglig.	Neglig.
Columbus Pkwy	91	100%	Neglig.	Neglig.
SR 37	1559	NM	16	1%
Redwood St	814	98%	-16	-2%
Tennessee St	719	93%	Neglig.	Neglig.
Springs Rd	266	95%	-13	-5%
Georgia St	549	98%	-10	-2%
I-780	1187	NM	23	2%
Magazine St	410	NM	Neglig.	Neglig.
Maritime Academy Rd	427	NM	Neglig.	Neglig.
SR 29	964	NM	Neglig.	Neglig.

Note: NM – No Metering. “+” indicates more vehicles as a result of ramp metering, and “-” indicates fewer vehicles. Negligible is where diversion is not anticipated.

As shown in Exhibit 27, setting ramp metering rates at below demand volume rate would result in potential diversions through the study area. Route choice for certain trips would elect to use adjacent on-ramps to reach their corresponding destinations, while a portion of the short trips would elect to use local streets and avoid using the freeway. Potential diversion routes in each major city are listed below for trips that are anticipated to divert away from their original route choice. This information, along with numerical results presented in the exhibit, provide an assessment of the order of magnitude and route choice pattern for these diversion trips in the long term conditions.

- Dixon
 - N First Street
 - Pitt School Road
 - Midway Road
 - Weber Road

- Vacaville
 - Vaca Valley Parkway
 - I-505 southbound
 - E Monte Vista Avenue
 - Davis Street
 - California Drive
 - Pleasants Valley Road/Cherry Glen Road
- Fairfield
 - N Texas Street
 - Pennsylvania Avenue
 - W Texas Street
 - Rockville Road
 - Cordelia Road
 - Suisun Parkway
- Vallejo
 - Route 37 eastbound
 - Springs Road
 - Georgia Street
 - Maple Avenue
 - Oakwood Avenue
 - I-780

SUNDAY WESTBOUND PM PEAK HOUR RESULTS

Potential diversion results for the Year 2030 Sunday PM peak hour are summarized in Exhibit 28. These are also illustrated graphically in Appendix G. Potential diversion at each on-ramp along the corridor ranges from negligible to a maximum of 46 vehicles, or approximately 18% of peak hour demand volume.

Exhibit 28: Westbound Sunday PM Peak Hour Potential Diversion

Westbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Old Davis Rd	118	100%	Neglig.	Neglig.
SR 113 SB	1023	NM	Neglig.	Neglig.
Kidwell Rd	55	100%	Neglig.	Neglig.
Pedrick Rd	206	100%	Neglig.	Neglig.
SR 113(S)/N 1st St	175	100%	Neglig.	Neglig.
Currey Rd	20	100%	Neglig.	Neglig.
Pitt School Rd	268	96%	Neglig.	Neglig.
Dixon Ave	358	96%	Neglig.	Neglig.
Midway Rd	103	100%	Neglig.	Neglig.

Westbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Meridian Rd	60	100%	Neglig.	Neglig.
Leisure Town Rd Loop	95	100%	Neglig.	Neglig.
Leisure Town Rd Diag	383	90%	-34	-9%
I-505	1986	NM	Neglig.	Neglig.
Monte Vista Ave (east)	309	100%	Neglig.	Neglig.
Browns Valley/Monte Vista Ave (west)	1098	99%	-11	-1%
Mason St	476	96%	-33	-7%
Davis St	534	96%	7	1%
Alamo Ave	548	97%	26	5%
Pleasants Valley/Rivera Rd	211	100%	Neglig.	Neglig.
Cherry Glen Rd	363	97%	23	6%
W Texas St	327	95%	-17	-5%
Air Base Pkwy	892	96%	12	1%
Travis Blvd Loop	924	95%	-27	-3%
Travis Blvd Diag	344	97%	Neglig.	Neglig.
W Texas Rd	305	97%	-15	-5%
Abernathy Rd	281	98%	Neglig.	Neglig.
SR 12	1866	NM	29	2%
I-680	311	NM	Neglig.	Neglig.
Green Valley Rd	462	97%	-4	-1%
Red Top Rd	302	97%	4	1%
American Canyon Rd	477	98%	Neglig.	Neglig.
Columbus Pkwy	253	100%	-46	-18%
SR 37	1943	NM	39	2%
Redwood St	892	98%	-18	-2%
Tennessee St	405	93%	13	3%
Springs Rd	247	95%	3	1%
Georgia St	465	98%	Neglig.	Neglig.
I-780	522	NM	Neglig.	Neglig.
Magazine St	213	NM	Neglig.	Neglig.
Maritime Academy Rd	590	NM	Neglig.	Neglig.
SR 29	963	NM	Neglig.	Neglig.

Note: NM – No Metering. “+” indicates more vehicles as a result of ramp metering, and “-” indicates fewer vehicles. Negligible is where diversion is not anticipated.

Potential diversion routes in each major city are listed as follows:

- Dixon
 - No diversion anticipated

- Vacaville
 - Vaca Valley Parkway
 - I-505 southbound
 - Dobbins Street
 - E Monte Vista Avenue
 - Mason Street
 - Davis Street
 - Merchant Street
 - Pleasants Valley Road/Cherry Glen Road
- Fairfield
 - N Texas Street
 - Hiborn Road
 - Pennsylvania Avenue
 - Beck Avenue
 - Route 12 westbound
 - Business Center Drive
- Vallejo
 - Route 37 eastbound
 - Redwood Parkway
 - Tennessee Street
 - Springs Road

MIDWEEK EASTBOUND PM PEAK HOUR RESULTS

Potential diversion results for the Year 2030 midweek PM peak hour are summarized in Exhibit 29. These are also illustrated graphically in Appendix G. Potential diversion at each on-ramp along the corridor ranges from negligible to a maximum of 46 vehicles, or approximately 17% of peak hour demand volume.

Exhibit 29: Eastbound Midweek PM Peak Hour Potential Diversion

Eastbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Magazine St	522	NM	Neglig.	Neglig.
I-780	1950	NM	Neglig.	Neglig.
Georgia St	428	98%	-9	-2%
Springs Rd	219	NM	9	4%
Tennessee St	1039	97%	Neglig.	Neglig.
Redwood St	547	98%	-11	-2%
Columbus Pkwy	825	95%	11	1%
SR 37	2310	NM	Neglig.	Neglig.
American Canyon Rd	639	96%	Neglig.	Neglig.

Eastbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Red Top Rd	593	NM	Neglig.	Neglig.
SR 12	1931	NM	Neglig.	Neglig.
I-680/Green Valley Rd	3960	NM	Neglig.	Neglig.
Suisun Valley Rd	892	96%	-35	-4%
Abernathy Rd	781	98%	4	1%
Auto Mall Pkwy	1501	NM	Neglig.	Neglig.
Beck Ave	1548	98%	-31	-2%
Travis Blvd	1450	96%	-16	-1%
Air Base Pkwy	978	97%	16	2%
N Texas St	1148	NM	16	1%
Cherry Glen Rd	623	97%	Neglig.	Neglig.
Pleasants Valley/Rivera Rd	225	95%	Neglig.	Neglig.
Alamo Ave	722	96%	-16	-2%
Davis St	410	97%	-12	-3%
Mason St/Cliffside Dr	485	100%	23	5%
Allison Dr Loop	223	100%	5	2%
Allison Dr Diag	401	93%	-8	-2%
I-505	278	NM	46	17%
Orange Dr	490	95%	-3	-1%
Leisure Town Rd Loop	572	95%	-11	-2%
Leisure Town Rd Diag	491	92%	-24	-5%
Meridian Rd	120	100%	Neglig.	Neglig.
Midway Rd	170	100%	Neglig.	Neglig.
Dixon Ave	137	100%	Neglig.	Neglig.
Pitt School Rd	333	96%	-13	-4%
SR 113(S)/N 1st St	419	94%	-17	-4%
Pedrick Rd	449	96%	2	0.4%
Kidwell Rd	292	90%	6	2%
SR 113 SB	1069	NM	Neglig.	Neglig.
Old Davis Rd	298	100%	Neglig.	Neglig.

Note: NM – No Metering. “+” indicates more vehicles as a result of ramp metering, and “-” indicates fewer vehicles. Negligible is where diversion is not anticipated.

Potential diversion routes in each major city are listed as follows:

- Vallejo
 - Admiral Callaghan Lane
 - Oakwood Avenue
 - Springs Road
- Fairfield

- Cordelia Road
- Suisun Parkway
- Chadbourne Road
- West Texas Street
- 2nd Street
- Travis Boulevard
- Pennsylvania Avenue
- Air Base Parkway
- Vacaville
 - Alamo Drive
 - Marshall Road
 - Peabody Road
 - Nut Tree Road
 - E Monte Vista Avenue
 - I-505
- Dixon
 - Lincoln Street
 - Dorset Drive

FRIDAY EASTBOUND PM PEAK HOUR RESULTS

Potential diversion results for the Year 2030 Friday PM peak hour are summarized in Exhibit 30. These are also illustrated graphically Appendix G. Potential diversion at each on-ramp along the corridor ranges from negligible to a maximum of 41 vehicles, or approximately 13% of peak hour demand volume.

Exhibit 30: Eastbound Friday PM Peak Hour Potential Diversion

Eastbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Magazine St	542	NM	Neglig.	Neglig.
I-780	1824	NM	Neglig.	Neglig.
Georgia St	503	98%	Neglig.	Neglig.
Springs Rd	202	NM	Neglig.	Neglig.
Tennessee St	1082	97%	-32	-3%
Redwood St	453	98%	14	3%
Columbus Pkwy	881	95%	Neglig.	Neglig.
SR 37	2187	NM	Neglig.	Neglig.
American Canyon Rd	659	96%	Neglig.	Neglig.
Red Top Rd	1225	NM	Neglig.	Neglig.
SR 12	1871	NM	Neglig.	Neglig.
I-680/Green Valley Rd	3960	NM	17	0.4%

Eastbound On-Ramp Locations	Peak Hour Demand Volume	RM Rate/Demand Ratio	Potential Diversion	
			vph	% Total Vol.
Suisun Valley Rd	986	96%	-20	-2%
Abernathy Rd	687	98%	3	0.4%
Auto Mall Pkwy	1383	NM	27	2%
Beck Ave	1329	98%	-27	-2%
Travis Blvd	1274	96%	-25	-2%
Air Base Pkwy	981	97%	-10	-1%
N Texas St	1273	NM	14	1%
Cherry Glen Rd	722	97%	Neglig.	Neglig.
Pleasants Valley/Rivera Rd	327	95%	Neglig.	Neglig.
Alamo Ave	679	96%	-5	-1%
Davis St	367	97%	-7	-2%
Mason St/Cliffside Dr	478	100%	12	3%
Allison Dr Loop	267	100%	Neglig.	Neglig.
Allison Dr Diag	414	93%	-17	-4%
I-505	315	NM	41	13%
Orange Dr	475	95%	-24	-5%
Leisure Town Rd Loop	563	95%	-28	-5%
Leisure Town Rd Diag	482	92%	-24	-5%
Meridian Rd	64	100%	Neglig.	Neglig.
Midway Rd	132	100%	Neglig.	Neglig.
Dixon Ave	180	100%	Neglig.	Neglig.
Pitt School Rd	356	96%	-14	-4%
SR 113(S)/N 1st St	458	94%	Neglig.	Neglig.
Pedrick Rd	419	96%	14	3%
Kidwell Rd	402	90%	Neglig.	Neglig.
SR 113 SB	829	NM	Neglig.	Neglig.
Old Davis Rd	233	100%	Neglig.	Neglig.

Note: NM – No Metering. “+” indicates more vehicles as a result of ramp metering, and “-” indicates fewer vehicles. Negligible is where diversion is not anticipated.

Potential diversion routes in each major city are listed as follows:

- Vallejo
 - Tennessee Street
 - Tuolumne Street
 - Redwood Parkway
 - Broadway Street
 - Sonoma Boulevard
- Fairfield
 - I-680 northbound

- Cordelia Road
- Chadbourne Road
- Auto Mall Parkway
- Pennsylvania Avenue
- North Texas Street
- Dover Avenue
- Vanden Road
- Vacaville
 - Hume Way
 - Peabody Road
 - Nut Tree Road
 - E Monte Vista Avenue
 - I-505
 - Fry Road
- Dixon
 - A Street
 - Pedrick Road

The DTA analysis results presented in this report demonstrated that when metering rates are set appropriately potential diversions resulting from operating ramp meters along the I-80 corridor would not be substantial and would range from negligible to a maximum of less than 60 vehicles per hour.

7.3 RECOMMENDATION

It is recommended that the short ramps in Vallejo and other on-ramps that are projected to have high demand volumes be reconstructed or widened as listed below, so that they can be metered in the long term and to improve the effectiveness of the overall ramp metering system. These include:

- Reconstruction of Short Non-Standard On-Ramps
 - Eastbound on-ramp from Magazine Street
 - Eastbound on-ramp from Springs Road
 - Westbound on-ramp from Magazine Street
 - Westbound on-ramp from Maritime Academy Drive
- Widening of On-Ramps with High Demand Volumes (>900 vphpl)
 - Eastbound on-ramp from Red Top Road
 - Eastbound on-ramp from Green Valley Road
 - Eastbound on-ramp from N. Texas Street
 - Westbound on-ramp from Route 29/Sonoma Boulevard
- Further modifications to these ramp may need to be considered
 - Eastbound and westbound on-ramps from I-780
 - Eastbound and westbound on-ramps from Georgia Street

- Eastbound and westbound on-ramps from Tennessee Street
Westbound on-ramp from Springs Road

8. IMPLEMENTATION PLAN

Ramp metering equipment will be installed and ready for activation on I-80 between the Redwood Street interchange in Vallejo and I-505/Orange Drive in Vacaville by 2015. To take maximum advantage of the operational and safety benefits offered by ramp metering, these ramp meters should be activated as soon as feasible prior to 2015 in the eastbound direction. Based on the projected freeway mainline conditions by 2015, it is recommended that the ramp metering rates in the eastbound direction be set to serve demand volumes Monday through Thursday PM peak period. For Friday PM peak period in the eastbound direction, the analysis demonstrated that significant operational improvements would be achieved by setting metering rates at a few percentage points below demand volume rates.

Projected traffic conditions by Year 2015 indicated that activating ramp metering in the westbound direction during weekday AM peak period (5 AM to 10 AM) and Sunday PM peak period (3 PM to 8 PM) would not result in significant operational improvements to the freeway system. Therefore, from a traffic operations standpoint, ramp meters in the westbound direction could be activated later, beyond Year 2015. However, actual freeway mainline conditions should be monitored on a regular basis to determine the exact timing of activating these ramp meters, which could occur by 2015

As it's anticipated that freeway operations will become increasingly congested beyond 2015, additional analysis was conducted to determine an approximate timeline to set metering rates at below demand volumes to provide a more efficient system operation. Peak hour demand volumes for 2030 conditions were evaluated against available capacity to determine an appropriate timeline when metering rates should be set below demand-volume rates. Year 2030 peak hour demand volumes were determined from the Solano countywide travel demand model. The volume to capacity (V/C) ratio was determined by comparing peak hour demand volumes to available capacity on the corresponding freeway mainline segment. For this exercise, since the time recommended to start metering below-demand volume rates could be any year between 2015 and 2030, freeway capacity is conservatively assumed to be without the express lane extension to I-505.

A V/C threshold of 0.85 was used to determine when the freeway is approaching its capacity and ratios greater than that indicate the freeway would be at or near congestion. Exhibit 31 provides a summary of the percentage of the freeway mainline that would be at or over capacity by 2030, in each major city through the study corridor. As shown in the exhibit, the freeway would be significantly congested by 2030, indicating that implementation of ramp metering before 2030 would help manage and provide operational benefits to achieve a more efficient freeway system. Detailed V/C ratios are included in Appendix H.

Exhibit 31: Percentage of the I-80 Corridor in Congestion by Year 2030

City	Eastbound Mon-Thurs PM	Eastbound Friday PM	Westbound Mon-Friday AM	Westbound Sunday PM
Vallejo	82%	82%	84%	93%
Fairfield	55%	84%	86%	67%
Vacaville	59%	100%	64%	67%
Dixon	59%	100%	37%	69%

A straight line interpolation method was used to determine the approximate year when the v/c ratio reaches 0.85, which provides guidance on when to begin ramp metering through specific sections of the corridor. Since V/C ratios fluctuate between each segment, a generalized year was estimated for each major city along the corridor, as shown in Exhibit 32. The years shown for each city per peak period is the median value of all freeway segments projected with V/C ratios greater than 0.85. For the City of Vallejo, since traffic congestion already exists along both directions of the corridor, and is projected to get worse by 2015, it is recommended to activate ramp meters as soon as ramp metering equipment becomes available. In summary:

- **Eastbound Friday PM Peak Period:** Activate ramp meters and set optimal metering rates (below demand volume rates) by 2015, or as soon as equipment becomes available.
- **Eastbound Monday through Thursday PM Peak Period:** First activate ramp meters and set rates to serve demand volume by 2015, or as soon as equipment becomes available. Then begin metering at optimal metering rates between approximately 2015 and 2018.
- **Westbound Monday through Friday AM Peak Period:** Activate ramp meters and set optimal metering rates in 2023, with the exception of the City of Vallejo, which should be metered as soon ramp metering equipment becomes available.
- **Westbound Sunday PM Peak Period:** Activate ramp meters and set optimal metering rates by about 2019, with the exception of the City of Vallejo, which should be metered as soon as ramp metering equipment becomes available.

Exhibit 32: Implementation Year to Begin Metering at Below Demand Volume Rate

City	Eastbound Mon-Thurs PM	Eastbound Friday PM	Westbound Mon-Friday AM	Westbound Sunday PM
Vallejo	2015	2015	2015	2015
Fairfield	2018	2015	2023	2026
Vacaville	2015	2015	2023	2019
Dixon	2017	2015	2023	2022

Note that the timeline beyond 2015 presented above is based on the evaluation of future forecasting; actual freeway mainline conditions should be monitored on a regular basis to determine the exact timing of implementing ramp meters to better manage freeway operations.

8.1 NEXT STEPS

The draft metering rates and results presented in this report provide information necessary to evaluate the feasibility of activating ramp meters along the study corridor. It is necessary to collect more detailed freeway data prior to the actual activation of ramp metering to develop detailed time of day plans to implement in the field. New ramp metering traffic-responsive timing plans should be developed prior to activation of the ramp meters. In addition, during the actual activation day, field crews should observe on-ramps and make field adjustments to metering rates as necessary based on observed conditions. Observations are typically made on multiple days during the opening week.

Caltrans staff typically continues to monitor ramp meter operations periodically and as needed based on requests.

APPENDICES

Appendix A: Existing Freeway Volume and Lane Configuration

Appendix B: Existing Off-Peak Hour Comparison

Appendix C: FREQ Validation Memo

Appendix D: FREQ Future 2015 Demand Volumes

Appendix E: I-80/I-680/SR-12 Interchange Project Initial Construction Package

Appendix F: PowerPoint Slides of Ramp Storage & Caltrans Plans

Appendix G: 2030 Potential Diversion Graphics

Appendix H: 2030 Peak Hour Forecast Results and V/C Ratios

Clarification/ Suggestion Comments:

- Define membership of SoHIP in the Acknowledgement Page
- Section 1.1, first bullet under “The recommended short term (2015) metering plan”: Define the “at the demand volume rate for each ramp”
- Section 1.1, second bullet: Define the percentages “below demand rate” and define what the following statement means, “...hold back a few vehicles each hour on Friday afternoons...”
- Section 6.6. Freeway to Freeway ramp metering was not adequately explained in terms of why it is potentially needed and why it was decided that they should be left on with a green light.
- The Implementation Plan looks in detail at the effects of ramp metering implementation at the baseline year 2015, clarify if the time savings percentage is assumed constant in 2035 with and without metering.
- The Plan’s overarching goal is to manage mainline traffic congestion, create travel time savings, and improve mainline safety. A caveat needs to be added that while the overarching goal should be accomplished only to the extent that there is not a significant negative impact to the local streets and intersections.
- Section 2.2 needs to explain what option described will be used for the ramps on the corridor.
- Clarify or reiterate that the travel time savings noted in Exhibits 16 and 17 are the result of implementing ramp meters at locations recommended to be metered in 2015 and specify that no additional ramp improvements will be needed to implement the meters. If so, the Implementation Plan should include a cost benefit discussion.
- Section 4.3 needs to acknowledge PM bottle neck EB at the end of the HOV and lane drop west of N. Texas.
- Section 5, Travel Times section would’ve benefited from transit travel time comparison.
- Section 6.1 needs to indicate a caveat that maximum metering rate of 900 vph would be overridden by queue detectors.
- The City of Vacaville recommends setting the EB metering rates at demand, not below, and then monitor and evaluate.
- Double check why Exhibit 14 shows no queue for Mason Street (5-6 p.m.), local observation is different.
- Exhibits 12 and 7 appear counter intuitive. Implementation Plan needs to include a simple explanation/reiteration of why the segments in Vallejo are highlighted as the worst congestion in the study area yet they aren’t recommended for ramp metering and the area with less congestion is recommended to be metered.
- Exhibit 18 needs to clarify the origin arrows coming from the city of Vallejo.
- Exhibit 32 to should correct implementation of EB in Fairfield from 2018 to 2015 to be consistent with Exhibit 7 or explain why Exhibit 32 is contrary to Exhibit 7 in that segment.
- Clarify if Caltrans is going to continue the tasks identified in section 8.1 before activating the meters (i.e. new ramp metering response time analysis and collection of additional data).
- Section 8.1 also needs to acknowledge MOU process to implement the ramp meters.

Minor Edits:

- First paragraph, section 1.1: “However, meters at these freeway connectors may be turned on and rest as solid green ~~when~~ while meters for the rest of the corridor ~~is~~ are activated, which allows the system the ability to **manage incidents, special events, or diversion traffic** as necessary.”
Provide examples of incidents or special events for the highlighted section above.
- Page 9, Section 3.4 Diversion Analysis, first paragraph: “This is a mesoscopic simulation tool ~~is~~ developed by Citilabs...” “...and dynamically reassignment ~~ment~~ travel path accounting for queuing effects.”
- Exhibit 17 needs an explanation of what x/y minutes mean.
- Page 49, Exhibit 25: SR 12 (West/~~Jamison~~ Jameson Canyon ~~Road~~)
- Page 61, end of second paragraph needs a period.
- Exhibit 27 should indicate Alamo Drive not Alamo Avenue.



**METROPOLITAN
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Memorandum

TO: Operations Committee

DATE: May 3, 2013

FR: Steve Heminger, Executive Director

W. I. 6037

RE: Proposed MTC Traffic Operations System (TOS) Policy Update – MTC Resolution No. 4104

In March 2004, the Commission adopted a Traffic Operations System (TOS) and Major New Freeway Projects Policy to require the inclusion of TOS elements in major, new freeway projects. This policy was only partially effective because TOS elements were being installed but not necessarily activated. MTC staff proposes to revamp the TOS Policy to: 1) establish a more action-oriented approach to installing and operationalizing the freeway TOS elements and 2) encourage compliance by conditioning MTC discretionary funding based on meeting the requirements of the TOS Policy. Staff recommends this policy be adopted by the Commission as MTC Resolution No. 4104.

Background

The 2004 TOS Policy was incorporated into the Transportation 2030 Plan and subsequent regional transportation plans as well as the Regional Transportation Improvement Program (RTIP) policies and procedures. TOS elements include changeable message signs, closed-circuit television cameras, traffic monitoring systems, highway advisory radio, traffic detectors, and ramp meters. Installing TOS equipment during the construction phase, rather than after a project is completed, is significantly more cost-effective. Further, a complete system of TOS installed and operated on the Bay Area's freeway system allows for the effective management of traffic within a corridor. It may also be coordinated with local transportation management systems to maximize overall effectiveness.

TOS Policy in Practice

Since 2004, the TOS Policy enabled MTC and Caltrans to make significant progress in installing TOS elements as part of major, new freeway projects. The MTC Freeway Performance Initiative (FPI) further expanded the number of freeway locations equipped with TOS/ramp metering equipment. While the region has realized some tangible success with the 2004 TOS Policy, the policy is limited by the following factors:

- **Limitations of the 2004 TOS Policy:** The TOS Policy focuses on the installation but not the activation of the TOS elements. For ramp meters in particular, has been a significant constraint. For example, ramp meters and other TOS equipment have been installed along various segments along SR-4 in Contra Costa County, I-80 in Solano County, and US-101 in Marin and Sonoma Counties but the meters have sat idle awaiting activation. They also become inoperable or subject to damage or copper theft, as exemplified by SR-4 equipment that is under repair at a cost of \$970,000.
- **Repetitive Consensus Building:** Through the FPI, MTC—in partnership with Caltrans, CMAs, and local agencies—has led ramp metering studies to assess existing traffic conditions, develop ramp metering timing plans, and foster consensus and support for metering. In addition, Caltrans

has a practice where the activation of ramp metering is contingent upon unanimous agreement with local agencies along the corridor. This agreement is memorialized by the execution of Memorandum of Understandings (MOUs). We have learned that execution of these MOUs is a voluntary practice of Caltrans District 4 and is not required by either District 4 or Headquarters' policy.

- **Excessive Caution in Planning Studies:** MTC and Caltrans have long relied on planning practices that slow activation. With each corridor, the process starts with a feasibility study to determine metering efficacy, initiate the design and construction, and then engage in the MOU discussion. Once the MOUs are executed, metering plans are developed to set timing rates and then finally activate the meters. At a minimum, the feasibility study is a paper exercise that has minimal impact, given the region's experience, as well as the widely documented safety and mobility benefits gained from metering.

New Recommended Approach to TOS Policy

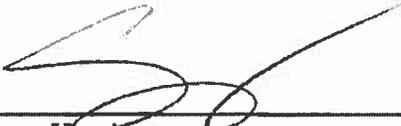
When a corridor has a usable segment, staff believes it is more effective to state the safety and mobility benefits of ramp metering to stakeholders up front, develop the ramp metering plan during the construction phase, and activate the meters immediately following the completion of a ramp metering plan. Issues such as queues from metered ramps impeding operations of local streets or near-term freeway congestion insufficient to warrant ramp metering can be addressed and mitigated on a case-by-case basis. In some instances, ramp meters can be set to green or at a demand rate for safety or incident management purposes. This approach will significantly accelerate metering activations.

MTC staff proposes to revamp the TOS Policy to reflect a more action-oriented approach to activating ramp meters/TOS elements and to encourage compliance by conditioning MTC discretionary funding on meeting the requirements of the TOS Policy (see **Attachment A**). The new policy elements are as follows:

- **TOS Activation:** All major new freeway projects must include the installation and *activation* of TOS/ramp metering to effectively manage and operate the region's freeway system and coordinate with local transportation management systems.
- **Ramp Metering Operating Principles:** Operating principles for ramp metering are added to the TOS Policy to guide the operations of ramp meters and provide assurances to local agencies about how potential impacts are to be addressed and mitigated. Note that the inclusion of these operating principles into the TOS Policy would negate the need for Caltrans to execute MOUs.
- **Funding Conditions:** For any jurisdiction in which MTC finds that ramp meters are installed but not in operation, MTC will consider suspending fund programming actions for federal and state discretionary programs until the Ramp Metering Plan is implemented and activated.

Recommendation

Staff recommends that this Committee refer MTC Resolution No. 4104 to the Commission for approval.



Steve Heminger

SH:AN

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Attachment A MTC Traffic Operations System (TOS) Policy¹

~~It is the Commission's policy that~~ All major, new freeway projects included in the Transportation 2030 Plan and subsequent regional transportation plans shall include *the installation and activation of freeway* traffic operations system (TOS) elements to effectively operate the region's freeway system and coordinate with local transportation management systems. For purposes of this policy, a "major freeway project" is a project that adds lanes to a freeway, constructs a new segment of freeway, modifies a freeway interchange, or reconstructs an existing freeway. A project is considered "new" if it does not have an approved Project Study Report (PSR) by December 2004 *or applicable scoping document. TOS elements may include, but are not limited to, changeable message signs, closed-circuit television cameras, traffic monitoring stations & detections, highway advisory radio, and ramp meters.* ~~Caltrans shall operate, manage, maintain and replace the TOS elements installed within its right-of-way.~~

Policy Implementation:

To effectively implement this policy, the Commission requests that Caltrans:

- Work with MTC and the CMAs to develop guidelines to determine which TOS elements are appropriate for specific major new freeway projects, considering local conditions, congestion level and other factors;
- Work with the CMAs to identify the proposed major new freeway projects that are subject to this policy, and to define the number, types and costs of TOS elements to be included in these projects;
- Develop and implement an on-going process to review major new freeway projects for appropriate TOS elements *in applicable scoping documents such as Project Study Reports (PSRs) and Project Initiation Documents (PIDs)* and design documents; and
- Develop and maintain an inventory of existing TOS elements installed in the region's freeway system, and their operational status to ensure ongoing system maintenance.

Specifically, ramp meters shall be activated upon completion of a Ramp Metering Plan. To guide the operations of ramp meters, Caltrans, in consultation with MTC, the Congestion Management Agency and local agencies, shall, to the extent feasible, apply the following operating principles:

- 1. Ensure that queues from metered ramps do not impede operation of local streets and intersections or block access to private property. Should this occur, each location should be examined on a case-by-case basis by Caltrans and local agency. Operational problems that cannot be corrected by existing equipment could be candidates for future operational and/or capital improvements.*
- 2. Ensure that no communities are burdened with ramp delays that are disproportionate or excessive.*
- 3. Ensure that if queues at metered ramps cannot be accommodated within the constraints defined in items 1 and 2 above, metering rates will be set to green or at the demand rate during the time period necessary to eliminate the negative impact the metering light is having on the adjoining local roadway or intersections. In these instances, each location should be examined on a case-by-case basis by Caltrans and local agency.*
- 4. Coordinate freeway and arterial operations to ensure efficient operation of both facilities.*
- 5. Promote high occupancy vehicles (HOV) preferential lanes at on-ramps where needed and if feasible.*

¹ Text shown in bold italics is new to the 2004 MTC TOS Policy. Text shown in strikethrough is deleted from policy.

Date: May 22, 2013
W.I.: 6037
Referred by: Operations

ABSTRACT

Resolution No. 4104

This resolution adopts the updated MTC Traffic Operations System (TOS) Policy for the San Francisco Bay Area.

Further discussion of these actions is contained in the MTC Executive Director's Memorandum to the MTC Operations Committee dated May 3, 2013.

Attachment A – MTC Traffic Operations System (TOS) Policy

Date: May 22, 2013
W.I.: 6037
Referred by: Operations

RE: Adoption of the MTC Traffic Operations System (TOS) Policy

METROPOLITAN TRANSPORTATION COMMISSION
RESOLUTION NO. 4104

WHEREAS, the Metropolitan Transportation Commission (MTC) is the regional transportation planning agency for the San Francisco Bay Area pursuant to Government Code Section 66500 *et seq.*; and

WHEREAS, MTC has adopted and periodically revises, pursuant to Government Code Sections 66508 and 65080, a Regional Transportation Plan (RTP); and

WHEREAS, MTC adopted the MTC Traffic Operations System (TOS) and Major New Freeway Projects Policy as part of the Transportation 2030 Plan in March 2004; and

WHEREAS, MTC has assessed the implementation of the 2004 MTC Traffic Operations System and Major New Freeway Policy and determined that a major update of that policy was warranted to reflect shortcomings in policy implementation and changing circumstances; and

WHEREAS, MTC has prepared a new MTC Traffic Operations System (TOS) Policy for inclusion in Plan Bay Area and subsequent regional transportation plans; now, therefore, be it

RESOLVED, that MTC adopts the new MTC Traffic Operations System (TOS) Policy, as set forth in Attachment A of this resolution, and rescinds the 2004 TOS and Major New Freeway Projects Policy.

METROPOLITAN TRANSPORTATION COMMISSION

Amy Rein Worth, Chair

The above resolution was entered into by the Metropolitan Transportation Commission at a regular meeting of the Commission held in Oakland, California, on May 22, 2013

Date: May 22, 2013
W.I.: 6037
Referred by: Operations

Attachment A
MTC Resolution No. 4104
Page 1 of 2

Attachment A MTC Traffic Operations System (TOS) Policy

All major, new freeway projects included in the Transportation 2030 Plan and subsequent regional transportation plans shall include the installation and activation of freeway traffic operations system (TOS) elements to effectively operate the region's freeway system and coordinate with local transportation management systems. For purposes of this policy, a "major freeway project" is a project that adds lanes to a freeway, constructs a new segment of freeway, modifies a freeway interchange, or reconstructs an existing freeway. A project is considered "new" if it does not have an approved Project Study Report (PSR) by December 2004 or applicable scoping document. TOS elements may include, but are not limited to, changeable message signs, closed-circuit television cameras, traffic monitoring stations & detections, highway advisory radio, and ramp meters.

Policy Implementation:

To effectively implement this policy, the Commission requests that Caltrans:

- Work with MTC and the CMAs to develop guidelines to determine which TOS elements are appropriate for specific major new freeway projects, considering local conditions, congestion level and other factors;
- Work with the CMAs to identify the proposed major new freeway projects that are subject to this policy, and to define the number, types and costs of TOS elements to be included in these projects;
- Develop and implement an on-going process to review major new freeway projects for appropriate TOS elements in applicable scoping documents such as Project Study Reports (PSRs) and Project Initiation Documents (PIDs) and design documents; and
- Develop and maintain an inventory of existing TOS elements installed in the region's freeway system, and their operational status to ensure ongoing system maintenance.

Specifically, ramp meters shall be activated upon completion of a Ramp Metering Plan. To guide the operations of ramp meters, Caltrans, in consultation with MTC, the Congestion Management Agency and local agencies, shall, to the extent feasible, apply the following operating principles:

1. Ensure that queues from metered ramps do not impede operation of local streets and intersections or block access to private property. Should this occur, each location should be examined on a case-by-case basis by Caltrans and local agency. Operational problems that cannot be corrected by existing equipment could be candidates for future operational and/or capital improvements.

2. Ensure that no communities are burdened with ramp delays that are disproportionate or excessive.
3. Ensure that if queues at metered ramps cannot be accommodated within the constraints defined in items 1 and 2 above, metering rates will be set to green or at the demand rate during the time period necessary to eliminate the negative impact the metering light is having on the adjoining local roadway or intersections. In these instances, each location should be examined on a case-by-case basis by Caltrans and local agency.
4. Coordinate freeway and arterial operations to ensure efficient operation of both facilities.
5. Promote high occupancy vehicles (HOV) preferential lanes at on-ramps where needed and if feasible.

Funding Conditions:

Any jurisdiction in which MTC finds that ramp metering and TOS elements are installed but not activated or in operation, MTC will consider suspending fund programming actions for federal and state discretionary funds until the Ramp Metering Plan is implemented and the ramp meters and related TOS elements are activated and remain operational and MTC deems the requirements of the regional TOS policy have been met. Furthermore, in any county in which a jurisdiction fails to include the installation and activation of TOS elements in an applicable freeway project, including ramp metering as identified in the Ramp Metering Plan, projects to install and activate the appropriate ramp meters and TOS elements omitted from the project shall have priority for programming of new future discretionary funding for that county.

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**Memorandum of Understanding (MOU) between the Solano County
Transportation Authority (STA) and the California Department of
Transportation (Caltrans) District 04
For
The I-80 Corridor Ramp Metering Operations in
Solano County**

This MOU is a compilation of the policies and procedures intended to be followed by the above named parties working in a coordinated manner to accomplish a mutual goal jointly established in the course of performing their statutory and functional duties.

The parties agree to implement the Ramp Metering Program in Santa Clara County as outlined below:

Goal

To provide consistent and predictable travel times to minimize overall corridor delay by managing access at on-ramps during peak commute periods, and to do so without negative impacts to adjacent intersection Level of Service (LOS), and to minimize impacts on local street traffic circulation resulting from the implementation of ramp metering.

Governance

The STA Technical Advisory Committee (TAC), through the Solano Highways Partnership (SoHIP) and Caltrans District 4 Operations will provide guidance on operational strategies for ramp metering consistent with Caltrans and local transportation policies. The SoHIP will recommend policies for adoption by the STA Board of Directors as appropriate. The STA TAC will continue the current practice to appoint members to the SoHIP which will include staff representatives from the cities and the County of Solano, adjacent to the I-80 Corridor, as well as ex-officio members from MTC, Caltrans and STA. The SoHIP working group shall continue to report to the STA Board (See Attachment A).

Local agencies may directly communicate with Caltrans regarding ramp metering operational issues and to request for assist to resolve these issues. If these operational issues cannot be resolved amicably between the local agency and Caltrans, the STA SoHIP shall assist to help resolve the disagreements.

The SoHIP shall be responsible for recommendations to the STA Board to consider in order improve the corridor operations, for changes to metering rates, and for changes to metering hours. Caltrans can modify the ramp metering rates, implementation by time of day, and hours of operations for a short term in emergency situations or for special events (e.g. sporting events, festivals, etc.) for the purpose of incident management. The SoHIP will continuously monitor and oversee the ramp metering program.

Operating Principles

1. Queues from ramps shall not routinely impede operation of local streets and intersections or block access to private property as a result of metering.
2. Ensure that no communities are burdened with ramp delays that are disproportionate or excessive.
3. If queues at metered ramps cannot be accommodated within the constraints defined in items 1 and 2 above, metering rates will be set to rest in green or at the demand rate of the ramp during the time period necessary to eliminate the negative impact the metering light is having on the adjoining local roadway or intersection. Some ramp metering locations in Solano County may have queues that extend beyond the physical on-ramp; however, these queues should not block or interfere with local through traffic operations. In these instances, each location should be examined on a case-by-case basis by Caltrans and the local agency. Operational problems that cannot be corrected would be candidates for future operational improvements. Metering will rest in green at such location until operational improvements are made.
4. Ensure efficient operations of ramp meters considering freeway and arterial operations.
5. Promote the provision of high occupancy vehicle (HOV) preferential lanes at on-ramps where feasible.
6. Ensure that ramp metering does not cause excessive divergence of traffic on local streets by implementing item 3 above.

Operational Parameters

- a) Meters will be in operation either the morning or afternoon peak commute hours, or both, starting on Monday and through Friday, except for certain major holidays and in the case of major incidents. Metering rates will be set based on the demand rate, and to contain metered queues within the on-ramp to the extent possible and the local street lanes specifically dedicated for freeway entry to the extent possible.
- b) Metering rate will be based on real-time traffic volumes on the freeway mainline, taking into account the available storage on the on-ramp, on ramp demand and a range of rates defined in ramp metering plans or tables in the ramp metering controller unit.
- c) Prior to implementation of ramp metering on future corridors, Caltrans will provide the SoHIP with an analysis of the subject corridor with ramp metering, including but not limited to information on metering rates and queue lengths at the proposed metered on-ramps.
- d) Prior to implementation, review and concurrence on the initial metering rates and plan to be implemented will be sought from the SoHIP and will be responsible for providing recommendations to the STA Board.
- e) Prior to implementation, Caltrans Public Information Office (PIO) shall prepare a press release and coordinate with the local agency's traffic engineer and/or other responsible person with the local agency.
- f) A week prior to ramp metering turn-on, the following actions will be taken by Caltrans staff:
 - Temporary signs will be posted at each metered on-ramp, with the date of activation and info phone line posted.

- Each ramp metering location will rest in “green” during the proposed metered peak period.

Termination/Severability

This agreement cannot be terminated unless agreed to in writing by both parties.

Implementation Phasing

Stage I- I-80 Corridor

- City of Fairfield- Red Top Road to North Texas Street

Stage II- I-80 Corridor

- City of Vallejo- Redwood Street to Red Top Road
- Cities of Fairfield and Vacaville- North Texas to I-505

Stage III- I-80 Corridor

- City of Vallejo- Solano County/ Contra Costa County Line to Redwood Street
- Cities of Vacaville and Dixon- I-505 to Solano County/Yolo County Line

I-80 Corridor Freeway to Freeway Ramp Metering (I-680, I-505, SR 12, SR 37, and SR 29)

Turning on of ramp meter signals will depend on execution of this MOU physical readiness, including the working order of equipment, appropriate signing and striping, on ramp capacity and notice to the public.

Capital Improvements

MTC, Caltrans and STA will be responsible to identify and acquire federal, state, and other available funds in the earliest years possible to finance the installation of metering equipment and other related improvements in support of ramp metering.

Monitoring and Maintenance

- Meetings regarding ramp metering operations in Solano County with the SoHIP shall be held as needed. At these meetings, MTC and Caltrans staff shall provide a status report on the operations of ramp metering in Solano County. The status report will include a list of operational issues that were reported by the local agencies and how operational issues were resolved.
- A review of Ramp Metering Operations will be provided to the STA Board of Directors by STA and Caltrans staff if requested by the SoHIP, STA TAC, or STA Board of Directors.
- “Before” and “after” monitoring will be conducted by Caltrans and MTC, in coordination with the STA and SoHIP, at no additional cost to the local agencies, at selected local street intersections near the metered on-ramps to monitor and assess the effects of the program. The SoHIP will establish the level of effort as well as locations of monitoring that will be conducted.
- “Before and after” travel time survey will be conducted by Caltrans on the freeway system.

- The SoHIP will, on an on-going basis, review the monitoring data and recommend solutions to issues determined to be related to ramp metering raised by the cities and the County of Solano, Caltrans, MTC or STA.
- Caltrans will be responsible for maintenance and operation of all metering equipment within Caltrans Right-of-Way (ROW).
- Caltrans will have the ability to make short-term spot decisions to change metering rates if required for safety reasons and will promptly notify the local jurisdictions impacted by such decisions as well as the SoHIP and the STA TAC. A pre-designated list of local jurisdiction contacts to be notified will be maintained by STA and Caltrans staff.
- Caltrans shall respond to requests to modify ramp metering rates from local agencies with the following specified turnaround times:
 - Within 24 to 48 hours to initially diagnose the operational issue.
 - Within one month to collect traffic volume, collect occupancy, develop modified ramp metering plans, and implement these plans.

A work task related to the modification of ramp metering plans does not include the design and construction of physical improvements such as additional on-ramp lanes (either mixed flow or High Occupancy Vehicle (HOV)), etc. If the turnaround times are not met or the operational issue is still not resolved, the STA TAC per its authority, through the SoHIP, as described in the Governance section of this MOU has the authority to resolve disputes between the local agency, MTC and Caltrans and approve changes to the operations.

- MTC, Caltrans and STA, through the SoHIP, will develop performance measures consistent with the above goal and principles to assess the effectiveness of metering.
- MTC, Caltrans and STA, through the SoHIP, will define a monitoring plan to periodically measure and calculate performance measures such as on-ramp volumes, on-ramp delays, on-ramp queues with the intent to determine if queues impact local street operations, freeway mainline speed, freeway mainline densities, freeway mainline travel time, and Volume-to-Capacity ratios as determined by the project partners.
- MTC, Caltrans and STA, through the SoHIP, will work together to fine-tune ramp metering and monitor the nearest local traffic signal to the ramp metering operations.
- If the ramp metering implementation or ramp metering plan modification does not perform as expected (e.g., exclusive delays and queues impact traffic operations on the local arterial), Caltrans shall consider other options such as metering at “demand”, changing upstream and downstream ramp metering rates, delaying the startup of metering, and implementing a steady “green” (if other measures fail to address the operational issue).

Daryl K. Halls, Executive Director
Solano Transportation Authority

Bijan Sartipi, District Director
California Department of Transportation
District 4

Date

Date

Approval as to form:

Approval as to form and procedure:

Bernadette Curry, STA Legal Counsel

Attorney
California Department of Transportation

Date

Date

Attachment A
Solano Highway Partnership (SoHIP)
I-80 Corridor Ramp Metering in Solano County
2013

STA SoHIP SCOPE OF EFFORT

The SoHIP shall report to the STA Board and the STA Technical Advisory Committee (TAC). The STA TAC shall appoint local agency members to the SoHIP, and members are responsible for the development of recommendations related to the Ramp Metering Operations for Solano County. The Program will include four elements:

1. Ramp Metering Plan
2. Capital Improvements related to implementing ramp metering
3. Agreements related to implementing ramp metering
4. Monitoring related to implementing ramp metering

Ramp Metering Plan: Sample issues to be covered in the plan are:

- Analysis to project traffic operations at specific locations of concern
- Intersections to be monitored
- On-ramp configurations for metering (number of lanes, HOV preferential (by-pass) lane, queue detector locations, etc.). Design and configuration of ramp metering shall comply with the latest Caltrans - Ramp Meter Design Manual.
- Implementation phasing
- Metering rates at each location
- Hours of metering operation
- What to do during emergencies or incidents
- Decision making process in terms of making changes to metering rates, metering hours, etc., in response to field conditions
- Process for modification of the Ramp Metering Plan in the future

Capital Improvement: Capital improvement elements may include:

1. Installation of “spillback” (End of Queue) detectors at local street entrance to the on-ramps.
2. Installation of ramp metering hardware and software equipment.
3. Selection of specific on-ramps to be widened or modified for added storage and on-ramp operations, and possible Local Street widening for storage.
4. Development of capital projects and construction documents for ramp widening/modification.

5. Identification of available funding from state or local sources.

Agreements:

Before future metering is implemented, a ramp metering implementation plan between STA, MTC and Caltrans, as developed and recommended by the SoHIP, will be developed. Such a plan or strategy may include specific metering parameters, incident response procedures, and maintenance procedures.

Monitoring:

The SoHIP will recommend locations for monitoring. The SoHIP will also identify whether a before-and-after study should be conducted.

DESIRED OUTCOMES

The goal is the development of a Ramp Metering Program by working cooperatively and making decisions based on consensus through the SoHIP. The Ramp Metering Program should balance local and regional transportation objectives.

Once the Ramp Metering Program is developed, it is expected that the the SoHIP will act as the technical and operations committee to make recommendations regarding ramp metering implementation and monitoring, on an on-going basis as needed.

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DATE: June 5, 2013
TO: STA TAC
FROM: Danelle Carey, SR2S Program Coordinator
RE: Safe Routes to School (SR2S) Two-Year Work Plan for Fiscal Year (FY) 2013-14 and FY 2014-15

Background:

The Solano Transportation Authority (STA) began the development of its Safe Routes to School (SR2S) Program in 2005, in response to the growing childhood obesity epidemic, student travel safety concerns, growing air pollution, and traffic congestion near schools in Solano County. The program works to encourage more students to walk and bike to school by identifying and implementing a balance of traffic calming and safety engineering projects, student education & safety training, encouragement contests & events, and enforcement coordination with police. The program also strives to increase interagency cooperation to continue to plan and implement SR2S projects with all local agencies.

Since the STA Board adopted the 2008 STA Countywide Safe Routes to School Plan, the STA has gradually obtained larger grant funding sources to fund elements of each education, encouragement, enforcement, and engineering recommendation from the countywide plan. As the program's responsibilities expanded, the STA Board has adopted more detailed work plans and budgets for the SR2S Program, which have been incorporated into the STA's 2-year Budget. On April 11, 2012, the STA Board adopted the last 2-year SR2S Program Work Plan for Fiscal Years (FY) 2011-12 and FY 2012-13, as recommended by the STA's SR2S Advisory Committee and Technical Advisory Committee. The SR2S Program is completing the 2013 Safe Routes to School Plan Update that will direct future programs and plans.

5-Year Funding Outlook for STA SR2S Program

All of the STA's SR2S Program's funds come from grants which will expire by the end of FY 2015-16. In October 2011, Caltrans awarded the STA with a \$500,000 Federal Safe Routes to School grant funds to implement a Walking School Bus Program. The Metropolitan Transportation Commission (MTC) designated Cycle 2 Regional SR2S (One Bay Area Grant-OBAG) funds to each bay area county based on school enrollment. Using that formula, Solano County will receive a total of \$1.256M for Safe Routes to School that will fund core program activities through FY 2015-16. On May 8, 2013, the STA Board approved \$1.2M of OneBayArea Grant (OBAG) Congestion Mitigation & Air Quality (CMAQ) funding for the STA's Safe Routes to School Program, to fund engineering projects in each of the seven (7) cities of Solano County.

Discussion:

STA and Solano County Public Health staff propose the following SR2S Work Plan to be covered by these funds between education, encouragement, enforcement, and engineering activities for all schools in Solano County over the next two years (Attachment B). This Work Plan includes increasing the number of education and encouragement events from 6 to 12 per school; initiating a new enforcement grant that could include 4 jurisdictions; and the Walking School Bus Program.

April 2012 Adopted Work Plan for FY 2011-12 & 2012-13	Proposed Work Plan for FY 2013-14 & FY 2014-15	SR2S Program Activity
		Education (for all schools in Solano County)
\$70,000	\$135,000	Safety Assemblies & Bicycle Rodeo Events, Equipment, and Materials
\$283,000		Safe Routes to School Maps
	\$40,000	Enhanced Middle School & New High School Program
		Encouragement (for all schools in Solano County)
\$100,000	\$86,325	Walk and Roll Week Incentives & Student Contests
\$11,000	\$20,000	SR2S Program Marketing Materials
\$35,000	\$36,500	Walking School Bus Formation & Materials
		Enforcement (Cities of Suisun City and Fairfield)
\$100,000	\$150,056	Public Safety Enforcement Grant
		Engineering
\$70,000		Planning (for 14 select schools countywide)
	\$1,200,000	Construction (for all 7 Solano cities)
		SR2S Program Staff
\$423,000	\$557,117	STA Staff
\$6,000	\$10,000	SR2S Summer Interns
\$347,000	\$413,812	Solano County Public Health Staff
\$1,445,000	\$2,648,810	TOTAL

Education & Encouragement Activities

Each participating school will be eligible to schedule two (2) safety assemblies, two (2) bicycle rodeos and eight (8) Walk and Roll Week events. Safety Assemblies & Bicycle Rodeo Equipment costs include a Public Announcement speaker system, bicycles as prizes, bicycle maintenance tools, bicycle helmets, and rodeo obstacles. On-going costs include fleet vehicle costs and mileage.

Encouragement events have an estimated countywide base cost of \$200,000, leaving about \$100,000 per year for incentives and prizes for student competitions and Walk & Roll Week Incentives. The estimated prize funding per school per year is \$1,500 per elementary school with some remaining funds for countywide high school and middle school competitions such as safety & encouragement video contests and promotional t-shirt design contests, which are still in development.

Each elementary school will be encouraged to start at least one (1) Walking School Bus.

Enhanced Middle School Program/New High School Program

Beginning in FY 2013-14, a middle school program will be developed by a high school summer intern. The intern will create new activities, in-class curriculum and research on-road bicycle training to teach children how to safely ride their bicycles to and from school. A high school program will also be developed by a limited term college intern. The intern will create new activities, in-class curriculum including media contests and events.

Enforcement

Continue to fund innovative enforcement activities in Solano County. Grant funding will be available to police departments in Solano County to conduct enhanced enforcement and track best practices. Enforcement grants will be distributed once a year over the next 3 years (FY 2013-14 to FY 2015-16).

Engineering & Planning Activities

Program the \$1.2M funding for SR2S capital improvements identified in the 2013 Safe Routes to School Plan Update. Staff will coordinate the process with each Community Task Force to ensure the guidelines and requirements of the OBAG funding are met.

SR2S Program Staff Expenditures

The increase in the number of events at each school, the additional enforcement, plus the inclusion of the Walking School Bus Program has increased the amount of staff time needed. This has been added to the proposed program budget. STA staff and Solano County Public Health staff propose the following work plan to be covered by these funds between education, encouragement, enforcement, and engineering activities for all schools in Solano County over the next two years.

Fiscal Impact:

Approximately \$2.5 M in funding agreements will be either amended or entered into to execute this work plan. Specifically, agreements with Solano County Public Health will be extended into FY 2014-15 and CMAQ funds will be programmed with Caltrans.

Recommendation:

Forward a recommendation to the STA Board to approve the Solano SR2S 2-year Work Plan for Fiscal Years 2013-14 and 2014-15 as described in Attachment A.

Attachment:

- A. SR2S 2-year Work Plan for Fiscal Years 2013-14 and 2014-15

SR2S 2-year Work Plan for Fiscal Years 2013-14 and 2014-15

06-05-13

Proposed Work Plan for FY 2013-14 & FY 2014-15	SR2S Program Activity
	Education (for all schools in Solano County)
\$135,000	Safety Assemblies & Bicycle Rodeo Events, Equipment, and Materials
\$40,000	Enhanced Middle School & New High School Program
	Encouragement (for all schools in Solano County)
\$86,325	Walk and Roll Week Incentives & Student Contests
\$20,000	SR2S Program Marketing Materials
\$36,500	Walking School Bus Formation & Materials
	Enforcement (for 4 jurisdictions in Solano County)
\$150,056	Public Safety Enforcement Grant
	Engineering
\$1,200,000	Construction (for all 7 Solano cities)
	SR2S Program Staff
\$557,117	STA Staff
\$10,000	SR2S Summer Interns
\$413,812	Solano County Public Health Staff
\$2,648,810	TOTAL



DATE: June 10, 2013
TO: STA TAC
FROM: Danelle Carey, Asst. Program Manager
RE: Safe Routes to School Advisory Committee (SR2S-AC)
Engineer Voting Member Appointment

Background:

The Safe Routes to School Advisory Committee has one member vacancy. The vacant position is for an engineering member. According to the by-laws, "The SR2S-AC shall include: two (2) representatives from engineering profession appointed by the STA Technical Advisory Committee (TAC).

Discussion:

As of April 2013, Jeff Knowles (engineer and former vice-chair) has retired from the City of Vacaville. The duties of the voting member would be to assist the SR2S-AC with the development of projects and programs in the categories of Education, Encouragement, Enforcement, Engineering, and Evaluation to promote healthy and safe alternative modes of travel for school-aged children. The voting member shall review and prioritize SR2S projects and participate in the development, review and implementation of the Countywide SR2S Plan.

Additionally, the voting member will participate in the review of future countywide and city general plans, plans for new schools and specific plans for new developments and may provide comments and/or recommendations to decision makers regarding these plans. At this time, the STA is requesting the TAC fill this vacant engineering position.

Fiscal Impact:

None.

Recommendation:

Nominate a voting member from the engineering profession.

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DATE: June 10, 2013
TO: STA TAC
FROM: Jessica McCabe, Project Assistant
RE: Public-Private Partnership (P3) Update

Background:

Defining Public-Private Partnerships (P3)

According to the National Council for Public-Private Partnerships (P3), a P3 is a contractual agreement between a public agency and a private sector entity, through which the skills and assets of each sector are shared in delivering a service or facility. In addition to the sharing of resources, each party shares in the risks and rewards potential.

P3's are often distinguished between governments that use the traditional "Design-Bid-Build" model of public infrastructure investment and those governments that create partnerships to transfer various responsibilities to the private sector, such as project design, construction, finance, maintenance, and operation.

P3's can accomplish the following objectives:

- Make possible major infrastructure investments that might not otherwise receive financing.
- Accelerate projects into construction compared to traditional delivery methods.
- Transfer Prudent Risk to the Private Sector
- Capture Private Sector Innovation
- Promote Life Cycle Efficiencies/Performance
- Create Competitive Tension to Drive Value
- Leverage existing funding
- Spur economic growth

Solano County P3 Feasibility Study Focus

For Solano County, this study's focus will be on developing and maintaining transit facilities of regional significance along the I-80 corridor through P3s. The intent is to explore traditional P3s, but also look at more global opportunities associated with transit facilities to identify opportunities to attract private investment to partner with local project sponsors and transit operators.

Public-Private Partnership Feasibility Study: Scope and Development Timeline

STA staff worked with various public works staff and transit staff as part of a new Public-Private Partnership Technical Committee (P3T) and discussed their interests in studying a variety of aspects of P3s to advance the delivery of future transit center construction phases as well as finalize a scope of work. The success of the study's scope of work will be based in part on how willing project sponsors are to evaluating the potential for and reality of P3 financing for this set of transit facilities. STA staff envisions working also with a P3 Policy Committee (P3P) to evaluate political feasibility of P3 recommendations as the study develops, targeting STA Board review and approval in early Fall 2013.

Prior STA Board Actions to Budget and Advertise for a P3 Feasibility Study

On June 8, 2012, the STA Board authorized the Executive Director to Release a Request for Proposals (RFP) for the Public Private Partnership (P3) Feasibility Study, enter into a contract for Public Private Partnership (P3) Feasibility Study for an amount not-to-exceed \$150,000, and hire project management assistance to lead the effort.

P3 Consultant Contract

On July 11, 2012, the STA Board approved a budget for the P3 study of \$150,000 of State Transit Assistance Funds (STAF), carrying over the prior year's budgeted amount of \$150,000. On June 8, 2012, the STA released an RFP for P3 Feasibility consulting services matching this approved budget. On August 30, 2012 the STA Board authorized the Executive Director to enter into contract for the P3 study in an amount of \$150,000. Six (6) transit sites were to be included in the P3 Feasibility study, under the terms of the contract:

- Vacaville Transportation Center
- Curtola Parkway and Lemon Street Transit Center
- Fairfield Transportation Center
- Fairfield/Vacaville Train Station
- Dixon Multimodal Transportation Center
- Suisun/Fairfield Train Station

At the January 29, 2013 SolanoExpress Intercity Transit Consortium meeting, committee members from the City of Fairfield and SolTrans requested that the Red Top Road Park and Ride Lot and the Vallejo Transit Center be added to the P3 Feasibility Study. At the March 29, 2013 City Managers meeting, Vacaville's City Manager requested that the Vacaville Transit Center (at East Monte Vista) also be added to the P3 Feasibility Study. Based on the additional transit sites being added to the P3 study and the associated work involved with data collection and site visits, KPMG provided an estimate of what this additional work would cost, along with related changes to scope of work, in the attached amendment letter. At the April 10, 2013 Board meeting, the STA Board approved a contract amendment for KPMG of \$50,400 for an amount not-to-exceed \$200,400 to cover these additional services.

Discussion:

Between April 12th and April 19th, STA and KPMG staff conducted site visits to each of the transit centers, to help integrate the transit center plans and objectives for each jurisdiction into the P3 Feasibility Study. At each site, STA and KPMG met with city staff to discuss potential P3 opportunities that could benefit each of the transit centers. These tours helped to inform the most current quantitative and qualitative data for the Request for Information (RFI), market sounding and financial analysis worksteps carried out by KPMG staff. Following the transit site tours, KMPG circulated draft RFIs for each of the cities to review and provide feedback. KMPG are in the final stages of collecting feedback from jurisdictions and are finalizing remaining RFIs.

Once the RFIs are finalized, KPMG will begin their private market sounding. Attachment B describes the RFI and Market Sounding Strategy. The market sounding will involve engaging private sector market participants and presenting each with an RFI. The result of the market sounding exercise will include direct market feedback that will be presented to the STA TAC and Board. Based on the revised schedule, the market sounding will occur in late June/early July and feedback will be presented at the next City Managers meeting in July (Attachment B).

Fiscal Impact:

The total cost for the Feasibility Study is \$200,400 funded by State Transit Assistance Funds (STAF).

Local Preference Policy:

This contract is not subject to the Local Preference Goal due to the service of funds being used for the study.

Recommendation:

Informational.

Attachments:

- A. Draft RFI and Market Sounding Strategy, 3-20-2013
- B. Revised P3 Feasibility Study Schedule, 5-28-2013

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**Solano Transportation Authority
Public-Private Partnership Feasibility Study
DRAFT RFI and Market Sounding Strategy, Private Sector Participants and Project Schedule**

RFI Strategy

BACKGROUND

The Solano Transportation Authority (STA) engaged KPMG Corporate Finance LLC (KPMG) as advisors to perform a Public-Private Partnership (P3) Feasibility Study on nine of its member municipality's transit center projects. KPMG is assisting the STA to understand the private sector's interest levels in the transit center projects, and to analyze how the use of P3's or other commercial arrangements could accelerate project delivery, lower operations and maintenance (O&M) expenses, and/or generate alternative revenues for these projects. Part of this initiative includes an informal market sounding exercise which involves a developing a Request for Information (RFI) and engaging in discussions with a selection of potential private sector service providers. Marketplace views will be collected regarding:

- Contract length and performance review points;
- Risk transfer around revenue, cost and performance; and
- Incentives and contractual mechanisms to encourage investment.

The informal market sounding will occur prior to a formal procurement stage.

OBJECTIVES

The STA's objectives for the RFI are to gather direct market feedback on potential commercial structures, alternative revenues, O&M savings or service enhancements, and other innovate concepts at the nine transit centers. This direct market feedback will support the STA's objective to understand current information about the market's appetite for risk transfer, preferred structures, potential implementation challenges, and market interest in these projects.

RFI PROCESS

On behalf of the STA, KPMG will lead the RFI process by engaging interested private sector market participants (approximately 4 to 6 firms) and presenting each with a RFI Teaser. The Teaser document provides an overview of each transit center's current operations, longer-range development plans, and highlights a preliminary set of revenue and O&M opportunities for each transit center. KPMG will discuss five main topics with the interested participants regarding their views on the feasibility of various revenue, cost savings or development opportunities. The results of this market sounding exercise will include direct market feedback that will be presented to the STA and its Steering Committee.

RFI Teaser

The RFI Teaser will be presented to the market participants ahead of scheduled meetings to provide them time to review and assess potential revenue and cost savings opportunities, which generally include:

1. Operations and Maintenance

**Solano Transportation Authority
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DRAFT RFI and Market Sounding Strategy, Private Sector Participants and Project Schedule**

2. Parking Fees
3. Solar Photovoltaic Facilities
4. Advertising and Naming Rights
5. Transit-Oriented Development

RFI Participants

KPMG and STA will agree on a selection of market participants that will be engaged in the RFI process. The market participants should include a cross-section of disciplines such as O&M providers, naming rights sales, advertising companies, and/or real estate developers. A draft list of market participants is provided in Attachment A: Potential Private Sector Participants.

Key Considerations for Discussion

KPMG will present the STA's objectives to the market participants and discuss the following topics: overall interest in the projects, roles and responsibilities, commercial feasibility, risk allocation, and funding and financing options. Discussions on these key areas will gauge market interest in opportunities at the nine transit centers.

- **Overall Interest.** KPMG will inquire about the participants overall perspective on the projects. Given that the participants specialize in industries related to the preliminary revenue and O&M opportunities, their experience and insight into important considerations such as delivery options, balancing project risks, revenues and costs will be useful in understanding how the market might respond to formal procurement(s) for these STA projects. These discussions will also provide the STA with information about how to enhance market interest and competition.
- **Roles and Responsibilities.** Discussions around each transit center's unique needs will be helpful in determining the potential roles and responsibilities of a service provider at the respective projects.
- **Commercial Feasibility.** This area addresses potential structures and other commercial arrangements that the market considers suitable for each project. KPMG will gather information on the type of structures (e.g., DBFOM, leases, O&M or revenue contracts) that the market would consider for the transit centers.
- **Risk Allocation.** To understand how the market views risk sharing between a private sector operator and the municipalities, KPMG will engage the participants in discussions about allocation of various risks, including costs, performance, and revenue risks. Understanding this aspect will help to determine how risks might be shared and provide insight into any future value-for-money assessments.
- **Funding and Financing Opportunities.** To understand potential private sector financing options for the transit centers, KPMG will obtain market perspectives about which

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DRAFT RFI and Market Sounding Strategy, Private Sector Participants and Project Schedule**

commercial structures are suited to attract private sector capital. Additionally, KPMG would explore public funding sources, such as state, local and federal funds that have been used for similar projects. As an example, renewable energy tax credits could possibly attract private capital.

Presentation of Results

Based on discussions with the market participants, KPMG will report results and assist the STA to match the market sounding findings to their objectives and begin to prioritize its projects. Feedback from the market will also be used to inform screening of the projects for risks, issues and opportunities in the areas of acceptability, operations / interface, implementation, timing / readiness / phasing, and financing. The results of the market sounding will be presented to STA's Steering Committee to inform discussions about the market participant's perspectives on various commercial structures and opportunities for private sector participation at the transit center projects.

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Milestone	Action	Scheduled Date based on March RFI Strategy	Revised Scheduled Date (5/2/2013)	Revised Scheduled Date (5/28/2013)	Notes
Potential P3 partners	Submit draft RFI and market sounding strategy to STA staff for review and comment. Initiate informal market sounding.	March 20, 2013	N/A	N/A	Completed
Meeting with City Managers	Present Draft RFI and Market Sounding Strategy presentation to STA City Managers.	March 27, 2013	N/A	N/A	Completed
Ten (10) Transit Center Site Visits and Final Data Collection	In-person meetings, project site visits, continuation of RFI data collection from STA staff. (3-day visit)	[TBD - Week of April 1, 2013]	Week of April 15, 2013	Week of April 15, 2013	Completed
Finalize RFI	KPMG to issue FINAL DRAFT of Teasers for comment and finalize with cities	Weeks of April 8, and April 15, 2013	Week of May 6 and May 13, 2013	Week of May 27 th and June 3 rd , 2013	Target to complete RFI Teasers this week and to notify City Managers
Schedule Market Sounding Meetings	Provide Teasers to participants and schedule meetings		Week of May 20, 2013	Week of June 3 rd and June 10 th , 2013	We can begin to move forward with opportunities that do not have significant comments; and also have next week as a buffer for any additional comments
Market Sounding	Conduct informal market sounding with selected private sector participants.	Week of April 22, 2013 (and April 29, 2013 as needed)	Week of June 3 and June 10, 2013 as needed	Weeks of June 17 th , June 24 th , and July 1 st , 2013 as needed	We will provide the participants a week to review the Teasers before conducting the interviews; the schedule depends on the availability of participants
TAC Meeting			Week of June 17 or June 24, 2013	Rescheduled	This presentation will be substituted with a presentation to the City Managers and staff

Milestone	Action	Scheduled Date based on March RFI Strategy	Revised Scheduled Date (5/2/2013)	Revised Scheduled Date (5/28/2013)	Notes
Suitability Assessment	Submit draft report of suitability and screening outcomes to STA staff for review and comment.	Week of May 13, 2013	Week of July 1 or July 8, 2013	Week of July 8 th or July 15 th , 2013 as needed	Two weeks after completion of market sounding; KPMG will incorporate
Presentation to City Managers and Staff	Present results of market sounding to City Managers and staff			Week of July 15 th or July 22 nd , 2013	We can present some preliminary results to the TAC based on our conversations



DATE: June 11, 2013
TO: STA TAC
FROM: Robert Guerrero, Project Manager
RE: STA Alternative Fuel and Infrastructure Plan Status

Background:

The STA began the development of the Alternative Fuel and Infrastructure Plan in June 2012 with assistance for the consultant group ICF International. The purpose of the plan was to review major choices for alternative fuels and vehicles, assesses their benefits and costs, and identifies implementation actions to help overcome barriers to greater use of alternative fuels. The plan was intended to be a tool to assist member agencies in future decisions for fleet conversions and infrastructure improvements; it was not intended to be a vehicle replacement plan.

The Alternative Fuels and Infrastructure Plan will be an advocacy document for future grant funding for STA's member agencies. In addition, the Plan will provide a resource document to guide potential discretionary clean air funds available through the Bay Area Air Quality Management District and Yolo Solano Air Quality Management District. Both Air Districts have been active partners and participants in the Plans development.

A Technical Working Group was established to provide technical support and feedback as the Plan is being developed. The Working Group consisted of fleet managers, public works, planning, transit, and Air District staff. Since the start of the Plan's development, the Working Group has met three times to review technical reports supporting the draft Alt. Fuels and Infrastructure Plan. In addition, the Alternative Modes Policy Sub-Committee of the STA Board provided overall policy guidance in the plan's development and was provided updates regarding the Plan's development.

Discussion:

The Plan's Technical Working Group met on Thursday, June 6th to discuss an early draft of the Alt. Fuels and Infrastructure Plan. The Draft document reflected technical reports and survey information previously reviewed by the Working Group. The Draft also included general lifecycle costs and implementation strategies. The Working Group provided good input and direction on the draft Plan at their meeting and agreed to provide additional, more detailed, comments by June 21st. A copy of the initial Draft Plan and meeting notes from the Working Group is available to the TAC members upon request.

After the June 21st deadline, STA staff will review comments received by the working group and revise the Draft Plan accordingly. The revised Draft Plan will be re-circulated to the Working Group in July for final comment before tentatively being presented to the STA TAC and Consortium in August and STA Board approval consideration in September.

Fiscal Impact:

Funding for the Alternative Fuels and Infrastructure Plan was approved by the STA Board and included in the STA FY 2013-14 Budget from State Transit Assistance Funds.

Recommendation:

Informational.



DATE: June 10, 2013
TO: STA TAC
FROM: Jayne Bauer, Marketing and Legislative Program Manager
RE: Legislative Update

Background:

Each year, STA staff monitors state and federal legislation that pertains directly to transportation and related issues. On March 13, 2013, the STA Board approved its amended 2013 Legislative Priorities and Platform to provide policy guidance on transportation legislation and the STA's legislative activities during 2013. Monthly legislative updates have been provided by STA's State and Federal lobbyists for your information (Attachments A and B). A Legislative Bill Matrix listing state bills of interest is available at <http://www.sta.ca.gov/Content/10051/LegislativeAdvocacy.html>. A Federal Funding Matrix is included as Attachment C.

Discussion:

Staff is working with STA's federal lobbyist, Susan Lent of Akin Gump, to coordinate meetings June 17-20th in Washington DC with Solano County's federal legislative representatives and with key federal agency staff. The strategy will focus on the following as they align with STA's Federal legislative priorities (Attachment E):

1. Monitor the Department of Transportation's Implementation of Moving Ahead for Progress in the 21st Century (MAP-21) and Comment on Proposed Regulations and Policies
2. Identify and Advocate for Grant Opportunities
3. Reauthorization of MAP-21
4. Support of Solano County TIGER 2013 project priority.

Meetings are being scheduled with the following:

Senator Dianne Feinstein
Senator Barbara Boxer
Congressman John Garamendi
Congressman Mike Thompson
Majority Staff, House Committee on Transportation and Infrastructure
Minority Staff, House Committee on Transportation and Infrastructure
Majority Staff, Senate Committee on Environment and Public Works (Highway program issues)
Majority Staff, Senate Committee on Banking, Housing and Urban Affairs (Transit issues)
Federal Transit Administrator, Federal Transit Administration (P3 projects)

TIGER 2013 Grant Funding

U.S. DOT announced the availability of \$474 million for the TIGER 2013 program, with applications due to U.S. DOT on June 3, 2013. For non-rural areas, grant requests must be between \$10 and \$200 million, and \$1 to \$10 million for rural areas.

STA staff and Susan Lent worked closely with the City of Fairfield to coordinate the application and all the required letters of support for the Fairfield/Vacaville Intermodal Station project, which was submitted on June 1st for a \$9M rural area set-aside. A decision is expected as soon as late August according to staff from DOT that reviews all of the TIGER applications.

Fiscal Impact:

None.

Recommendation:

Informational.

Attachments:

- A. Shaw/Yoder/Antwih State Legislative Update
- B. Akin Gump Federal Legislative Update
- C. Federal Funding Matrix



SHAW/YODER/ANTWIH, *inc.*

LEGISLATIVE ADVOCACY • ASSOCIATION MANAGEMENT

May 29, 2013

TO: Board of Directors, Solano Transportation Authority

FM: Joshua W. Shaw, Partner
Shaw / Yoder / Antwih, Inc.

RE: **STATE LEGISLATIVE UPDATE – May 2013**

Since our last report, legislative deadlines have required all bills with a fiscal implication to pass out of their respective Appropriations Committee, or they will be designated a “two-year” bill. And, as of this writing, the House of Origin deadline looms, meaning all bills must pass out of their respective House before Friday, May 31, or similarly risk becoming two-year bills, which cannot be taken up again until January of 2014.

Thus, there is a rush right now to move thousands of bills; by early next week we will obtain a much clearer picture of which bills are truly viable as 2013 measures, and which have taken a back seat.

In the meantime, the other major recent development was the release of the Governor’s “May Revision” to the state budget for 2013-14 which he originally unveiled in January. We briefed your staff on key elements of the proposal, although none are very substantive from a transportation perspective.

Finally, we’ve been working to address your key legislative priorities. These items and activities are discussed in more detail below.

May Revision to 2013-14 State Budget: Minimal Transportation Impact

On May 14 Governor Brown released his May Revise spending plan for the 2013-14 state budget, with lower-than-anticipated projections of increased state revenue. The Governor projected that revenue in the current fiscal year will be nearly \$2.8 billion higher than originally projected but that revenue in the next fiscal year will be roughly \$1.8 billion lower than projected earlier this year. In the weeks leading up to the budget revision, speculation mounted that the Governor would build a rosier projection into his May Revise proposal, and take advantage of \$4.5 billion that rolled into state coffers unexpectedly this spring.

However, the Governor justified his more conservative projections by predicting that economic growth will be slower than previously thought because of federal spending cuts and a higher payroll tax on workers. The Governor also assumes that the spring revenue spike was partly due

to wealthy taxpayers taking more income in 2012 in anticipation of federal tax changes. That means the state potentially would receive lower tax revenues in 2013-14 than Brown previously expected.

The May Revise reports that approximately 13 percent of annual state transportation revenue will continue to be dedicated to offsetting debt service costs, which are expected to grow to over \$1 billion in 2013-14.

The May Revise does not contain substantial new changes for or threats to transportation programs. Following are the key transportation elements:

- Reduces Caltrans capital outlay support staffing by \$36.3 million (including a reduction of 184 Caltrans positions in engineering, design, and construction oversight) to reflect reduced workload from the wind-down of Proposition 1B and the American Recovery and Reinvestment Act funds for transportation projections.
- Expands the Caltrans zero-based budgeting effort to equipment and stormwater programs.
- Increases \$18.6 million for AMTRAK operating expenses to reflect the federal requirement that short distance service become entirely state supported.

Cap and Trade Funding

The May Revise proposal does suggest a \$500 million loan to the General Fund from allowance revenues generated under the Air Resources Board's Cap and Trade system, funds that were otherwise expected to be invested in such programs as clean local transit and other transportation and land-use projects and services. The Governor's January budget identified \$500 million for General Fund relief, but did not specify that this would be a loan.

The Governor contends that loaning these proceeds will not interfere with the objectives of the three-year investment plan or AB 32 because it is short-term and the monies will be repaid with interest when necessary to meet the needs of the Fund. However, it is unclear when the loan will be repaid. Legislative budget subcommittees are considering adding loan repayment terms, as well as some allocation of funds for actual investment in the budget year.

The May Revise proposes to delay any additional appropriations of Cap and Trade funding until the January 2014-15 budget.

In the meantime, the Department of Finance and Air Resources Board released a separate document providing the final Cap and Trade Investment Plan for FY 2013-14 through 2015-16, as required by law. Similar to an earlier draft plan released in April, the Plan prioritizes Sustainable Communities & Clean Transportation, including:

- Sustainable Communities Strategies Implementation, such as: rail modernization and system integration (including high-speed rail); public transit with connectivity to rail; expanded transit and ridership programs; infrastructure; livable communities; transit-oriented development; and, active transportation programs.
- Development and implementation of plans for Sustainable Communities Strategies (e.g., local sustainable communities strategies, and general and specific plans to implement an SCS).

- Low-carbon freight equipment and zero-emission passenger transportation; plus necessary fueling/charging infrastructure.

The full investment plan can be found here –

http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final_investment_plan.pdf

While the combined impact of these two Administration proposals is probably “hurry up and wait” – relative to Cap and Trade funding for transportation programs in the budget year – a coalition of local and regional governments, transportation planning and transit agencies, AQMDs, environmental groups and others continues working towards setting up a policy structure to support eventual appropriations that make sense for local transportation programs.

Bills of Interest

1. **AB 453 (Mullin)** would have authorized a transportation planning agency that is designated as a metropolitan planning organization to impose a transactions and use tax at a rate of no more than 0.5% for purposes of funding certain aspects of a sustainable communities program. The funds would have been dispersed amongst these various programs, such as affordable housing and parks & open space, with little to no input from local boards like yours.

The STA board Opposed the bill, which failed legislative deadlines. The bill is thus dead for the year.

2. **AB 574 (Lowenthal)** creates the Sustainable Communities Infrastructure Program, a structure to allow regional and local control over expenditure of Cap and Trade allowance revenues from the fuels sector on local, clean transportation and land-use programs. As described above, the Governor proposed no appropriations for Cap and Trade programs in the budget year; thus, this and other measures that would set up various Cap and Trade expenditure programs have been made two-year bills.

The STA board determined to Support this effort.

3. **AB 935 (Frazier)** expands the membership of the WETA board of directors from five to seven members to include two additional appointments, one by the Senate Committee on Rules, and one by the Speaker of the Assembly. Current law requires that all of the appointed members are residents of a Bay Area county, with three appointments made by the Governor, and one each by the Senate and Assembly.

As originally introduced, the bill would have required that two of the three gubernatorial appointments be residents from Contra Costa County and San Mateo County. We lobbied the author to accept amendments that add Solano County, and make the Solano Transportation Authority the entity for submitting three names from Solano County to the Governor; the bill now requires that the Governor select each of his appointees from a list of three nominees submitted by the transportation authority in each of the three respective counties.

The STA board has now adopted a full Support position on the bill, modifying its earlier Support if Amended position. The bill has passed the Assembly and awaits its first policy hearing in the Senate.

In the meantime, we understand the bill faces concerns from other Bay Area counties, as well as concerns in the Governor's Office. We are working with these parties to address all concerns in the Senate, and to ensure that Solano County retains a seat on the WETA board.

4. **SB 791 (Wyland)** would require the legislature to approve, by a two-thirds vote, any adjustments to the motor vehicle fuel tax (excise tax). If enacted, this bill would have gutted a key provision of the "Gas Tax Swap."

Per the Board's direction, we lobbied in opposition to the bill. The bill was not even heard in its first policy committee, and given the outpouring of opposition from a variety of local government and transportation interests, it was made a two-year bill.

5. **SCA 4 (Liu) & SCA 8 (Corbett)** are constitutional amendments that would lower local vote thresholds for tax measures that support transportation programs.

The STA board Supports these bills. Neither has moved since our last report to you, and we expect no substantive progress on the issue this year.



M E M O R A N D U M

May 29, 2013

To: Solano Transportation Authority
From: Akin Gump Strauss Hauer & Feld LLP
Re: May Report

During the month of May we assisted STA staff with developing a strategy for pursuing a TIGER grant for the Fairfield/Vacaville Intermodal Station, planning for D.C. meetings in June, identifying federal grant opportunities and advising on developments in Congress and at the Department of Transportation that are of interest to STA.

Fiscal Year 2014 Appropriations

The House Appropriations Committee began work on the fiscal year 2014 appropriations bills in May. The Committee approved the homeland security and military construction bills before the Memorial Day Recess. The Senate Appropriations Committee is expected to mark-up those bills in June with floor consideration anticipated later this summer. The timing on the transportation appropriations bills is not clear. The House Appropriations Committee is likely to consider defense and agricultural spending in June and then consider other bills. The most controversial bills, such as Health and Human Services-Education and Financial Services, are unlikely to move out of Committee. The Senate is likely to follow a similar agenda and bring up the least controversial bills first to reduce the possibility of political riders being added on the Senate floor.

Because of the wide discrepancy between the Senate Budget Resolution (which proposes \$1.058 trillion in spending and does not address sequestration) and the House Budget Resolution (which proposes \$967 billion in spending and would make significant reductions in federal spending), it appears unlikely that most of the spending bills will be enacted, and more likely that the federal government again will be funded by continuing resolution.

Secretary of Transportation

The Senate Commerce Committee held a hearing on the nomination of Charlotte Mayor Anthony Foxx for Transportation Secretary on May 22. During the hearing, Foxx assured the Committee that he is experienced with moving transportation projects forward in times of economic constraint. He noted that during his term as mayor, Charlotte's tax revenue dropped by \$200 million and that he did not propose a tax increase to cover the shortfall. He endorsed continued federal spending for transportation infrastructure, including the TIGER grant program and creation of an infrastructure bank. Foxx stated that he supports public-private partnerships and

Solano Transportation Authority
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alternative finance, but that private investment cannot address all of the need for infrastructure spending and he urged Congress to work toward a longer-term reauthorization of the surface transportation bill. Foxx's nomination has not been met with any significant opposition, so a vote on the nomination can be expected after Congress returns from the Memorial Day recess.

Permitting

On May 17, President Barack Obama issued an executive memorandum instructing federal regulators to develop a plan for streamline permitting for federally-funded infrastructure projects within 120 days. The memo established a steering committee that will include representatives from Office of Management and Budget's Office of Information and Regulatory Affairs, and the Council on Environmental Quality, which will work in collaboration with DOT, and other departments and agencies, to draft a plan for determining how to expedite the review of federal projects, including as roadways, bridges, railroads, and transit. The memo states that the federal government should review permitting of infrastructure projects to reduce aggregate timelines for major infrastructure projects by half and also improve outcomes for communities and the environment by institutionalizing these best-management practices.

Congressional Public Transportation Caucus

On May 23, Representatives Daniel Lipinski (D-IL), a member of the House Transportation and Infrastructure Committee, and Michael Grimm (R-NY) announced the organization of a new Congressional Public Transportation Caucus. The Caucus is expected to provide a forum for members of Congress to engage in constructive dialogue on the challenges and needs of mass transit agencies as increasing ridership and decreasing funding are putting unprecedented pressure on public transportation systems. The co-chairs will circulate a letter following the recess, asking members to join.

Legislation Introduced

On May 22, Rep. John Delaney (D-MD) introduced legislation to provide \$50 billion in finance that could be leveraged to \$750 billion for infrastructure projects. Under *The Partnership to Build America Act* (H.R. 2084), a fund will be capitalized by the sale of 50-year bonds that would pay a one percent interest rate. U.S. corporations will be permitted to repatriate a certain dollar amount, determined by auction, in overseas earnings tax-free for every \$1 they invest in the bonds. The fund will then provide loans or loan guarantees to states and municipalities to finance transportation, energy, communications, water, and education infrastructure projects. The bill was referred to the House Transportation and Infrastructure Committee with subsequent referral to the House Ways and Means Committee. It has 16 bipartisan cosponsors, including

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one member of the House T&I Committee, Randy Davies (R-IL). Responding to questions from reporters, House T&I Committee Chairman Bill Shuster stated that he is “looking at the bill.”

Sen. Rand Paul (R-KY) also introduced a bill (S. 911) to use repatriated capital taxed at a rate of 5 percent, rather than 35 percent, to fund infrastructure projects. Revenue from the Emergency Transportation Safety Fund would be used to rebuild infrastructure projects selected by the Secretary of Transportation under criteria established under the bill. The criteria would include: 1) whether the project is part of the interstate highway system; 2) whether the project is a road or bridge closed for safety reasons; 3) the impact of the project on interstate commerce; 4) the volume of traffic affected by the project; and 5) the overall value of the project or entity. The bill was referred to the Senate Committee on Finance. There are no cosponsors.

On May 23, Rep. Ken Calvert (R-CA) introduced legislation (*The Reducing Environmental Barriers to Unified Infrastructure and Land Development (REBUILD) Act*, H.R. 2094) which would allow states to enter into a memorandum of understanding with a federal agency, including DOT, to assume the NEPA review responsibility of that agency for a particular project. Under the REBUILD Act, states would still be required to uphold the same NEPA standards or greater. By assuming these responsibilities, states could integrate NEPA compliance into their own approval process, which would streamline construction timelines and eliminate redundant federal reviews. The streamlined process is based on a pilot program created in SAFETEA-LU (23 USC 327) that allowed a limited number of states to take on the task of ensuring NEPA compliance for highway projects. For those pilot projects, the length of time to complete a project review was reduced by an average of 17 months.

The Safe Highways and Infrastructure Preservation Act (S. 880/H.R.1906) was introduced on May 7 by Sen. Frank Lautenberg (D-NJ) and Rep. Jim McGovern (D-MA). The bills would extend the existing federal truck size and weight limits that apply on the Interstate Highway System (approximately 44,000 miles) to the entire National Highway System (about 220,000 miles). Trucks would be limited to 80,000 pounds and maximum length of 53 feet for tractor-trailer trucks operating on the entire NHS. The bill will also expand the current prohibition of triple-tractor trailer operations on interstates to apply to the broader NHS. Additional restrictions on truck size and weight were rejected during consideration of MAP-21.

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STA Federal Funding Matrix

Fund Source	Application Contact	Eligibility	Amount Available	Deadlines	Program Description	Proposed Submittal	Staff Contact
TIGER V Discretionary Grant*	Department of Transportation Office of Secretary - Howard Hill (202-366-0301) TIGERGrants@dot.gov	State, local government authorities, transit agencies, MPOs, others	\$473 million	06/03/13	Projects that are eligible for TIGER Discretionary Grants include, but are not limited to: (1) Highway or bridge projects eligible under title 23, United States Code; (2) public transportation projects eligible under chapter 53 of title 49, United States Code; (3) freight rail transportation projects; and (4) passenger rail projects; and (5) marine port infrastructure investments. The FY 2013 Appropriations Act specifies that TIGER Discretionary Grants may be not less than \$10 million (except in rural areas) and not greater than \$200 million. No more than 25% awarded to a single State. Minimum of \$120 million awarded in rural areas. Funds can be used for up to 80% of project costs; priority given to projects for which Federal funding is required to complete an overall financing package and projects can increase their competitiveness by demonstrating significant non-Federal contributions. Only available for obligation through September 30, 2014. Projects compete on the merits of the medium to long-term impacts of the projects themselves (not just job creation).	\$9M Fairfield/Vacaville Intermodal Station STA co-sponsor with Vacaville and CCJPA <i>(applied for \$12M in TIGER III and IV – not awarded)</i>	Steve Hartwig
National Clean Diesel Funding Assistance Program (DERA)	Environmental Protection Agency	U.S. regional, state, local or tribal agencies/consortia or port authorities with jurisdiction over transportation or air quality; School districts, municipalities, metropolitan planning organizations (MPOs), cities and counties	\$9 million	06/25/13	Funds awarded under this program cannot be used to fund emissions reductions mandated under Federal law. Equipment used for testing emissions or for fueling infrastructure is not eligible for funding. Buses, medium or heavy duty trucks, marine engines and locomotives may qualify for funding. Non-road engines or vehicles used in construction, cargo handling (including at a port or airport), agriculture, mining or energy production (including stationary generators and pumps) also qualify. Grant funds may be used for clean diesel projects that use: <ul style="list-style-type: none"> • Retrofit technologies that are verified or certified by either EPA or CARB • Idle-reduction technologies that are EPA verified • Aerodynamic technologies and low rolling resistance tires that are EPA verified • Early replacement and repower with certified engine configurations (incremental costs only) 		

STA Federal Funding Matrix

Fund Source	Application Contact	Eligibility	Amount Available	Deadlines	Program Description	Proposed Submittal	Staff Contact
Building Blocks for Sustainable Communities	EPA - Kevin Nelson(nelson.kevin@epa.gov, 202-566-2835).	Local, county, or tribal government	N/A	Requests for Letters of Interest expected Fall 2013	This technical assistance will help selected local and/or tribal governments to implement development approaches that protect the environment, improve public health, create jobs, expand economic opportunity, and improve overall quality of life. The purpose of delivering these tools is to stimulate a discussion about growth and development, strengthen local capacity to implement sustainable communities approaches, and provide ideas on how to change local policies and procedures to make communities more economically and environmentally sustainable. Assistance will be provided through presentations, meetings with community stakeholders, and/or activities that strive to relay to participants the impacts of the community's development policies. Communities select from 10 tools: (1): Walking Audits Tool; (2) Parking Audits; (3) Sustainable Design and Development; (4) Smart Growth Zoning Codes for Small Cities and Rural Areas; (5) Green Building Toolkit; (6) Using Smart Growth to Produce Fiscal and Economic Health; (7) Complete Streets; (8) Preferred Growth Areas; (9) Creating a Green Streets Strategy; and (10) Linking Water Quality and Land Use.		
Economic Development Assistance Programs - Public Works and Economic Development Facilities Program	Department of Commerce Economic Development Administration	District Organizations; Indian Tribe or a consortiums; State, city, or other political subdivision of a State, including a special purpose unit of a State or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions; consortiums of or institutions of higher education; or public or private non-profit organizations or associations	FY2013: \$111 million (30 percent for cycle 1; 70 percent for cycles 2, 3 and 4)	December 13, 2012 for funding cycle 2 of FY 2013; March 13, 2013 for funding cycle 3 of FY 2013; June 13, 2013 for funding cycle 4 of FY 2013 ; and September 13, 2013 for funding cycle 1 of FY 2014	Supports the construction or rehabilitation of essential public infrastructure and facilities to help communities and regions leverage their resources and strengths to create new and better jobs, drive innovation, become centers of competition in the global economy, and ensure resilient economies. Applicants are responsible for demonstrating to EDA the nature and level of economic distress in the region impacted by the proposed project. Applicants are also responsible for defining the region that the project will assist and must provide supporting statistics and other information, as appropriate. To be eligible under this FFO, a project must be located in a region that, on the date EDA receives the application for investment assistance, meets one (or more) of the following economic distress criteria: (i) an unemployment rate that is, for the most recent 24-month period for which data are available, at least one percentage point greater than the national average unemployment rate; (ii) per capita income that is, for the most recent period for which data are available, 80 percent or less of the national average per capita income; or (iii) a "Special Need."		

STA Federal Funding Matrix

Fund Source	Application Contact	Eligibility	Amount Available	Deadlines	Program Description	Proposed Submittal	Staff Contact
Innovative Transit Workforce Development Program	Betty Jackson, FTA Office of Research and Innovation (202) 366-1730 Betty.Jackson@dot.gov	Public transit agencies; state departments of transportation (DOTs) providing public transportation services; and Indian tribes, non-profit institutions and institutions of higher education or a consortium of eligible applicants.	\$5 million Authorized under MAP-21	TBD	Funding will be provided to transit agencies and other entities with innovative solutions to pressing workforce development issues. Proposals should target one or more the following areas in the lifecycle of the transit workforce: (1) Pre-employment training/preparation; (2) Recruitment and hiring; (3) Incumbent worker training and retention; and (4) Succession planning/phased retirement. Proposal minimum \$100,000 and maximum \$1,000,000.		
Ferry Boat Discretionary (FBD) Program		Vehicular Ferries, serving public roads, not on the Interstate system or Passenger Ferries on a fixed route transit ferry eligible under 49 USC 53 that serve as an alternative to an eligible highway route	\$30 million authorized under MAP-21	TBD	This is a new transit discretionary grant program authorized under MAP-21. \$30 million per year is set-aside from the Urban formula program totals to support passenger ferries. Funding will be awarded on a competitive selection basis.		
Smart Growth Implementation Assistance (SGIA) Program	EPA – Abby Hall (hall.abby@epa.gov, 202-566-2086)	Open to state, local, regional, and tribal governments (and non-profits that have partnered with a governmental entity)	\$75,000 per recipient in contractor support	03/01/2013	The program provides technical assistance to help communities grow in ways that improve the local economy, the environment, and people’s health. The program aims to help applicants develop solutions to local challenges, such as managing stormwater, increasing transit-oriented development, and adapting to climate change, and to share those solutions with other communities. EPA sought applications in the following four categories: 1) Community Resilience to Disasters and Climate Change; 2) Redevelopment for Job Creation; 3) Manufactured and Modular Homes in Sustainable Neighborhood Design ; and 4) Medical and Social Service Facilities Siting.		

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DATE: June 10, 2013
TO: STA TAC
FROM: Susan Furtado, Accounting & Administrative Services Manager
RE: Fiscal Year (FY) 2012-13 Abandoned Vehicle Abatement (AVA) Program
Third Quarter Report

Background:

The Solano Transportation Authority (STA) administers the Abandoned Vehicle Abatement (AVA) Program for Solano County. These administrative duties include disbursing funds collected by the State Controller's Office from the Department of Motor Vehicle (DMV) vehicle registration fee of \$1 per registered vehicle, using the funding formula of 50% based on population and 50% on vehicles abated.

The AVA Member Agencies for Solano County are the City of Benicia, City of Dixon, City of Fairfield, City of Rio Vista, City of Suisun City, City of Vacaville, City of Vallejo, and County of Solano.

Discussion:

For the Third Quarter, STA received the allocation from the State Controller's Office in the amount of \$93,101 and has deducted \$2,793 for administrative costs. The STA disbursed cost reimbursement to member agencies for the Third Quarter in the total amount of \$80,821. The remaining AVA fund balance after the third quarter disbursement to the member agencies is \$198,783.

Using the AVA Program funding formula of 50% based on population and 50% on vehicles abated, after the March 31, 2013 disbursements, the following agencies has possible remaining balances:

1. City of Benicia	-	\$11,513
2. City of Dixon	-	\$14,402
3. City of Fairfield	-	\$101,468
4. City of Rio Vista	-	\$4,019
5. County of Solano	-	\$10,667
6. City of Suisun City	-	\$0
7. City of Vacaville	-	\$0
8. City of Vallejo	-	\$56,715

The above amount includes the carryover funds from FY 2011-12 and is available for disbursement to member agencies utilizing the funding formula. The TAC is encouraged to work with their agencies to reduce this carryover through billing for all eligible expenses.

Attachment A is a matrix summarizing the AVA Program activities through the Third Quarter FY 2012-13 and is compared to the total FY 2011-12 numbers of abated vehicles and cost reimbursements submitted by the members of the Solano County's AVA Program. This matrix shows a total program activities at 73% compared to the FY 2011-12; therefore, AVA program continues to have available funds that could be carried over into the next fiscal year unless each member agencies increase their program activities and reimbursement requests.

The City of Rio Vista has not reported any vehicles abated as of the end of the third quarter.

Fiscal Impact:

None.

Recommendation:

Informational.

Attachment:

- A. Summary of Solano Abandoned Vehicle Abatement (AVA) Program for FY 2012-13 and FY 2011-12

**Summary of Solano Abandoned Vehicle Abatement (AVA) Program for
FY 2012-13 and FY 2011-12
Third Quarter Ending March 31, 2013**

Member Agency	FY 2012-13				FY 2011-12		
	# of Abated Vehicles	Reimbursed Amount	Cost per Abatement	% of Abated Vehicle from Prior FY	# of Abated Vehicles	Reimbursed Amount	Cost per Abatement
City of Benicia	29	\$6,464	\$223	112%	26	\$7,633	\$294
City of Dixon	120	\$8,880	\$74	119%	101	\$7,361	\$73
City of Fairfield	731	\$33,329	\$46	66%	1,114	\$26,067	\$23
City of Rio Vista	0	0	\$0	0%	0	\$0	\$0
City of Suisun	74	\$23,346	\$315	61%	121	\$47,920	\$396
City of Vacaville	91	\$60,091	\$660	78%	117	\$50,263	\$430
City of Vallejo	1,026	\$123,136	\$120	78%	1,314	\$142,619	\$109
Solano County Unincorporated area	19	\$1,546	\$81	34%	56	\$8,021	\$143
Total	2,090	\$256,792	\$123	73%	2,849	\$289,884	\$102

The total remaining AVA fund available after the third quarter disbursement to member agencies is \$198,783. This amount is available for disbursement to member agencies utilizing the funding formula, in addition to the State Controller's Office allocation for the fourth quarter FY 2012-13.

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DATE: June 10, 2013
TO: STA TAC
FROM: Jessica McCabe, Project Assistant
RE: Local Project Delivery Update

Background:

As the Congestion Management Agency (CMA) for Solano County, the Solano Transportation Authority (STA) coordinates project funding commitments between project sponsors and funding agencies. This coordination includes recommendations for programming, allocating, and obligating federal, state, and regional funds for a variety of transportation projects. These recommendations are based on the current and projected status of projects recommended for funding by the STA.

This project delivery update is provided to the Solano Project Delivery Working Group (Solano PDWG), the STA’s Technical Advisory Committee (TAC), and the STA Board for their review before considering any changes to prior project funding recommendations.

Discussion:

STA Board Recommendations and Improvement Programs

Between September 2012 and April of 2013, the STA Board recommended funding for a variety of transportation projects included in currently approved plans. Other funding agencies program funding for Solano projects in their own improvement programs, such as the Metropolitan Transportation Commission’s (MTC) 2013 Transportation Improvement Program (TIP) for federal and regional funds, the California Transportation Commission’s (CTC) 2012 State Transportation Improvement Program (STIP) for state funds, and other regional and local grant funding actions (e.g., air district grant programs and local funding swaps). These improvement programs contain the details of how much funding each project receives in specific fiscal years over the next four to five years.

Programmed Funding Does Not Guarantee Project Funding

Despite the approved nature of improvement programs, they are based on estimates of available tax dollars, meaning that improvement programs can over-program funding for projects should tax receipts be smaller than expected. In addition to the chance of funding being limited, funding agency’s “Use it or lose it” project delivery policies contain strict deadlines for current fiscal year programmed funds, which are put in place to expedite the delivery of projects and protect against the loss of funds to other agencies who can spend funds in a timely manner. For example, MTC usually programs more funding than they have available, counting on Bay Area project sponsors being ready to take advantage of funds from other regions who miss delivery deadlines. The STIP has a history of running low on funds, forcing the CTC to create additional “allocation plans” that further prioritize STIP funds, leaving programmed projects waiting until later fiscal years for funding, adding to project delays and cost increases.

2013 Transportation Improvement Program (TIP) Development and Draft Schedule

The Transportation Improvement Program (TIP) is a comprehensive listing of all Bay Area surface transportation projects that are to receive federal funding or are subject to a federally required action, or are considered regionally significant for Air Quality Conformity purposes. In September 2012, MTC postponed the development and adoption of the new TIP to more closely align with development and adoption of Plan Bay Area, the region's long-range transportation (RTP) and housing plan. The 2013 TIP will cover the six-year period of FY 2012-13 through FY2017-18; however federal agencies still only recognize the four years from FY2012-13 through FY2015-16, consistent with the Federal Statewide Transportation Improvement Program (FSTIP) that is compiled by Caltrans.

2013 TIP Programming Requirements

Subsequent to STA Board action, there are several programming requirements that will need to be met before OBAG funds can be programmed into the TIP (Attachment A). Project sponsors are required to provide the following documents once a TIP listing has been drafted in Fund Management System (FMS):

- Resolution of Local Support
- Jurisdiction certified checklist establishing that HCD certification and complete streets requirements have been met
- Complete Streets Resolution
- OBAG certification checklist (local agency section)

The required documents will need to be submitted to STA staff, to be uploaded into MTC's FMS when TIP project listings are ready to be submitted to MTC. Attachment C includes further details about programming requirements of OBAG funds.

MTC's Plan Bay Area is currently slated for adoption in June/July 2013, per the attached TIP development schedule (Attachment C). Once adopted, a 2013 TIP amendment will add or remove projects not included in the new RTP. August 1st is the deadline for submitting changes, including new projects, to be included in the first amendment to the 2013 TIP. To adhere to this deadline, STA will need to submit new projects to be amended into the 2013 TIP to MTC by July 30th. The attached 2013 TIP Preparation Schedule (Attachment C) shows the STA's project programming and delivery schedule, along with each of MTC's expected programming milestones.

Safe Routes to Schools (SR2S) Capital Projects

In April and May, STA staff met with each jurisdiction's SR2S Community Task Force to discuss programming requirements for SR2S capital projects. Project sponsors were asked to prioritize projects identified in the 2013 SR2S Plan update. Once prioritized, project sponsors would program projects based on available OBAG funding (Attachment D).

Project sponsors are encouraged to meet programming requirements by mid-July, in order to make the August 1st TIP Amendment deadline; however project sponsors do have the option of submitting projects in October 1st, which is the estimated date for the next amendment opportunity. In summary, each SR2S Task Force was given the following instructions to program their projects:

- Confirm projects with each SR2S Community Task Force
- Submit project list to city council and get a Resolution of Local Support
 - Projects can be grouped into one resolution, since they are smaller projects
- Draft SR2S project listing in MTC's Funds Management System (FMS)
- Submit required OBAG documents to Jessica McCabe jmcabe@sta-snci.com, by July 15th to get into the August TIP or September 15th to get into the October TIP.
- STA staff will then review the draft TIP listing and submit it to MTC along with the required OBAG documents.

Recommendation:

Informational.

Attachments:

- A. TIP Programming Instructions for OneBayArea Grant (OBAG) and Safe Routes to School (SR2S) Programs, 10-9-2012
- B. MTC Tentative 2013 TIP Development Schedule, 1-7-2013
- C. 2013 TIP Preparation Schedule
- D. Available OBAG funding for Safe Routes to School (SR2S) Capital Projects, 3-6-2013

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METROPOLITAN
TRANSPORTATION
COMMISSION

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WEB www.mtc.ca.gov

Memorandum

TO: CMA Programming Staff

DATE: October 9, 2012

FR: Craig Goldblatt

W. I.

RE TIP Programming Instructions for OneBayArea Grant and Safe Routes to School Programs

The purpose of this memo is to outline the process for communicating your project selections to MTC resulting in their inclusion in the Transportation Improvement Program (TIP), the first step of the federal-aid process. Many of your agencies have already started your project solicitation process. The next steps involve evaluating grant applications and selecting a program of projects for the OneBayArea Grant (OBAG) Program and the Regional Safe Routes to School Program (RSR2S) Program. All projects receiving grants need to be approved by your boards no later than June 30, 2013. Then CMAs have until July 30, 2013 to enter projects into FMS. Detailed steps involving this process follow and the milestones are outlined in the schedule (Attachment A):

1. OBAG Program Template: Similar to the template used for ARRA and Cycle 1, CMAs will be using a revised template for the Cycle 2 OBAG and the Regional Safe Routes to School Program with tabs for each county. After completing input of project information, the CMA is to submit the spreadsheet to Craig Goldblatt (cgoldblatt@mtc.ca.gov) prior to the FMS submittal. The spreadsheet also checks whether project specific OBAG policies conditions at the jurisdiction level and program level (i.e. PDA targets) are being met. After the first submittal, any subsequent revisions to your OBAG / RSR2S program need to be sent using the template by shading the new or revised project information.

2. CMA Board Actions: By July 30, 2013 CMAs must submit to MTC 1) a final OBAG program and supporting documentation and 2) a final RSR2S program (a detailed SR2S workscope, approach, and schedule as outlined in the Cycle 2 RSR2S at http://www.mtc.ca.gov/funding/STPCMAQ/RSR2S_Guidelines.pdf) 3) a formal request accompanied by a CMA Board action selecting projects.

3. Resolution of Local Support from Project Sponsors

Project sponsors are required to adopt a resolution of local support approved by the project sponsor/ implementing agency's governing board or council. A template for the resolution of local support can be downloaded from the MTC website using the following link: http://www.mtc.ca.gov/funding/STPCMAQ/STP_CMAQ_LocalSupportReso.doc Please inform project sponsors that the language has been reviewed by MTC's general counsel and changes cannot be accommodated. The resolutions should be submitted to CMAs in a PDF format. CMAs in turn will submit resolutions to MTC through FMS when submitting projects to MTC.

4. Entry of projects into MTC's Fund Management System (FMS)

CMA's will submit OBAG projects and RSR2S projects via FMS, no later than July 30, 2013.

For earlier TIP revision requests, the schedule can be found at the following link:

[http://www.mtc.ca.gov/funding/tip/2011/2011 TIP Revision Schedule.pdf](http://www.mtc.ca.gov/funding/tip/2011/2011_TIP_Revision_Schedule.pdf) Transit agencies are requested to coordinate with CMA's if submitting OBAG county funded projects. At the same time, project sponsors/CMA's will upload the resolution of local support into the FMS application.

5. Project Programming Targets and Delivery Deadlines

Funds designated for each project phase will be available for obligation in the fiscal year in which the funds are programmed in the Transportation Improvement Program (TIP). It is therefore very important that projects be ready to proceed in the year programmed and meet the delivery requirements in MTC Resolution 3606.

Obligation is defined as FHWA's authorization of the funds or FHWA's transfer of funds to Federal Transit Administration (FTA). For specific details on the Regional Project Delivery Policy (MTC Resolution No. 3606), its deadlines, project substitutions and other requirements refer to http://www.mtc.ca.gov/funding/delivery/MTC_Res_3606.pdf It is the responsibility of the implementing agency at the time of programming, to ensure the regional, state and federal deadlines and provisions of the regional project delivery policy can be met.

CMA's must program their block grant funds over the four-year period of Cycle 2 (FY 2012-13 through FY 2015-16). The funding is subject to the provisions of Resolution 3606 or its successor including the Request for Authorization (RFA) submittal deadline and federal authorization/obligation deadline. Furthermore the following funding deadlines apply for each county, with earlier delivery strongly encouraged:

- Half of the OBAG and RSR2S funds, including all funds programmed for the PE phase must be obligated (federal authorization/E-76) by March 31, 2015.
- All remaining funds must be obligated by March 31, 2016.

After projects are programmed, changes can be made to an OBAG or RSR2S project by requesting a TIP revision through FMS and the template. Note that any project, programmed in the current year and in the current year's obligation plan, is committed to delivering in that year. If the project cannot meet its delivery commitment, a substitute project needs to be able to obligate those funds in that same year to ensure OA regional delivery targets are met.

6. OBAG Policy Compliance

CMA's will be using an OBAG certification checklist to establish that OBAG policies have been met. The CMA will complete and submit the CMA section of the checklist by July 30, 2013 which addresses the overall process. The CMA will have the project sponsor / and the project location jurisdiction (in most cases the same entity) complete the "Local Compliance Checklist" for OBAG. (Exceptions are for transit project sponsors for projects on their own right of way.) The CMA will be responsible for gathering and submitting the local sponsor checklists to MTC, preferably as one package along with the submittal of the CMA Board action due by June 30, 2013, but not later than when local projects are requested to be amended into the TIP.

The specific policies listed below pertaining to an individual project must be met prior to programming OBAG projects into the TIP:

Project Selection and Public Involvement

- Documentation outlining CMA project selection process and public involvement process as set forth by Resolution 4035

Complete Streets

- Sponsor adoption of a complete streets resolution that meets the complete streets policy requirements:
http://www.mtc.ca.gov/funding/onebayarea/Complete_Streets_Reso_OBAG.pdf
Alternately, the jurisdiction can meet this requirement if its general plan meets the Complete Streets Act of 2008. For the general plan path, compliance is determined through the jurisdiction's certification on the Local Compliance Checklist for OBAG. Also, MTC requests that the CMA compile copies from the jurisdictions of the complete streets resolutions or pages in the general plan that address complete streets and submit them to MTC in PDF format, as one package. These resolutions will be made available to the public on the MTC website. Lastly, all projects will need to complete MTC's complete streets checklist at <http://completestreets.mtc.ca.gov/>. These checklists are to be completed during the call for projects so feedback can be provided to the project sponsor and the Bicycle and Pedestrian Advisory Committee (BPACs) have adequate time to review the projects.

General Plan Housing Element Compliance Finding from HCD

- The jurisdiction where the project is located must have a general plan with a housing element that is certified by the California Department of Housing and Community Development. For a non-compliant jurisdiction that has been granted a one-year extension (to January 31, 2014) by the Joint MTC Planning / ABAG Administrative Committee, CMAs can indicate by June 30, 2013, along with OBAG documentation and the project list, if any funding is to be held in reserve for that jurisdiction and provide its board resolution regarding the housing element. Jurisdictions requesting this extension will need to adopt a resolution committing resources to a housing element update including the approach and timely schedule for meeting the extended deadline. However the jurisdiction will not be able have its funding included in the TIP until HCD certification occurs. If a jurisdiction fails to meet the extended compliance deadline, the CMA will move the funding to another project that meets OBAG policies and regional delivery deadlines. Therefore, it is advisable that the CMA consider the adoption of back-up projects in such cases. For more details about the HCD certification appeal process see Attachment B.

Note that RSR2S Program projects are not subject to the above OBAG policies.

7. Staff Contacts

If you have any questions about the programming process for the County OBAG and the RSR2S programs, please contact us:

General Cycle 2 Programming Requirements, OBAG Project Selection, and the Regional Safe Routes to School Program

Craig Goldblatt cgoldblatt@mtc.ca.gov (510) 817-5837

Project Eligibility: Local Streets and Roads Shortfall Program, Pavement Management System and Federal-Aid Classification System Requirements

Sui Tan stan@mtc.ca.gov (510) 817-5844

Project Eligibility for the Bicycle / Pedestrian Program and Complete Streets Issues

Sean Co sco@mtc.ca.gov (510) 817-5748

**Project Eligibility: Transportation for Livable Communities Program
Priority Development Areas:**

Therese Trivedi ttrivedi@mtc.ca.gov (510) 817-5846

TIP Revisions and the Online FMS Application Process

Sri Srinivasan ssrinivasan@mtc.ca.gov (510) 817-5793

Adam Crenshaw acrenshaw@mtc.ca.gov (510) 817-5794

Attachment A
OBAG Schedule and Milestones
October 1, 2012

October 2012	<ul style="list-style-type: none"> ▪ Commission approves adjustments to OBAG County Distributions.
By January 31, 2013	<ul style="list-style-type: none"> ▪ Jurisdiction adopts complete streets policy resolution ▪ California Department of Housing and Community Development certification of a jurisdiction's adoption of a general plan housing development (RHNA 2007-14)
By May 1, 2013	<ul style="list-style-type: none"> ▪ CMA submits PDA Investment and Growth Strategy to MTC.
By June 30, 2013	<ul style="list-style-type: none"> ▪ CMA submits adopted OBAG project list to MTC with supporting documentation
By July 30, 2013	<ul style="list-style-type: none"> ▪ CMA submits, through FMS, One Bay Area Grant Program projects to MTC to be added to TIP and obligated in following three federal fiscal years. ▪ CMA submits documentation outlined in OBAG including project selection process, Outreach, Complete Streets Resolutions, etc. Programming actions prior to this date would need earlier documentation support.
October 2013	<ul style="list-style-type: none"> ▪ Commission approves TIP Amendment with OBAG projects
December 2013	<ul style="list-style-type: none"> ▪ FHWA/FTA approves TIP Amendment with OBAG projects
Fall 2013	<ul style="list-style-type: none"> ▪ CMA presentation to Joint MTC Planning / ABAG Administrative committee later in fall 2013.
By March 31 , 2014	<ul style="list-style-type: none"> ▪ Obligation deadline for projects programmed in FY 2013-14. (Request for Authorization due to Caltrans by February 1, 2014)
By October 31, 2014	<ul style="list-style-type: none"> ▪ <i>For next fund cycle:</i> California Department of Housing and Community Development certification of a jurisdiction's adoption of a general plan housing development (RHNA 2014-22). Circulation element required to be updated to meet the Complete Streets Act. Allows for concurrent update.
By March 31 , 2015	<ul style="list-style-type: none"> ▪ Obligation deadline for one-half of OBAG funds and all PE funds. (Request for Authorization due to Caltrans by February 1, 2015)
By March 31, 2016	<ul style="list-style-type: none"> ▪ Obligation deadline for all remaining CMA selected OBAG projects. (Request for Authorization due to Caltrans by February 1, 2016)

J:\PROJECT\Funding\T4-MAP21\MAP21 - STP-CMAQ\MAP21 Cycle Programming\MAP21 Cycle 2\Cycle 2 OBAG Implementation\OBAG Programs\CMA Programming\CMA TIP Programming\Programming Instructions_10-1-12.doc

Attachment B



MEMO

Date: October 9, 2012
To: Congestion Management Agencies and Affected Jurisdictions
From: ABAG/MTC
Subject: HCD Certification Requirement for OBAG—Appeal Process

Background

As a condition for funding the OneBayArea Grant (OBAG) Program requires that jurisdictions have their housing elements certified by the California Department of Housing and Community Development (HCD) by January 31, 2013. If a jurisdiction proposes a project within the boundaries of another, such as a county sponsored project in a city, the jurisdiction where the project is located must have an HCD certified housing element to receive OBAG funds.

Currently, 22 jurisdictions are out of compliance with HCD (Appendix A). These jurisdictions can be grouped by date as follows:

- HCD certification in progress with estimated completion in 2012 (11 jurisdictions);
- HCD certification in progress but likely delayed until 2013 (four jurisdictions);
- No estimate for HCD certification due to resource constraints, pending lawsuit, or other (eight jurisdictions).

Appeal Process

As a result we are providing an appeal process for those jurisdictions that need additional time to adopt an HCD certified housing element. HCD certification however, remains a condition for receiving OBAG funds.

- For jurisdictions that expect to remain out of compliance with HCD by January 31, 2013, but anticipate completion prior to January 31, 2014, we will approve a one-year extension.
- Jurisdictions may also meet the HCD compliance rule through advance certification of the new 2014-22 RHNA series by the same date, January 31, 2014, or roughly 10 months early.

Jurisdictions granted an extension will not be able to access OBAG funds until they achieve full HCD certification. Furthermore:

- Jurisdictions are not allowed to receive OBAG funds in the TIP until certification is completed.

- Only after the jurisdiction has received HCD certification may a CMA request that MTC program OBAG funding to a jurisdiction through a Transportation Improvement Plan (TIP) amendment.
- If a jurisdiction fails to meet these deadlines, a CMA will remove funding held in reserve and move it to another project that meets OBAG policies and regional delivery deadlines.

Next Steps

- By November 1, 2012, jurisdictions need to request an extension and state which approach they will follow along with a preliminary schedule to ABAG/MTC staff. The extension must be requested by the City Manager, City Council, County Administrator or board action. A jurisdiction is to submit its request and/or resolution to its county congestion management agency and to ABAG staff, Gillian Adams.
- For the December 2012 joint ABAG/MTC planning meeting, staff will prepare a status report for all non-compliant jurisdictions and request that extensions be provided through a global action.
- By June 30, 2013, along with OBAG documentation and the project list, the CMA is to indicate if any funding is to be held in reserve for a project in a jurisdiction out of compliance and provide a board resolution adopted by the jurisdiction regarding its housing element. This resolution will commit resources to a housing element update including the approach and timely schedule for meeting the extended deadline.

For further information, please contact Gillian Adams, ABAG Staff, at (510) 464-7911.

Appendix A

Housing Elements Not in Compliance with HCD

Estimated HCD Compliance Date	County	City
2012	Alameda	Pleasanton
2012	Contra Costa	Brentwood
2012	Contra Costa	Orinda
2012	Contra Costa	Richmond
2012	Marin	Fairfax
2012	Marin	San Anselmo
2012	Marin	Sausalito
2012	Marin	Marin County
2012	San Mateo	Colma
2012	Santa Clara	Palo Alto
2012	Santa Clara	Santa Clara
2012	Solano	Benicia
2013	Alameda	Albany
2013	Marin	Mill Valley
2013	Marin	Novato
2013	San Mateo	Pacifica
2013	San Mateo	Daly City
2013	San Mateo	Menlo Park
No estimate	Contra Costa	Hercules
No estimate	Napa County	Napa County
No estimate	Santa Clara	Gilroy
No estimate	Sonoma	Sonoma

Metropolitan Transportation Commission	
Attachment 1 - 2013 Transportation Improvement Program Development (TIP)	
Tentative 2013 TIP Development Schedule	
Monday, January 07, 2013	
Proposed Milestone Dates	Milestone
Tuesday, January 15, 2013	Deadline to submit projects for the Amendments 11-33 and 11-34
Friday, February 01, 2013	Last day to submit changes to current FTIP for Revision 11-32 (Administrative Modification) using FMS
Wednesday, February 06, 2013	2011 FTIP Amendments 11-33 and 11-34 released for public comment
Friday, February 01, 2013	FMS Locked Down - No more changes to 2011 FTIP - Start of 2013 FTIP Development
Thursday, February 07, 2013	Start of review and update by project sponsors and CMAs
Friday, February 15, 2013	Deadline to submit non-exempt project changes (including Capital Phases) to be included in 2013 TIP
Thursday, February 21, 2013	Completion of project review by sponsors and CMAs
Monday, March 04, 2013	Completion of Review by Program Managers
Wednesday, March 13, 2013	PAC Meeting - authorize public hearing and release Draft 2013 FTIP & AQ Conformity
Friday, March 15, 2013	FMS Access Granted - No more changes to 2013 FTIP - Only changes to the 2011 TIP for the Last 2011 FTIP Amendment
Friday, March 29, 2013	Begin of Public Review Period for 2013 FTIP and Conformity Analysis - If conformity Analysis is ready for Release
Wednesday, April 10, 2013	Public Hearing on Draft FTIP and AQ Conformity Analysis at April PAC
Friday, May 03, 2013	End of Public Review Period for Draft FTIP and Conformity Analysis
Wednesday, June 12, 2013	PAC review of Final 2013 FTIP and Final Conformity analysis and referral to Commission
Wednesday, June 26, 2013	Final 2013 FTIP and Final Air Quality Conformity analysis approved by Commission
Friday, June 28, 2013	2013 FTIP submitted to Caltrans
Friday, July 05, 2013	Start of FSTIP Public Participation (Statewide Public Review Process) - Date Subject to confirmation by the State
Friday, July 26, 2013	End of FSTIP Public Participation (Statewide Public Review Process) - Date Subject to confirmation by the State
Friday, August 02, 2013	FSTIP submitted to FHWA/FTA - Date Subject to confirmation by the State
Monday, September 02, 2013	Final FHWA/FTA Approval of 2013 TIP / AQ Conformity Analysis - Date Subject to confirmation by the Federal Agencies

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	MTC TIP Schedule	STA Process	Local Project Sponsors
April	Deadline for submitting last changes to 2011 TIP		
May	MTC Approves last 2011 TIP Revision	STA Board Approval of OBAG STP & CMAQ Projects -May 8	
June	MTC Commission approves 2013 TIP		Draft TIP Listing & prep required docs for submittal into 2013 TIP - Resolution of Local Support by June 30, 2013
July		STA staff to work with project sponsors to draft TIP listings & include required documents STA Submits TIP Amendments to MTC by July 30, 2013	
August	FMS Open - MTC accepting 2013 TIP submittals - TIP Amendment #1 due August 1, 2013 MTC releases draft TIP listings		Begin project review process (e.g., schedule field review)
September			
October	MTC Commission approves TIP Amendment #1		
November			
December	FHWA approves TIP Amendment #1 to 2013 TIP		Request E-76 for 2013-14 programmed projects - due Feb 1, 2014

STA SR2S OBAG Formula Distribution Recommendation

3/6/2013

Local Task Force Shares	FY 2011-12		STA
	Student Enrollment	Share	recommended shares*
Benicia USD	4,923	7.60%	\$ 100,000
Dixon USD	3,879	5.99%	\$ 100,000
FSUSD	21,577	33.33%	\$ 349,065
Travis USD	5,391	8.33%	\$ 100,000
Vacaville USD	12,561	19.40%	\$ 203,207
Vallejo USD	15,313	23.65%	\$ 247,728
RD USD Rio Vista only	1,094	1.69%	\$ 100,000
	64,738	100.00%	\$ 1,200,000

* Remaining funds distributed to larger districts after calculating \$100,000 minimums for smaller districts.



DATE: June 6, 2013
TO: STA TAC
FROM: Sofia Recalde, Transit Mobility Coordinator
RE: Mobility Management Plan Update

Background:

Since July 2012, STA has been working with consultants and the Solano Transit Operators to develop a Mobility Management Plan for Solano County. The development of a Mobility Management Plan was identified in the 2011 Solano Transportation Study for Seniors and People with Disabilities as a priority strategy to assist seniors, people with disabilities, low income and transit dependent individuals with their transportation needs. The Solano Mobility Management Plan is gathering information about existing services and programs, exploring potential partnerships, and analyzing how to address mobility needs in Solano County in a cost effective manner.

The Solano Mobility Management Plan proposes to focus on four key elements that were also identified as strategies in the Solano Transportation Study for Seniors and People with Disabilities:

1. Countywide In-Person American Disability Act (ADA) Eligibility and Certification Program
2. Travel Training
3. Older Driver Safety Information
4. One Stop Transportation Call Center

Discussion:

Countywide In-Person ADA Eligibility Program Update

The new Countywide In-Person ADA Eligibility program will start July 1, 2013. Starting June 17th, interested ADA applicants and current ADA certified passenger whose eligibility is about to expire can call the Solano County Paratransit Eligibility Call Center to start the ADA certification or re-certification process. The Call Center will be staffed by C.A.R.E. Evaluator's customer service representatives and be able to answer questions about the new program. During the transition period (June 17 – July 1), SolTrans, FAST, Dixon Ready-Ride, Vacaville City Coach, and Rio Vista Delta Breeze, will all grant their applicants presumptive eligibility until C.A.R.E. Evaluators can schedule them for an in-person assessment.

STA worked with the transit operators to schedule Open Houses at each of the seven assessment sites June 10 – 12. The Open Houses will be an opportunity for the local officials and the public, including potential users and social service and health providers, to see where the in-person assessments will occur and to learn more about the new program. CARE Evaluators, STA, and local transit agency staff will be present to answer any questions. Flyers advertising the Open Houses were sent to local officials, community partners,

committee members, social service and health providers, and current ADA certified individuals whose eligibility will expire in the next 6 months. STA also issued a press release advertising the Open Houses in each city.

At the time of this report, each city is planning to host at least community outreach meeting before the program launches on July 1 where C.A.R.E. Evaluators will give a presentation on the new Countywide In-Person ADA Eligibility program. See attachment A for the schedule of Open Houses and community outreach meetings.

Countywide Travel Training

Vacaville City Coach hosted a meeting to discuss Countywide Travel Training on Wednesday, May 29th. SolTrans, FAST, County of Solano, STA and Vacaville City Coach staff attended the meeting. During the meeting, Vacaville provided information about the structure of their program, including volunteers, volunteer management, recruitment, incentives for trainers and trainees, insurance, outreach materials, and program evaluation. SolTrans and FAST expressed interest in transit staff taking on the primary travel training duties and would like assistance with developing the framework of the program and creating promotional materials. SolTrans and FAST also stated they would like initiate a travel training program in their service areas similar to Vacaville's program with the STA's assistance and resources with the following:

- Travel Training Guides
- Travel Training Video
- Other marketing materials
- Assistance with recruitment (initially) and volunteer management.
- Administrative assistance related to managing volunteers
- Assistance with inter-city and regional travel training
- Monitoring and evaluation
 - Follow-up with trainee after training to see if s/he used transit
 - Follow-up survey
- Resource assessment of Solano County

STA drafted a scope of work for a Countywide Travel Training program based on the discussion with the transit operators and prior discussions with Rio Vista and Dixon about their travel training needs. More details are available in a separate staff report focusing on Travel Training.

STA is planning to host the next mobility management meeting. The date is still pending and staff will provide an update at the meeting.

Recommendation:

Informational.

Attachment:

- A. Calendar of Open Houses and Community Outreach Meetings

MAY 2013

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DATE: June 10, 2013
 TO: STA TAC
 FROM: Sara Woo, Associate Planner
 RE: Summary of Other Funding Opportunities

Discussion:

Below is a list of funding opportunities that will be available to STA member agencies during the next few months, broken up by Federal, State, and Local. Attachment A provides further details for each program.

	FUND SOURCE	AMOUNT AVAILABLE (approximately)	APPLICATION DEADLINE
Regional¹			
1.	Carl Moyer Memorial Air Quality Standards Attainment Program (for San Francisco Bay Area)	Approximately \$20 million	Due On First-Come, First Served Basis
2.	Carl Moyer Off-Road Equipment Replacement Program (for Sacramento Metropolitan Area)	Approximately \$10 million	Due On First-Come, First-Served Basis
3.	Air Resources Board (ARB) Clean Vehicle Rebate Project (CVRP)	Up to \$5,000 rebate per light-duty vehicle	Due On First-Come, First-Served Basis
4.	Bay Area Air Quality Management District (BAAQMD) Hybrid Electric Vehicle Purchase Vouchers (HVIP)	Approximately \$10,000 to \$45,000 per qualified request	Due On First-Come, First-Served Basis
State			
5.	Highway Safety Improvement Program (HSIP): High Risk Rural Roads*	~\$100-150 million federally	Due by July 26, 2013
Federal			
6.	N/A	N/A	N/A

*New funding opportunity

Fiscal Impact:

None.

Recommendation:

Informational.

Attachment:

- A. Detailed Funding Opportunities Summary

¹ Local includes programs administered by the Solano Transportation Authority and regionally in the San Francisco Bay Area and greater Sacramento.

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The following funding opportunities will be available to the STA member agencies during the next few months. Please distribute this information to the appropriate departments in your jurisdiction.

Fund Source	Application Contact**	Application Deadline/Eligibility	Amount Available	Program Description	Proposed Submittal	Additional Information
Local Grants¹						
Carl Moyer Memorial Air Quality Standards Attainment Program (for San Francisco Bay Area)	Anthony Fournier Bay Area Air Quality Management District (415) 749-4961 afournier@baaqmd.gov	Ongoing. Application Due On First-Come, First Served Basis Eligible Project Sponsors: private non-profit organizations, state or local governmental authorities, and operators of public transportation services	Approx. \$20 million	Carl Moyer Memorial Air Quality Standards Attainment Program provides incentive grants for cleaner-than-required engines, equipment, and other sources of pollution providing early or extra emission reductions.	\$12M Fairfield/Vacaville Intermodal Train Station STA co-sponsor STA staff contact: Janet Adams	Eligible Projects: cleaner on-road, off-road, marine, locomotive and stationary agricultural pump engines http://www.baaqmd.gov/Divisions/Strategic-Incentives/Funding-Sources/Carl-Moyer-Program.aspx
Carl Moyer Off-Road Equipment Replacement Program (for Sacramento Metropolitan Area)	Gary A. Bailey Sacramento Metropolitan Air Quality Management District (916) 874-4893 gbailey@airquality.org	Ongoing. Application Due On First-Come, First-Served Basis Eligible Project Sponsors: private non-profit organizations, state or local governmental authorities, and operators of public transportation services	Approx. \$10 million , maximum per project is \$4.5 million	The Off-Road Equipment Replacement Program (ERP), an extension of the Carl Moyer Program, provides grant funds to replace Tier 0, high-polluting off-road equipment with the cleanest available emission level equipment.	N/A	Eligible Projects: install particulate traps, replace older heavy-duty engines with newer and cleaner engines and add a particulate trap, purchase new vehicles or equipment, replace heavy-duty equipment with electric equipment, install electric idling-reduction equipment http://www.airquality.org/mobile/moyererp/index.shtml

¹ Local includes opportunities and programs administered by the Solano Transportation Authority and/or regionally in the San Francisco Bay Area and greater Sacramento

Fund Source	Application Contact**	Application Deadline/Eligibility	Amount Available	Program Description	Proposed Submittal	Additional Information
Local Grants¹						
Air Resources Board (ARB) Clean Vehicle Rebate Project (CVRP)*	Meri Miles ARB (916) 322-6370 mmiles@arb.ca.gov	Application Due On First-Come, First-Served Basis	Up to \$5,000 rebate per light-duty vehicle	The Zero-Emission and Plug-In Hybrid Light-Duty Vehicle (Clean Vehicle) Rebate Project is intended to encourage and accelerate zero-emission vehicle deployment and technology innovation. Rebates for clean vehicles are now available through the Clean Vehicle Rebate Project (CVRP) funded by the Air Resources Board (ARB) and implemented statewide by the California Center for Sustainable Energy (CCSE).	N/A	Eligible Projects: Purchase or lease of zero-emission and plug-in hybrid light-duty vehicles http://www.arb.ca.gov/msprog/agip/cvrp.htm
Bay Area Air Quality Management District (BAAQMD) Hybrid Electric Vehicle Purchase Vouchers (HVIP)*	To learn more about how to request a voucher, contact: info@californiahvip.org	Application Due On First-Come, First-Served Basis	Approx. \$10,000 to \$45,000 per qualified request	The California Air Resources Board (ARB) created the HVIP to speed the market introduction of low-emitting hybrid trucks and buses. It does this by reducing the cost of these vehicles for truck and bus fleets that purchase and operate the vehicles in the State of California. The HVIP voucher is intended to reduce about half the incremental costs of purchasing hybrid heavy-duty trucks and buses.	N/A	Eligible Projects: Purchase of low-emission hybrid trucks and buses http://www.californiahvip.org/
Transportation Fund for Clean Air (TFCA)	Robert Guerrero (707) 424-6075 rquerrero@sta-nci.com	Due by May 10, 2013	Approx. \$59,000	To fund the implementation of TCMs and MSMs, the State Legislature authorized the Air District to impose a \$4 surcharge on motor vehicle registration fees paid within the nine county Bay Area. These revenues are allocated by the Air District through the Transportation Fund for Clean Air (TFCA). TFCA grants are awarded to public and private entities to implement eligible projects.	N/A	Eligible Projects: TFCA funded projects have many benefits, including the following: <ul style="list-style-type: none"> • Reducing air pollution, including air toxics such as benzene and diesel particulates • Conserving energy and helping to reduce greenhouse gas emissions • Improving water quality by decreasing contaminated runoff from roadways • Improving transportation options • Reducing traffic congestion

*New Funding Opportunity

**STA staff, Sara Woo, can be contacted directly at (707) 399-3214 or swoo@sta-nci.com for assistance with finding more information about any of the funding opportunities listed in this report

State Grants						
Highway Safety Improvement Program (HSIP): High Risk Rural Roads*	Sylvia Fung California Department of Transportation (Caltrans) (510) 286-5226 sylvia.fung@dot.ca.gov	Application Due to Caltrans: July 26, 2013	Approx. \$100-150 M nationally	The purpose of this program is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal land. http://www.dot.ca.gov/hq/LocalPrograms/hsip.htm	N/A	Eligible Projects: HSIP funds are eligible for work on any public road or publicly owned bicycle/pedestrian pathway or trail, or on tribal lands for general use of tribal members, that corrects or improves the safety for its users.

Federal Grants						
FTA Section 5311(f), Intercity Bus Program*	Ronaldo Hu Caltrans (916) 657-3955 Ronaldo_Hu@dot.ca.gov	Application Due to Caltrans: April 30, 2013	Approx. \$3.6 Million	The purpose of the Section 5311(f) funding is to provide supplemental financial support to transit operators and to facilitate the most efficient and effective use of available Federal funds in support of providing rural intercity transportation services. http://www.dot.ca.gov/hq/MassTrans/5311.html	Transit Operators	Eligible Projects: Intercity Bus service.
FTA Section 5316, Job Access Reverse Commute (JARC) Grant*	Scott Sauer, California Department of Transportation (Caltrans) (916) 657-3863 scott_sauer@dot.ca.gov	Due April 19, 2013	Approx. \$1.88 Million	To improve access to transportation services to employment-related activities for welfare recipients and eligible low-income individuals and to transport residents of urbanized areas and non-urbanized areas to suburban employment opportunities. http://www.dot.ca.gov/hq/MassTrans/5316.html	N/A	Eligible Projects: Funds from the JARC program are available for capital, planning, and operating expenses that support the development and maintenance of transportation services designed to transport low-income individuals to and from jobs and activities related to their employment, and to support reverse commute projects.
FTA Section 5317, New Freedom Grant*	Scott Sauer, California Department of Transportation (Caltrans) (916) 657-3863 scott_sauer@dot.ca.gov	Due April 19, 2013	Approx. \$1.43 Million	To provide additional tools to overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society. The New Freedom formula grant program seeks to reduce barriers to transportation services and expands the transportation mobility options available to people with disabilities beyond the requirements of the Americans with Disabilities Act (ADA) of 1990. http://www.dot.ca.gov/hq/MassTrans/5317.html	N/A	Eligible Projects: For the purpose for the New Freedom Program, "new" service is any service or activity that was not operational and did not have an identified funding source as of August 10, 2005, as evidenced by inclusion in the Transportation Improvement Plan (TIP) or the State Transportation Improvement Program (STIP).

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**STA Board Meeting Highlights
6:00 p.m., Regular Meeting
Wednesday, June 12, 2013**

TO: City Councils and Board of Supervisors
(Attn: City Clerks and County Clerk of the Board)
FROM: Johanna Masielat, STA Clerk of the Board
RE: Summary of Actions of the June 12, 2013 STA Board Meeting

Following is a summary of the actions taken by the Solano Transportation Authority at the Board Meeting of June 12, 2013. If you have any questions regarding specific items, please call me at (707) 424-6008.

BOARD MEMBERS PRESENT:

Steve Hardy, Chair	City of Vacaville
Osby Davis, Vice-Chair	City of Vallejo
Jack Batchelor	City of Dixon
Elizabeth Patterson	City of Benicia
Harry Price	City of Fairfield
Norman Richardson	City of Rio Vista
Pete Sanchez	City of Suisun City
Jim Spering	County of Solano

CLOSED SESSION

- **PERSONNEL MATTERS (Gov't Code §549547):**
Public Employee Performance Evaluation: Executive Director
- **CONFERENCE WITH AGENCY NEGOTIATOR (Gov't Code §54054.6)**
STA Board Chair: Employee Organization: Unrepresented Employee –
STA Executive Director

Vice Chair Davis reported out from Closed Session that the STA Board voted unanimously to approve a 1% increase to the Executive Director's annual salary and a 3% salary adjustment in Fiscal Year (FY) 2014-15 subject to completing next year's annual performance evaluation.

ACTION – FINANCIAL ITEMS

A. **None.**

ACTION – NON-FINANCIAL ITEMS

A. Transit Sustainability Study (TSS) – Financial Assessment of Solano County Transit Operators

Recommendation:

Receive and file the following:

1. The Transit Sustainability Study Financial Assessment of Solano County transit operators; and
2. The Transit Agency Peer Review: Comparative Analysis.

B. STA Overall Work Plan (OWP) for Fiscal Years (FY) 2013-14 and 2014-15

Recommendation:

Approve STA's OWP for FY 2013-14 and FY 2014-15 as specified in Attachment A.

On a motion by Board Member Price, and a second by Board Member Patterson, the STA Board unanimously approved the recommendation.

C. Marketing Plans for SolanoExpress and Solano Napa Commuter Information (SNCI)

Recommendation:

Approve the following:

1. Marketing Plan and Design Concepts for the SolanoExpress Marketing Campaign; and
2. Marketing Strategy and Action Plan for Solano Napa Commuter Information.

On a motion by Board Member Patterson, and a second by Board Member Price, the STA Board unanimously approved the recommendation.

CONSENT CALENDARS

On a motion by Board Member Patterson, and a second by Board Member Price, the STA Board approved Consent Calendar Items A through M.

A. Minutes of the STA Board Meeting of May 10, 2013

Recommendation:

Approve STA Board Meeting Minutes of May 10, 2013.

B. Draft Minutes of the TAC Meeting of May 29, 2013

Recommendation:

Approve Draft TAC Meeting Minutes of May 29, 2013.

C. Fiscal Year (FY) 2012-13 Third Quarter Budget Report

Recommendation:

Receive and file.

D. STA's Fiscal Year (FY) 2012-13 Final Year Budget Revision

Recommendation:

Adopt the STA's FY 2012-13 Final Year Budget Revision as shown in Attachment A.

E. Fiscal Year (FY) 2013-14 Transportation Development Act (TDA) Matrix - June 2013

Recommendation:

Approve the following:

1. Approve the FY 2013-14 Solano TDA Matrix – June 2013 as shown in Attachment B for City of Fairfield, Solano County Transit, Solano Transportation Authority, and City of Vacaville;
2. Authorize the Executive Director to enter into an agreement with the Solano County for the \$72,000 fund swap of FY 2012-13 STAF funds for FY 2013-14 County TDA funds;
3. Authorize the Executive Director to enter into an agreement with the City of Fairfield and the City of Suisun City for the \$50,000 for operating and maintenance cost for the Suisun City AMTRAK Station; and
4. Approve Resolution No. 2013-15 authorizing the filing of a claim with MTC for the allocation of \$585,884 TDA funds for FY 2013-14.

F. Compressed Natural Gas (CNG) Feasibility Study for Benicia

Recommendation:

Approve the following:

1. Authorize the Executive Director to enter into an agreement with the City of Benicia to develop a Compressed Natural Gas (CNG) Feasibility Study; and
2. Approve dedicating \$10,000 in State Transit Assistance Funds (STAF) to match the City of Benicia’s contribution for the CNG Feasibility Study.

G. Transit Project Management Contract Amendments

Recommendation:

Authorize the Executive Director to execute a contract with:

2. Jim McElroy for an amount not-to-exceed \$23,450 to provide transit and operation services for the Cities of Dixon and Rio Vista;
3. Elizabeth Richards for an amount not-to-exceed \$20,000 to cover additional services related to the completion and implementation of Mobility Management Plan/Programs and extend contract date to June 30, 2014; and
4. Nancy Whelan Consulting for an amount not-to-exceed \$14,384 to cover additional services related to Project Management services and for an amount not-to-exceed \$28,550 to provide transit financial services for the Cities of Dixon and Rio Vista.

H. Intercity Paratransit Service Memorandum of Understanding (MOU)

Recommendation:

Authorize the Executive Director to enter into the Memorandum of Understanding by and among the Cities of Dixon, Fairfield, Rio Vista, Vacaville, The Solano Transportation Authority, Solano County Transit, and the County of Solano for intercity Paratransit services as shown in Attachment A.

I. Revisions to the Solano County Transit (“SolTrans”) Joint Powers Agreement

Recommendation:

Authorize the Executive Director to execute an amendment to the SolTrans Joint Powers Agreement to amend the language to specifically exclude public-private partnerships from eligibility in membership in SolTrans.

J. I-80/I-680/State Route (SR) 12 Interchange Project - Construction Package 2 for the Final Design Phase

Recommendation:

Approve the attached Resolution No. 2013-16 and Funding Allocation Request from Metropolitan Transportation Commission (MTC) for \$1.597 million in bridge toll funds for the I-80/I-680/SR12 Interchange Project – Construction Package 2 for the Final Design phase.

K. I-80/I-680/State Route (SR) 12 Interchange Project - Construction Package 3 for the Final Design Phase

Recommendation:

Approve the attached Resolution No. 2013-17 and Funding Allocation Request from Metropolitan Transportation Commission (MTC) for \$3.916 million in Regional Measure 2 or AB1171 funds for the I-80/I-680/SR 12 Interchange Project – Construction Package 3 for the Final Design phase.

L. Dixon West B Street Pedestrian Undercrossing Construction Support and Project Management Services

Recommendation:

Authorize the Executive Director to amend:

1. HDR’s current Design Services Contract for Construction Support Services in an amount not to exceed \$75,000; and
2. Quincy Engineering’s Contract for Project Manager Services during construction in an amount not to exceed \$75,000 and a contract extension to December 2014.

M. Jepson Parkway Project Update and Project Management Contract Amendment

Recommendation:

Authorize the Executive Director to amend Quincy Engineering Project Management Contract by \$250,000 and extend the contract to December 2016.

COMMENTS FROM METROPOLITAN TRANSPORTATION COMMISSION (MTC), CALTRANS, AND STAFF:

A. MTC Report:

None presented.

B. Caltrans Report

None presented.

C. STA Reports:

A. Water Emergency Transportation Authority (WETA) Update

Presented by: Nina Rannells, WETA

B. Countywide ADA Eligibility

Presented by: Dave Lee, CARE Evaluators

C. Bike to Work Team Bike Challenge Winners

Presented by: Judy Leaks

D. Directors Report

1. Planning

2. Projects

3. Transit/Rideshare

INFORMATIONAL

- A. Water Emergency Transportation Authority (WETA) Update**
- B. Coordinated Short Range Transit Plan Status Update and Coordination Report**
- C. Mobility Management Plan Update**
- D. Draft OneBayArea Grant (OBAG) Funding Agreement**
- E. Legislative Update**
- F. Funding Opportunities Summary**
- G. STA Board and Advisory Committee Meeting Schedule for Calendar Year 2013**

BOARD MEMBER COMMENTS

ADJOURNMENT

The meeting was adjourned at 7:50 p.m.

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DATE: June 12, 2013
TO: STA TAC
FROM: Johanna Masielat, Clerk of the Board
RE: Draft Meeting Minutes for STA Advisory Committees

Attached is the most recent Draft Meeting Minutes of the STA Advisory Committees that may be of interest to the STA TAC.

- A. Project Delivery Working Group (PDWG) Meeting Minutes of April 17, 2013
- B. Paratransit Coordinating Council (PCC) Meeting Minutes of May 16, 2013

SOLANO PROJECT DELIVERY WORKING GROUP
Meeting minutes of April 17, 2013

I. CALL TO ORDER

The Solano Project Delivery Working Group (Solano PDWG) was called to order at approximately 10:35 a.m. in the Solano Transportation Authority’s Main Conference Room.

Solano PDWG

Members Present:

Tracy Rideout	City of Vacaville
Alan Paganiban	City of Vallejo
Dave Melilli	City of Rio Vista
Christina Castro	City of Dixon
Jay Swanson	City of Fairfield
Nouae Vue	City of Benicia
Amanda Dum	City of Suisun City

Other

Staff Present:

Jessica McCabe	STA
Sara Woo	STA
Sheila Jones	STA

Solano PDWG

Members absent:

Peter Wright	City of Fairfield
Nick Burton	County of Solano
Nick Lozano	City of Suisun City
MJ Lanni	City of Vallejo

II. APPROVAL OF AGENDA: April 17, 2013

With a motion from Tracy Rideout and a second from Jay Swanson, the Solano PDWG unanimously approved the agenda.

III. APPROVAL OF MEETING MINUTES: April 17, 2013

With a motion from Christina Castro and a second from Amanda Dum, the Solano PDWG unanimously approved the meeting minutes as amended.

III. ACTION ITEMS

NONE.

IV. INFORMATION ITEMS

A. Project Delivery Update – OBAG Programming

Jessica McCabe, STA presented the Project Delivery Update OBAG Programming. Ms. McCabe stated STA has already programmed \$12.5 M of the OBAG funds and the remaining 5.710 M are left to be programmed. These federal funds would be made available to projects sponsors by November 2013, should MTC's 2013 Transportation Improvement Program (TIP) development process remain on schedule. She noted the STA has completed funding strategies for Tier 1 and Tier 2 projects and the Tier 1 projects that did get selected for CMAQ funding will be going to the STA Board for authorization for programming in May. Project sponsors provided STA updated project delivery schedules that will be reviewed and approved by the Solano Project Delivery Work Group (PDWG) and the STA Technical Advisory Committee (TAC) at their April meetings.

B. Local Streets and Roads (LS&R) 5-Year Investments

Jessica McCabe, STA reviewed the progress made to date with research and collection of 5 Year LS&R revenue and expenditure budget data collected from each jurisdiction and its contribution to the Local Streets and Road Annual report. Ms. McCabe stated STA received some feedback from a Technical Advisory Committee (TAC) member about continuity and what was considered non pavement and what was budgeted as non pavement. She further stated there was some concern that there wasn't continuity and the agencies weren't clear on how that was being shown and what they were included. She noted the data collected for the upcoming LS&R Annual report needs to be clear and accurate. The LS&R Annual report will be coming out sometime in July/August 2013.

C. Complete Streets Workshop (May 2013)

Jessica McCabe, STA announced the upcoming Complete Streets Design and Engineering Workshop hosed by MTC, NCTPA and STA will be held at Suisun City Hall on Tuesday, May 14, 2013. Sara Woo, STA noted the workshop will focus on the engineering best practices. Alta Planning + Design and Parisi Transportation Consulting will present case studies of some examples from Solano County in addition to case studies from other communities in the Bay Area that demonstrates complete streets in a variety of contexts.

D. Solano County Bicycle & Pedestrian Wayfinding Signage Plan

Sara Woo, STA provided an overview of the Solano County Bicycle & Pedestrian draft Wayfinding Signage Plan. Ms. Woo noted the plan has been developed through the guidance of the STA, BAC, PAC, PDWG, TAC and local agency planning and public works staff, and is intended to provide guidelines and specifications for a uniform bicycle and pedestrian wayfinding signage system throughout Solano County and its member agencies. Ms. Woo asked the agencies to review the draft plan focusing on existing and planned bikeway facilities in their community and provide any feedback to her. Ms. Woo indicated she would like to present the final draft plan for review and approval to the Bicycle Advisory Committee (BAC) and the Pedestrian Advisory Committee (PAC) by summer 2013.

E. Funding Opportunities

Sara Woo presented the funding opportunities that will be available to STA member agencies during the next few months, broken up by Federal, State and Local. Ms. Woo pointed out the Intercity Bus Program application is due to Caltrans by April 30, 2013 and the New Freedom and JARC is due April 19, 2013. Another funding opportunity not listed on the summary is the TFCA Grant \$59,000, for air quality improvements and bike and pedestrian projects, so a call for projects for the TFCA program is being done at this time. Ms. Woo stated the applications for the Clean Air Fund that were submitted to Yolo Solano Air Quality Management District (YSAQMD) last month are scheduled to be reviewed and sent to their review board this month.

ADJOURNMENT

The next Solano PDWG meeting will be tentatively scheduled for May 14, 2013 at 11:35 a.m. at the STA Main Conference Room.



PCC

SOLANO PARATRANSIT COORDINATING COUNCIL AGENDA

Draft Minutes for the meeting of May 16, 2013

1. CALL TO ORDER

PCC Chair Alicia Roundtree, called the meeting to order at 1:10 p.m. in the Commission Room at Benicia City Hall.

Voting Members Present: *In Alphabetical Order by Last Name*

Richard Burnett	MTC PAC Representative
Rachel Ford	Solano County Mental Health and Social Services
Alicia Roundtree	Chair, Social Service Provider
Edith Thomas	Social Service Provider
James Williams	Member at Large

Voting Members Not Present: *In Alphabetical Order by Last Name*

Kyrre Helmersen	Transit User
Judy Nash	Public Agency – Education
Shannon Nelson	Vice-Chair, Member at Large
Kurt Wellner	Transit User

Also Present: *In Alphabetical Order by Last Name*

Nancy Abruzzo	STA
Curtis Cole	Solano County Mental Health and Social Services
Emily Flynn	Independent Living Resource
Molly Leavitt	Vallejo Resident
David Lee	CARE Evaluators
Cassy Eastwood	CARE Evaluators
Liz Niedziela	STA
Anne Payne	Area Agency on Aging
Sofia Recalde	STA
Debbie Whitbeck	City of Fairfield/FAST
Elizabeth Romero	SolTrans

2. APPROVAL OF AGENDA

On a motion by Richard Burnett and a second by Rachel Ford, the PCC unanimously approved the May 16, 2013 Agenda.

3. OPPORTUNITY FOR PUBLIC COMMENT

Anne Payne announced that effective May 31, 2013, the Vallejo Senior Escort program will no longer be offered to residents due to lack of funding. Riders will be referred to the Faith in Action Ride with Pride program.

Molly Leavitt, 93, commented that the Vallejo Senior Escort program was an important program that she relies on.

4. COMMENTS FROM STAFF AND REPRESENTATIVES FROM THE PARATRANSIT COORDINATING COUNCIL

None.

5. PRESENTATIONS (2)

(1) David Lee provided a presentation on the Countywide In-Person ADA Eligibility Process. He provided an overview of the step by step process and described how the in-person process acts as a convenient outreach mechanism for fixed route and ADA services. He stated that the process begins when a person calls the Solano County Paratransit Eligibility Center to make an appointment. The customer service representative will schedule an in-person appointment at one of the assessment centers and arrange a ride to and from the assessment center on paratransit. He stated that a Mobile Evaluation Unit (MEU), which consists of a Transit Evaluator and a Transit Mobility Specialist (TMS), will help that individual with the eligibility process and define candidate's skills, mental/physical capabilities, and needs. (Attachment A)

(2) Elizabeth Romero provided a presentation on the Draft SolTrans Paratransit Rider's Guide. She provided an overview of the policies, criteria and content surrounding the user friendly guide. She stated that the font will be increased to 14. (Attachment B)

Alicia Roundtree commented that the guide needs to be accessible for readers with poor vision.

Edith Thomas commented that the guide is intended specifically for people that require ADA paratransit and 60 – 75% of the readers may have challenges with reading and/or seeing the guide and that 14 font is commonly used with the elderly and physically challenged. She also added that the guide should be made accessible electronically and in other accessible for the passenger.

The group discussed the possibility of a Pet policy for passengers needing to take their pet to the vet in a contained carrier.

6. CONSENT CALENDAR

A. Minutes of the PCC Meeting of March 21, 2013

Recommendation:

Approve PCC minutes of March 21, 2013.

On a motion by James Williams and second by Rachel Ford, the PCC approved Consent Calendar Item 6.A, Minutes of the PCC Meeting of March 21, 2013.

7. ACTION ITEMS

B. FY 2013-14 TDA Claims for Solano Transportation Authority and the City of Vacaville

Liz Niedziela provided an overview of the FY 2013-14 TDA Claims for Solano Transportation Authority and the City of Vacaville. She stated that the TDA was enacted in 1971 and imposes a 1 ¼ sales tax on retail within each county for this purpose and is divided up amongst each city. She stated that these funds are used for public transit services.

Edith Thomas commented that she is excited about the second phase of the Intercity Taxi Scrip program and capital project.

Recommendation:

1. Review and forward a recommendation to MTC to approve the Solano Transportation Authority's FY 2013-14 TDA Claim for \$584,884 for planning and administration and passenger rail service.
2. Review and forward a recommendation to MTC to approve the City of Vacaville's FY 2013-14 TDA Claim for \$1,325,926 for operating and \$1,149,452 for capital projects.

On a motion by James Williams and a second by Edith Thomas, the PCC unanimously approved the recommendations.

Liz Niedziela proposed holding a Special PCC Committee lunch meeting before June 12, 2013 to discuss the TDA claims for SolTrans, the Cities of Fairfield, Dixon and Rio Vista.

8. INFORMATIONAL ITEMS

A. FTA 5310 Update and Timeline

Sofia Recalde provided an update on the FTA 5310. She stated that the 5310 sub-committee met on Tuesday, March 19 to score the grant applications, and the score summaries were forwarded to MTC for review. She concluded that MTC will be presenting the regional rankings to the Programming and Allocations Committee (PAC) for approval on May 8, 2013 and if approved by the PAC, the rankings will then be presented to the Commission for adoption on May 22, 2013. She concluded that in September, the CTC will hold a public hearing to discuss the list and adopt the prioritized list.

B. Mobility Management Plan Update

Sofia Recalde provided an update on the Mobility Management Plan. She stated that STA staff has been working with the transit operators and CARE Evaluators to work out the details of the ADA eligibility program and to launch a comprehensive outreach effort to provide information about the public elected officials, community partners and current and potential paratransit riders. She concluded that the Countywide In-Person ADA Eligibility program is scheduled to start July 1, 2013.

C. PCC Brochure and Seniors and People with Disabilities Transportation Guide

Sofia Recalde provided an overview of the Draft PCC Brochure and Draft Seniors and People with Disabilities Transportation Guide. She stated that STA produces the PCC brochure and the Solano Seniors and People with Disabilities Transportation Guide for distribution to the general public. She announced that the guide is not ready yet for public distribution and welcomed review and comment from the committee regarding the draft brochures.

D. Research Changing PCC Meeting Date

Sofia Recalde stated that at the March meeting, SolTrans staff requested that the STA investigate other potential PCC dates because the third Thursday of every other month falls on the same date as the SolTrans Board meeting, making it difficult for SolTrans staff to attend the meetings. She stated that after review of the STA committee calendar, it was noted that moving the PCC to the third Tuesday or Wednesday of every other month would conflict with other meetings such as the STA Board meeting; as a result, the PCC date will remain unchanged at this time.

E. PCC Membership Status and Update

Sofia Recalde stated that at the March meeting, there was one (1) vacancy for a Social Service provider and one (1) vacancy for a Transit User. She stated that the STA Board approved the PCC’s recommendation to reappoint Judy Nash on April 10, 2013 for three additional years. She announced that Rachel Ford will not be renewing her service for another three year term on the PCC; however, she recommended her colleague, Curtis Cole, and is encouraging him to apply.

9. INFORMATIONAL ITEMS (No Discussion)

A. 2013 PCC Meetings and Locations

10. TRANSIT OPERATOR UPDATES

Dixon Redit-Ride: Not present.

Fairfield and Suisun Transit: Debbie Whitbeck stated that FAST is offering their summer youth pass program at half price for \$25.00 per month. She stated that it is only available for use on local routes and hopes to sell more passes than last year.

Rio Vista Delta Breeze: Not present.

SolTrans: Elizabeth Romero stated that SolTrans will promote a “Back to School” outreach effort in late summer for Benicia and Vallejo. She stated that ridership on fixed route and dial-a-ride is increasing and paratransit has remained relatively stable.

Vacaville City Coach: Not present.

11. FUTURE AGENDA ITEMS AND COUNCIL COMMENTS

The committee requested to invite Matt Tuggle to a future meeting to discuss the Intercity Taxi Scrip Phase 2 Program.

12. ADJOURNMENT

The meeting adjourned at 3:15 p.m. The next meeting of the PCC is scheduled to meet at **1:00 p.m. on Thursday, July 18, 2013, at Fairfield Community Center in the Vista Conference Room located at 1000 Kentucky Street in Fairfield, CA 94533.**



DATE: June 12, 2013
TO: STA TAC
FROM: Johanna Masielat, Clerk of the Board
RE: STA Board and Advisory Committee Meeting Schedule for Calendar Year 2013

Background:

Attached is the STA Board and Advisory Committee Meeting Schedule for the Calendar Year 2013 that may be of interest to the STA TAC.

Fiscal Impact:

None.

Recommendation:

Informational.

Attachment:

- A. STA Board and Advisory Committee Meeting Schedule for the Calendar Year 2013

**STA BOARD AND ADVISORY
COMMITTEE MEETING SCHEDULE
CALENDAR YEAR 2013**
(Last Updated: April 15, 2013)

SUMMARY:	
STA Board:	Meets 2 nd Wednesday of Every Month
Consortium	Meets the day before the TAC Every Month
TAC:	Meets <i>Last</i> Wednesday of Every Month
BAC:	Meets 1 st Thursday of every <i>Odd</i> Month
PAC:	Meets 3 rd Thursday of every <i>Even</i> Month
PCC:	Meets 3 rd Thursday of every <i>Odd</i> Month

DATE	TIME	DESCRIPTION	LOCATION	STATUS
June 17-20	N/A	2013 Federal Legislative Lobbying Trip	Washington, D.C.	Confirmed
Thurs., June 20	6:00 p.m.	Pedestrian Advisory Committee (PAC)	STA Conference Room	Tentative
Tues., June 25	10:00 a.m.	Intercity Transit Consortium	STA Conference Room	Confirmed
Wed., June 26	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Confirmed
Wed., July 10	4:00 p.m.	RTIF Policy Committee	Suisun City Hall	Confirmed
Wed., July 10	6:00 p.m.	STA Board Meeting	Suisun City Hall	Confirmed
Thurs., July 18	1:00 p.m.	Paratransit Coordinating Council (PCC)	TBD	Confirmed
Thurs., July 4	6:30 p.m.	Bicycle Advisory Committee (BAC)	STA Conference Room	Tentative
No Meeting in July	SUMMER RECESS	Intercity Transit Consortium	N/A	N/A
		Technical Advisory Committee (TAC)	N/A	N/A
August 14 (No Meeting)	SUMMER RECESS	STA Board Meeting	N/A	N/A
Wed., August 14	1:30 p.m.	Safe Routes to School Advisory (SR2S-AC)	STA Conference Room	Tentative
Thurs., August 15	6:00 p.m.	Pedestrian Advisory Committee (PAC)	STA Conference Room	Tentative
Tues., August 27	1:30 p.m.	Intercity Transit Consortium	STA Conference Room	Confirmed
Wed., August 28	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Confirmed
Wed., September 11	6:00 p.m.	STA Board Meeting	Suisun City Hall	Confirmed
Thurs., September 19	1:00 p.m.	Paratransit Coordinating Council (PCC)	TBD	Confirmed
Thurs., September 5	6:30 p.m.	Bicycle Advisory Committee (BAC)	STA Conference Room	Confirmed
Tues., September 24	1:30 p.m.	Intercity Transit Consortium	STA Conference Room	Confirmed
Wed., September 25	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Confirmed
Wed., October 9	6:00 p.m.	STA Board Meeting	Suisun City Hall	Confirmed
Thurs., October 17	6:00 p.m.	Pedestrian Advisory Committee (PAC)	STA Conference Room	Tentative
Thurs., October 25	12 Noon	Solano Sr. & People w/ Disabilities	Solano County Events Center	Confirmed
No Meeting in October	1:30 p.m.	Intercity Transit Consortium	STA Conference Room	Confirmed
	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Confirmed
Wed., November 14	6:00 p.m.	STA's 15 th Annual Awards	TBD – Vacaville	Confirmed
Thurs., November 21	1:00 p.m.	Paratransit Coordinating Council (PCC)	TBD	Confirmed
Thurs., November 7	6:30 p.m.	Bicycle Advisory Committee (BAC)	STA Conference Room	Tentative
Wed., November 20	1:30 p.m.	Safe Routes to School Advisory (SR2S-AC)	STA Conference Room	Tentative
Tues., November 26	1:30 p.m.	Intercity Transit Consortium	STA Conference Room	Confirmed
Wed., November 27	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Confirmed
Wed., December 11	6:00 p.m.	STA Board Meeting	Suisun City Hall	Confirmed
Thurs., December 19	6:00 p.m.	Pedestrian Advisory Committee (PAC)	STA Conference Room	Tentative
Tues., TBD	1:30 p.m.	Intercity Transit Consortium	STA Conference Room	Tentative
Wed., TBD	1:30 p.m.	Technical Advisory Committee (TAC)	STA Conference Room	Tentative