



Santa Cruz County Regional Transportation Commission's
Interagency Technical Advisory Committee (ITAC)

AGENDA

Thursday, April 18, 2013

1:30 p.m.

**RTC Conference Room
1523 Pacific Avenue, Santa Cruz, CA**

1. Call to Order
2. Introductions
3. Oral communications

The Committee will receive oral communications during this time on items not on today's agenda. Presentations must be within the jurisdiction of the Committee, and may be limited in time at the discretion of the Chair. Committee members will not take action or respond immediately to any Oral Communications presented, but may choose to follow up at a later time, either individually, or on a subsequent Committee agenda.

4. Additions or deletions to consent and regular agendas

CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the Committee or public wishes an item be removed and discussed on the regular agenda. Members of the Committee may raise questions, seek clarification or add directions to Consent Agenda items without removing the item from the Consent Agenda as long as no other committee member objects to the change.

5. Approve Minutes of the February 21, 2013 ITAC meeting - Page 3

REGULAR AGENDA

6. Status of ongoing transportation projects, programs, studies and planning documents - Verbal updates from project sponsors
7. 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy –Scenarios Development - Page 7
 - a. Copy of April 10, 2012 Memorandum to AMBAG Board
 - b. Presentation from Heather Adamson, AMBAG
8. Complete Streets Assessment – Draft Regional Transportation Plan Project List - Page 11
 - a. Staff report
9. Bicycle Count Report - Page 29

- a. Staff report
- 10. State Highway Advanced Planning - Page 77
 - a. Staff report
- 11. Nominate and Elect Chair and Vice Chair

NEXT MEETING: The next ITAC meeting is scheduled for **May 16, 2013** at **1:30 PM** in the SCCRTC Conference Room, 1523 Pacific Avenue, Santa Cruz, CA.

HOW TO REACH US: Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue, Santa Cruz, CA 95060; phone: (831) 460-3200 / fax (831) 460-3215
email: info@sccrtc.org / website: www.sccrtc.org

AGENDAS ONLINE: To receive email notification when the Committee meeting agenda packets are posted on our website, please call (831) 460-3200 or email rmoriconi@sccrtc.org to subscribe.

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SERVICIOS DE TRADUCCIÓN/ TRANSLATION SERVICES: Si gusta estar presente o participar en esta junta de la Comisión Regional de Transporte del condado de Santa Cruz y necesita información o servicios de traducción al español por favor llame por lo menos con tres días laborables de anticipo al (831) 460-3200 para hacer los arreglos necesarios. (Spanish language translation is available on an as needed basis. Please make advance arrangements at least three days in advance by calling (831) 460-3200).

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**Santa Cruz County
Regional Transportation Commission
Interagency Technical Advisory Committee (ITAC)**

DRAFT MINUTES

Thursday, February 21, 2013
1:30 p.m.
RTC, Conference Room
1523 Pacific Avenue, Santa Cruz, CA

ITAC MEMBERS PRESENT

Frank Barron, County Planning
Keith Boyle, City of Watsonville Community Development
Teresa Buika, UCSC
Ken Thomas, City of Santa Cruz Planning
Claire Fliesler, Santa Cruz METRO
Erich Friedrich, Santa Cruz METRO
Steve Jesberg, City of Capitola Public Works
Piet Canin, Ecology Action
Mark McCumsey, Caltrans District 5
Maria Esther Rodriguez, City of Watsonville Public Works
Anais Schenk, AMBAG
Chris Schneiter, City of Santa Cruz Public Works
Susan Westman, City of Capitola Community Development
Steve Wiesner, County Public Works
Majid Yamin, City of Scotts Valley Public Works and Planning Proxy
Scott Wood, California Highway Patrol (Ex-Officio)

STAFF PRESENT

Grace Blakeslee
Ginger Dykaar
Rachel Moriconi

OTHERS PRESENT

Amelia Conlen, People Power
Mark Dettle, City of Santa Cruz Public Works
Kathy DiGrazia, Caltrans District 5 – by phone for item 11
Donn Miyahara, Caltrans District 5 – by phone for item 11
Ben Noble, The Planning Center/DC&E
Eric Panzer, The Planning Center/DC&E
Garin Schneider, Caltrans District 5 – by phone for item 11

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1. Call to Order – Chair Chris Schneiter called the meeting to order at 1:33pm.
 2. Introductions – Self introductions were made.
 3. Oral communications – None
 4. Changes to consent and regular agendas – Maps and Place Types matrix distributed for Item 9.

CONSENT AGENDA (Rodriguez/Wiesner) approved (Buika and Schneiter abstained)

5. Approved minutes of the January 17, 2013 ITAC meeting
6. Received List of Projects Approved for Regional Surface Transportation Program (RSTP) funds
7. Received notice regarding Bicycle Transportation Account program

REGULAR AGENDA

8. Status of ongoing transportation projects, programs, studies and planning documents - Verbal updates from project sponsors

UCSC: Teresa Buika reported that the University is working on the Electric Vehicle Charging Station at the Core West parking lot.

Santa Cruz METRO: Erich Friedrich reported that bus schedule changes start March 14, including expanded Highway 17 Express Bus service and evening service through Live Oak. Metro will be submitting a Caltrans Planning Grant application with Association of Monterey Bay Area Governments (AMBAG) for a data analysis intern. Assemblyman Mark Stone has also introduced legislation that would allow Monterey-Salinas Transit (MST) and Metro to explore driving buses on highway shoulders. Metro will be issuing a Request for Proposals (RFP) for design of the joint project with the City of Santa Cruz for upgrading Pacific Station. Metro will also be hiring a consultant to develop a Short Range Transit Plan.

Watsonville: Maria Rodriguez wished everyone "Happy Engineers Week". She reported that City is going out to bid for its Highway Safety Improvement Program-funded (HSIP) signal upgrades and Safe Routes to Schools (SRTS)-funded curb ramps. The City is also going out to bid for a consultant to design the Roundabout at Clifford/Pennsylvania. Work also continues on studies for the Harkins Slough/Highway 1 Interchange.

County of Santa Cruz: Steve Wiesner reported that repairs to East Zayante at PM 2.2 are done. The traffic signal at Lockwood Lane and Graham Hill Road will go live in early March.

Ecology Action: Piet Canin reported that Ecology Action is working with the City of Santa Cruz on the Complete Streets plan for schools, which will contain infrastructure and program recommendations. He also suggested local agencies participate in a road safety workshop on February 26 hosted by the Silicon Valley Bicycle Coalition. *(RTC staff subsequently forwarded information on the workshop to ITAC members and other meeting attendees.)*

Caltrans: Mark McCumsey encouraged ITAC members to attend upcoming workshops on the Highway Safety Improvement Program (HSIP) and Caltrans Planning grants. He also invited attendees to review and comment on the State Rail Plan by March 11 and recommended agencies review the California Interregional Blueprint report. *(Following the meeting RTC staff forwarded links to the Planning Grants, Safety Grant Program, Interregional Blueprint, and State Rail Plan web pages to ITAC members and other meeting attendees.)*

Capitola: Steve Jesberg reported that the comment period recently closed on the Negative Declaration for the Lower Pacific Cove Parking Lot project which will serve the Village.

RTC: Rachel Moriconi reported that the RTC awarded a construction management contract for the Rail Improvement project and approved projects to receive over \$5 million in Regional Surface Transportation Program (RSTP) funds.

Santa Cruz: Chris Schneider reported that the City is working on construction of downtown electric vehicle charging stations. The River Street parking structure is being converted to a pay lot.

9. Draft Sustainable Communities Strategy Base Case Land Use Scenario

Anais Schenk, AMBAG Planner, reported that AMBAG is finishing the Sustainable Communities Strategy (SCS) Base Case Scenario based on comments received from local jurisdictions. She reviewed the next steps towards development of the SCS. Ben Noble of the Planning Center reminded members that the Land Use Scenario planning is part of SB375 implementation, identifying how changes in regional development patterns could help reduce greenhouse gas emissions. Updated Base Case Scenario maps

were distributed and Planning Center staff highlighted changes to the maps that have been made based on comments received. A matrix of characteristics of different “place types” was also distributed. In response to a question from Chris Schneider, Mr. Noble noted that the maps only include place type designations for areas in the urban service boundary. Members requested additional changes to place type designations for several areas. The Base Case Scenario is based on build out of existing General Plans, with the exception of areas where changes in development patterns are unlikely in the next 20 years. Next, alternate development and transportation scenarios from the Base Case will be developed. Alternatives would include the County of Santa Cruz Transit Corridor Plan, increased development along the coastal rail corridor, increased transit headways, and alternative scenarios for where new housing/density and new employment is located.

In response to a question from Ken Thomas, Anais Schenk noted that once TAZ disaggregation and regional forecast numbers are inputted into the regional travel demand model, greenhouse gas emission estimates will be developed for the Base Case, followed by testing how the number of vehicle miles traveled (VMT) would change under various scenarios. Piet Canin noted that an increase in electric vehicle use will reduce greenhouse gas emissions. Ms. Schenk noted that for SB375 the focus is on how much GHG emissions can be reduced through changes in how much people drive, rather than changes in vehicle fleets. Frank Barron recommended changes to the place type descriptions to make the characteristics more flexible.

Ms. Schenk reported that AMBAG will outreach to stakeholders and the public this spring/summer. The SCS is scheduled for adoption as a component of the Metropolitan Transportation Plan (MTP) in June 2014.

10. Complete Streets Assessment Update

Grace Blakeslee, RTC Transportation Planner, reported that as part of the transportation component of the Sustainable Communities Strategy (SCS), RTC staff is working with local jurisdictions to conduct a complete streets gaps analysis for several areas. The analysis will identify additional projects that should be included in the Regional Transportation Plan (RTP) project list. She requested that project sponsors identify any areas that should be evaluated in addition to those listed in Attachment 2 of the staff report. She also requested input on Attachment 1 of the staff report, identifying complete streets components. She noted that transportation planning agencies in Monterey Bay area are also working on guidelines for complete streets that could serve as a tool for local jurisdictions.

In response to questions from Amelia Cohen, Ms. Blakeslee noted that once the guidelines are established they will not prescribe what is needed in different place types, but rather recommend certain types of attributes and provide information on some of the tradeoffs. In some instances the analysis may recommend putting bicycle and pedestrian facilities on alternates to arterial roadways. Ms. Blakeslee noted that staff resources are limited so the analysis will not cover all travel corridors. Frank Barron recommended that the analysis look at the Soquel corridor across jurisdictional lines. Committee members discussed transportation deficiencies and challenges in Soquel Village, noting parking, traffic congestion, and bicycle facility needs. Piet Canin agreed to collaborate with Ms. Blakeslee on Ecology Action's analysis of complete streets near schools.

11. Caltrans Local Assistance Updates

The Committee received verbal updates by telephone from Caltrans District 5 staff Kathy DiGrazia, Garin Schneider, and Donn Miyahara regarding various Caltrans programs and policy changes.

Kathy DiGrazia, ADA Engineer District 5, reported that Caltrans is working to ensure projects on the state highway system are ADA (Americans with Disabilities Act) compliant. Caltrans has developed a SHOPP ADA infrastructure program and transition plan. Statewide Caltrans is spending approximately \$25 million per year on ADA upgrades, which includes curb ramps and other facilities scheduled for construction 2015-2017 in Santa Cruz County (*list of locations was subsequently emailed to ITAC members*). If a local

agency is doing a project that requires an encroachment permit from Caltrans, that project must also meet ADA requirements. ITAC members discussed opportunities to partner with Caltrans for pedestrian upgrades through cooperative agreements. Ms. DiGrazia noted that if a grievance is filed, an agency has 90 days to respond. Members should ensure that their ADA Transition Plans are up-to-date. She agreed to return to ITAC yearly to provide updated information.

Garin Schneider reported that MAP – 21 revised “Buy America” requirements. Under the new rules if any part of a project uses federal funds, the entire project must follow Buy America specifications. For multi-phased projects where just one phase is funded with federal highway funds, all phases must follow the federal Buy America provisions. He noted that utilities have been an issue statewide which Caltrans is working with FHWA to address.

Garin Schneider also reported on the new ProRata/Lump Sum Reimbursement designation that local agencies will need to use when obligating federal funds. He also reported that there are new design requirements for projects on the National Highway System (NHS). He urged agencies to review the enhanced NHS roadway list, which now includes several local arterials and bridges. He also encouraged agencies to attend trainings on the upcoming Highway Safety Improvement Program grant cycle. This will be the largest call for safety projects on local roads and all agencies were encouraged to submit applications.

The meeting adjourned at 3:15 p.m. The next ITAC meeting is scheduled for **April 18, 2013 at 1:30 PM** in the SCCRTC Conference Room, 1523 Pacific Avenue, Santa Cruz, CA.

Minutes prepared by: Rachel Moriconi

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MEMORANDUM

TO: AMBAG Board of Directors

FROM: Maura F. Twomey, Executive Director

RECOMMENDED BY: Heather Adamson, Principal Planner

SUBJECT: 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy Update

MEETING DATE: April 10, 2013

RECOMMENDATION:

Staff recommends that the Board accept the 2014 Metropolitan Transportation Plan/Sustainable Communities Strategy update.

BACKGROUND/DISCUSSION:

As the federally designated Metropolitan Planning Organization (MPO) for the tri-county Monterey Bay area region, AMBAG is required to adopt and submit an updated Metropolitan Transportation Plan (MTP) every four years. The MTP and its Sustainable Communities Strategy (SCS) will contain specific public policies and strategies, as well as projects and programs aimed at meeting the diverse mobility needs of our growing and changing region.

Previous Accomplishments

The AMBAG Board of Directors approved a work program and policy goals and performance measures at its November 2012 and January 2013 meetings, respectively. In February 2013, the Board of Directors conditionally accepted a preliminary regional growth forecast for planning purposes that allows the MTP/SCS work to continue to move forward. Staff is working to resolve those conditions with the local jurisdictions. Staff also will continue to work with the local jurisdictions on refinements to the regional growth forecast through the MTP/SCS development process.

2014 MTP/SCS Scenarios Development

In order to evaluate various combinations of transportation and land use strategies that will lead to achieving the greenhouse gas emissions (GHG) targets established by California Air Resources Board (CARB) for the three-county region (zero percent

increase by 2020 and a five percent reduction per capita by 2035), AMBAG will be working with the three county Regional Transportation Planning Agencies (RTPAs), local governments, key stakeholders, and the public to develop and evaluate a set of SCS alternative transportation and land use scenarios, using its upgraded transportation and land use modeling capabilities. These scenarios will be developed in consultation with policy makers, stakeholders, and the general public, and will include information regarding how each scenario performs in terms of GHG results along with other performance measures. This comparison of alternative scenarios will allow the Board of Directors to select a preferred scenario that will form the basis for the Draft 2014 MTP/SCS.

AMBAG has been working collaboratively with the RTPAs, transit agencies, local jurisdictions, and community members to develop initial concepts or themes for the alternative planning scenarios that are framed by the MTP policies and goals. Based on this input the initial scenarios should be based on the following:

- Complete planned rail investments and consider additional rail and regional transit investments in the future
- Intensify land uses around existing and future rail and transit stations and corridors
- Provide alternative travel options (transit, bicycle, pedestrian, etc.) to driving alone
- Consider economic development strategies that will improve the jobs – housing balance throughout the region
- Preserve agricultural lands and open space
- Invest in Complete Streets concepts to address the needs of all roadway users
- Make transportation investments to reduce congestion and improve safety around the region

Over the next month, scenarios will be developed based on these initial themes. The alternative scenarios will be refined and evaluated and will include various land use assumptions and various types of new transportation system improvements and investments. Outreach with the public and stakeholders will be ongoing during the next six months of scenario planning. In September 2013, the Board of Directors will be asked to select a preferred land use and transportation scenario that will become the basis of the 2014 MTP/SCS and its Environmental Impact Report (EIR).

In fall 2013, the Draft 2014 MTP/SCS and its EIR documents will be prepared. The Draft 2014 MTP/SCS and EIR is expected to be released in February 2014 for a public review period. The Final 2014 MTP/SCS and its EIR is scheduled to be adopted in June 2014.

Public Participation and Outreach

Building on the existing Monterey Bay Area Public Participation Plan, the MTP/SCS Public Involvement Plan identifies a number of innovative strategies and tools to engage stakeholders and members of the public in the planning process. As required by SB 375,

public workshops to obtain feedback on the SCS development process will be held in May 2013. Additionally, elected official workshops will be held in each county at the RTPA Board meetings in June 2013. All upcoming meetings have been added to the AMBAG website. The MTP/SCS project website is under development and will be live soon.

In addition to public outreach activities, the development of the alternative planning scenarios for the SCS will be coordinated with the following groups:

- **MTP/SCS Executive Steering Committee**
 - The Executive Directors from AMBAG and the RTPAs, and senior staff members from the transit agencies and Caltrans
- **MTP/SCS Staff Working Group**
 - Project staff from AMBAG, RTPAs, transit agencies, and Caltrans
- **Technical Advisory Committees (RTPAs)**
 - The city and county public works directors and staff
- **Planning Directors Forum**
 - The planning directors of all 21 cities and counties in the AMBAG region
- **Regional Advisory Committee**
 - Board appointed representatives from the business, tourism, environmental, education, etc. fields to provide input and feedback into the development of the SCS.

Next Steps

Staff will continue to work with the various working groups, advisory committees, and the public to develop and evaluate the alternative planning scenarios for the SCS. The alternative scenarios will be brought back to the Board of Directors for discussion.

ALTERNATIVES:

N/A

FINANCIAL IMPACT:

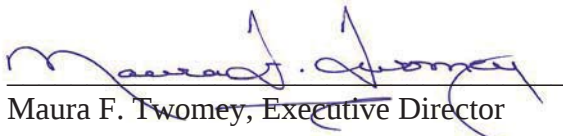
Planning activities for the 2014 MTP/SCS are funded with FHWA PL, FTA 5303, and SGC funds and are programmed in the FY 2012-13 Overall Work Program.

COORDINATION:

All 2014 MTP/SCS planning activities have been with MTP/SCS Executive Steering Committee and Staff Working Group which includes participation from Caltrans District 5, Monterey – Salinas Transit, Santa Cruz METRO, Santa Cruz County Regional Transportation Commission, San Benito County Council of Governments, and the Transportation Agency for Monterey County. Additionally, the SCS scenarios will be developed in coordination with the local jurisdictions and the Regional Advisory Committee.

ATTACHMENT:

1. March 27, 2013 Planning Directors Forum Meeting Attendance

APPROVED BY:
Maura F. Twomey, Executive Director

AGENDA: April 18, 2013

TO: Interagency Technical Advisory Committee

FROM: Grace Blakeslee, Transportation Planner

RE: Complete Streets Assessment – Draft Regional Transportation Plan Project List

RECOMMENDATIONS

Staff recommends that the Interagency Technical Advisory Committee (ITAC):

1. Review and provide input on the complete streets projects recommended for inclusion in the 2014 Santa Cruz County Regional Transportation Plan (RTP) project list ([Attachment 2](#)).
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BACKGROUND

A complete streets analysis is part of the development of the 2014 Santa Cruz County Regional Transportation Plan and Association of Monterey Bay Area Governments (AMBAG) sustainable communities strategy. The complete streets analysis consists of both a needs assessment and development of complete streets guidelines. The goal of a complete streets needs assessment is to identify transportation improvements, particularly in areas identified for growth, which will provide safe mobility for all users including bicyclists, pedestrians, transit riders and motorists. Complete streets is also a key strategy for reducing greenhouse emissions and promoting healthier communities by encouraging active transportation. Complete street guidelines will be developed to identify strategies for transitioning auto-oriented streets into complete streets and to be utilized in the circulation elements of the local jurisdictions' general plans.

DISCUSSION

Complete Streets- Focus Areas

RTC staff evaluated complete streets transportation attributes in areas identified for increased density and diversity of land use as part of the sustainable communities strategy planning effort underway by the Association of Monterey Bay Area Governments (AMBAG) in coordination with the Santa Cruz County Regional Transportation Commission (RTC). Regional Transportation Commission (RTC) staff primarily relied on the land use place types designated by AMBAG, in coordination with planning departments, when selecting focus areas for the complete streets assessment. The list of areas included in the complete streets assessment is included as [Attachment 1](#). The depth of analysis for each area corresponded to the

level of detail available about future land-use. For instance, a less detailed analysis was completed for those areas where future land-use is currently being examined by the Santa Cruz County Planning Department as part of their transit corridors project. A more detailed analysis was completed for those areas with current general or local area plans.

Complete Streets- Project Criteria

Based on the complete streets assessment for each focus area and information available about future land use, RTC staff identified investments which provide enhanced bicycle, pedestrian and transit environments and serve all user groups, including less experienced bicyclists and pedestrians, and vulnerable users (children, youths, disabled persons and seniors). To achieve these, a focus was given to identifying opportunities to develop what are often referred to as low stress routes; to give greater emphasis to the quality, comfort and convenience of bicycle, pedestrian and transit facilities; and to support alternatives to driving for shorter trips. Complete streets projects recommended for inclusion in the RTP fall into one of the following categories: , bicycle/pedestrian enhancement, pedestrian crossing, complete bike/pedestrian network, bike intersection improvements, new bike/ped connection, bike parking, greenway, universal street, crosswalk frequency, commercial area bike/ped path, traffic calming, signal synchronization, HOV/transit priority, transit pullouts, way finding, and enhanced user perspective.

Complete Streets Projects- Draft RTP Project List

The complete streets project list shown in Attachment 2, is a combination of projects already included in the Draft RTP project list (“Existing Projects”), projects for which RTC staff is recommending revisions to the project description to address complete streets project objectives (“Modified Projects”) and projects not previously included (“New Projects”) that emphasize bicycle, pedestrian and transit facilities in focus areas. The complete streets project list also recommends broader types of projects in areas where intensified use is reasonably expected to occur but where a detailed analysis was not completed as part of this effort. With inclusion of projects as shown in Attachment 1, over 35% of the Draft RTP projects are considered complete street type projects.

Draft RTP Project List- RTP and Sustainable Communities Strategy (SCS) Scenario Planning

In order to determine which projects in the RTP and SCS will be on the constrained vs unconstrained list, a scenario planning process (see separate agenda) will be used. Scenarios will be analyzed for their ability to achieve the SB 375 greenhouse gas emission targets as well as the other RTP and MTP goals and performance measures. RTC and AMBAG will be using sketch model tools, the regional travel demand model and post-processing tools for this analysis. Projects must be included in the Draft RTP project list in order for projects to be considered in the scenario planning effort.

As a result of the complete streets assessment and in preparation for the scenario planning effort to be conducted by AMBAG, **RTC staff is recommending that the**

ITAC review and provide input on new and modified complete streets projects for the Draft RTP project list (Attachment 2).**Next Steps**

The complete streets projects will be presented to the RTC's Bicycle Committee and Elderly and Disabled Transportation Advisory Committee for their input. If needed, revisions to the complete streets project list will be considered by project sponsors. Project sponsors will be asked to provide cost estimates for the projects. Staff expects that the RTC will consider updating the Draft RTP project list to identify complete streets projects and include new projects in May or June. Meanwhile, AMBAG and RTC will jointly be evaluating bundles of projects based on specific themes for their ability to advance regional goals. The RTC is expected to consider the results of the initial scenario at the June Transportation Policy Workshop.

Developing the complete streets guidelines is the next phase in the complete streets initiative. The complete streets guidelines will provide information about how to implement complete streets projects and policies in the Monterey Bay Area. RTC staff will be working jointly with the Transportation Agency for Monterey County, the San Benito Council of Governments and the Association of Monterey Bay Area Governments. Input gained from surveys and the recent complete streets assessment will be considered in development of the guidelines. RTC staff is expected to return to the ITAC with an outline for the guidelines in May.

SUMMARY

The complete streets analysis is part of the development of the 2014 Santa Cruz County Regional Transportation Plan and Association of Monterey Bay Area Governments (AMBAG) sustainable communities strategy. The complete streets analysis consists of both a needs assessment and development of complete streets guidelines. RTC staff evaluated complete streets transportation attributes in areas identified for increased density and diversity of land use as part of the sustainable communities strategy planning effort underway by the Association of Monterey Bay Area Governments (AMBAG) in coordination with the Santa Cruz County Regional Transportation Commission (RTC). Based on the complete streets assessment, RTC staff identified investments which provide enhanced bicycle, pedestrian and transit environments and serve all user groups. RTC staff is recommending that the ITAC review and provide input on new and modified complete streets projects for the Draft RTP project list (Attachment 2).

Attachments:

1. Locations included in the Complete Streets Analysis
2. Complete Streets Projects for the RTP Draft Project List

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Areas Considered for Complete Street Needs Assessment

Completed	Area	Location Details	Context
	City of Capitola		
X	41st Area near Highway 1	Gross Road to Capitola Road and Rodeo Gulch to Wharf Road	Place Type- Growth
X	Bay and Porter Area	Robertson to Main and Highway 1 to Capitola Avenue	Place Type- Growth
X	Capitola Village	Wharf Road to Cliff Avenue and Park Avenue to Esplanade	Place Type- Growth
	City of Santa Cruz		
X	Ocean Street Corridor	Highway 17 to East Cliff	Place Type- Growth
X	Soquel Avenue/Water Street	Highway 1 and Broadway and Morrissey and Branciforte	Place Type- Growth
	Harvey West Area	San Lorenzo River to Dubois Street and Evergreen Street to Gold Club Drive	Key Destination
	Boardwalk/Wharf Area	Bay Street to San Lorenzo River and Pacific Street to Beach Street	Key Destination
	UCSC Connections	Bay Street, High Street, Western Street	Key Destination
	Downtown Santa Cruz	Riverside to Center	Place Type- Growth
	City of Scotts Valley		
X	Scotts Valley Drive/Mt. Hermon Road	Highway 17 and Hacienda Drive/ Kings Village/Blue Bonnet to Whispering Pines Drive	Place Type- Growth
	City of Watsonville		
X	Main Street	Freedom to Riverside and Union to Brennan	Place Type- Growth
X	Freedom Boulevard	Lincoln to Airport	Place Type- Growth
	Highway 1/Airport Drive	Pajaro High School Area to Ross	Key Destination
	County of Santa Cruz		
Partial	Upper 41st Avenue	Highway 1 to Soquel and S. Rodeo Gulch to 41st Avenue	Key Destination
	Capitola Road and 17th Avenue	El Dorado to Chanticleer and Rail Line to Capitola Avenue*	Place Type- Growth
X	Pleasure Point Area	Brommer to east Cliff and 30th Avenue to 41st Avenue*	Place Type- Growth
X	Soquel Drive- State Park Drive Area	Mar Vista to Spreckles and Rail Line to Soquel Drive*	Place Type- Growth
NA	Soquel Village	Robertson to Main and Soquel to Highway 1	Place Type- Growth
	Soquel Drive to Rodeo Gulch	Soquel Drive to Rodeo Gulch and Highway 1 to Paul Sweet Road	Corridor

* Opportunity site identified as part of development of Transit Corridors Plan for Santa Cruz County

Complete Streets Assessment- Project Recommended for inclusion in Draft RTP Project List

Project Criteria: Projects are located in an area identified for denser and more diverse uses, and enhance bike/ped/transit environment in the Sustainable Communities Strategy Place Type Description,

Project Status	Proj_ID	Agency	Project Title	Description /Scope
41st area near Highway 1				
Existing	CAP-P16	City of Capitola	Clares Street Pedestrian Crossing west of 40th Ave	Construct signalized ped x-ing 0.20 miles west of 40th Ave.
Existing	CAP-P42	City of Capitola	Clares St Bike Lanes/Sharrows (Capitola Rd to 41st Ave)	Evaluate and if found necessary, add bike lanes/sharrows to Clares.
Modified	CAP-P43	City of Capitola	Clares St/41st Ave bicycle intersection improvement	Green <u>Painted bike lanes</u> and bike boxes <u>and bike priority</u> at Clares across 41st.
Modified	CAP-P44	City of Capitola	Gross/41st Ave bicycle intersection improvement	Green <u>Painted bike lanes</u> and bike box and bike priority signal from Gross E/B to 41st N/B.
Modified	CAP-P45	City of Capitola	38th Ave (Capitola Rd to City limit to south)-bike lanes/traffic calming	38th Ave - Add bike treatments (such as buffered and/or painted bike lanes) buffered bike lanes , traffic calming and wayfinding signage from Capitola Mall to City Limit to south, and bike/ped priority crossing of Capitola Rd to Mall.
Existing	CAP-P46	City of Capitola	40th Ave (at Deanes Ln)Bike/Ped connection	40th Avenue N/S bike/pedestrian connection at Deanes Lane.
Existing	CAP-P47	City of Capitola	41st Ave (Soquel to Portola) crosswalks	Evaluate and if found necessary, increase number of crosswalks on 41st to closer to every 300 ft
Existing	CAP 11	City of Capitola	Clares Street Traffic Calming	Implementation of traffic calming measures: chicanes, center island median, new bus stop, and road edge landscape treatments to slow traffic. Construct new safe, accessible ped x-ing at 42nd and 46th Av.
Existing	CAP-P48	City of Capitola	Capitola Mall (Capitola Rd to Clares) bike path	Separated bicycle facility through Capitola Mall parking lot to connect 38th Ave bike lanes and 40th Ave
Modified	CO-P26a	County of Santa Cruz	41st Ave Improvements Phase 2 (Hwy 1 Interchange to Soquel Dr)	Roadway and roadside improvements including bike lanes, <u>buffered</u> sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Capitola Village				
Existing	CAP 15	City of Capitola	Park Avenue Sidewalks	Installation of sidewalks, plus crosswalks at Cabrillo and Washburn to improve access to transit stops. Links Cliffwood Heights neighborhood to Capitola Village. Currently only 4 short segments of sidewalk exist.
Existing	CAP-P04b	City of Capitola	Capitola Village Multimodal Enhancements - Phase 2/3	Multimodal enhancements in Capitola Village along Stockton Ave, Esplanade, San Jose Ave, & Monterey Av. Includes sidewalks, bike lanes, bike lockers, landscaping, improve transit facilities, parking, pavement rehab and drainage.
Existing	CAP-P05	City of Capitola	Cliff Drive Improvements (combine with CAP 31 and 33)	Installation of sidewalks, pedestrian crossing and slope stabilization of embankment including seawall.
Existing	CAP-P40	City of Capitola	46th/47th Ave (Clares to Cliff Dr) bike lanes/traffic calming	46th/47th from Clares to Portola/Cliff - Add traffic calming and wayfinding signage to connect to Brommer and MBSST.

Complete Streets Assessment- Project Recommended for inclusion in Draft RTP Project List

Project Criteria: Projects are located in an area identified for denser and more diverse uses, and enhance bike/ped/transit environment in the Sustainable Communities Strategy Place Type Description,

Project Status	Proj_ID	Agency	Project Title	Description /Scope
Modified	CAP-P30	City of Capitola	47th Avenue Traffic Calming and <u>Greenway (Could Combine with CAP-P40)</u>	Traffic calming and traffic dispersion improvements along 47th Ave from Capitola Rd to Portola Drive and implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments (such as painted and/or buffered lanes) to connect to MBSST.
Existing	CAP-P34	City of Capitola	Capitola Village Enhancements: Capitola Ave	Multimodal enhancements along Capitola Avenue.
Existing	CAP-P49	City of Capitola	41st Ave (Soquel to Brommer) Signal Synchronization	Update synchronization of signals on 41st. Coordinate synchronization of 41st Ave with Portola, Soquel, Capitola and Hwy 1 ramps with County.
Existing	CAP-P41	City of Capitola	Brommer/Jader Lopez St bike lanes/traffic calming (Western City Limit on Brommer to 47thAve)	Add bike lanes, traffic calming and wayfinding signage and bike/ped priority crossing at 41st Ave, connecting the two N/S neighborhood greenways.
Soquel Village & Bay /Porter Corridor				
Existing	CO-P16	County of Santa Cruz	Robertson Street Improvements (Soquel Wharf Rd to Soquel Dr.)	<u>Left turn pocket at Soquel Wharf Rd.</u> Add bike lanes, transit turnout, sidewalks, and rehabilitation and maintenance, drainage improvements and traffic signal. Roadside: sidewalks, landscaping, and new transit facilities.
Modified	CO-P62	County of Santa Cruz	Soquel Drive Improvements (Robertson St to Daubenbiss)	Roadway and roadside improvements including curb, gutter, sidewalk, bike <u>treatments (such as buffered and/or painted bike lanes)</u> , left turn lanes, intersection improvements and roadway rehabilitation
Modified	CO-P28g	County of Santa Cruz	Soquel-Wharf Rd Improvements (Robertson St to Porter St)	Roadway and roadside improvements on various Minor Arterials including addition of bike <u>treatments (such as buffered and/or painted bike lanes)</u> , transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.
Modified	CO-P26r	County of Santa Cruz	Porter Street Improvements (Soquel Dr to Paper Mill Road)	Roadway and roadside improvements including <u>buffered sidewalks</u> and bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Existing	CAP-P08	City of Capitola	Bay Avenue/Capitola Avenue Improvements	Multimodal improvements to intersection. Roundabout
Modified	CAP-P29	City of Capitola	Bay Avenue Traffic Calming and <u>Bike/Ped Enhancements</u>	Traffic calming features along Bay Avenue from Highway 1 to Monterey Avenue, including left turn pocket, <u>buffered pedestrian facilities</u> and bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles.

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Modified	CAP-P32	City of Capitola	Bay Avenue/Monterey Avenue Intersection Modification	Multimodal improvements to the intersection. Include signalization or roundabout along with pedestrian, bicycle treatments (such as buffered and/or painted bike lanes) and transit access.
Seacliff /Racho Del Mar / Aptos Village				
Existing	CO 64	County of Santa Cruz	Aptos Village Plan Improvements	Modifications to ped, bike, and auto traffic. Add pedestrian facilities on south side of Soquel Dr; maintain existing bike lanes; new bus pullout and shelter on north side. Trout Gulbh: Replace sidewalks with standard sidewalks on east side, ADA upgrades
Modified	CO-P20	County of Santa Cruz	State Park Drive Improvements Phase 2	Transit turnouts, two way left turn, merge lanes, signal at Seaside, and intersection improvements including pedestrian crossing improvements, bike treatments (such as bike boxes and bike priority). Fill gaps in bike and ped facilities. Plus, major rehabilitation and maintenance, drainage improvements, landscaping.
Existing	CO-P09	County of Santa Cruz	East Cliff	Roadway rehab, add left turn pockets at 26th and 30th Ave, fill gaps in bikeways and sidewalks, add transit turnouts, intersection improvements. Some landscaping and drainage improvements.
Existing	CO-P27j	County of Santa Cruz	Seacliff Drive Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Modified	CO-P33f	County of Santa Cruz	Mar Vista Dr Improvements (entire length-just before Seacliff Dr to Soquel Dr)	Roadway and roadside improvements on various Minor Collectors including addition of bike lanes, <u>buffered</u> sidewalks, transit turn outs, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of road.
NEW	NA	County of Santa Cruz	New Bike/Ped Connection from Mar Vista to State Park Dr	New bike/ped connection between Mar Vista to State Park (via Caterberry) to connect neighborhood to State Park goods, services and transit.
NEW	NA	County of Santa Cruz	New Bike/Ped Connection to MBSST (at Seacliff Drive and North Street)	New bike/ped connection from North Street to Aptos Village Square and Soquel Drive across MBSST to connect neighborhood to State Park goods, services and transit.
Existing	CO-P26h	County of Santa Cruz	Center Ave/Seacliff Dr Improvements (Broadway to Aptos Beach Dr)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.
NEW	NA	County of Santa Cruz	Seaside Drive Bike Improvements	Install bicycle treatments (such as painted and/or buffered lanes)..
Existing	CO-P33g	County of Santa Cruz	McGregor Dr. Improvements (Capitola city limits to Seaside Rd)	Roadway and roadside improvements on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.

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NEW		County of Santa Cruz	Rancho Del Mar Shopping Center bike/ped path (Rail Line to State Park)	Separated bicycle facility through Rancho Del Mar Shopping Center to connect MBSST to goods and services in shopping center and State Park Drive.
Soquel Drive near Dominican Hospital				
Existing	CO-P26i	County of Santa Cruz	Chanticleer Ave. Improvements (Hwy 1 to Soquel Dr)	Roadway and roadside improvements including bike lanes, sidewalks, drainage and intersection improvements.
Existing	CO-P26p	County of Santa Cruz	Mattison Ln Improvements (Chanticleer Ave to Soquel Ave)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Existing	CO-P28c	County of Santa Cruz	Commercial Way Improvements (Mission Dr. to Soquel Dr.)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.
Existing	CO-P27l	County of Santa Cruz	Winkle Ave Improvements (entire length from Soquel Dr)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.
Existing	CO-P28h	County of Santa Cruz	Thurber Ln Improvements (entire length)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.
Existing	SC-P21	City of Santa Cruz	Brookwood Drive Bike and Pedestrian Path	Provide 2-way bicycle and pedestrian travel.
Lower 41st Area				
Modified	CO-P27a	County of Santa Cruz	37th/38th Ave Multimodal Circulation Improvements and Greenway (Brommer to Eastcliff)	<u>Evaluate and if feasible improve vehicle and transit access on 38th Avenue from East Cliff to Brommer and develop greenway on 37th Avenue from East Cliff to Portola. Roadway improvements may include roadway and roadside improvements including sidewalks, bike lanes, transit turnouts, left turn pockets, and intersection improvement.</u>
Modified	CO-P31a	County of Santa Cruz	26th Ave Improvements (Portola to East Cliff)	Roadway and roadside improvements including <u>sidewalks</u> , bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Modified	CO-P31j	County of Santa Cruz	Roland Dr. Improvements and Greenway (30th to 35th)	<u>Roadway and roadside improvements and implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including pedestrian facilities, way finding and pavement markings, bicycle treatments (such as painted and/or buffered lanes) to connect to new bike/ped connection to 41st. on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.</u>

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NEW	NA	County of Santa Cruz	Upper Pleasure Point to 41st Ped/Bike Connection (at Roland Way)	New bike/ped connection between 34th and 41st Avenue at Roland Street to connect upper Pleasure Point neighborhood to goods and services near Lower 41st Avenue.
NEW	NA	County of Santa Cruz	East Cliff	Install sidewalk from 26th south to link to Moran Way.
NEW	NA	County of Santa Cruz	26th to 30th Bike/Ped Connection (at Lode/Quartz)	New bike/ped connection from Lode and Quaetz to Moran Trail, which connects to 30th.
NEW	NA	County of Santa Cruz	Lower 41st Ave Ped Enhancement (Portola to Eastcliff)	Install buffered sidewalks on south side of 41st Avenue between Portola and Eastcliff and bicycle treatments (such as buffered or painted bike lanes).
NEW	NA	County of Santa Cruz	Portola Ave Enhanced Bike/Ped Environment	Install pedestrian buffer and provide pedestrian amenities such as benches. Install bicycle treatments (such as buffered and/or painted bike lanes). Increase number of pedestrian crossings to closer to 300 ft and include pedestrian islands.
Modified	CO-P31g	County of Santa Cruz	Opal Cliffs Bicycle and Pedestrian Facilities	Roadway and roadside improvements including sidewalks, <u>bicycle treatments (painted and/or buffered lanes)</u> , designed to accommodate the number of users and link to East Cliff Drive, transit turnouts, left turn <u>merge lanes</u> and intersection improvements.
NEW	NA	County of Santa Cruz	Brommer and Portola Bike/Ped Connection (at 35th/Thompson)	New bike/ped connection between Thompson and 35th Avenue as alternative route to 30th for low stress bicycle riders.
Modified	CO-P33h	County of Santa Cruz	Thompson Ave. Improvements and Greenway (entire length- Capitola Rd to end)	Roadway and roadside improvements including major rehabilitation and maintenance of road and include implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments (such as painted and/or buffered lanes) to connect to MBSST.
17th & Brommer				
Modified	CO-P67	County of Santa Cruz	El Dorado Ave Road Improvements (Capitola Rd to RR)	Roadway and roadside improvements including curb, gutter, <u>buffered sidewalk</u> , bike treatments (such as <u>buffered or painted bike lanes</u>), left turn lanes, intersection improvements and roadway rehabilitation.
Ocean Street Corridor				
NEW	NA	City of Santa Cruz	Ocean St and San Lorenzo River Levee Bike/Ped Connections (Felker, Kennan, Blain, Barson Streets)	Pedestrian facilities and bicycle treatments (such as buffered and/or painted lanes) to connect Ocean Street with San Lorenzo River Levee.

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NEW	NA	City of Santa Cruz	Lower Ocean Greenway (Clay Street between Broadway to Barson)	Implement greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments (such as painted and/or buffered lanes).
NEW	NA	City of Santa Cruz	Broadway to Soquel Bike/Ped Connection (at Clay Street)	New bike/ped connection between Broadway and Soquel at Clay Street as an alternate route to Ocean Street to connect lower Ocean neighborhood to goods, services and transit near Ocean/Soquel. Include new uncontrolled crossing from Clay St to new bike/ped crossing.
NEW	NA	City of Santa Cruz	Ocean St Corridor Tourist Transit Lane	During summer months, restrict parking to develop business access and transit (BAT) lane to serve tourism.
NEW	NA	City of Santa Cruz	Ocean St Bike/Ped Crossing (at Washborn/Leonard)	New bike/ped crossing near Washborn and Leonard to facilitate access from neighborhood east of Ocean to San Lorenzo River Levee Path and way finding.
NEW	NA	City of Santa Cruz	Soquel/Branciforte/Water Bike Lane Treatments	Install bicycle treatments treatments (such as painted and/or buffered lanes) to address speed inconsistency and parking conflicts between bicyclists and vehicles.
NEW	NA	City of Santa Cruz	Ocean Street/San Lorenzo River Levee Area Wayfinding	Install signage on the bike/ped scale to bike/ped facilities connecting key destinations.
Existing	SC 46	City of Santa Cruz	Branciforte Creek Bike/Ped Crossing	Install a Class I bicycle/pedestrian bridge over Branciforte Creek in the vicinity of San Lorenzo Park and Soquel Ave.
Existing	SC-P95	City of Santa Cruz	Branciforte Creek Pedestrian Path Connections	Fill gaps in pedestrian and bike paths along and across Branciforte Creek in the Ocean-Lee-Market-May Streets area.
Downtown Watsonville				
NEW	NA	City of Watsonville	Main St Ped/Bike Enhancements (Freedom to Riverside)	Evaluate and if feasible improve ped facilities and bike treatments (such as painted and/or buffered) and bike boxes and bicycle priority at intersections on Main Street intersections.
NEW	NA	City of Watsonville	Downtown Watsonville Universal Streets	Evaluate and if feasible, implement universal streets which facilitate new ped access.
Modified	WAT-P40	City of Watsonville	Main St Modifications (500 Block: Fifth St to East Lake Ave)	Repair, replace and install curb, gutter, and curb ramps; replace and upgrade signage and striping. Evaluate and if feasible, provide bike treatments (such as painted and/or buffered bike lanes), and buffered sidewalk.
Existing	WAT-P41	City of Watsonville	West Lake Ave Modifications (Main St to Rodriguez St)	Repair, replace and install curb, gutter, sidewalk and curb ramps; replace and upgrade signage and striping
Existing	WAT-P49	City of Watsonville	2nd/Maple Ave (Lincoln to Walker) Traffic Calming and Greenway	Evaluate and if feasible, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.

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Existing	WAT-P50	City of Wastonville	5th St (Lincoln to Walker) - traffic calming and Greenway	Evaluate and if feasible, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.
Existing	WAT-P39	City of Watsonville	East Fifth St (Main St to Lincoln St)	Repair, replace and install curb, gutter, sidewalk and curb ramps; replace and upgrade signage and striping
Existing	WAT-P51	City of Wastonville	Rodriguez St (Main St to Riverside)- buffered bike lane	Evaluate and if feasible, improve bike lane striping, add buffered lanes on Rodriguez St to delineate bike lane from vehicle parking and traffic
Existing	WAT-P52	City of Wastonville	Union/Brennan (Freedom to Riverside) - sharrows	Evaluate and if feasible, add sharrows to Union/Brennan.
Existing	WAT-P53	City of Wastonville	Kearney/Rodriguez - ped crossing	Evaluate and if feasible, add traffic calming to existing pedestrian crossing at Kearney and Rodriguez with traffic calming for access to Radcliffe Elementary.
Existing	WAT-P54	City of Wastonville	Main St - 3 HAWK signals	Evaluate and if feasible, add Hawk signals in 3 locations on Main St
Existing	WAT-P55	City of Wastonville	Main/Rodriguez/Union/Brennan (Freedom to Riverside) - crosswalks	Evaluate and if feasible, increase the number of crosswalks on Main St, Rodriguez, and Union/Brennan to aim for 300 ft distance between crossings. Update pattern of crosswalks to block pattern.
Modified	WAT-P47	City of Wastonville	Main St Modifications (City Limit to Lake Ave)	Repave roadway and bike lanes; repair, replace and install curbe, gutter, sidewalk and curb ramps: replace and upgrade signage and striping. Evaluate and if feasible, provide bike treatments such as buffered or painted bike lanes and buffered sidewalks.
Existing	WAT-P57	City of Wastonville	East Lake/Madison - ped crossing	<u>Evaluate and if feasible, add pedestrian crossing (HAWK signal if ped volume warrants) at E Lake & Madison for better access to Hall Middle School.</u>
Freedom Corridor				
NEW	NA	City of Watsonville	Freedom Ped/Bike Connection (at Hillside Avenue)	Evaluate and if feasible, install new bike/ped connection between from Carey Avenue to Freedom Boulevard between Roache Road and Green Valley Road to connect neighborhood to goods, services and transit on Freedom Boulevard. Include new crossing from new bicycle/pedestrian facility to east side of Freedom Boulevard.
NEW	NA	City of Watsonville	Freedom Blvd Bicycle and Pedestrian Improvements (Green Valley Rd to Lincoln)	Evaluate and if feasible, install bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles and install bike boxes and bike priority at major intersections. Complete sidewalks, including pedestrian buffer, and pedestrian islands at crossings.

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Modified	WAT-39	City of Watsonville	Freedom Blvd Reconstruction (Alta Vista to Broadis)	Full depth rehab (reuse existing materials), relocate utilities, traffic signal detection upgrades/install traffic cameras, concrete pads at bus stop, signage and striping, including streets for bikes , ADA upgrades to curbs and driveways, replacement of existing curb, gutter, sidewalk; modification to retaining wall between Crestview and Alta Vista. Evaluate and if feasible, <u>install bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles and install bike boxes and bike priority at major intersections. Complete sidewalks, including pedestrian buffer, and pedestrian islands at crossings.</u>
Modified	WAT-P11	City of Watsonville	Freedom Blvd Improvements (Green Valley Rd to Compton Terrace)	Pavement reconstruction, operation improvements (turn lanes), installation of bike lanes, sidewalks, signing and striping. <u>Evaluate and if feasible, install bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles and install bike boxes and bike priority at major intersections. Complete sidewalks, including pedestrian buffer, and pedestrian islands at crossings.</u>
Modified	WAT-P33	City of Watsonville	Freedom Blvd Reconstruction (Davis to Alta Vista)	Reconstruct roadway, pedestrian and bicycle facilities. Evaluate and if feasible, install bicycle treatments (such as painted and/or buffered lanes) to address speed inconsistency between bicyclists and vehicles and install bike boxes and bike priority at major intersections. Complete sidewalks, including pedestrian buffer, and pedestrian islands at crossings.
Modified	WAT-P45	City of Watsonville	Green Valley (Freedom to City Limits)	Reconstruct or repave roadway and bikelanes; repair, replace and install curb gutter, sidewalk and curb ramps; replace and upgrade striping. Evaluate and if feasible, including pedestrian buffer and bike treatments (such as painted and/or buffered lanes).
NEW		City of Watsonville	Freedom Blvd Pedestrian Crossings (Airport to Lincoln)	Evaluate and if feasible, install new and improve existing uncontrolled pedestrian crossings at Roach Road, Davis Avenue, Clifford Lane, Mariposa Avenue, Alta Vista Street, Crestview Drive, Martinelli Street and Marin Street).
NEW		City of Watsonville	Freedom Blvd Ped/Bike Connection (at Pajaro Lane)	Evaluate and if feasible, new or repaved connection between from Pajaro Lane to Freedom Blvd between to connect neighborhood to goods, services and transit on Freedom Boulevard. Include new crossing from new bicycle/pedestrian facility to west side of Freedom Boulevard.
NEW		City of Watsonville	Freedom/Green Valley Neighborhood Bicycle and Pedestrian Connections (Hillside Avenue, Davis Avenue, Blanca Lane, Clifford Avenue, Mariposa Avenue, Crestview Drive, Martinelli Street, Marin Street)	Evaluate and if feasible, implement greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments (such as painted and/or buffered lanes) to connect neighborhoods to goods and services on Freedom Boulevard.
Soquel/Water /Morrisey				

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Existing	SC-P106	City of Santa Cruz	Arana Gulch Bicycle/Pedestrian Connection (at Agnes St)	Bike and Pedestrian multi-purpose trail from Agnes to the Arana Gulch N-S Trail
Existing	SC-P117	City of Santa Cruz	Water St (add Branciforte and Center) signal synchronization	Synchronize signals on Water to include Branciforte and Center to existing synchronized signals.
Existing	SC-P119	City of Santa Cruz	Soquel/Water (Branciforte to Morrissey) crosswalks	<u>Evaluate and if found necessary implement additional crosswalks on Soquel/Water striving for 300 ft distance between crosswalks with consideration for safety, update crosswalks to more visible pattern (block).</u>
Existing	SC-P22	City of Santa Cruz	Chestnut St. Pathway	Install a Class 1 bicycle/pedestrian facility to connect the east side of Neary Lagoon Park with the Depot Park path.
Existing	SC-P29	City of Santa Cruz	Morrissey Blvd. Bike Path over Hwy 1	Install a Class 1 bicycle and pedestrian facility on freeway overpass.
Existing	SC-P47	City of Santa Cruz	Chestnut Street Bike Lanes	Install Class 2 bike lanes to provide connection from existing bike lanes on Laurer Street and upper Chestnut Street to proposed Class 1 bike path connections to Bay Street and Pacific Avenue/Beach Street.
Modified	SC-P66	City of Santa Cruz	Ocean Street Widening from Soquel to East Cliff	<u>Implement this section of the adopted Ocean Street Plan that includes utility undergrounding, bike lanes, sidewalks, street lights, street trees, way finding, and left-turn lanes at Broadway and a right-turn lane at San Lorenzo Blvd. Add bulb outs, and pedestrian buffer, pedestrian islands, and bike boxes and bike priority at major intersections.</u>
Modified	SC-P84	City of Santa Cruz	Ocean St Streetscape and Intersection, Water to Soquel	Implement this phase of the Ocean Street plan adding turn lanes and through lanes, widen sidewalks, <u>bulb outs, pedestrian buffer, pedestrian islands, street trees, street lighting, medians improvements, way finding, bicycle treatments (such as buffered and/or painted bike lanes), bike boxes, and bike priority at major intersections...</u>
Modified	SC-P86	City of Santa Cruz	Ocean St Streetscape and Intersection, Plymouth to Water	Implement this phase of the Ocean Street plan and modify Plymouth St to provide separate turn lanes and through lanes, widen sidewalks, <u>bulb outs, add pedestrian buffer, pedestrian islands, bicycle treatments (such as buffered and/or painted bike lanes), and bike boxes, and bike priority at major intersections, street trees, street lighting, medians improvements,</u>
Modified	SC-P87	City of Santa Cruz	Soquel Ave Corridor Widening (Branciforte-Morrissey)	Minor widening and signal modifications along Soquel Ave corridor from Branciforte to Morrissey Blvd to add a lane for HOV and transit and maintain parking and bike lanes. Replacing the split phasing with protected left-turns at Branciforte.
Scotts Valley Mt. Hermon Road / Scotts Valley Drive				
Existing	SV-P30A	City of Scotts Valley	Mt. Hermon Road Sidewalk Connections	Add sidewalks to fill gaps in business district.
Existing	SV-P32	City of Scotts Valley	Bluebonnet Lane Bike Lanes	Add bike lanes on Bluebonnet (Bean Ck, through Skypark to Mt. Hermon/Lockewood).

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Existing	SV-P33	City of Scotts Valley	Civic Center Drive Bike Lanes	Add bike la bike lanes to narrow road.
Existing	SV-P39	City of Scotts Valley	Glenwood Dr. Bike Lanes	Widen road to accommodate bike lanes from Scotts Valley High School to City limits.
Existing	SV-P40	City of Scotts Valley	Lockwood Lane Sidewalk and Bike Lanes	Construct Bike Lanes and add sidewalk on the west side from Mt. Hermon to the City limit.
Existing	SV-P45	City of Scotts Valley	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Bicycle and pedestrian facilities and circulation elements within planned development.
Existing	SV-P46	City of Scotts Valley	Mt Hermon/King's Village Rd-Transit Signal priority	Transit signal priority at Kings Village Rd/Mt Hermon Rd.
Existing	SV-P47	City of Scotts Valley	Mt Hermon/Scotts Valley - transit queue jump	Evaluate and if found to be beneficial, remove right turn islands at Mt Hermon Rd/Scotts Valley Road to add transit queue jump lanes/signals.
Existing	SV-P49	City of Scotts Valley	Mt Hermon Rd and Scotts Valley Drive - crosswalks	Increase number of crosswalks on Mt Hermon/Scotts Valley Dr, update crosswalks to block pattern, add pedestrian treatments where necessary at intersections to decrease distance across using refuge islands. Add crosswalks to all sides of intersections (par
Existing	SV-P50	City of Scotts Valley	Mt Hermon/Scotts Valley - intersection improvements for bicycle treatment	Add green lane bicycle treatments at Mt Hermon/Scotts Valley Dr intersection
Existing	SV-P52	City of Scotts Valley	Kings Village Rd/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of Kings Village Rd and new Town Center entrance (near transit center) with protected pedestrian crossings and transit signal priority. New Signalization of the intersection on Kings Village Rd at the transit
Citywide				
Existing	WAT-P56	City of Wastonville	Watsonville-wide HOV priority	Evaluate HOV priority at signals and HOV queue bypass.
Existing	SV-P48	City of Scotts Valley	Scotts Valley-wide - greenway signage	Add signage for neighborhood greenways
Existing	SV-P28	City of Scotts Valley	Neighborhood Traffic Calming	Citywide traffic calming devices.
Existing	WAT-P13	City of Watsonville	Neighborhood Traffic Plan Implementation	Address concerns about traffic complaints through Education, Enforcement, and Engineering solutions. Install traffic calming devices that do not impede bicyclist access (\$20k/yr).
Existing	WAT-P04	City of Watsonville	Neighborhood Traffic Plan	Plan to identify and address concerns regarding speeding, bicycle and pedestrian access and safety, and other neighborhood traffic issues (\$5k/yr).
Existing	CAP-P50	City of Capitola	Capitola-wide HOV priority	Evaluate HOV priority at signals and HOV queue bypass.
Countywide				
NEW	NA	VAR	Complete Streets Area Plan	Complete street circulation and design plans, including consideration of greenways, for areas identified for intensified development in Sustainable Communities Strategy.

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NEW	NA	VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Develop model for assisting local jurisdictions in working with private property owners to allow bicycle and pedestrian access through private property in areas identified for more intensified development in Sustainable Communities Strategy.
NEW	NA	VAR	Public/Private Partnership Transit Stops and Pull Outs Plan	Develop model for assisting local jurisdictions in working with businesses to install transit pullouts and shelters on property in areas identified as high quality transit corridors in Sustainable Communities Strategy.
NEW	NA	VAR	Uncontrolled Pedestrian Crossing Improvements	Implement improvements to uncontrolled pedestrian crossing such as painted and/or raised crosswalks, flashing beacons and pedestrian islands.
NEW	NA	VAR	Bicycle Treatments for intersection improvements (ADD)	Add painted bicycle lanes, bike boxes and bicycle detection at major intersections
NEW	NA	VAR	Neighborhood Greenways	Implement greenways which gives priority to bicycles and pedestrians on low volume, low speed streets including, way finding and pavement markings, bicycle treatments and (painted and/or buffered), and bike boxes and bicycle priority at intersections in areas identified for more intensified development in Sustainable Communities Strategy.
Existing	RTC 16	SCCRTC	Bike Parking Subsidy Program	Subsidies for bicycle racks and lockers for businesses, schools, government agencies, and non-profit organizations are
NEW	NA	VAR	HAWK Signals	all eligible. Recipients are responsible for installation and maintenance of the equipment.
NEW		VAR	Transit Priority	Install HAWK Signals and uncontrolled crossings
NEW	NA	VAR	School Complete Streets Projects	Install transit ques at major intersections
Existing	RTC 02	SCCRTC	Commute Solutions Rideshare Program	Implement ped/bike programs and facilities near schools.
Existing	RTC-P53	SCCRTC	TDM individualized employer/multiunit housing program	Transportation demand management outreach, education and incentives. Includes matching service for carpools, vanpools, and bicyclists. Provides services and information about availability and benefits of alternative transportation modes, including sharing rides, transit, walking, bicycling, telecommuting, alternative work schedules, alternative fuel vehicles, and park-n-ride lots. Avg annual cost: \$250k.
Existing	RTC-27a	SCCRTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	Implement individualized employer and multiunit housing TDM programs with incentives for existing development. Design, environmental clearance and construction of a 50+ mile network of bicycle and pedestrian facilities on or near the coast, with the rail trail as the spine and additional spur trails to connect to key destinations.

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Project Status	Proj_ID	Agency	Project Title	Description /Scope
NEW	NA	SCRTC	Transportation Demand Management Ordinance and User Guide	Develop Model TDM Ordinance and User Guide to include provisions for both residential and non-residential projects and address program and facilities improvements in return for reductions in off-street parking requirements.
NEW	NA	SCRTC	Shared Parking Program	Develop tools to allow adjacent property owners to develop and share parking facilities.
NEW	NA	SCRTC	Real-Time Transit Info	Develop distribution channel for disseminating real time transit arrival and departure information to Santa Cruz Metro users. To be developed in coordination with Santa Cruz Metro.
Transit				
Existing	MTD-P06	METRO	Transit Technological Improvements	Automatic Vehicle Locator System on all METRO buses. Real time bus arrival/departure displays at stops. IT software and hardware upgrades for scheduling, customer service, planning systems. Development of mobile application to communicate real time transit information to transit riders. Upgrades every 5 years.
Existing	MTD-P09	METRO	Bus Stop Upgrades	Install, replace, repair and otherwise improve bus shelters and stops.
Existing	MTD-P10	METRO	Local Transit - Continuation of Existing Service Levels 2010-2035	Operation & maintenance cost of existing local fixed route bus service (Based on 2010 budget-\$34M/year). \$850,000
Existing	MTD-P10B	METRO	Hwy 17 Express Service - Cont. of Existing Service Levels	Operation & maintenance cost of existing bus service. Avg annual cost: \$2.4M. \$60,000
Existing	MTD-P12	METRO	Hwy 17 Express Service Expansion	Add trips to extend service hours for Highway 17 express. Capital and Operating costs. Annual expansion cost:\$175K/yr., 4500
Existing	MTD-P14	METRO	Local Transit Service Restoration and Expansion	Restore local service to 2001 levels, then expand service 10% including expanded service within SLV, City of SC and Watsonville, express buses, improved service to industrial areas. \$6.7M/yr operating, \$9M capital costs (9 buses & onetime replacement)
Existing	MTD-P20	METRO	Bikes on Buses Expansion	Add additional space for bikes on buses when/if new technology becomes available.
Existing	MTD-P21	METRO	Signal Priority/Pre-emption for Buses MTD-P21	Enable coach operators to actuate traffic signals to prolong green or change red lights to improve transit running time.
Existing	MTD-P23	METRO	Bike Station at Capitola Mall	Establish bike station at Capitola Mall, especially to serve UCSC. Would be joint mail, UCSC, MTD project.
Existing	MTD-P27	METRO	Hwy 1 Express Buses	Hwy 1 express bus replacements - 6 Buses @ \$500k ea. Replace every 12 years \$6,000
NEW	NA	METRO	Bike Station at Pacific Station	Establish bike station at Pacific Station.
Hwy Interchanges				

Complete Streets Assessment- Project Recommended for inclusion in Draft RTP Project List

Project Criteria: Projects are located in an area identified for denser and more diverse uses, and enhance bike/ped/transit environment in the Sustainable Communities Strategy Place Type Description,

Project Status	Proj_ID	Agency	Project Title	Description /Scope
Modified	RTC 24a	SCCRTC	Hwy 1 Reconstruct Interchanges and Install Ramp Metering	This project involves interchange modifications including reconfiguration of ramps and local streets to allow ramp meters to be installed and operated along the 9+ mile corridor from Aptos to Santa Cruz. Reconstruction of crossing structures will be of sufficient size to allow <u>enhanced pedestrian-sidewalks</u> and <u>bike treatments</u> (such as <u>buffered or painted facilities</u>) in each direction, and potential HOV Lanes in the future. Could be a stand alone project (\$315M), but currently expensed under larger Hwy 1 HOV Lane project (RTC 24).
Existing	RTC 24f	SCCRTC	Hwy 1 Soquel Av-41st Auxiliary Lanes and Chanticleer Bike/Ped Bridge	Construct auxiliary lanes extending the freeway on-ramp to connect with the next freeway off-ramp in both NB & SB directions and construct a bicycle/pedestrian overcrossing of Hwy 1 at Chanticleer Ave.
Modified	RTC 24h	SCCRTC	Hwy 1/Morrissey Interchange	Reconstruct overcrossing with <u>enhanced pedestrian sidewalks & bike treatments</u> (such as <u>buffered or painted facilities</u>) on both sides of the overcrossing, reconfigure ramps and local streets to improve traffic flow and accommodate ramp metering and controlled signals at on and off ramps, <u>where feasible</u> , and potential HOV lanes in the future. Moderate ROW acquisition and residential relocations. Could be a stand alone project (\$315M), but currently expensed under larger Hwy 1 HOV Lane project (RTC 24).
Modified	RTC 24i	SCCRTC	Hwy 1/Soquel Avenue Interchange	Reconstruct overcrossing with <u>enhanced pedestrian sidewalks & bike treatments</u> (such as <u>buffered or painted facilities</u>) on both sides of the overcrossing, reconfigure ramps and local streets to improve traffic flow and accommodate ramp metering, controlled signals at on and off ramps, <u>where feasible</u> , and potential HOV lanes in the future. Extensive ROW acquisition, commercial relocations and mitigate impact to natural resources. Could be a stand alone project (\$74.5M), but currently expensed under larger Hwy 1 HOV Lane project (RTC 24).
Modified	RTC 24j	SCCRTC	Hwy 1 Bay/Porter and 41st Avenue Interchange	Reconstruct this section of the highway to operate as a single interchange with a frontage road connecting the Bay/Porter and 41st Ave intersections to better serve local traffic and provide bike lanes and sidewalks. <u>Reconstruct overcrossing with enhanced pedestrian sidewalks & bike treatments</u> (such as <u>buffered or painted facilities</u>) on both sides of the <u>overcrossing</u> . Arterial crossings of the highway, ramps, and local road sections will be designed to accommodate ramp metering, <u>controlled signals at on and off ramps, where feasible</u> , and potential HOV lanes in the future. Extensive ROW acquisition, commercial relocation, and mitigate impact to natural resources. Could be a stand alone project (\$117M), but currently expensed under larger Hwy 1 HOV Lane project (RTC 24).
Existing	RTC 30	SCCRTC	Hwy 1 Bicycle/Ped Overcrossing at Mar Vista	Construct a bicycle/pedestrian overcrossing of Hwy 1 in vicinity of Mar Vista Drive, providing improved access to Seacliff and Aptos neighborhoods and schools.

Complete Streets Assessment- Project Recommended for inclusion in Draft RTP Project List

Project Criteria: Projects are located in an area identified for denser and more diverse uses, and enhance bike/ped/transit environment in the Sustainable Communities Strategy Place Type Description,

Project Status	Proj_ID	Agency	Project Title	Description /Scope
Modified	RTC-24a	SCRTC	Highway 1 Reconstruct Interchanges and Install Ramp Metering	This project involves interchange modifications including reconfiguration of ramps and local streets to allow ramp meters to be installed <u>controlled signals at on and off ramps</u> .where <u>feasible</u> , and operated along the 9+ mile corridor from Aptos to Santa Cruz. Reconstruction of crossing structures will be of sufficient size to allow <u>enhanced pedestrian-sidewalks & bike treatments (such as buffered or painted facilities)</u> in each direction, and potential HOV Lanes in the future. Could be a stand alone project (\$315M), but currently expensed under larger Hwy 1 HOV Lane project (RTC 24).

TO: Interagency Technical Advisory Committee (ITAC)

FROM: Ginger Dykaar, Transportation Planner and Ryan Heywood, previous UCSC IDEASS Student

RE: May 2012 Bike Count Report

RECOMMENDATIONS

Staff recommends that the ITAC Committee:

1. Provide input on the May 2012 Bike Count Report.
-

BACKGROUND

The Santa Cruz County Regional Transportation Commission (RTC) partnered with the County of Santa Cruz Community Traffic Safety Coalition (CTSC) and the University of California Santa Cruz Impact Designs: Engineering and Sustainability through Student Service (IDEASS) program to perform bicycle and pedestrian counts throughout the county in May 2012. The Community Traffic Safety Coalition has performed seven bicycle safety observation surveys and counts at approximately 40 locations over the past ten years. In addition to the bicycle observation surveys conducted by the CTSC in 2012, the RTC used the National Bicycle and Pedestrian Documentation (NBPD) methodology for counting both bicyclists and pedestrians at 10 of the locations. Motor vehicle counts were also collected at these 10 locations and at the same time as the bicyclist and pedestrian counts to provide mode split data.

DISCUSSION

The key findings from the May 2012 study are:

- The largest number of bicyclists observed were at intersections in the City of Santa Cruz and Mid-county, including Capitola
- The three intersections with the greatest number of bicyclists were Bay Dr. and High St. (UCSC); Seabright Ave. and Murray St. (Santa Cruz); and Front St. and Laurel St. (downtown Santa Cruz)
- There is an overall upward trend over the last 10 years in the bicycle ridership for Santa Cruz County
- Average mode share at the 20 locations measured was 93.6% motor vehicle, 2.7% bike and 3.7% pedestrian.
- The highest bicycle mode share (10.9%) was on Bay Dr. (south of High St.) in the City of Santa Cruz.

- The highest pedestrian mode share (20.2%) was on Maple Ave. (west of Union St.) in the City of Watsonville.

Future counts that are taken within Santa Cruz County would be most comparable to past counts if the following recommendations are followed.

Bicycle Counts

- Take commute, weekend and school counts at 46 locations throughout Santa Cruz County as currently defined by Community Traffic Safety Coalition
- Conduct commute counts from 4-6 pm on Tuesday, Wednesday or Thursday
- Conduct School counts for 1 hour starting one half hour before school starts on Tuesday, Wednesday or Thursday
- Conduct weekend counts from 11-1 pm on Saturday (preferably) or Sunday
- Take counts annually mid-May to end of May (with consideration for other events such as Bike to Work/School week and before end of semester at UCSC and Cabrillo)
- Counts should tally the number of people on bicycles entering the intersection from each direction
- Bicycle counts should include electric motorized bicycles with pedals and not include people walking their bikes

Mode Split Counts (Bicycle, Pedestrian and Motor Vehicle)

- Conduct motor vehicle hose counts on 2 of the 4 roads entering the 10 intersection locations, as done in 2012
- Conduct bicycle and pedestrian counts at the 10 intersections to indicate not only the direction the bicyclist or pedestrian is entering the intersection but also the direction in which they exit the intersection.
- Collect Mode Split data from 4-6pm on Tuesday, Wednesday or Thursday in the fall to provide a comparison of bicycle counts from spring to fall and not duplicate CTSC bike count efforts in spring.
- Bicycle counts should include electric motorized bicycles with pedals and not include people walking their bikes
- Pedestrian counts should include people in wheelchairs, children in strollers, people walking their bikes, skateboarding, roller blading, and using scooters.

SUMMARY

The May 2012 Bike Count Report provides a summary of the results of the May count, bike count trend data collected by CTSC over the last ten years, recommendations for future count methodologies and a collection of the bike count data that has been collected in the county since 2000 during either the morning or evening commute periods.

Attachments:

1. Santa Cruz County May 2012 Bike Count Report



Santa Cruz County

May 2012 Bike and Pedestrian Count Report



A collaborative project between the Regional Transportation Commission, the Community Traffic Safety Coalition and the University of California Santa Cruz IDEASS Program

Santa Cruz County

May 2012 Bike and Pedestrian Count Report

A collaborative project between the Regional Transportation Commission, the Community Traffic Safety Coalition and the University of California Santa Cruz IDEASS Program

February 2013

Project Coordinators

- **Ryan Heywood**, University of California Santa Cruz, IDEASS Student
- **Ginger Dykaar**, Santa Cruz County Regional Transportation Commission, Transportation Planner
- **Theresa Rogerson**, County of Santa Cruz Health Services Agency and the Community Traffic Safety Coalition, Health Educator
- **Cory Caletti**, Santa Cruz County Regional Transportation Commission, Senior Transportation Planner

See Appendix A for List of Volunteers that contributed greatly to this effort.

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Introduction

The Santa Cruz County Regional Transportation Commission (RTC) partnered with the County of Santa Cruz Community Traffic Safety Coalition (CTSC) and the University of California Santa Cruz IDEASS Program to perform bicycle and pedestrian counts throughout the county in May of 2012. The Community Traffic Safety Coalition has performed seven bicycle safety observation surveys and counts at approximately 40 locations over the past ten years. In addition to the bicycle observation surveys and counts conducted by the CTSC this year, the RTC used the National Bicycle and Pedestrian Documentation (NBPD) methodology for counting both bicyclists and pedestrians at 10 of these locations. Motor vehicle counts were also collected at these 10 locations and at the same times as the bicyclist and pedestrian counts.

The objectives of this study were to:

- collect data on the number of people bicycling and walking in Santa Cruz County for planning bicycle and pedestrian infrastructure improvements,
- test the National Bicycle and Pedestrian Documentation methodology for establishing a bicycle and pedestrian count collection protocol for Santa Cruz County,
- gather mode split information (bicycle, pedestrian and motor vehicle) to assess how people travel,
- collect data at regular intervals for measuring pedestrian and bicycle ridership trends and monitoring the progress of our county in moving towards a more sustainable transportation system.

The results of the CTSC bicycle observation survey portion of the study can be found on the Community Traffic Safety Coalition website by scrolling down on the Safety Info page (<http://www.sctrafficsafety.org/>).

Key Findings

Based on the bicycle, pedestrian and motor vehicle data collected in May 2012, our findings indicate:

- The largest number of bicyclists observed during this count were at intersections in the City of Santa Cruz and Mid-county, including Capitola
- The top three intersections with the greatest number of bicyclists that were counted during this time period were Bay Dr. and High St.(UCSC); Seabright Ave. and Murray St.; and Front St. and Laurel St.
- There is an overall upward trend over the last 10 years in the bicycle ridership for Santa Cruz County
- Average mode share at the 20 locations measured was 93.6% motor vehicle, 2.7% bike and 3.7% pedestrian.
- The highest bicycle mode share (10.9%) was on Bay Dr (south of High St) in the City of Santa Cruz.

- The highest pedestrian mode share (20.2%) was on Maple Ave (west of Union St) in the City of Watsonville.

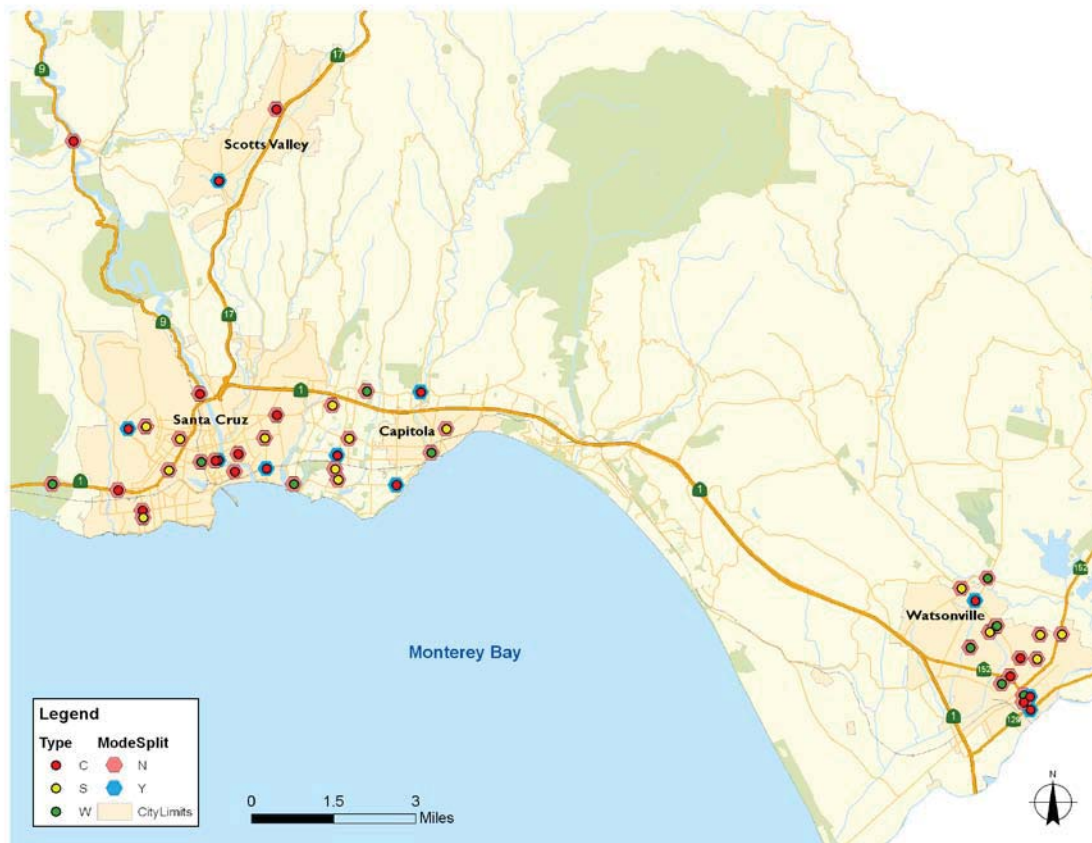
Methodology

Two distinct count methodologies were used for this study. The CTSC bicycle observation study has been performed for a number of years and can be used to establish trends. The RTC bicycle and pedestrian counts used the NBPD methodology and together with motor vehicle counts provides mode split data.

Bicycle Observation/Count Survey

Bicycle counts were conducted during the CTSC observation surveys at 46 locations throughout Santa Cruz County (Figure 1). More detailed maps of the count locations can be found in Appendix B, Figures B-1 through B-4. All of the locations for the 2012 survey were the same as used in previous observation surveys, except for three school sites added in 2009, and five more school sites added in 2012.

Figure 1: Map of CTSC Count Locations in Santa Cruz County



The survey was taken primarily between May 15 and June 1, 2012 with some surveys taken up until mid-June, 2012. These dates were chosen to represent a “typical” spring commute day. Collection dates took into consideration that UCSC

and Cabrillo College were still in session and that other events that could significantly increase or decrease ridership/pedestrian travel were not occurring such as Bike to Work/School week and the Amgen Tour of California professional bicycle race. Bike counts in May have typically been taken after Bike to Work/School week which may affect the bike count totals.

The survey included three types of locations: commuter (C), school (S), and weekend (W). The commuter and weekend sites were conducted at intersections and the locations of the school sites are listed at the bottom of Table 1. The commuter sites were observed on Tuesdays, Wednesdays or Thursdays from 4:00 pm to 6:00 pm. School sites were observed on Tuesdays, Wednesdays or Thursdays for one hour with the count starting one half hour before school begins. Weekend sites were observed from 11:00 am to 1:00 pm on a Saturday or Sunday. One survey/count was conducted for each site.

Thirty-four volunteers and RTC/CTSC staff conducted the observations/counts. Each observer had a sheet to collect data on bicyclists that included approximate age, gender, whether they were wearing a helmet, riding with traffic, stopping at a stop sign or red light, and riding on the sidewalk. It's important to note that wearing helmets is required by law only for those under the age of 18. Given the safety benefits of helmet use, data was collected to measure how well the education message penetrated across all age groups. Also, bicycle riding on sidewalks is not prohibited in all municipalities although it is not recommended for the majority of the bicycle population (excluding youth and the elderly) due to increased collision risk.

Observations were collected on all bicyclists passing through the intersection which provides a count of bicyclists during this time period. Also recorded were date, day of the week, and weather conditions. Observers were given instructions and a data collection tool to ensure reliable results.

National Bicycle and Pedestrian Documentation Bicycle and Pedestrian Counts

Ten of the CTSC locations were chosen to perform an additional bicycle count as well as a pedestrian count using the National Bicycle and Pedestrian Documentation methodology (Figure 1 and Figures B-1 to B-4). The NBPD was developed by the Institute of Transportation Engineers Pedestrian and Bicycle Council and Alta Planning and Design to establish a consistent nationwide methodology for bicycle and pedestrian counts. The methodology aims to establish:

- Consistent days and times
- Consistent count locations
- Consistent methods and materials
- Background documentation of each location
- Open access to bicycle and pedestrian trend data nationwide

Bicyclist counts record the direction from which bicyclists travel and their turning movement through the intersection broken down in 15 minute intervals (Figure 2).

Pedestrian counts record the direction (but not turning movement) from which they travel in 15 minute intervals (Figure 3).

Figure 2. Example Bike Count Tally Sheet for One 15 Minute Interval

4:00-4:15

A3

A2

A1

B3

B2

B1

D1

D2

D3

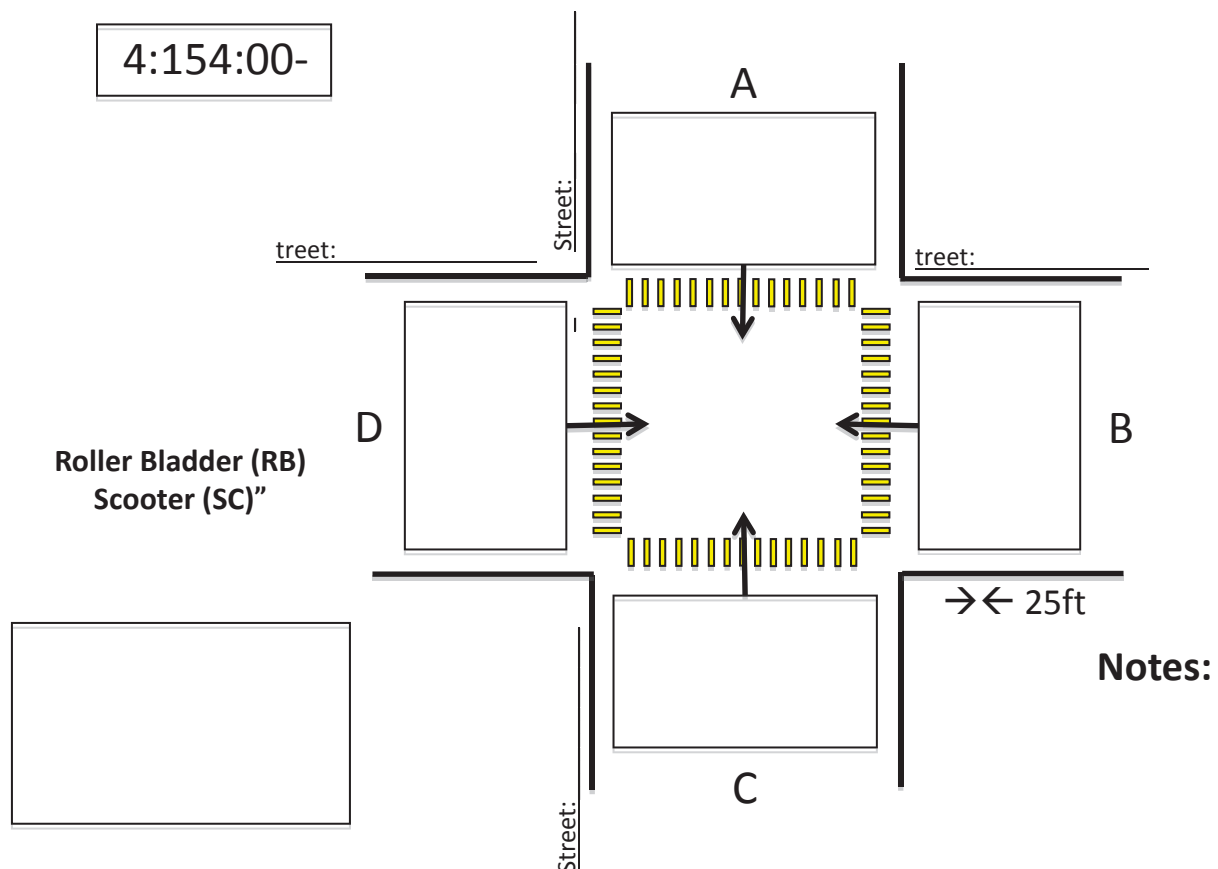
C1

C2

C3

“Motorized Bicycles”
(please note direction)

Figure 3. Example Pedestrian Count Tally Sheet for One 15 Minute Interval



The 10 locations were chosen based on bicycle volumes as determined from past CTSC bike observation/count surveys and previous City of Santa Cruz bicycle count locations. The NBPB counts took place on May 15th, 16th, 17th (Tuesday, Wednesday and Thursday from 4-6 pm), 2012 as recommended by the NBPB methodology. The bicycle observation surveys at these 10 locations were also taken at the same time.

The NBPB recommends counting at one location for every 15,000 residents. Given the most recent 2011 estimate of Santa Cruz County's population (264,298), this would equate to counting at roughly 18 sites. The total number of bicycle counts taken throughout the county (46) far exceeds this recommendation. The bicycle and pedestrian counts using the NBPB methodology were only collected at 10 intersections due to resource limitations.

Twenty-one volunteers manually counted bike and pedestrian traffic using standardized count forms and procedures based on the NBPB protocol and customized for our study. Each volunteer counter was individually trained on how to properly use the forms prior to count dates, and was provided with a folder with all count materials prepared (map of assigned location, count forms, instructions sheet, pencils, and a public flier in the event the observer is asked questions about the count). Each location had between one and four volunteers to collect data. High

volume sites such as High St & Bay Dr. near UCSC had two pedestrian and two bicycle counters for the NBPd counts to balance the data collection efforts among volunteers and insure accuracy. Lower volume sites had one volunteer for counting both bike and pedestrian activity.

Bicycle counts include the number of people on a bike (not the number of bikes), motorized bicycles or mopeds and people walking their bicycles. Pedestrian counts include people using a wheelchair, stroller, skateboard, scooter and roller blades. Typical protocol counts people walking their bikes as pedestrians and not bicyclists and people walking their bikes will likely be counted as pedestrians in future counts.

Motor Vehicle Counts

Motor-vehicle data was also simultaneously collected via automated pressure hose counters in 15 minute intervals at 2 roadway crossings at each of the 10 intersections (20 motor vehicle counts total). This data was combined with the bicycle and pedestrian data to provide mode split information at these 20 locations in order to assess how people travel in our county. Vehicle occupancy was not collected during this count but would be worthwhile to collect in future counts for including carpool into the mode split analysis.

Results

Bicycle Observation/Count Survey

The bicycle observation/count survey is conducted primarily for observing bicycle safety behaviors. Because of this emphasis, the counts from this data collection effort may not be a fully accurate representation of the total number of bicyclists that traveled through the intersections during this time. It is possible that the observer, being occupied with capturing all the behavior observations, may have not been able to count all bicyclists. With this consideration in mind, bicycle count data collected through the CTSC observation surveys from 2003 through 2012 can be found in Table 1. There is an overall increase in ridership from 2010 to 2012 of 3%. This was determined by calculating the increase in counts for 2012 (taking out counts at new locations) compared to 2010. The trends in bicycle ridership for different areas of the county were averaged and plotted in Figure 4. Trend data calculated using a least squares linear regression for these averaged data show that there is an overall increase in ridership in Santa Cruz County since 2003.

Table 1: CTSC bicycle count data for Santa Cruz County

(C=commute 4-6pm Mon-Fri, W=weekend 11am-1pm Sat/Sun, S = school 1 hr based on school start time)

Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
W	N	E. Cliff Dr. & Wharf Road, Capitola	Capitola	199	152	155	108	138	167	158
C	N	Ocean Street & Barson	City of Santa Cruz - Beach Flats	73	72	69	64	66	93	49

Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
C	N	Riverside, Leibrandt & Second St.	City of Santa Cruz - Beach Flats	41	62	68	73	88	48	73
C	Y	Front Street & Laurel Street	City of Santa Cruz - Downtown	163		223	291	206	250	221
W	N	Laurel Street & Chestnut	City of Santa Cruz - Downtown	117	117	117	120	103	111	95
C	N	Pacific & Laurel St	City of Santa Cruz - Downtown		267					
C	N	River Street & Encinal Street	City of Santa Cruz - Downtown	53	64	82	54	28	37	47
C	Y	Seabright & Murray	City of Santa Cruz - East Side	156	246	286	339	231	274	244
C	N	Soquel Avenue & Frederick Street	City of Santa Cruz - East Side	112	139	129	176	144	124	152
W	N	Soquel Drive & Winkle Avenue	City of Santa Cruz - East Side	35	51	48	70	54	59	46
C	Y	High Street & Bay (UCSC)	City of Santa Cruz - Westside	229	160	227	122	280	316	365
C	N	Mission Street & Western Drive	City of Santa Cruz - Westside	41	58	72	46	54	33	47
C	N	Swift Street & Delaware	City of Santa Cruz - Westside	19	105	107	139	97	136	115
C	N	Granite Creek & Scott's Valley Dr	Scotts Valley	32	34	40	22	21	25	30
C	Y	Mt. Herman & Scott's Valley Dr	Scotts Valley	8	18	37	35	24	29	46
W	N	Hwy 1 at Wilder Ranch	Unincorporated County - Davenport	97	95	84	43	78	79	80
C	Y	Brommer & 17th	Unincorporated County - Live Oak	71	114	104	122	123	101	127
W	N	East Cliff & 7th Ave.	Unincorporated County - Live Oak	152	163	106	82	112	153	126
C	Y	Portola Ave. & 41st, Capitola	Unincorporated County - Opal Cliffs	79	98	108	122	145	128	117
C	N	Hwy 9 & Graham Hill	Unincorporated County - SLV	7	12	19	15	21	20	24
C	Y	Soquel Dr. & Porter St., Soquel	Unincorporated County - Soquel	53	59	96	64	76	69	82
W	N	Freedom & Alta Vista	Watsonville	25	38	20	21	37	21	34
C	N	Freedom Blvd. & Alta Vista Ave.	Watsonville	16	38	35	21	47	46	42
C	Y	Freedom Blvd. & Green Valley	Watsonville	34	40	46	50	21	32	38
C	N	Freedom Blvd. & Main Street	Watsonville	24	13	24	17	37	22	38
W	N	Green Valley Rd. & Holohan Rd.	Watsonville		8	14	16	21	10	33
C	N	Lincoln Street & High Street	Watsonville	13	13	10	14	27	17	16
W	N	Main Street & East Beach Street	Watsonville		70	24	38	44	43	61
C	Y	Main Street & Rodriguez Street	Watsonville	43	46	28	24	25	26	43
C	Y	Maple Ave. & Union Street	Watsonville	39	26	38	44	63	28	52
W	N	Pennsylvania & Clifford	Watsonville	10	8	12	12	14	31	18

Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
W	N	Rodriguez & Ford	Watsonville		17	18	13	34	9	16
C	N	Second Street & Rodriguez Street	Watsonville	36	34	32	23	38	25	26
S	N	New Brighton Middle School	School - Capitola				23	17	17	26
S	N	Bay View Elementary	School - City of Santa Cruz							66
S	N	Gault Elementary	School - City of Santa Cruz	24	33	19	40	25	39	55
S	N	Mission Hill Middle School	School - City of Santa Cruz	38	9	46	66	75	70	55
S	N	Natural Bridges Elementary	School - City of Santa Cruz	25						
S	N	Pacific Collegiate Charter School	School - City of Santa Cruz		21	25				
S	N	Westlake Elementary	School - City of Santa Cruz							51
S	N	Del Mar Elementary	School - Unincorporated County							8
S	N	Green Acres Elementary	School - Unincorporated County					19	34	8
S	N	Live Oak Elementary	School - Unincorporated County	29	50	44	39	37	54	27
S	N	Shoreline Middle School	School - Unincorporated County							35
S	N	Ann Soldo Elementary	School - Watsonville					6	4	26
S	N	Freedom Elementary	School - Watsonville					1	11	11
S	N	H.A. Hyde Elementary School	School - Watsonville							6
S	N	MacQuiddy Elementary	School - Watsonville				10	5	0	6
S	N	Mintie White Elementary	School - Watsonville	4	5	4	4	12	5	5

Observation Locations for Schools

New Brighton Middle School—on Monterey Ave, in front of the school OR at Monterey and Washburn

Bay View Elementary - on Bay St. in front of school

Gault Elementary—Seabright and Broadway

Mission Hill Middle School –on King St in front of the school

Natural Bridges Elementary-- in front of school

Pacific Collegiate Charter School—in front of school

Westlake Elementary - High St. and Moore St

Del Mar Elementary - Merrill St. and Jamie Ln.

Green Acres Elementary—on school property, at the end of the turn around, between the two Bostwicks

Live Oak Elementary—Capitola and Chanticleer

Shoreline Middle School - 17th Ave. and Felt St.

Ann Soldo Elementary—Wagner and Vista Montana

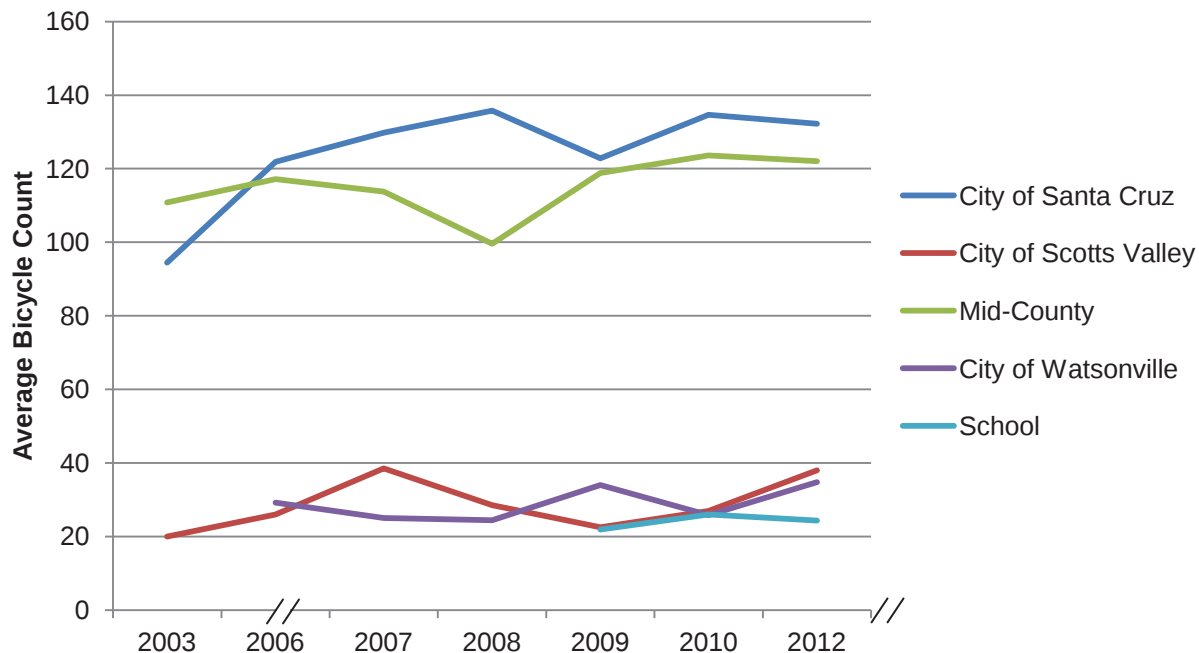
Freedom Elementary—Airport and Freedom

H.A. Hyde Elementary School - on Alta Vista Ave in front of school between Santa Clara St. and Marilyn St.

MacQuiddy Elementary—in front of the school

Mintie White Elementary—Brennan and Palm

Figure 4: Average bicycle count data for various areas throughout Santa Cruz County (May 2012) *



* Note: All count data was collected over a 2 hour period except school sites were collected for 1 hour based on school start time.

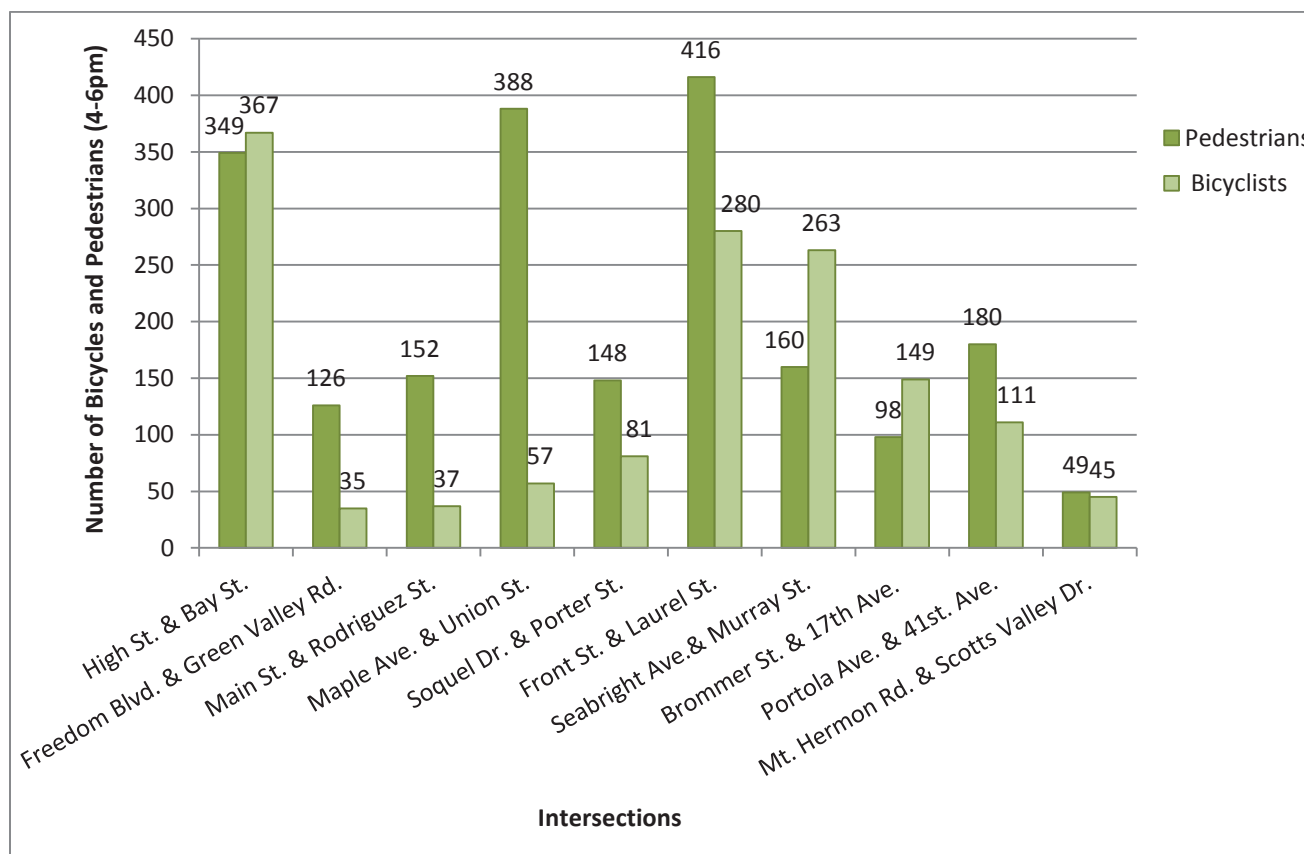
NBPD Bicycle and Pedestrian Counts

The bicycle and pedestrian count data collected at the 10 intersection locations over the 2 hour time period are shown in Figure 5. The weather was sunny and clear on all three count days with slightly windy conditions on the last day (Thursday, May 17th).

The locations with the highest bicycle counts during the data collection were High St and Bay Dr., Front St and Laurel St, and Seabright Ave. and Murray St. which are all in the City of Santa Cruz. Pedestrian counts were highest at Front St and Laurel St. in City of Santa Cruz, Maple Ave. and Union St. in Watsonville, and High St and Bay Dr. in City of Santa Cruz. There were 2,066 pedestrians and 1,425 bicyclists observed at these 10 intersections during this data collection effort.

The results from these counts have been sent to the NBPD national database in an effort to standardize and document bicycle and pedestrian demands similar to motor-vehicle counts.

Figure 5: NBDP Bicycle and Pedestrian Counts



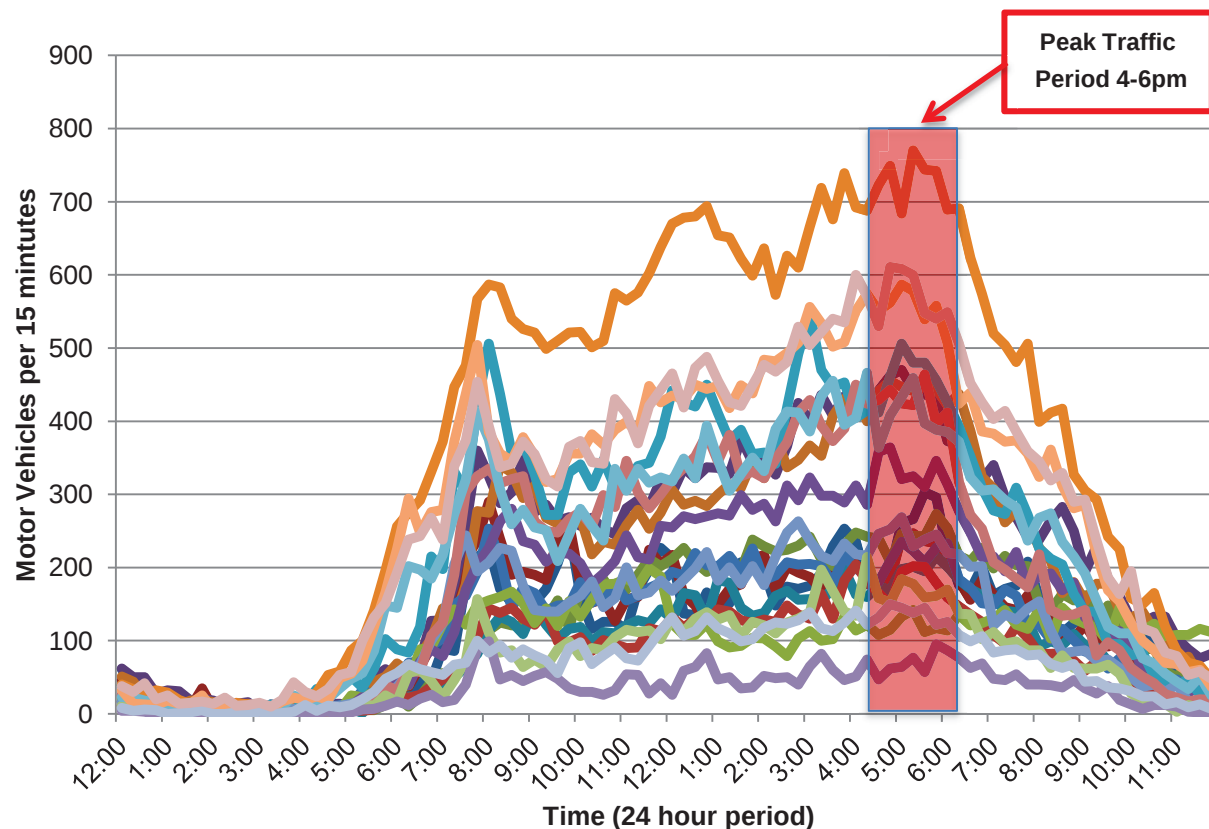
Motor Vehicle Counts

Motor vehicle counts were taken using pressure hose counters at 2 roadway crossings for each of the 10 intersections of the NBDP count locations for a total of 20 motor vehicle counts. Those count locations are listed in Table 2. Figure 4 represents motor-vehicle traffic volumes at each crossing recorded over a 24 hour period during each count day. The red highlighted section displays the 4-6pm time period that bicyclists and pedestrians were counted.

The NBDP methodology recommends counting bicyclists and pedestrians at a time that typically has the largest volume of travelers. As shown in Figure 6, 4-6pm was the appropriate time slot as the majority of locations had peak motor-vehicle numbers during this time. The evening commute spiked around 5pm as people were leaving work, school, or afternoon shopping.

Complete motor-vehicle data was collected from each location during the same day as the bicycle and pedestrian counts except for one site. On Thursday May 17th, a pressure hose counter was broken along Portola Ave. The counter was replaced and motor-vehicle data for this site was recorded on the following Tuesday, May 22nd.

**Figure 6: Motor Vehicle Counts over 24 Hour Period
(May 15, 16, or 17, 2012)**



Mode Split

The percentage of motor vehicles, bicyclists and pedestrians (mode split) was determined for the 20 motor vehicle hose count roadway crossing locations (Table 2). The results show that the bicyclist mode share at these 20 roadway crossings ranges from 0.6% to 10.9% and the pedestrian mode share ranges from 0.5% to 20.2%. Average mode share at the 20 locations measured was 93.6% motor vehicle, 2.7% bike and 3.7% pedestrian. The highest bicycle mode share (10.9%) was on Bay St (south of High St) in City of Santa Cruz and the highest pedestrian mode share (20.2%) was on Maple Ave (west of Union St) in the City of Watsonville.

The mode split data was determined based on the number of users of each mode that passed over the hose count location. The bicycle counts recorded the direction each bicyclist traveled and their turning movements and thus the exact number of bicyclists crossing over the hose count location could be determined. The pedestrian counts recorded only the direction from which each pedestrian traveled and thus it was assumed that their direction of travel was straight across the intersection in order to estimate the mode split for each hose count location. Future pedestrian count data for mode split analysis would more accurately determine mode split if the direction the pedestrian was traveling from and their turning movements was recorded.

The methods by which volunteers counted motorized bicyclists, people walking their bikes, people on skateboards, scooters and roller blades were not always consistent. Effort will need to be made to more extensively train future volunteers to make sure there is consistency in the count methodology.

Table 2: County-Wide Mode Split Counts 2012
Data was collected Tues-Thurs, May 15-17, 4-6 pm

Date	Location	Street	Motor Vehicles		Bicycles		Pedestrians	
			Total	%	Total	%	Total	%
5/15/2012	City of Santa Cruz	Bay St (S of High St)	1910	80.9%	257	10.9%	195	8.3%
5/15/2012	City of Santa Cruz	High St (E of Bay St)	1704	86.7%	107	5.4%	154	7.8%
5/16/2012	City of Santa Cruz	Front St (N of Laurel St)	1943	86.1%	114	5.1%	199	8.8%
5/16/2012	City of Santa Cruz	Laurel St (E of Front St)	3498	89.7%	212	5.4%	191	4.9%
5/17/2012	City of Santa Cruz	Seabright Ave (N of Murray St)	1475	85.8%	108	6.3%	137	8.0%
5/17/2012	City of Santa Cruz	Murray St (E of Seabright Ave)	3533	94.0%	204	5.4%	23	0.6%
5/16/2012	Live Oak	Brommer St (W of 17th Ave)	1474	92.4%	75	4.7%	46	2.9%
5/16/2012	Live Oak	17th Ave (N of Brommer St)	1668	93.8%	59	3.3%	52	2.9%
5/17/2012	Opal Cliffs	Portola Dr (W of 41st Ave) *	2622	95.1%	71	2.6%	65	2.4%
5/17/2012	Opal Cliffs	41st Ave (N of Portola Dr)	1674	91.0%	50	2.7%	115	6.3%
5/17/2012	Scott's Valley	Mt Hermon Rd (NW of Scott's Valley Dr)	5792	99.5%	4	0.1%	28	0.5%
5/17/2012	Scott's Valley	Scott's Valley Dr (NE of Mt Hermon Rd)	3615	98.7%	25	0.7%	21	0.6%
5/16/2012	Soquel	Soquel Dr (W of Porter St)	3453	96.3%	56	1.6%	76	2.1%
5/16/2012	Soquel	Porter St (S of Soquel Dr)	1913	95.4%	22	1.1%	71	3.5%
5/15/2012	Watsonville	Maple Ave (W of Union St)	527	77.2%	18	2.6%	138	20.2%
5/15/2012	Watsonville	Union St (N of Maple Ave)	1340	81.9%	46	2.8%	250	15.3%
5/15/2012	Watsonville	Freedom Blvd (E of Green Valley Rd)	4500	98.3%	18	0.4%	60	1.3%
5/15/2012	Watsonville	Green Valley Rd (S of Freedom Blvd)	3320	97.6%	17	0.5%	66	1.9%
5/15/2012	Watsonville	Main St (W of Rodriguez St)	4608	96.5%	36	0.8%	130	2.7%
5/15/2012	Watsonville	Rodriguez St (S of Main St)	1095	98.1%	7	0.6%	14	1.3%
		Total Mode Split	51664	93.6%	1506	2.7%	2031	3.7%

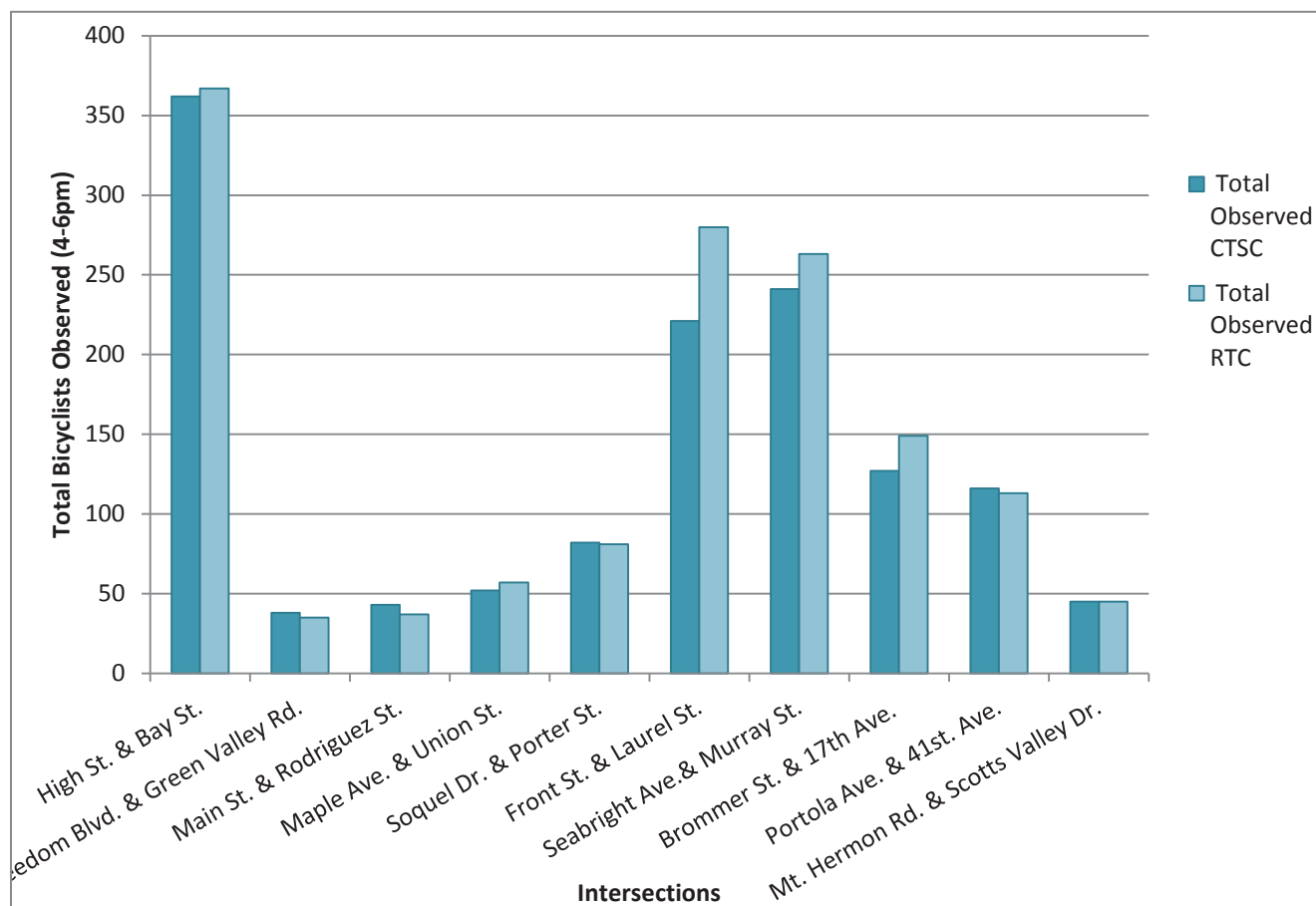
*Note: Motor data was collected on May 22nd instead of May 17th, due to a broken hose counter on May 17th.

RTC NBPD Bicycle Counts versus CTSC Bicycle Counts

The CTSC and RTC partnered in collecting bicycle data at each location during the same time period. Both agencies had different methods and separate volunteers for recording bicycle data. If both counting processes were error free, then both

agencies would have recorded the same bicycle volumes for each site. Discrepancies were observed when comparing bicycle totals from each agency (Figure 7).

Figure 7: Comparison of Bicycle Counts Observed Using Different Methodologies



The data collected through the CTSC observation survey involves recording cyclist age, helmet use, riding with traffic, riding on the sidewalk, and obeying traffic signals which is much more data intensive than counting the direction of bicyclists entering and exiting the intersection. The potential for miscounting was perceived to be higher for the CTSC observation survey count than the RTC count but this was not always the case as is seen in Figure 5. The large discrepancy at Front St and Laurel St. was due to one volunteer not showing up which left only one volunteer to observe/count in all 4 directions.

The accuracy in the data collection would likely be increased by:

- Recruiting a sufficient number of volunteers for each location and having back up volunteers if volunteers cancel at the last minute
- Separating volunteers to reduce distraction so all bicyclists are counted

- Training volunteers well on the method for data collection and emphasizing the importance of being on time and counting all bicyclists during that 2 hour time period
- Ensuring consistency in what is considered a “bicyclist” and “pedestrian” (i.e. how electric bikes, people walking their bikes, scooters, skateboarders, roller bladders and children in strollers are counted)

Conclusions

Santa Cruz County, with its ever increasing bicycle transportation network, offers bicycling enthusiasts and beginners alike a wonderful opportunity to get around by bike. In order to assess the number of people who are traveling by bike, it is critical to establish a count methodology that is consistent across the county and over time. This data collection effort can be used to facilitate planning for bicycle infrastructure improvements as well as monitor our county’s progress towards a more sustainable transportation system. Future counts that are taken within Santa Cruz County would be most comparable to past counts if the following recommendations are followed.

Bicycle Counts

- Commute, weekend and school counts taken at 46 locations throughout Santa Cruz County as currently defined by Community Traffic Safety Coalition (Table 1 and Figures B-1 to B-4)
- Commute counts taken from 4-6 pm on Tuesday, Wednesday or Thursday
- School counts taken for 1 hour starting one half hour before school starts on Tuesday, Wednesday or Thursday
- Weekend counts taken from 11-1 pm on Saturday (preferably) or Sunday
- Counts taken annually mid-May to end of May (with consideration for other events such as Bike to Work/School week and before end of semester at UCSC and Cabrillo)
- Counts will tally the number of people on bicycles entering the intersection from each direction (see example bicycle count sheet in Appendix C)
- Bicycle counts will include electric motorized bicycles with pedals and will not include people walking their bikes

Mode Split Counts (Bicycle, Pedestrian and Motor Vehicle)

- Motor vehicle hose counts taken on 2 of the 4 roads entering the 10 intersection locations as in 2012
- Bicycle and pedestrian counts taken at the 10 intersections will indicate not only the direction the bicyclist or pedestrian is entering the intersection but also the direction in which they exit the intersection. This will allow for a more accurate mode split determination (see Appendix D for example mode split data collection sheets for bicycle and pedestrian counts)
- Mode Split data collected from 4-6pm on Tuesday, Wednesday or Thursday in the fall would provide a comparison of bicycle counts from spring to fall and not duplicate CTSC bike count efforts in spring.

- Bicycle counts will include electric motorized bicycles with pedals and will not include people walking their bikes
- Pedestrian counts will include people in wheelchairs, children in strollers, people walking their bikes, skateboarding, roller blading, and using their scooters

Previous bicycle and pedestrian counts that have been taken during the morning or evening commute period in Santa Cruz County from the year 2000 on can be found in Appendices E and F.

Appendix A

Table A-1: List of Volunteers / Staff for May 2012 Count

RTC Bicycle and Pedestrian Count

Michael Cutter
Allison Weis
Kellie Su
Steve Walker
Thomas Hiltner
Joshua Brown
Kyle Davis
Andrea Lee
Thomas Pistone
Greg Jorgensen
Cory Caletti
John Caletti
Karena Pushnik
Cheryl Schmitt
Grace Voss
Marshall Roberts
Marcus Kevorkyan
Jose Haya
Emilie Holder
Danny Brooks
Robert Jones

CTSC Observation Survey

Byron Thomas
Gary Milburn
Katie LeBaron
Kira Ticus
Jim Langley
Andy & Annie Kochalo
Peter Scott
Andy Ward
Owen Gorman
Debbie Bulger
Curtis Swain
George Bunch
Ginger Dykaar
Theresia Rogerson
Corinne Hyland
Paula Satariano
Saskia Lucas
Kathy Chavez
Rachel Moriconi
Kevin Bell
Patricia Unruhe
Andrea Silva
Myrna Sherman
Claudia Llamas-Padilla
Richard Roullard
Jeanne LePage
Andrew Murray
Matt Leal
Eileen Cavalier
Emilie Holder
Patty Vargas
Sarah Harmon
Ryan Heywood
Desiree Chavez

Appendix B

Table B-1: Bike Count & Observation Locations – City of Santa Cruz Area



Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_SC.mxd

Table B-2: Bike Count & Observation Locations – Live Oak, Capitola, Soquel Areas

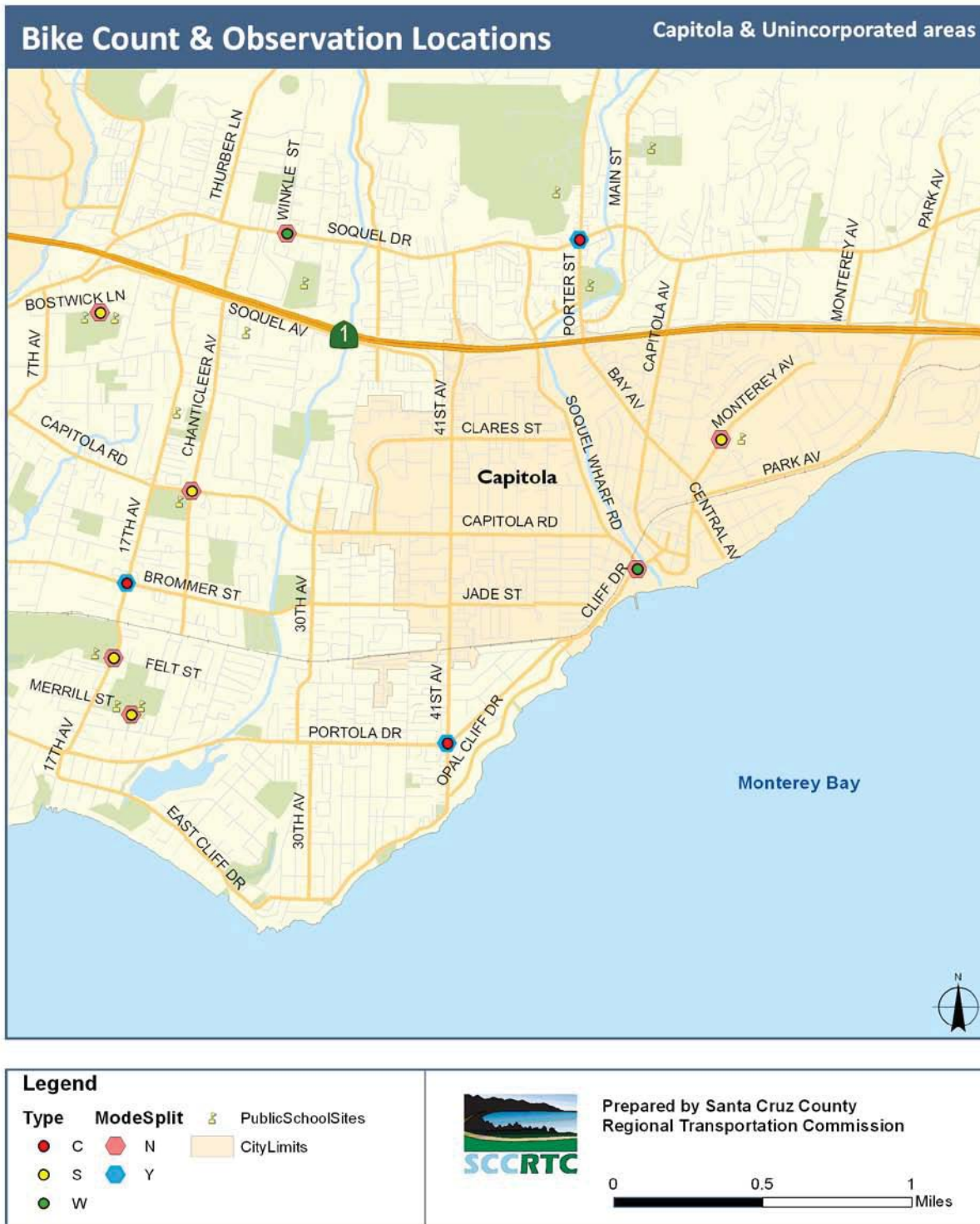
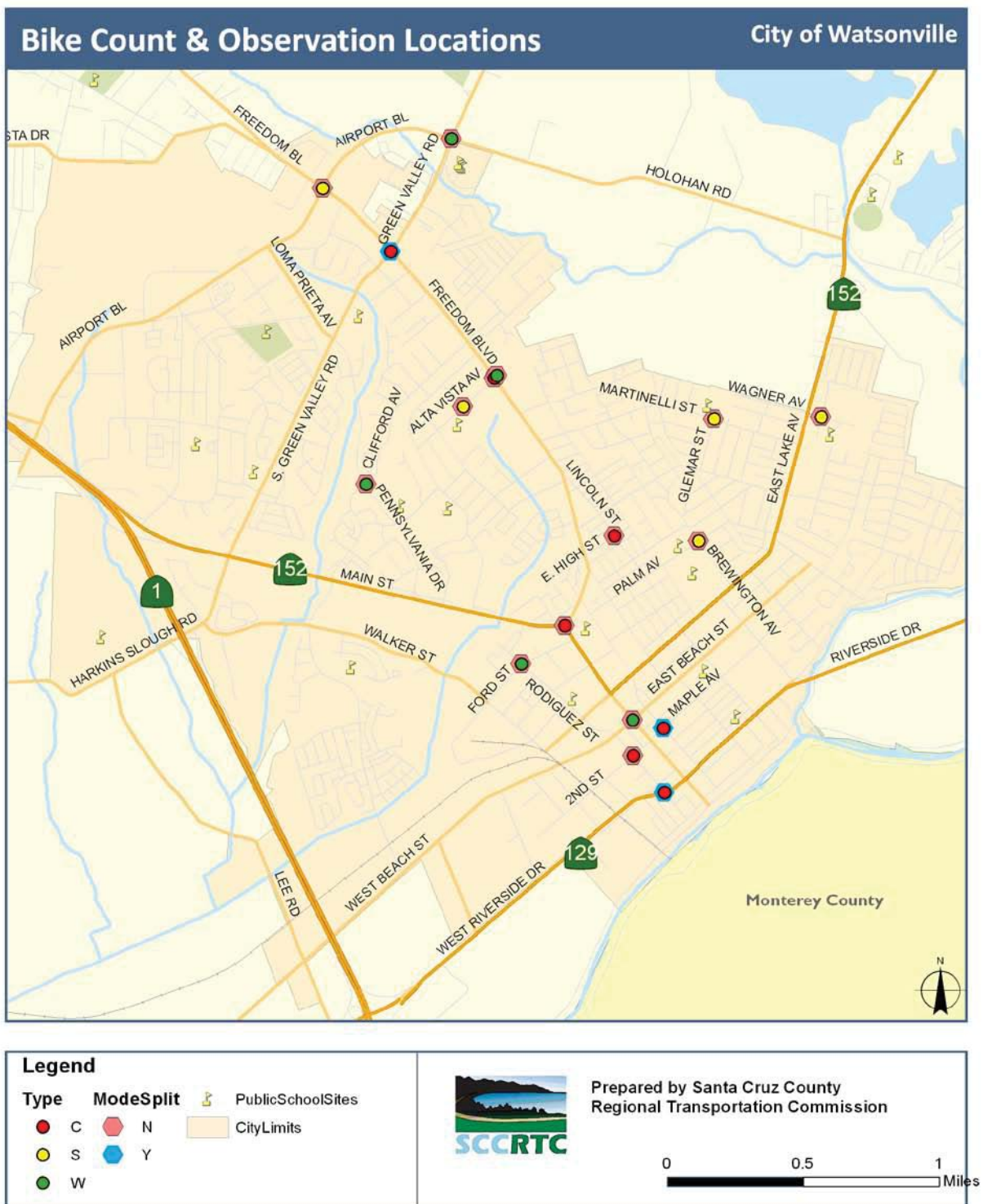


Table B-3: Bike Count & Observation Locations – Watsonville Area



Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_Wats.mxd

Table B-4: Bike Count & Observation Locations – Scotts Valley Area

Bike Count & Observation Locations

City of Scotts Valley



Legend

Type	ModeSplit	PublicSchoolSites	CityLimits
● C	● N	●	■
● S	● Y		
● W			



Prepared by Santa Cruz County
Regional Transportation Commission

0 0.5 1
Miles

Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_SV.mxd

Appendix C

Bicycle Count Forms for Bicycle Trend Data

Bicycle Intersection Count Form

Name: _____ Location: _____

Date: _____ Start Time: _____ End Time: _____

Weather: _____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

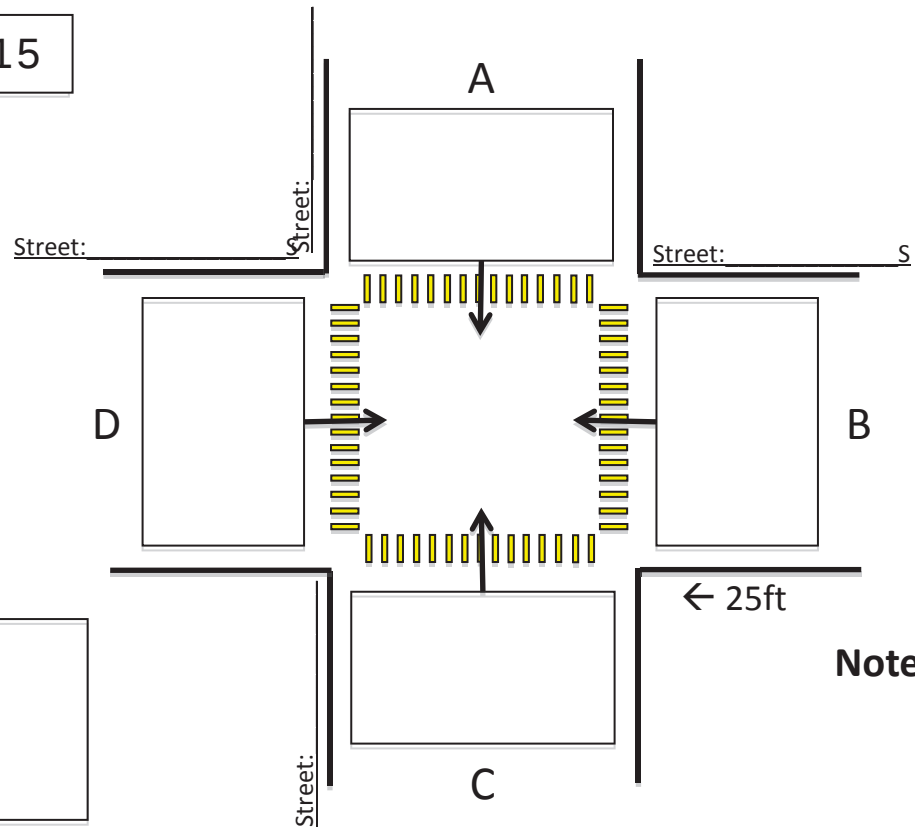
Please fill in your name, count location, date, time period, and weather conditions.
Count all bicyclists crossing through the intersection under the appropriate categories.

- Count for two hours in 15-minute increments
- Use one intersection graphic per 15-minute interval
- Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location
- Tally based on which direction the bikes are entering the intersection (where they are coming from)
- DO NOT COUNT WALKING CYCLISTS as they are considered pedestrians.
- Count the number of people on the bicycle, not the number of bicycles. (kid trailers, child seats, tandems - keep an eye out for these and count appropriately)
- Count bicyclists who ride on the sidewalk and electric motorized bicycles with pedals on the intersection graphic. Note: Do not count motorcycles or mopeds without pedals or powered by gasoline.
- In addition, record electric motorized bicyclists with pedals in the box "Motorized Bicycles" and remember to note direction (ex. Electric Bike-D)
- Use the notes section to record any behaviors, events, or actions that might affect count data (ex. car accident, weather changes)

4:00-4:15

Motorized bicycles

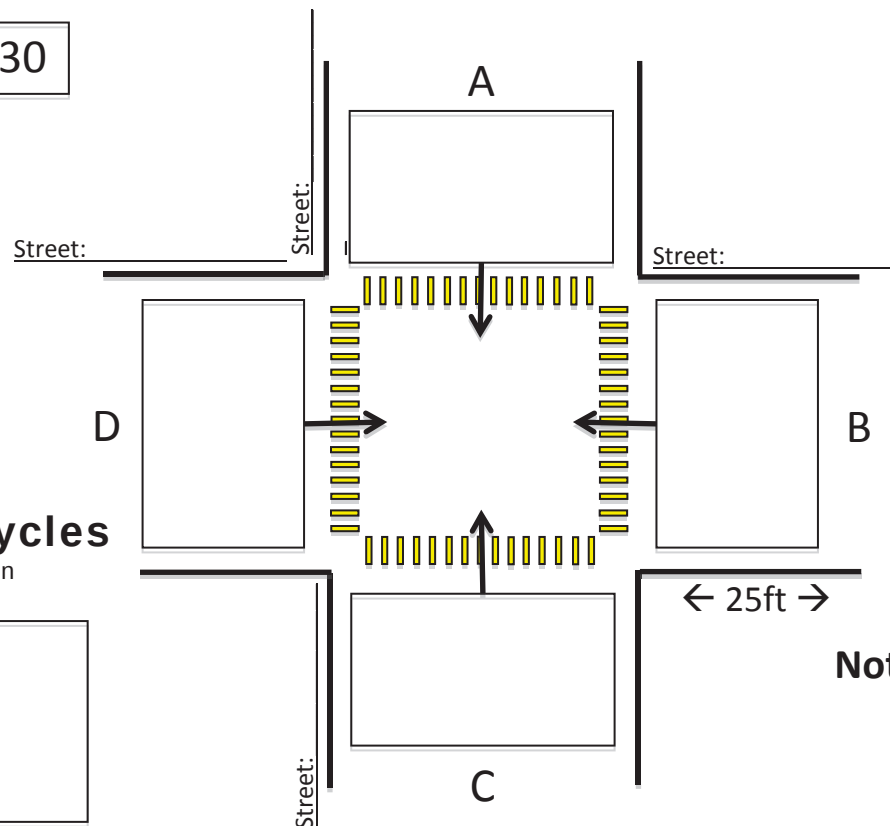
Please note direction



4:15-4:30

Motorized bicycles

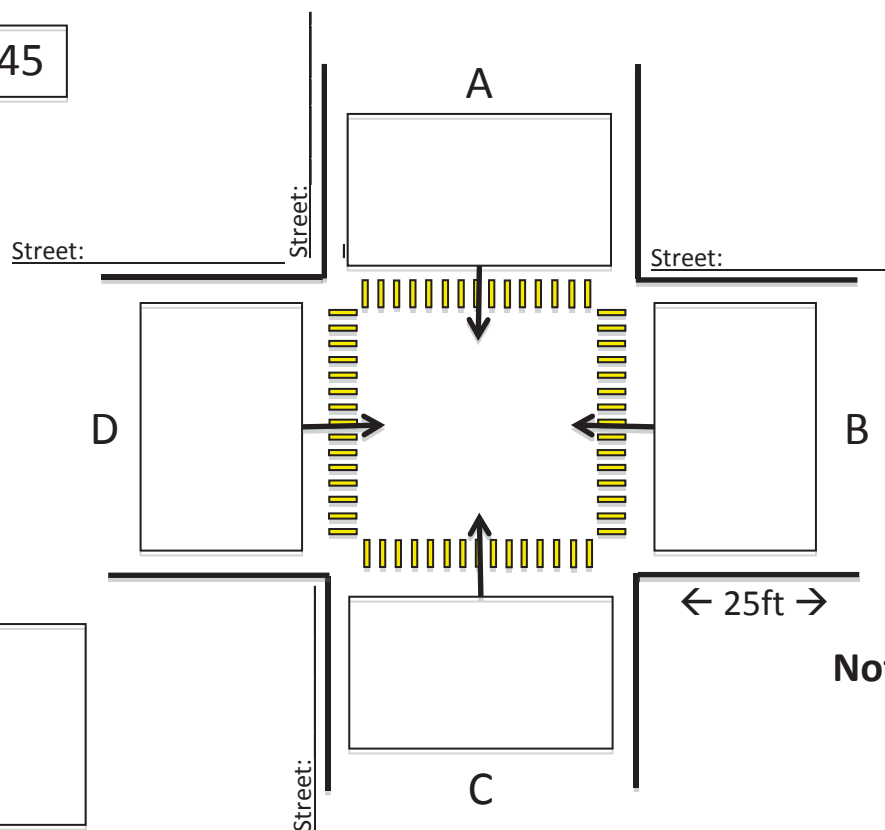
Please note direction



4:30-4:45

Motorized bicycles

Please note direction

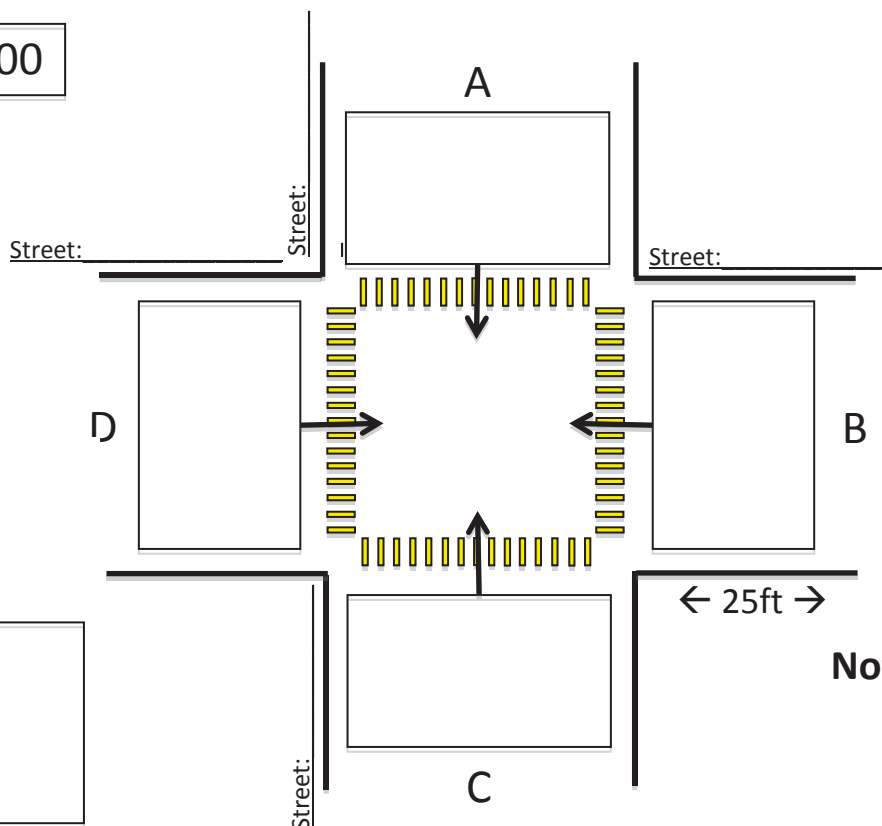


Notes:

4:45-5:00

Motorized bicycles

Please note direction

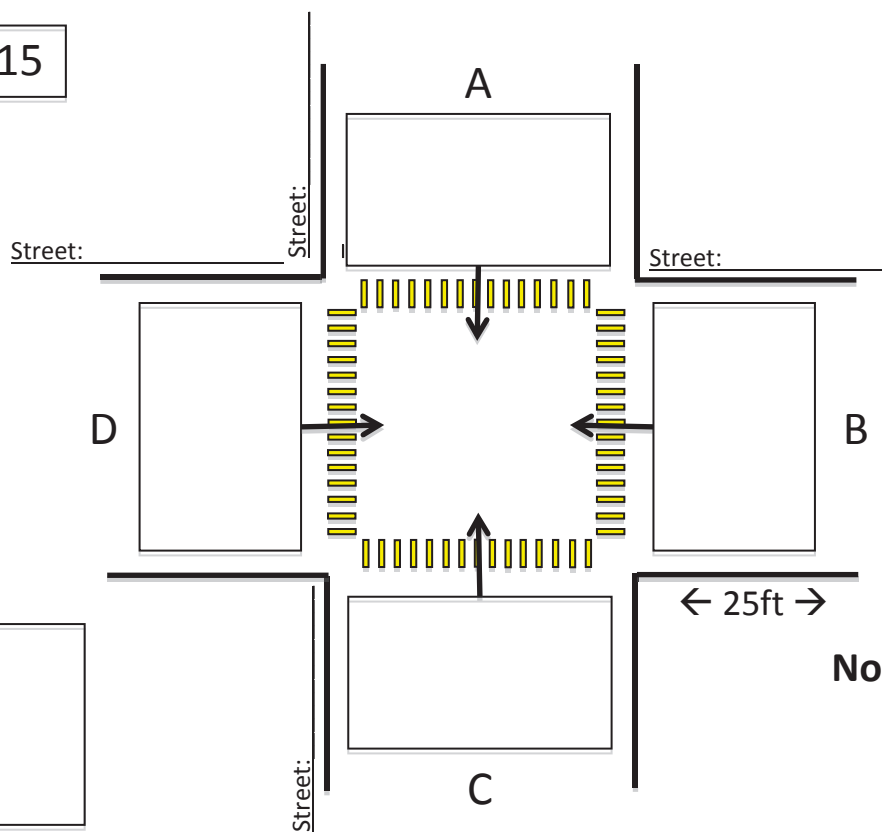


Notes:

5:00-5:15

Motorized bicycles

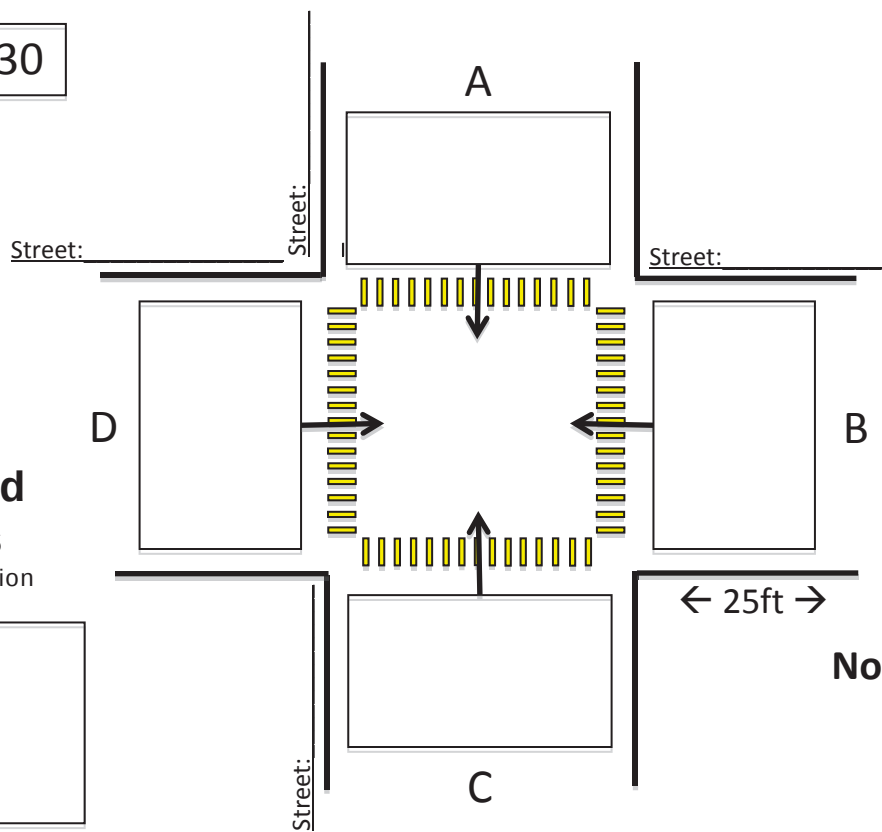
Please note direction



5:15-5:30

Motorized bicycles

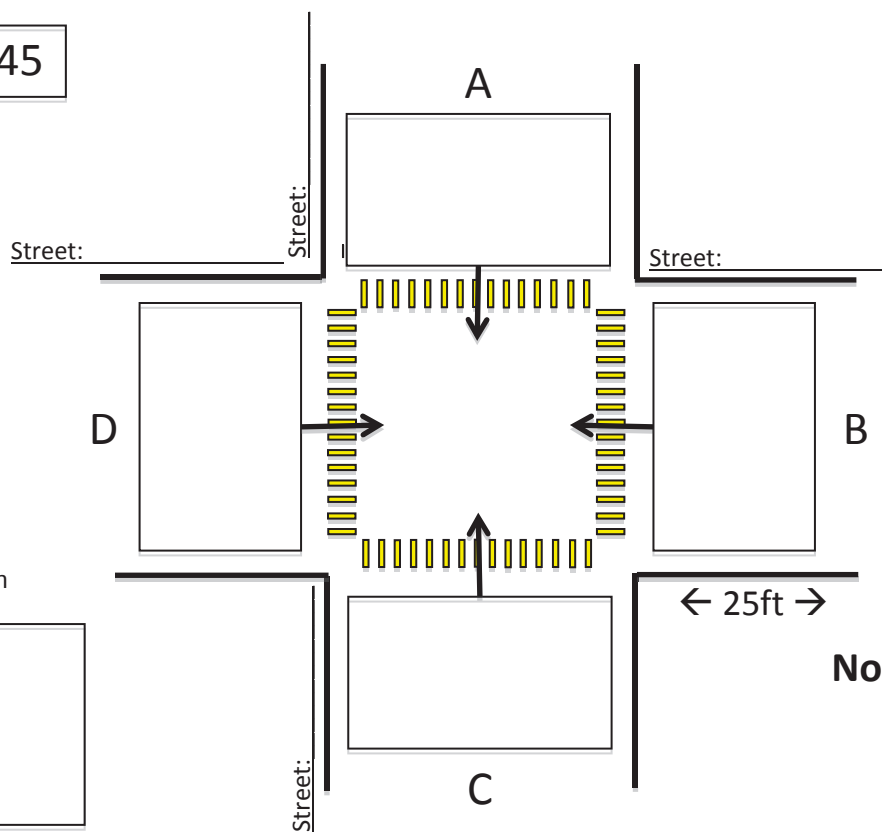
Please note direction



5:30-5:45

Motorized bicycles

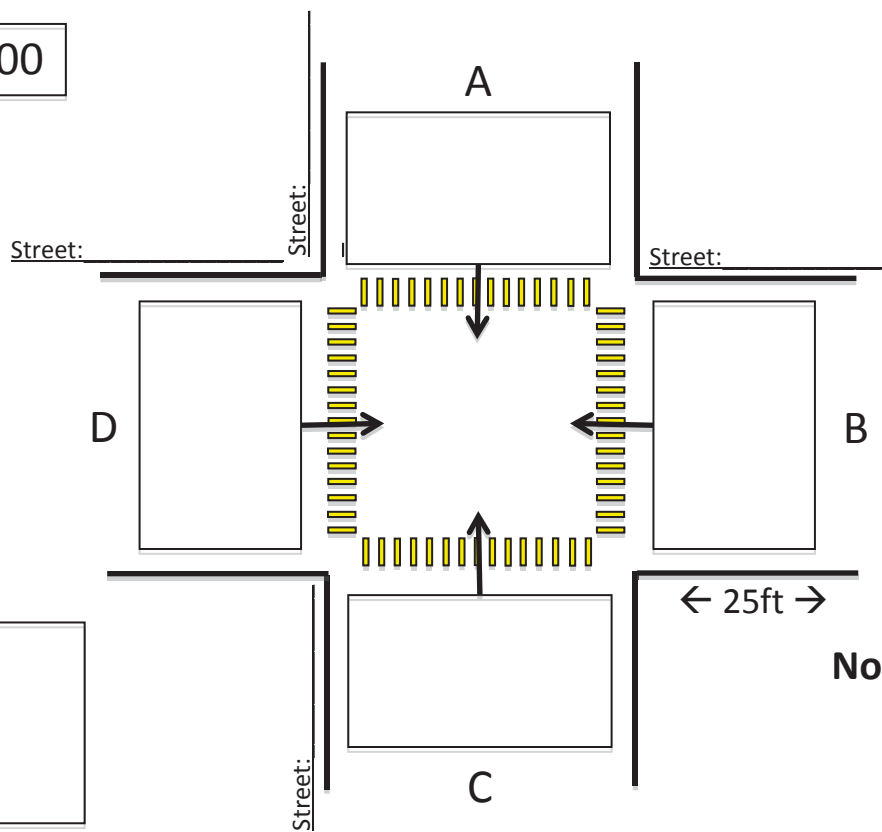
Please note direction



5:45-6:00

Motorized bicycles

Please note direction



Appendix D

Bicycle and Pedestrian Count Forms for Mode Split Data

Bicycle Intersection Count Form

Name: _____ Location: _____

Date: _____ Start Time: _____ End Time: _____

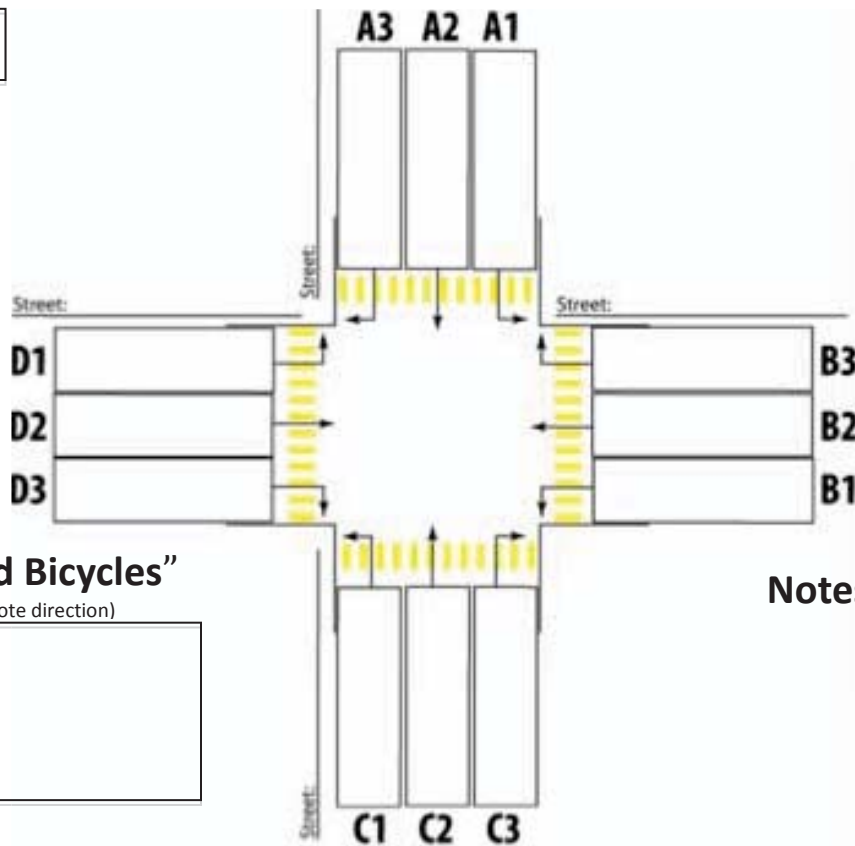
Weather: _____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

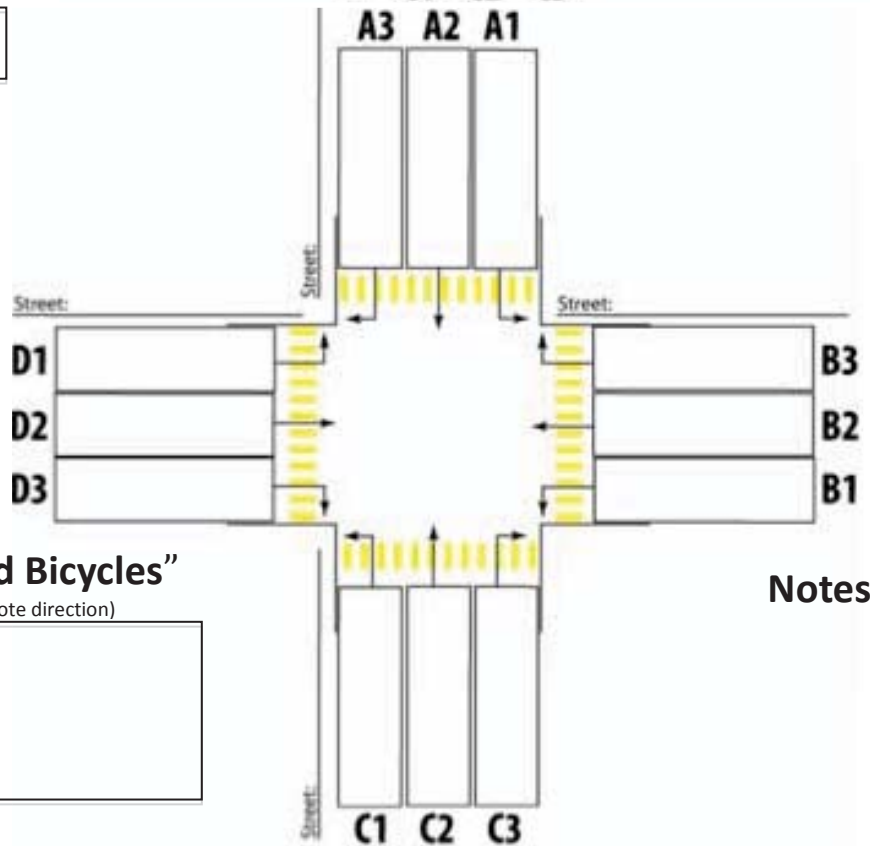
Please fill in your name, count location, date, time period, and weather conditions.
Count all bicyclists crossing through the intersection under the appropriate categories.

- Count for two hours in 15-minute increments
- Use one intersection graphic per 15-minute interval
- Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location
- Tally based on which direction the bikes are entering the intersection (where they are coming from) and the direction they are going
- DO NOT COUNT WALKING CYCLISTS. They are considered pedestrians.
- Count the number of people on the bicycle, not the number of bicycles. (kid trailers, child seats, tandems - keep an eye out for these and count appropriately)
- Count bicyclists who ride on the sidewalk and electric motorized bicycles with pedals on the intersection graphic. Note: Do not count motorcycles or mopeds without pedals or powered by gasoline.
- In addition, record electric motorized bicyclists with pedals in the box "Motorized Bicycles" and remember to note direction (ex. Electric Bike-D2)
- Use the notes section to record any behaviors, events, or actions that might affect count data (ex. car accident, running team passes, weather changes)

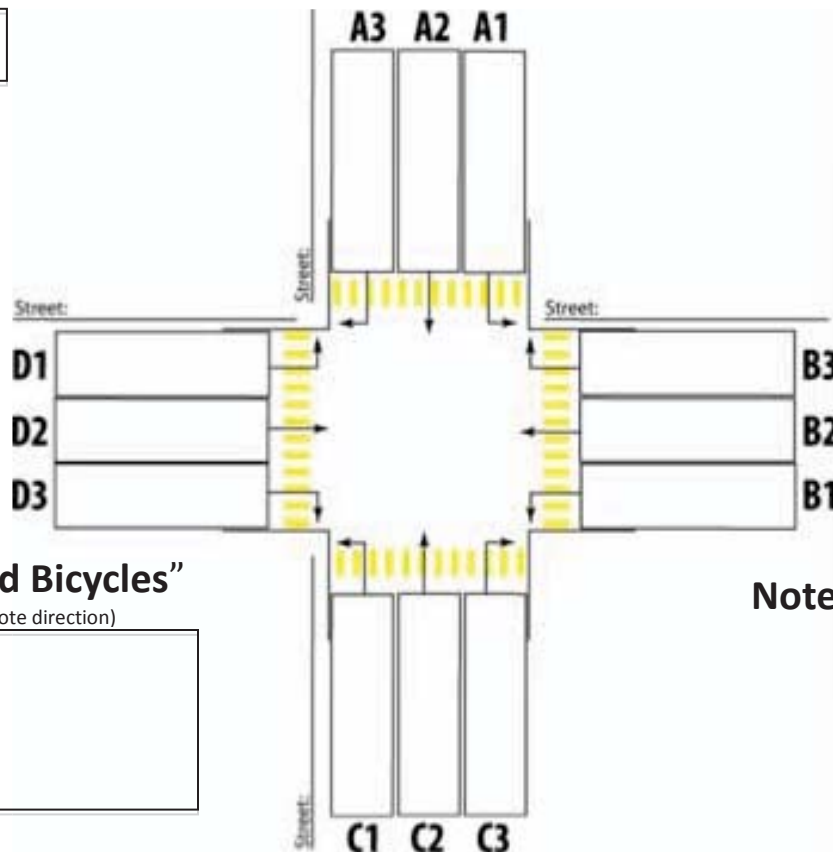
4:00-4:15



4:15-4:30



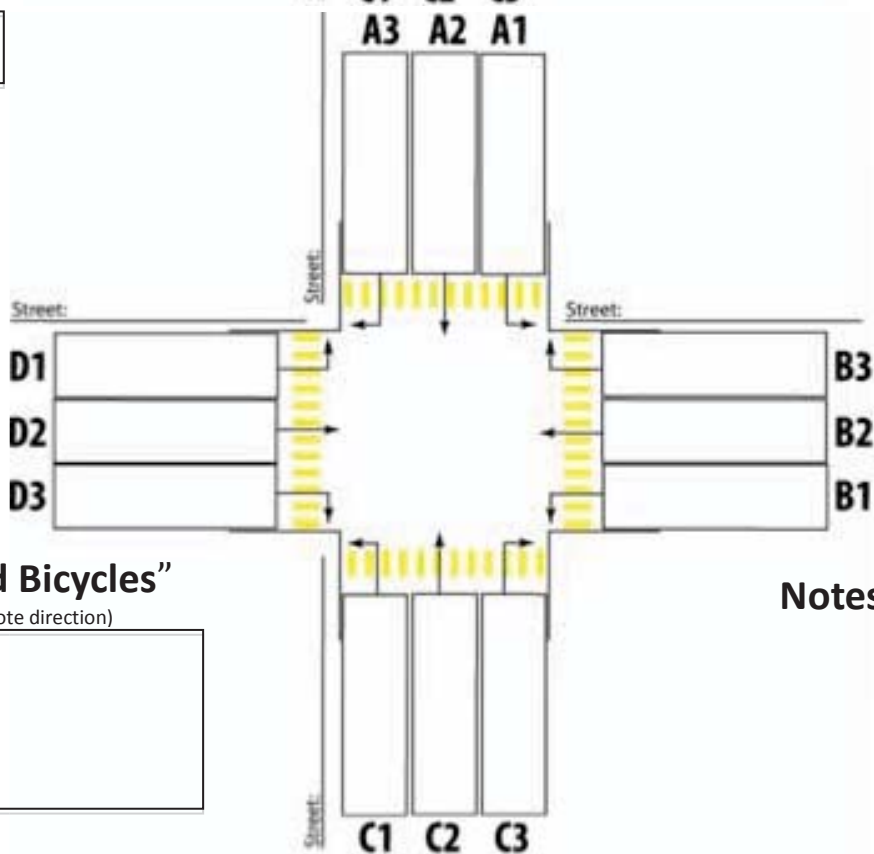
4:30-4:45



“Motorized Bicycles”

(please note direction)

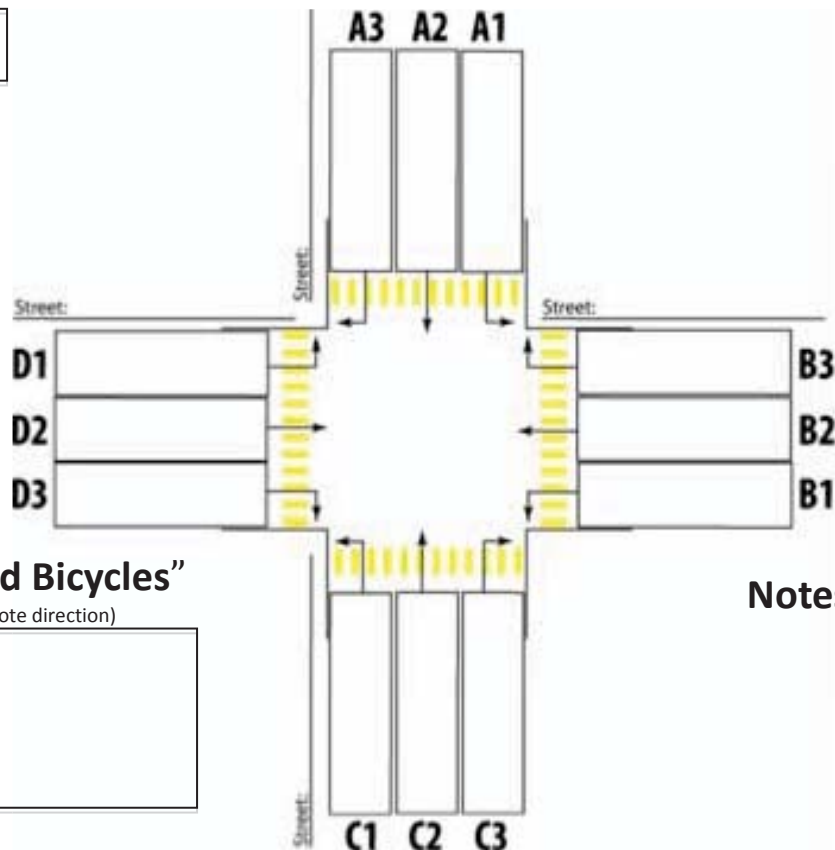
4:45-5:00



“Motorized Bicycles”

(please note direction)

5:00-5:15

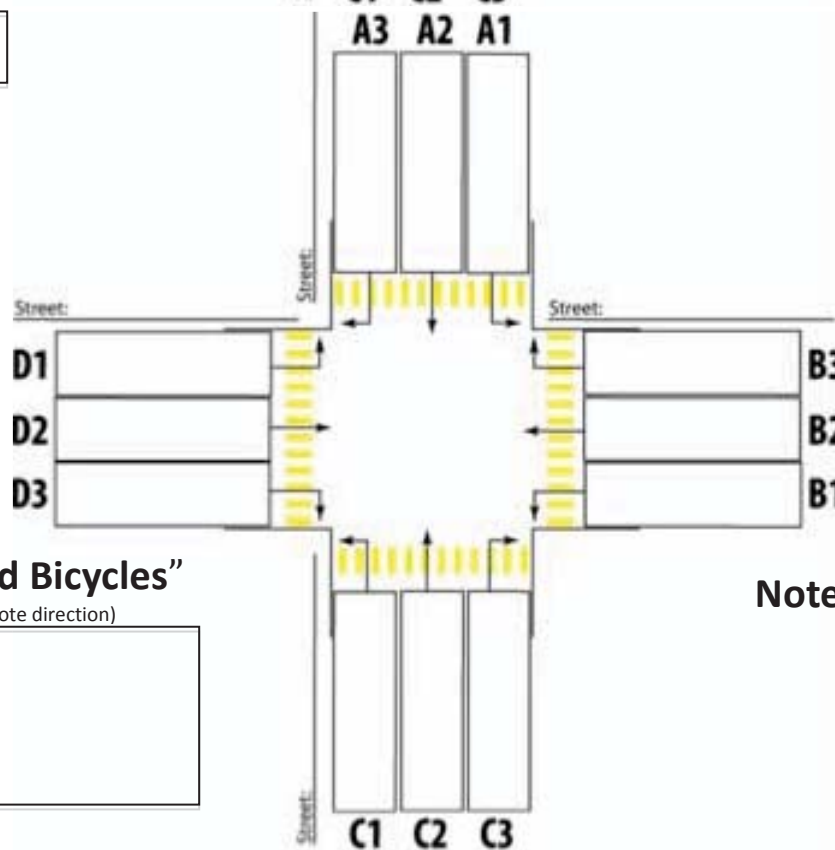


"Motorized Bicycles"

(please note direction)

Notes:

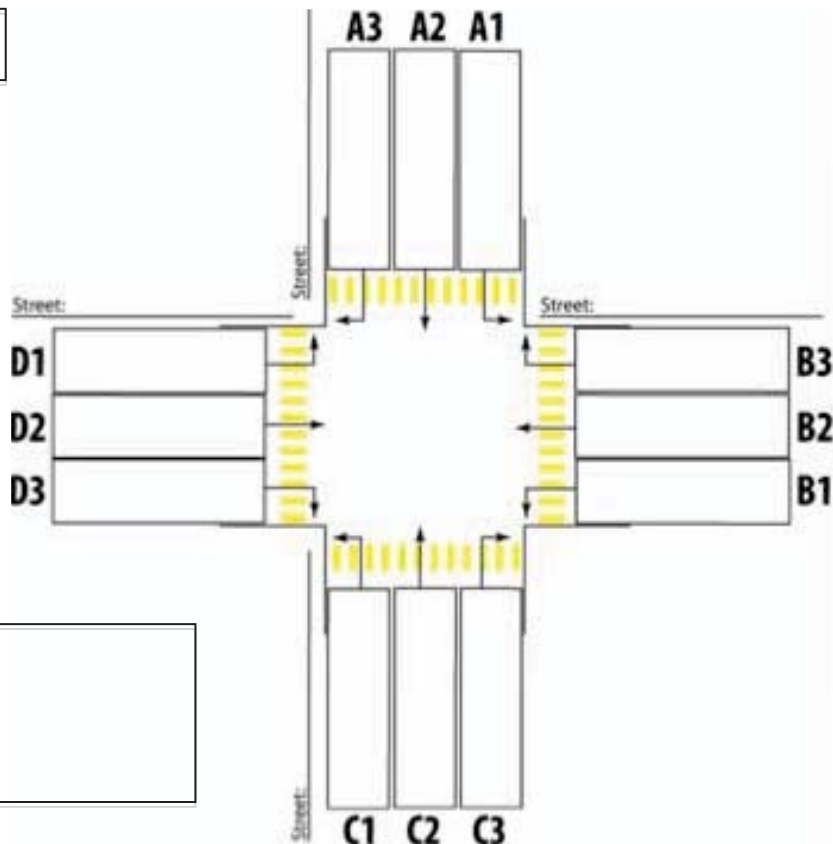
5:15-5:30



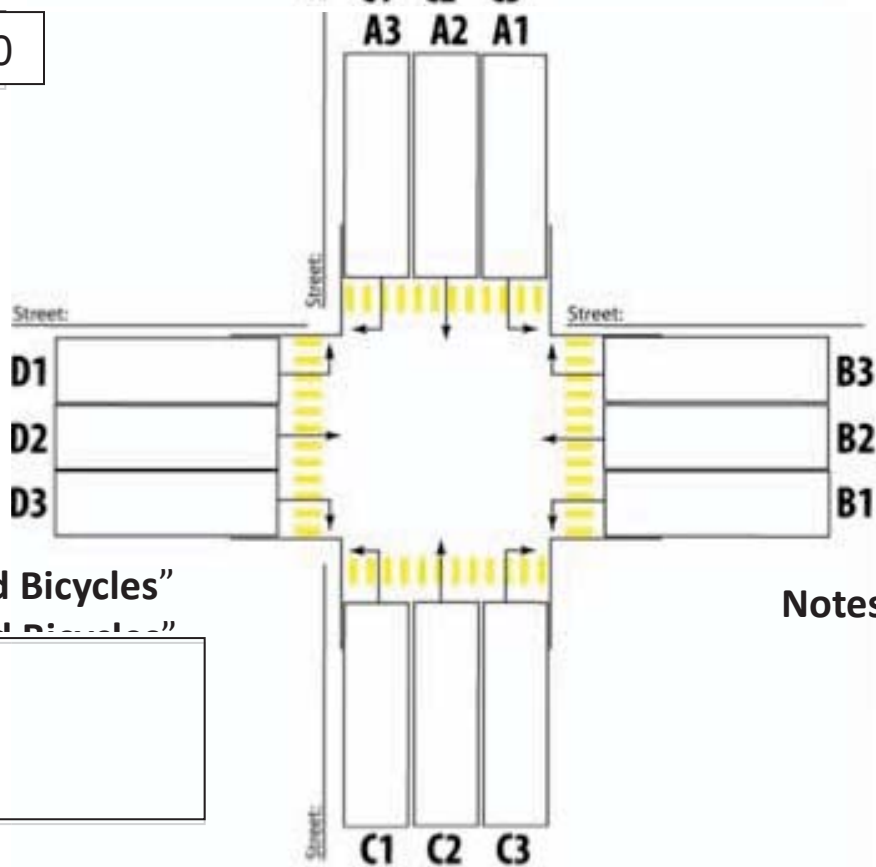
"Motorized Bicycles"

(please note direction)

Notes



5:45–6:00



“Motorized Bicycles”
“Motorized Bicycles”

Notes:

Pedestrian Intersection Count Form

Name: _____ Location: _____

Date: _____ Start Time: _____ End Time: _____

Weather: _____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

Please fill in your name, count location, date, time period, and weather conditions.
Count all pedestrians crossing through the intersection under the appropriate categories.

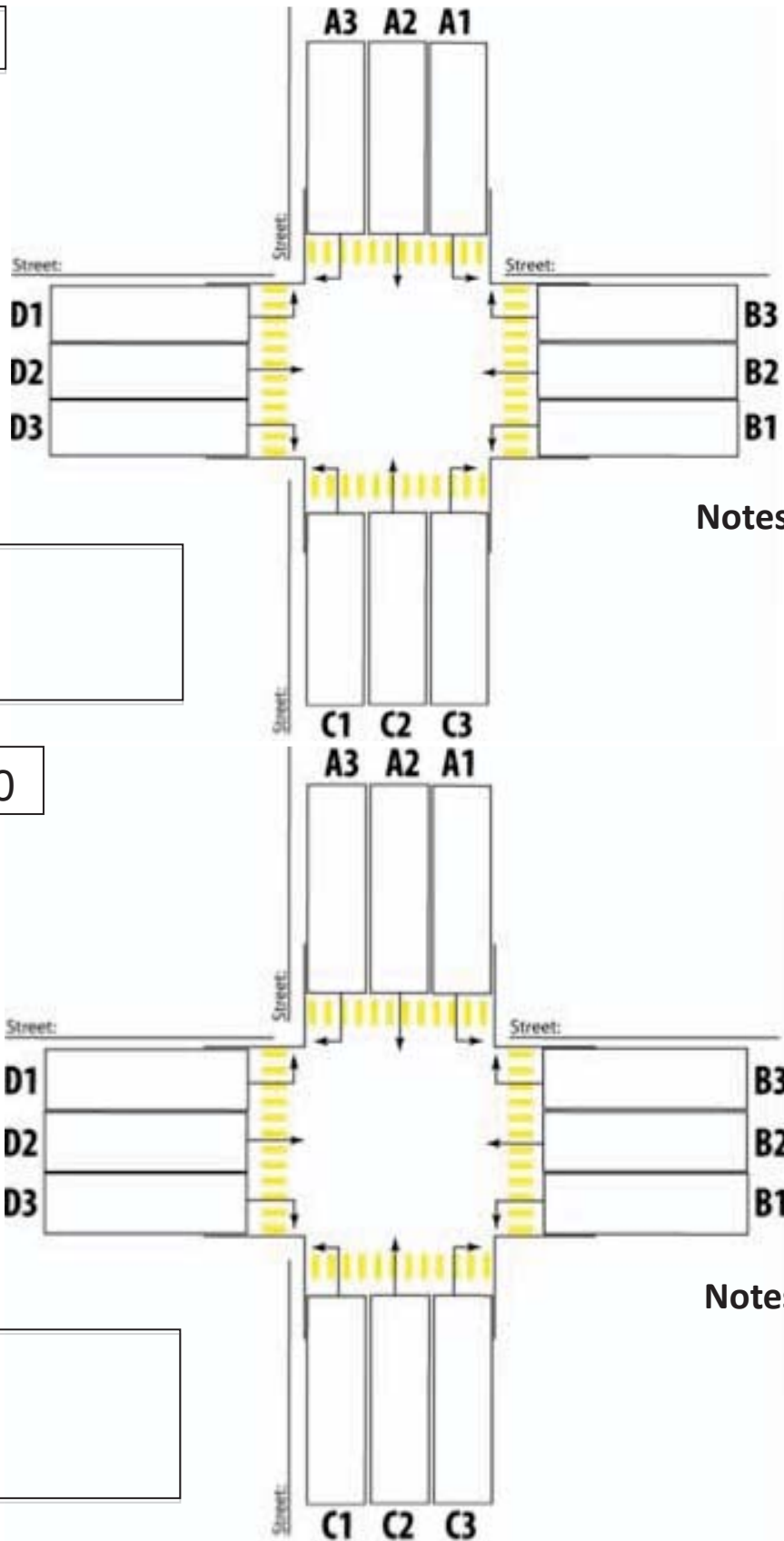
- Count for two hours in 15-minute increments.
- Use one intersection graphic per 15-minute interval
- Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location
- Tally on the intersection graphics based on which direction the pedestrians are approaching the intersection (where they are coming from) and which direction they are going
- Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, skateboarders, roller bladders, walking cyclists, people on scooters and jaywalkers. PLEASE COUNT ALL OF THESE PEDESTRIANS IN THE TALLY BOX.
- In addition, count skateboarders, roller bladders, walking cyclists, and people on scooters in the box labeled "Skateboarder (SK), Roller bladders (RB), Walking Cyclists (WC), Scooters (SC)" by recording the abbreviation followed by direction for which they are entering/exiting the intersection (*ex. SK-D3 = 1 skateboarder traveling along leg D3*). If, for example, there are a group of skaters, record by writing the number in the group followed by direction (*ex. 4 SK-B2 = four skateboarders traveling along leg B2*).
- Use the notes section to record any behaviors, events, or actions that might affect count data (*ex. car accident, running team passes, weather changes*)

4:00-4:15

Skateboard(SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction

4:15-4:30

Skateboard(SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction



Notes

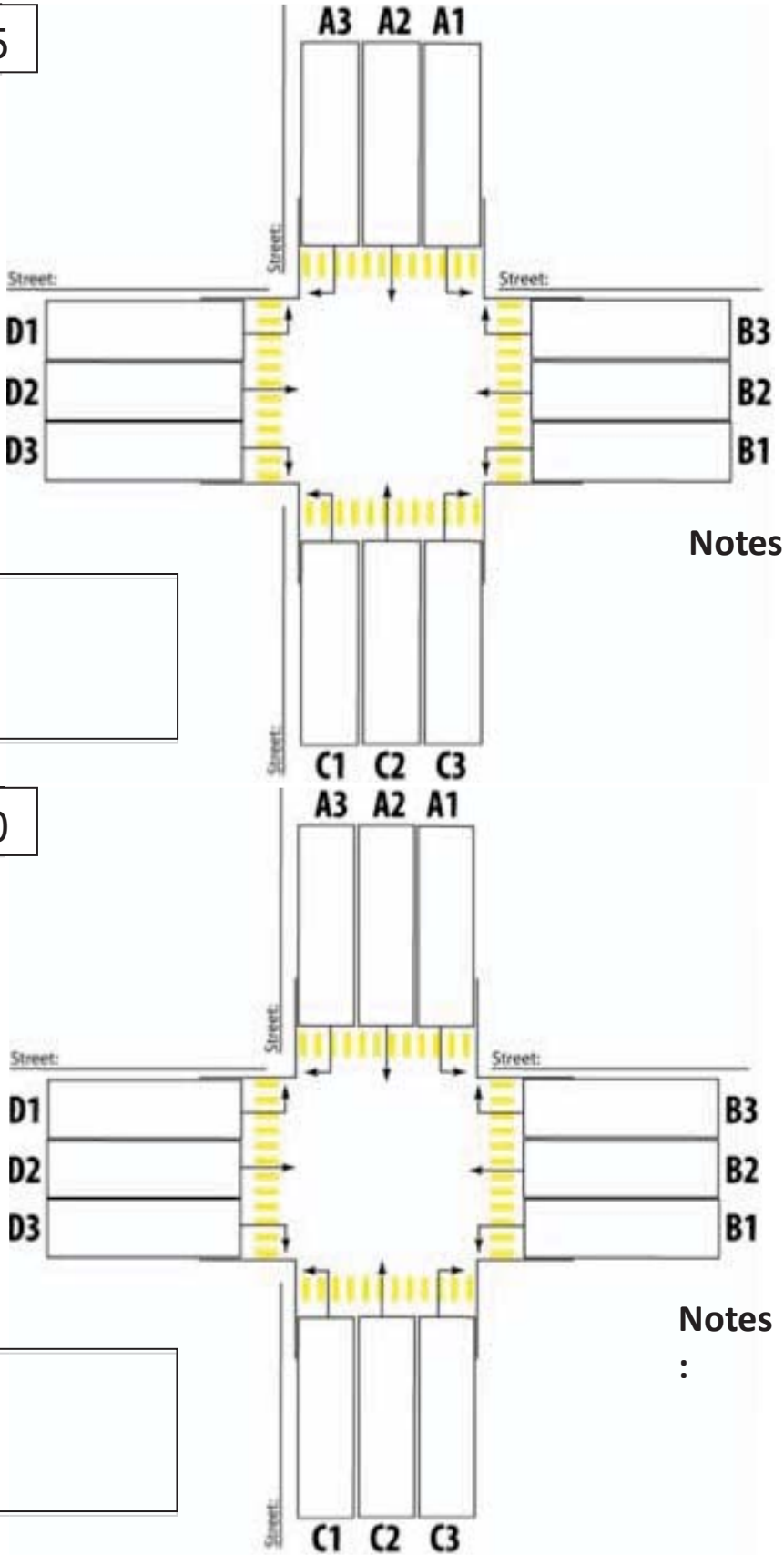
Notes:

4:30-4:45

Skateboard (SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction

4:45-5:00

Skateboard (SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction



Notes

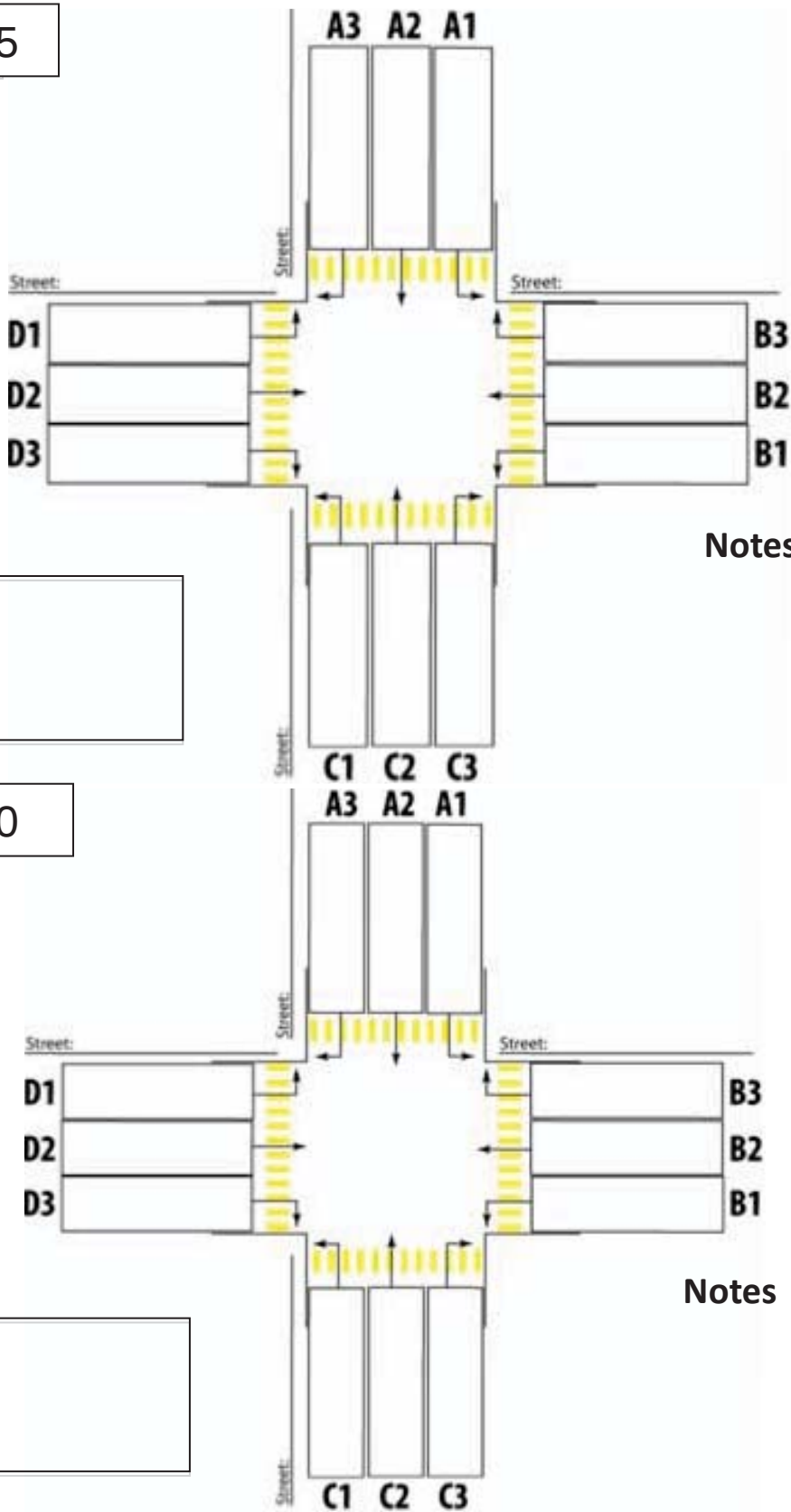
Notes
:

5:00-5:15

Skateboard(SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction

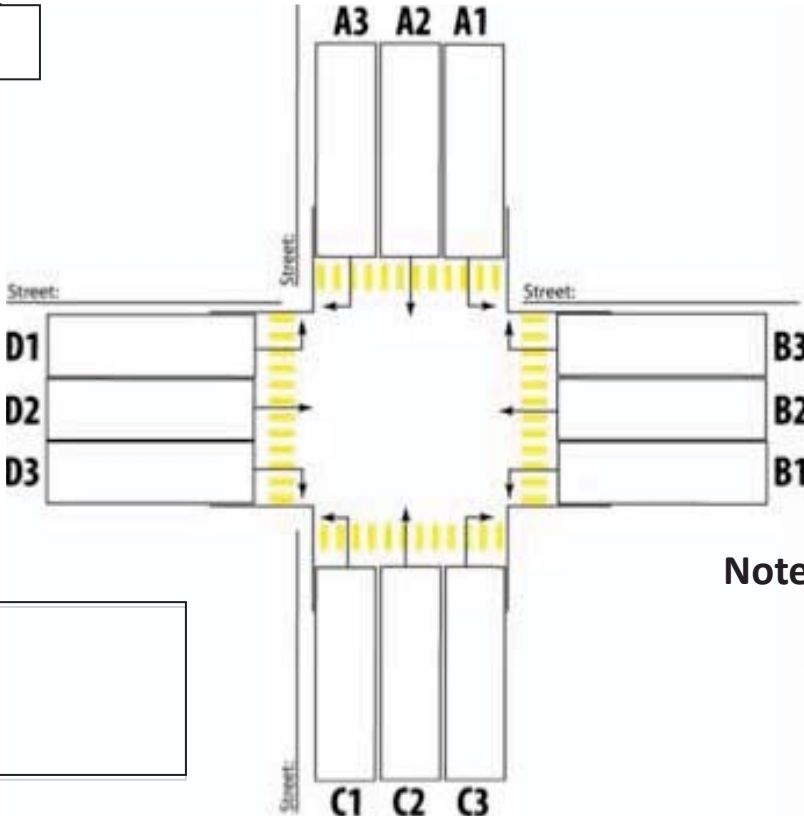
5:15-5:30

Skateboard(SK),
Walking Cyclist
(WC), Roller
Blader (RB),
Scooter (SC)
Please note direction



5:30-5:45

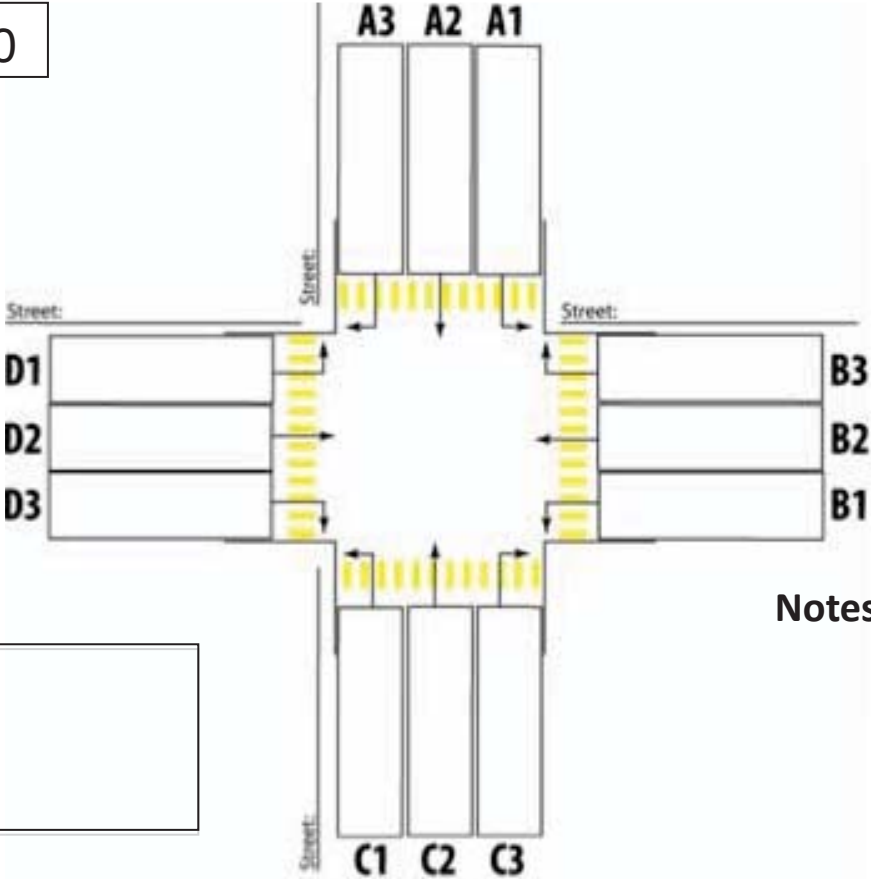
Skateboard(SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction



Notes

5:45-6:00

Skateboard(SK),
Walking Cyclist
(WC), Roller Blader
(RB), Scooter (SC)
Please note direction



Notes:

Appendix E

Table E-1: City of Santa Cruz Bike Counts- Oct. 2007, 4:30-5:30pm
(Counts are the number of bicyclists that are entering the intersection in the specified direction)

Date	Weather	Location (N/S & E/W)	Northbound	Southbound	Eastbound	Westbound	Total Count
10/9/2007	Cloudy/Cool	Pacific Ave. & Cooper	36	33	Not Applicable	Not Applicable	69
10/9/2007	Cloudy/Cool	Front St. & Laurel St.	14	24	41	42	121
10/9/2007	Cloudy/Cool	Seabright Ave. & Murray St.	10	19	29	40	98
10/9/2007	Cloudy/Cool	Seabright Ave. & Broadway	9	8	15	8	40
10/11/2007	Clear	Bay St. & King St.	11	70	14	16	111
10/11/2007	Clear	Riverway Path & Pedestrian Bridge	20	37	8	27	92
10/11/2007	Clear	Ocean St. & Water St.	11	8	44	32	95
10/11/2007	Clear	Branciforte & Soquel Ave.	15	17	31	10	73
10/16/2007	Clear/ Cool	Hagemann & Soquel Ave.	0	7	42	25	74
10/16/2007	Clear/ Cool	Woodrow & Delaware	19	20	30	8	77
10/18/2007	Clear/ Cool	California St. & Laurel St.	38	18	35	9	100

Non-typical Intersections							
			Northbound (Storey Towards High St.)	Eastbound (High St. towards Storey St.)	Eastbound (High St. contraflow)	Westbound (High St. toward UCSC)	Total Count
10/9/2007	Cloudy/Cool	Storey St & High St.	3	12	26	12	53
			Northbound Mission St.	Southbound Mission St.	Younglove (northbound toward Mission)	Almar Ave. (northbound toward Mission)	Total Count
10/9/2007	Cloudy/Cool	Mission St. / Almar Ave. / Younglove Ave.	12	18	4	3	37
			Eastbound (toward Boardwalk in street)	Eastbound (toward Boardwalk in bikeway)	Westbound (toward Wharf in street)	Westbound (toward Wharf in bikeway)	Total Count
10/11/2007	Clear	Beach St. (near intersection with Main St.)	3	42	2	19	66
			Northbound West Cliff Dr. (In Street towards Cowells)	Southbound West Cliff Dr. (In Street towards Natural Bridges)	Northbound West Cliff Dr. (Path towards Cowells)	Southbound West Cliff (Path towards Natural Bridges)	Total Count
10/18/2007	Clear/ Cool	West Cliff Drive & West Cliff Path	14	Not Available	52	Not Available	66

Table E-2: City of Santa Cruz Pedestrian Counts – Oct. 2007, 4:30-5:30pm
(Counts are the number of pedestrians that are entering the intersection in the specified direction)

Date	Weather	Location (N/S & E/W)	Northbound	Southbound	Eastbound	Westbound	Total Count
10/9/2007	Cloudy/Cool	Pacific Ave. & Cooper	634	577	NA	NA	1211
10/9/2007	Cloudy/Cool	Front St. & Laurel St.	13	51	36	34	134
10/9/2007	Cloudy/Cool	Seabright Ave. & Murray St.	29	30	4	9	72
10/9/2007	Cloudy/Cool	Seabright Ave. & Broadway	16	11	1	7	35
10/11/2007	Clear	Bay St. & King St.	18	8	7	9	42
10/11/2007	Clear	Riverway Path & Pedestrian Bridge	30	12	54	68	164
10/11/2007	Clear	Ocean St. & Water St.	19	16	28	15	78
10/11/2007	Clear	Branciforte & Soquel Ave.	12	16	38	32	98
10/16/2007	Clear/ Cool	Hagemann & Soquel Ave.	2	10	12	9	33
10/16/2007	Clear/ Cool	Woodrow & Delaware	8	14	10	3	35
10/18/2007	Clear/ Cool	California St. & Laurel St.	12	12	10	18	52

Non-typical intersections							
			Northbound (Storey Towards High St.)	Eastbound (High St. towards Storey St.)	Westbound (High St. toward UCSC)		Total Count
10/9/2007		High St. & Storey St.	5	7	9		21
			Northbound Mission St.	Southbound Mission St.	Younglove (northbound toward Mission)	Almar Ave. (northbound toward Mission)	Total Count
10/9/2007		Mission St. / Almar Ave. / Younglove Ave.	35	18	7	5	65
			Eastbound (toward Boardwalk)	Westbound (toward Wharf)	Eastbound (on sidewalk)	Westbound (on sidewalk)	Total Count
10/11/2007	Clear	Beach St. (near intesection with Main St.)	90	115	13	3	221
			West Cliff Path (towards Cowells)	West Cliff Path (towards Natural Bridges)			Total Count
10/18/2007		West Cliff Drive & West Cliff Path	117	137			254

**Table E-3: City of Santa Cruz Mode Split Counts – October, 2007,
Tues/Thurs 4:30-5:30 pm**

STREET	SEGMENT	WEATHER	DIRECTION	TOTAL TRAFFIC	MOTORS	%	BICYCLES	%	PEDS	%
ALMAR	RANKIN/ MISSION	CLEAR	NB	188	180	95	3	2	5	3
BAY	KING/ ANITA	CLEAR	NB	449	420	94	11	2	18	4
BEACH	WESTBROOK/ CLIFF	CLOUDY	EB	359	211	59	58	16	90	25
BROADWAY	SEABRIGHT/ CAYUGA	CLEAR	EB	624	608	97	15	3	1	0
CALIFORNIA	LAUREL/ RIGG	CLEAR	SB	150	120	80	18	12	12	8
DELAWARE	WOODROW/ ALGEA	CLOUDY	EB	262	222	85	30	11	10	4
FRONT	CATHCART/ LAUREL	CLOUDY	SB	487	412	85	24	5	51	10
HIGH	STOREY/ LAURENT	CLEAR	EB	452	419	92	26	6	7	2
KING	BAY/ LAURENT	CLEAR	WB	320	295	92	16	5	9	3
LAUREL	WALT/ CALIFORNIA	CLEAR	WB	581	554	95	9	2	18	3
LAUREL	FRONT/ SAN LORENZO	CLEAR	WB	518	442	85	42	8	34	7
MURRAY	SEABRIGHT/ HARBOR	CLOUDY	WB	543	494	91	40	7	9	2
N. B40	MINNIE/ SOQUEL	CLEAR	SB	453	420	93	17	4	16	3
OCEAN	WATER/ LEONARD	CLEAR	NB	1086	1056	97	11	1	19	2
PACIFIC	CHURCH/ WALNUT	CLOUDY	NB	864	194	23	36	4	634	73
RIVER (SOUTH)	RIVER/ SOQUEL	CLOUDY	SB	469	420	89	37	8	12	3
SEABRIGHT	BROADWAY/ EFFEY	CLEAR	SB	302	283	93	8	3	11	4
SEABRIGHT	LOGAN/ WATSON	CLOUDY	SB	305	256	84	19	6	30	10
SOQUEL	BRANCIFORTE/ CALEDONIA	CLEAR	WB	580	538	93	10	2	32	5
W. CLIFF	PELTON/ LIGHTHOUSE	CLEAR	NB	483	300	62	66	14	117	24
WATER	OCEAN/ RIVER	CLEAR	EB	1476	1404	95	44	3	28	2
WOODROW	DELAWARE/ PLATEAU	CLOUDY	NB	207	180	87	19	9	8	4
YOUNGLOVE	SEASIDE/ MISSION	CLEAR	NB	63	52	83	4	6	7	11
TOTAL				11221	9480	84.5 %	563	5.0 %	1178	10.5 %

**Table E-4: City of Santa Cruz Mode Split Counts – October, 2002,
Tues/Thurs 4:30-5:30 pm**

STREET	SEGMENT	WEATHER	DIRECTION	TOTAL TRAFFIC	MOTORS	%	BICYCLES	%	PEDS	%
ALMAR	RANKIN/ MISSION	CLEAR	NB	316	305	96	3	1	8	3
BAY	KING/ ANITA	CLEAR	NB	468	425	91	12	3	31	6
BEACH	WESTBROOK/ CLIFF	CLOUDY	EB	388	322	83	35	9	31	8
BROADWAY	SEABRIGHT/ CAYUGA	CLEAR	EB	546	535	98	7	1	4	1
CALIFORNIA	LAUREL/ RIGG	CLEAR	SB	158	133	84	15	10	10	6
DELAWARE	WOODROW/ ALGEA	CLOUDY	EB	194	177	91	14	7	3	2
FRONT	CATHCART/ LAUREL	CLOUDY	SB	600	555	93	15	3	30	5
HIGH	STOREY/ LAURENT	CLEAR	EB	458	407	89	37	8	14	3
KING	BAY/ LAURENT	CLEAR	WB	346	317	92	22	6	7	2
LAUREL	WALT/ CALIFORNIA	CLEAR	WB	695	677	97	11	2	7	1
LAUREL	FRONT/ SAN LORENZO	CLEAR	WB	798	736	92	33	4	29	4
MURRAY	SEABRIGHT/ HARBOR	CLOUDY	WB	682	636	93	38	6	8	1
N. B40	MINNIE/ SOQUEL	CLEAR	SB	340	317	93	10	3	13	4
OCEAN	WATER/ LEONARD	CLEAR	NB	759	720	95	11	1	28	4
PACIFIC	CHURCH/ WALNUT	CLOUDY	NB	674	178	26	28	4	468	70
RIVER (SOUTH)	RIVER/ SOQUEL	CLOUDY	SB	470	415	88	31	7	24	5
SEABRIGHT	BROADWAY/ EFFEY	CLEAR	SB	367	341	92	20	6	6	2
SEABRIGHT	LOGAN/ WATSON	CLOUDY	SB	429	374	87	21	5	34	8
SOQUEL	BRANCIFORTE/ CALEDONIA	CLEAR	WB	266	205	77	23	9	38	14
W. CLIFF	PELTON/ LIGHTHOUSE	CLEAR	NB	406	310	76	35	9	61	15
WATER	OCEAN/ RIVER	CLEAR	EB	1281	1178	92	56	4	47	4
WOODROW	DELAWARE/ PLATEAU	CLOUDY	NB	167	144	86	12	7	11	7
YOUNGLOVE	SEASIDE/ MISSION	CLEAR	NB	93	75	81	6	6	12	13
TOTAL				10901	9482	87 %	495	4.5 %	924	8.5 %
Counts removed for 2002/ 2007 comparison:										
CAPITOLA	SOQUEL/ CITY LIMIT	CLEAR	NB	562	551	98	8	1	3	1
CHURCH	PACIFIC/ CEDAR	CLOUDY	EB	346	108	31	10	3	228	66
SOQUEL	CAPITOLA/ CARL	CLEAR	WB	596	575	96	16	3	5	1

Appendix F

Figure F-1: UCSC Bike Ridership Counts at Main and West Entrances

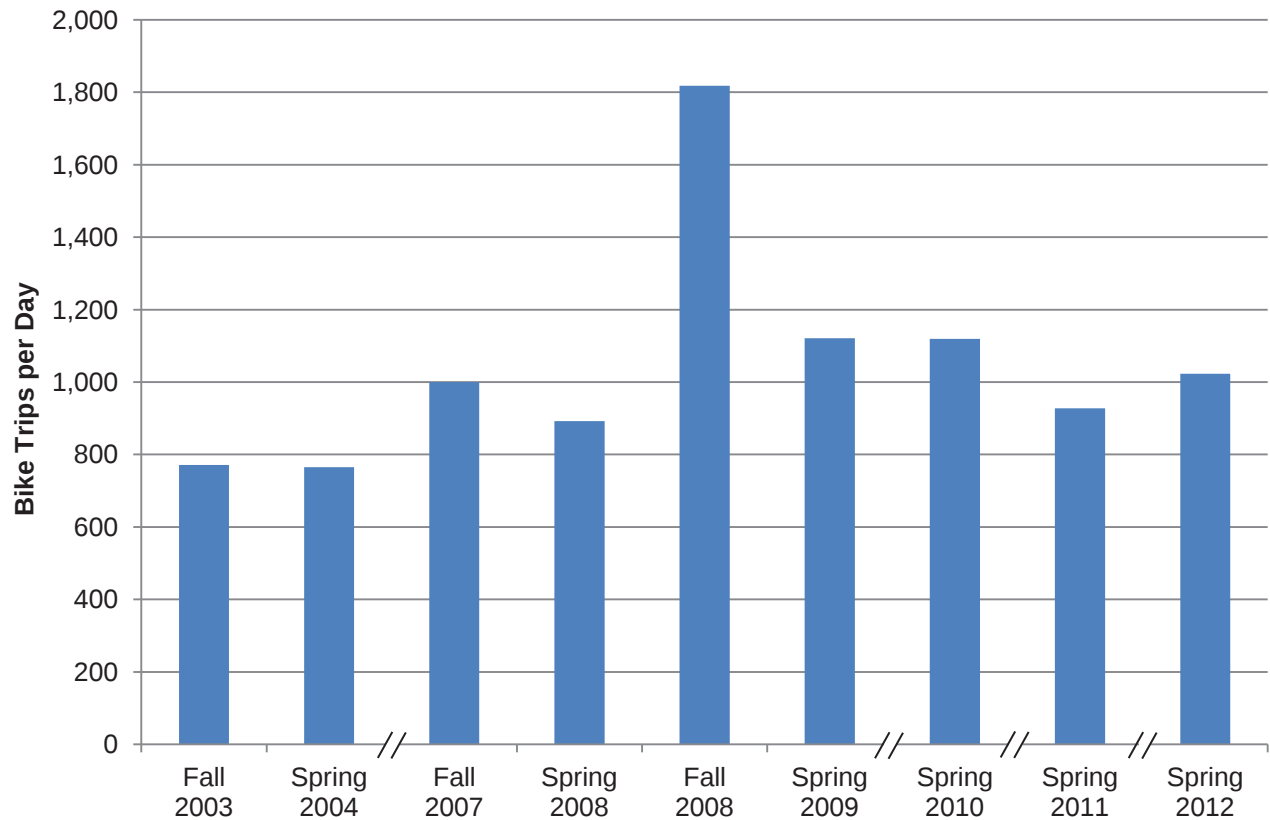


Table F-1: UCSC Bicycle Count Data at Main and West Entrances*

Time	Fall 2003	Spring 2004	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Spring 2009 (McLaughlin)	Spring 2010	Spring 2011	Spring 2012
7:00-7:15am	7	10			6	10	0	6	7	3
7:15-7:30am	2	11	6	8	25	7	2	17	13	8
7:30-7:45am	11	11	2	10	40	15	1	20	24	8
7:45-8:00am	18	11	10	9	40	21	11	16	12	22
8:00-8:15am	10	4	11	11	44	25	3	7	9	21
8:15-8:30am	19	10	26	13	36	26	9	20	21	10
8:30-8:45am	17	19	21	14	21	15	6	10	18	15
8:45-9:00am	21	16	23	16	26	27	5	17	21	23
9:00-9:15am	27	16	16		33	28	2	20	21	22
9:15-9:30am	11	17			34	22	6	17	27	22
9:30-9:45am	19	18	17	25	50	21	16	17	15	11
9:45-10:00am	8	11	26	19	59	16	22	21	12	13
10:00-10:15am	13	20	10	9	20	15	14	14	11	5

Time	Fall 2003	Spring 2004	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Spring 2009 (McLaughlin)	Spring 2010	Spring 2011	Spring 2012
10:15-10:30am	11	17	7	4	25	15	7	12	15	9
10:30-10:45am	18	28	10	15	19	15	9	4	21	11
10:45-11:00am	22	14	11	10	10	27	8	7	13	15
11:00-11:15am	9	10	15	9	18	11	14	9	15	16
11:15-11:30am	11	9	13	14	17	22	5	14	10	9
11:30-11:45am	12	9	33	15	57	25	16	23	9	12
11:45-12:00pm	11	11	29	21	49	33	23	42	20	15
12:00-12:15pm	17	21	18	19	31	19	5	21	24	20
12:15-12:30pm	19	21	44	13	31	18	10	14	17	29
12:30-12:45pm	6	17	17	17	22	22	9	11	22	13
12:45-1:00pm	6	13	17	17	19	23	6	18	19	12
1:00-1:15pm	15	20	20	18	29	17	8	15	11	15
1:15-1:30pm	11	12	19	17	39	14	16	24	10	20
1:30-1:45pm	13	14			65	17	19	31	29	20
1:45-2:00pm	22	22			41	40	37	32	24	31
2:00-2:15pm	13	16			41	25	20	43	12	21
2:15-2:30pm	10	10			24	16	3	23	15	15
2:30-2:45pm	13	12			24	20	9	18	13	25
2:45-3:00pm	17	20			31	23	7	16	27	19
3:00-3:15pm	13	20			16	32	7	16	20	22
3:15-3:30pm	25	33			46	15	10	42	43	48
3:30-3:45pm	24	21			51	29	8	33	19	21
3:45-4:00pm	37	19			94	35	21	40	20	22
4:00-4:15pm	11	22	40	32	80	32	3	45	28	36
4:15-4:30pm	24	15	26	18	57	21	13	43	42	41
4:30-4:45pm	22	22	33	36	53	28	8	35	26	55
4:45-5:00pm	25	31	34	28	57	35	5	51	30	51
5:00-5:15pm	50	36	29	50	86	50	5	53	37	60
5:15-5:30pm	44	33	34	34	93	35	8	56	47	62
5:30-5:45pm	33	25	44	37	78	69	10	61	49	50
5:45-6:00pm	24	18	54	66	81	90	18	65	30	45
6:00-6:15pm										39
6:15-6:30pm										43
6:30-6:45pm										48

*Spring 2009 counts on McLaughlin Dr (near College Ten Rd) were taken at a location within the campus and not at the Main or West entrances.

TO: Interagency Technical Advisory Committee

FROM: Rachel Moriconi, Senior Transportation Planner

SUBJECT: State Highway Advanced Planning

RECOMMENDATION

Staff recommends that the Interagency Technical Advisory Committee identify projects on State Highways in Santa Cruz County that local jurisdictions anticipate pursuing in the next 5 years.

BACKGROUND

Each year, Caltrans works with Regional Transportation Planning Agencies (RTPA), such as the Santa Cruz County Regional Transportation Commission (RTC), to identify Highway Projects for “Advanced Planning”. This includes development of a list of highway projects which are anticipated to start environmental review in the next 5 years and start construction within the next 10 years. Caltrans requires that a Project Initiation Document (PID) be developed before a project on the state highway system can move forward with environmental review, design, and construction. Project Initiation Documents (PIDs), typically a Project Study Report (PSR), identify scope, schedule, and estimated cost information to be used to inform funding decisions.

Since 2010, the Caltrans budget for PID development has been significantly reduced and local agencies must now pay for preparation of and Caltrans oversight (Independent Quality Assurance (IQA)) of locally-supported PIDs. Caltrans has been working to minimize requirements and streamline PIDs in order to reduce the cost and time to prepare a PID. As part of that effort, Caltrans has made a streamlined Project Study Report - Project Development Support (PSR-PDS) the standard for locally-sponsored highway projects.

DISCUSSION

Staff recommends that the Interagency Technical Advisory Committee (ITAC) identify highway projects that local jurisdictions plan to advance in the next 5 years.

As noted above, highway projects will need to have a PID completed before starting environmental review. Since PIDs become “stale” over time, PIDs should only be prepared for projects that could realistically be funded and delivered in the near future.

A list of projects identified last year for Caltrans’ 3-year PID work program is attached ([Attachment 1](#)). A list of projects that have been identified for the long range 2014 Regional Transportation Plan that may modify state highways is also attached ([Attachment 2](#)).

Notably, new Project Initiation Documents are not needed for projects on Highway 1 that are part of the larger Highway 1 Corridor project. These include Auxiliary Lanes between Soquel Avenue and San Andreas Road/Larkin Valley and the Mar Vista Bike/Ped Bridge. Additionally, a

PID was already completed and environmental review initiated for the City of Santa Cruz Highway 1/9 Intersection project. A PSR for the City of Santa Cruz's Highway 1 Bridge Widening over San Lorenzo River is currently under development.

SUMMARY

Each year local agencies work with Caltrans to identify state highway projects that may be locally funded in the near future and would require development of a Project Initiation Document. Staff recommends that the ITAC identify highway projects that are likely to be funded and constructed in the next ten years.

Attachments

1. PID Work Program
2. Highway Projects in the Draft Regional Transportation Plan (RTP)

s:\itac\2013\apr2013\staff report hwyplng2013.docx

Locally Sponsored 4-yr Project List and 3-Yr Work Program (PIDs) for Santa Cruz County

Route	Begin Postmile	End Postmile	Purpose & Need	Improvement Description	Location	RTP Project Number	Initiation Date (MM/DD/YYYY)	Estimated PID Completion Date (MM/YYYY)	Estimated Total PID Cost (PY)	Capital Cost (\$M)	Support Cost (\$M)	Funding (Local Measure/Other/Both/NA; STIP, etc.)	Type of PID	Project Sponsor	Implementing Agency	Comments
1	17.2	18.2	Operational Improvement	Widen San Lorenzo Bridge	On Rte 1 in the city of Santa Cruz at the San Lorenzo Bridge	SC38	8/15/2006	8/1/2012		10.00	5.00	Other	PSR(PDS)	City of Santa Cruz	City of Santa Cruz	Co-op agreement in place
152	T2.5	T2.5	Operational Improvement	Intersection improvements at Freedom Blvd	On Rte 152 in the city of Watsonville at the Freedom Blvd intersection	WAT27	10/21/2009			0.80	0.16	Other	PSR(PDS)	Watsonville	Watsonville	Candidate on hold, city requested relinquishment of SR 152
1	13.2	13.2	Operational Improvement	Modify signal, bus stop and turn lanes	In the city of Santa Cruz at the intersection of Rte 1 (Mission St) and Bay Avenue	SCR77						Other	PSR(PDS)	City of Santa Cruz	City of Santa Cruz	
1	18.1	18.3	Operational Improvement	Intersection improvements	In the city of Santa Cruz at the two intersections of Rte 1 (Mission St) with Chestnut and King Street	SCR81						Other	PSR(PDS)	City of Santa Cruz	City of Santa Cruz	

HIGHWAY PROJECTS in <i>Regional Transportation Plan (Draft 2014 RTP)</i>				
RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
	PLANNING/PROJECT IMPLEMENTATION UNDERWAY			
SC 25	Hwy 1/9 Intersection Modifications	Intersection modifications including new turn lanes, bike lanes/shoulders. Includes adding second left-turn lane on Highway 1 southbound to Highway 9 northbound; second northbound through lane and shoulder on northbound Highway 9, from Highway 1 to Fern Street; a right-turn lane and shoulder on northbound Highway 9; through-left turn lane on northbound River St; replace channelizers on Highway 9 at the intersection of Coral Street; sufficient lane width along the northbound through/left turn lane on Highway 9 from Fern Street to Encinal Street; new sidewalk along the east side of Highway 9 from Fern Street north to Encinal Street; new through/left turn lane on southbound Highway 9; Traffic Signal interconnect to adjacent signals. (Caltrans project ID - EA05-46580)	\$6,200	2013-20; PID done, project in PA/ED
SC 38	Hwy 1/San Lorenzo Bridge Replacement	Replace the Highway 1 bridge over San Lorenzo River to increase capacity, improve safety and improve seismic stability, from Highway 17 to the Junction of 1/9. Reduce flooding potential and improve fish passage. Caltrans project ID - EA05-OP460	\$20,000	2015-2020; PID under development;
WAT 01	Hwy 1/ Harkins Slough Road Interchange	Reconstruct current half interchange to add on and off ramps to the northern side of the interchange in order to relieve congestion at Main Street (Hwy 152)/Green Valley Road intersection. Widen bridge, add bike lanes and sidewalks. (Caltrans Project ID - EA05-44130)	\$9,800	PID done; est. 2013-17
WAT 27a	Main St. (Hwy 152)/Freedom Blvd Roundabout	Installation of a roundabout to replace the currently signalized intersection with safety considerations for bike/ped. Caltrans Project ID - EA05-OT150	\$1,250	Fact Sheet on hold, would need PID if no relinquish. 2014-20
CT-P41	Hwy 17 Access Management/Corridor Study	Prepare a SR 17 study to determine long-range solutions to access, operations and safety on this route. Cost Est. TBD.	\$0	2015-35; preplanning underway

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
	Components of Hwy 1 HOV (RTC 24) - Do not require new PID			
RTC 30	Hwy 1 Bicycle/Ped Overcrossing at Mar Vista	Construct a bicycle/pedestrian overcrossing of Hwy 1 in vicinity of Mar Vista Drive, providing improved access to Seaciff and Aptos neighborhoods and schools.	\$7,550	2014-20
RTC 24f	Hwy 1 Soquel Av-41st Auxiliary Lanes and Chanticleer Bike/Ped Bridge	Construct auxiliary lanes extending the freeway on-ramp to connect with the next freeway off-ramp in both NB & SB directions and construct a bicycle/pedestrian overcrossing of Hwy 1 at Chanticleer Ave.	\$27,000	2014-20
RTC 24e	Hwy 1 Auxiliary Lanes: Bay/Porter to Park Avenue	Construct auxiliary lanes extending the freeway on-ramp to connect with the next off-ramp in both NB & SB directions, reconstruct Capitola Avenue overcrossing; retaining walls and soundwalls as required, TSM elements, landscaping, and mitigate impact to natural resources. (EA 05-0L090)	\$30,000	2020-25
RTC 24g	Hwy 1 Auxiliary Lanes: State Park Dr. to Park Ave.	Construct auxiliary lanes extending the freeway on-ramp to connect with the next off-ramp in both NB & SB directions, retaining walls and soundwalls as required, TSM elements, landscaping, and mitigate impact to natural resources. Could be a stand alone project or part of Hwy 1 HOV Lane project (RTC 24).	\$35,000	2020-25
RTC 24h	Hwy 1/Morrissey Interchange	Reconstruct overcrossing with sidewalks & bike lanes on both sides of the overcrossing, reconfigure ramps and local streets to improve traffic flow and accommodate ramp metering, and potential HOV lanes in the future. Moderate ROW acquisition and residential relocation. Could be a stand alone project or part of Hwy 1 HOV Lane project (RTC 24).	\$40,000	
RTC 24i	Hwy 1/Soquel Avenue Interchange	Reconstruct overcrossing with sidewalks & bike lanes on both sides of the overcrossing, reconfigure ramps and local streets to improve traffic flow and accommodate ramp metering and potential HOV lanes in the future. Extensive ROW acquisition, commercial relocation and mitigate impact to natural resources. Could be a stand alone project or part of Hwy 1 HOV Lane project (RTC 24).	\$75,000	

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
RTC 24j	Hwy 1 Bay/Porter and 41st Avenue Interchange	Reconstruct this section of the highway to operate as a single interchange with a frontage road connecting the Bay/Porter and 41st Ave intersections to better serve local traffic and provide bike lanes and sidewalks. Arterial crossings of the highway, ramps, and local road sections will be designed to accommodate ramp metering and potential HOV lanes in the future. Extensive ROW acquisition, commercial relocation, and mitigate impact to natural resources. Could be a stand alone project or part of Hwy 1 HOV Lane project (RTC 24).	\$117,000	
RTC 24	Hwy 1 HOV Lanes and Auxiliary Lanes (Morrissey to Larkin Valley Rd)	Add High Occupancy Vehicle (HOV or Carpool) Lanes to Highway 1 from San Andreas/Larkin Valley to Morrissey Boulevard. Includes auxiliary lanes, reconstruction of interchanges, over and under crossings, reconfiguration of ramps and local streets to allow ramp meters and auxiliary lanes, new bike/ped crossing at Trevethan, soundwalls, and traffic operation system (TOS) elements on the corridor. \$475M if constructed as one project (not separate components listed elsewhere)	\$475,000	Tier 1 PA/ED; 2015-35
RTC 24a	Hwy 1 Reconstruct Interchanges and Install Ramp Metering	This project involves interchange modifications including reconfiguration of ramps and local streets to allow ramp meters to be installed and operated along the 9+ mile corridor from Aptos to Santa Cruz. Reconstruction of crossing structures will be of sufficient size to add sidewalks and bike lanes in each direction, and potential HOV Lanes in the future. Could be a stand alone project or part of Hwy 1 HOV Lane project (RTC 24).	TBD	2015-35
	Local projects that MAY need a PID			
SC-P113	Hwy 1/Mission St at Swift Intersection Modification	Modify traffic signal to add Swift right-turn lane and signal overlap phase.	\$100	long range
SC-P92	Hwy 1/Shaffer Rd Signalization	Signalization of intersection of State Route 1 and Shaffer Rd. Project may include some widening of Route 1 to accommodate a left turn lane.	\$500	long range
SC-P77	Bay Street Corridor Modifications	Intersection modifications on Bay St Corridor from Mission St/Hwy 1 to Escalona Dr, including widening at the Mission St northeast corner and widening on Bay. Improve bike lanes and add sidewalks to west side of Bay.	\$4,000	2020

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
SC-P112	Hwy 1/Mission St at Laurel Intersection Modification	Modify traffic signal to add right-turn from Mission to Laurel and signal overlap phase.	\$100	2025
SC-P81	Hwy 1/Mission St at Chestnut/King/Union Intersection Modification	Modify design of existing intersections to add lanes and upgrade the traffic signal operations to add capacity, reduce delay and improve safety. Provide access ramps and bike lanes on King and Mission. Includes traffic signal coordination.	\$4,500	2020-2025
SC-P29	Hwy 1/Morrissey Blvd. overcrossing - Bike and Ped facilities	Install a Class 1 bicycle and pedestrian facility on freeway overpass.	\$90	2025
SC-P03	Hwy 1 Sound Wall	Install sound wall on Hwy 1: River to Chestnut.	\$500	long range
SC-P108	Hwy 1 - Harvey West Area Alternative Access	Development of an on/off ramp from NB Highway 1 to Harvey West Boulevard/Evergreen St, to improve access, especially during peak congestion times and emergencies.	\$4,000	2020-25
CT-P07a	Hwy 1 Bike/Ped Bridge (Cabrillo-New Brighton)	Construction of bike/ped bridge connecting New Brighton State Beach and Cabrillo College as part of larger Nisene SP to the Sea trail concept. Lead agency TBD.	\$8,000	long range
CT-P01	Hwy 1 Ramp Metering: Southern Sections	Installation of ramp meters at interchanges from Mar Monte Ave to Hwy 129/Riverside Dr (south of HOV Lane project limits)	\$20,000	2025-35
CT-P32	Hwy 129/Riverside Drive Widening (Union-Bridge St)	Widen Riverside Drive (SR 129) from 2 to 4 lanes, reconstruct existing street (Union St to Bridge St.)	\$8,000	2025-35
CT-P33	Hwy 152/East Lake Widening (Martinelli-Holohan)	Widen East Lake Av. (SR 152) from 2 to 4 lanes (Martinelli St-Holohan).	\$1,000	long range
TBD	Hwy 152/East Lake Ped Xg at St. Francis Church/High School	Ped bridge over Hwy 152 to provide access between High School and Church parking lot	\$1M-\$5M	TBD
SV-P24	Hwy 17/Emergency Access Granite Creek	Connect Granite Creek Rd to SR 17 via Navarra Drive to Sucinto Drive, for emergency access.	\$550	2025-35
SV-P08	Hwy 17/Granite Creek Interchange Reconstruction	Realign/reconfigure the Granite Creek Road over crossing, add bike lanes and sidewalks. (EA 05-49380)	\$8,000	2020-2030
SV-P01	Hwy 17/Midtown Interchange	Construct new SR17 interchange midway between Mt. Hermon Rd and Granite Creek Rd. Will require right-of-way.	\$30,000	TBD

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
SV-P44	Hwy 17/Mt. Hermon Rd. Ramps Intersection Operations Improvement Project	Add lane to SB off-ramp at Mt. Hermon/SR-17 interchange	\$1,000	2020-25
CO-P40	Hwy 9/Glen Coolidge Drive Bike Path connection	Class 1 bike facility from Glen Coolidge Dr to Hwy 9 to provide eastern access to UCSC.	\$2,300	2025-35
CO-P46b	Hwy 9/San Lorenzo Valley Trail: North Felton Bike Lanes & Sidewalks	Install sidewalk/pedestrian path on west side, shoulder widening to 5' for bicycle lanes from Felton-Empire/Graham Hill Rd to Glen Arbor Road, Ben Lomond, including frontage of SLV elementary, middle and high schools. Includes new and replacement bike/ped bridges.	\$7,400	2025-35
CO-P46a	Hwy 9/San Lorenzo Valley Trail: Downtown Felton Bike Lanes & Sidewalks	Install sidewalks and bicycle lanes on Hwy 9 through downtown Felton	\$2,200	2025-35
	OTHER LOCAL ROAD PROJECTS - Unclear if impact SRS			
CAP-P49	41st Ave (Soquel to Brommer) Signal Synchronization	Update synchronization of signals on 41st. Coordinate synchronization of 41st Ave with Portola, Soquel, Capitola and Hwy 1 ramps with County.	\$15	TBD
CO-P26a	41st Ave Improvements Phase 2 (Hwy 1 Interchange to Soquel Dr)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,200	2015-20
CO-P30b	Alba Rd Improvements (Empire Grade to State Hwy 9)	Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$1,700	2025-35
CO-P26c	Bonny Doon Rd Improvements (State Hwy 1 to Smith Grade Rd)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$2,300	TBD
CO-P26g	Cassery Rd Improvements (Hwy 152 to Green Valley Rd)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$750	TBD
CO-P26i	Chanticleer Ave Improvements (Hwy 1 to Soquel Dr)	Roadway and roadside improvements including bike lanes, sidewalks, drainage and intersection improvements.	\$1,200	2020-25

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
CO-P23	College Road Improvements (Hwy 152 to Lakeview Rd)	Major road rehab, add left turn pocket at Cutter Drive. Also add bike lanes, transit turnouts, sidewalks, landscaping. Drainage improvements, merge lanes, and intersection improvements may also be needed.	\$1,700	TBD
CO-P28c	Commercial Way Improvements (Mission Dr. to Soquel Dr.)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$600	2020-25
CO-P26k	El Rancho Dr Improvements (Mt. Hermon/Hwy 17 to SC city limits)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$2,300	TBD
CO-P28d	Felton Empire Road Improvements (entire length to State Hwy 9)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$2,300	2020-25
CO-P30f	Glen Arbor Rd. Improvements (State Hwy 9 to State Hwy 9)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$1,200	2025-35
CO-P61	Glenwood Cutoff General Improvements (Glenwood Dr to Hwy 17)	Roadway and roadside improvements including bike lanes, left turn lanes, intersection improvements and roadway rehabilitation	\$3,000	2025-35
CO-P26n	Glenwood Dr. Improvements (Scotts Valley city limits to State Hwy 17)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$2,900	TBD
CO-P12	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes, traffic signals. Major rehabilitation and maintenance. Drainage improvements. Signal upgrade at SR9.	\$6,800	2020-25
CO-P32c	Harkins Slough Rd. Improvements (entire length-Buena Vista Dr to State Hwy 1)	Road rehab and maint. Roadside improvements--left lane pockets, sidewalks, bike lanes and transit turnouts.	\$1,700	2025-35

RTP ID	Project	Project Description/Scope	Cost - \$000s	Timing (per RTP)
CO-P32e	Jamison Cr. Rd Improvements (entire length-Empire Grade to Hwy 236)	Road rehab and maint. Roadside improvements--left lane pockets, sidewalks, bike lanes and transit turnouts.	\$600	2025-35
CO-P14	La Madrona Dr Improvements (El Rancho Dr to City of Scotts Valley)	Bike lanes, sidewalks, transit turnouts, left turn pockets at Sims Road, Highway 17, and El Rancho Road), merge lanes, and intersection improvements. Also includes major rehabilitation, drainage and maintenance.	\$3,500	2020-25
CO-P30l	Mar Monte Ave. Improvements (San Andreas Rd to State Hwy 1)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$600	2025-35
CO-P39	Murphy Crossing Improvements	Bikeway on Murphy Crossing (Hwy 129 to Monterey Co line), major rehabilitation and maintenance of road, drainage improvements may also be needed.	\$1,200	2025-35
CO-P31i	Rodeo Gulch Rd. Improvements (So & North: Mt. View/Laurel Glen Rd to Hwy 1)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,700	2025-35
CO-P30q	Vine Hill Rd. Improvements (Branciforte/Mt. View Rd to State Hwy 17)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$1,400	2025-35