TRANSPORTATION COMMITTEE AGENDA

Friday, June 5, 2015
9 a.m. to 12 noon
SANDAG Board Room
401 B Street, 7th Floor
San Diego

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AGENDA HIGHLIGHTS

• UPTOWN BIKEWAYS PROJECT

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The 18 cities and county government are SANDAG serving as the forum for regional decision-making. SANDAG builds consensus, makes strategic plans, obtains and allocates resources, plans, engineers, and builds public transit, and provides information on a broad range of topics pertinent to the region’s quality of life.

San Diego Association of Governments · 401 B Street, Suite 800, San Diego, CA 92101-4231
(619) 699-1900 · Fax (619) 699-1905 · sandag.org
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TRANSPORTATION COMMITTEE
Friday, June 5, 2015

ITEM NO. APPROVAL OF MEETING MINUTES

1. APPROVE

The Transportation Committee is asked to review and approve the minutes from its May 15, 2015, meeting.

2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

Members of the public shall have the opportunity to address the Transportation Committee on any issue within the jurisdiction of the Committee that is not on this agenda. Anyone desiring to speak shall reserve time by completing a “Request to Speak” form and giving it to the Clerk prior to speaking. Public speakers should notify the Clerk if they have a handout for distribution to Committee members. Public speakers are limited to three minutes or less per person. Committee members also may provide information and announcements under this agenda item.

REPORTS

+3. UPTOWN BIKEWAYS PROJECT (Linda Culp)

The Uptown Bikeways Project is a high-priority bikeway in the Regional Bike Plan Early Action Program. The project’s 12 miles of on-street bikeways are within the City of San Diego’s urban core communities. The Transportation Committee is asked to review the Uptown Bikeways Project including the development of a constrained alignment for the University Avenue corridor between Washington Street and Normal Street.

4. CONTINUED PUBLIC COMMENTS

If the five speaker limit for public comments was exceeded at the beginning of this agenda, other public comments will be taken at this time. Subjects of previous agenda items may not again be addressed under public comment.

5. UPCOMING MEETINGS

The next meeting of the Transportation Committee is scheduled for Friday, June 19, 2015, at 9 a.m.

6. ADJOURNMENT

+ next to an agenda item indicates an attachment
TRANSPORTATION COMMITTEE DISCUSSION AND ACTIONS

MAY 15, 2015

The meeting of the Transportation Committee was called to order by Chair Todd Gloria (City of San Diego) at 9:01 a.m. See the attached attendance sheet for Transportation Committee member attendance.

1. APPROVAL OF MEETING MINUTES

Action: Upon a motion by Mayor Sam Abed (North County Inland), and a second by Councilmember Lisa Shaffer (North County Coastal), the Transportation Committee approved the meeting minutes of April 17, 2015. Yes – Chair Gloria, Councilmember Bill Baber (East County), Chair Harry Mathis (Metropolitan Transit System [MTS]), Councilmember Shaffer, Mayor Abed, and Vice Chair Rebecca Jones (North County Transit District [NCTD]). No - None. Abstain –None. Absent – South County, County of San Diego, and San Diego County Regional Airport Authority (SDCRAA).

2. PUBLIC COMMENTS/COMMUNICATIONS/MEMBER COMMENTS

John Wotzka, a member of the public, submitted written comments and spoke about various transportation issues.

Chair Gloria announced the birth of Damiana Chuma and congratulated Gary Gallegos, Executive Director, on becoming a grandfather.

Chair Gloria reminded the Transportation Committee members that Bike to Work day is postponed to Friday, May 29, 2015.

Councilmember Shaffer presented a Proclamation to SANDAG, which proclaimed the month of May as Bike to Work Month in the City of Encinitas.

CONSENT

3. TransNet ENVIRONMENTAL MITIGATION PROGRAM: LAND MANAGEMENT GRANT PROGRAM QUARTERLY STATUS UPDATE (INFORMATION)

This report provided information on the quarterly status of active projects.

Action: This item was presented for information.
REPORTS

4. 2014 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM: AMENDMENT NO. 4 – ADMINISTRATIVE MODIFICATION (APPROVE)

Michelle Smith, Associate Financial Analyst, presented the item.

Amendment No. 4 is a special amendment to program federal funding that will need to be obligated this federal fiscal year.

**Action:** Upon a motion by Supervisor Ron Roberts (County of San Diego), and a second by Vice Chair Mary Salas (South County), the Transportation Committee approved Amendment No. 4 - Administrative Modification to the 2014 RTIP. Yes – Chair Gloria, Vice Chair Salas, Supervisor Roberts, Mayor Mary Sessom (East County), MTS Chair Mathis, Councilmember Shaffer, Mayor Abed, NCTD Vice Chair Jones, and Councilmember David Alvarez (SDCRAA). No - None. Abstain –None. Absent – None.

5. TRANSPORTATION DEVELOPMENT ACT CLAIM AMENDMENTS (APPROVE)

Lisa Kondrat-Dauphin, Senior Accountant, presented the item.

The FY 2014 Transportation Development Act (TDA) compliance audits identified unexpended funds from completed projects for the Cities of Carlsbad and San Marcos that are to be returned to the Local Transportation Fund. A subsequent review of unused balances identified additional completed projects from several cities, the County of San Diego, and SANDAG.

**Action:** Upon a motion by NCTD Vice Chair Jones, and a second by Councilmember Shaffer, the Transportation Committee adopted Resolution No. 2015-28, approving revisions to TDA Article 3.0 claims for various completed bicycle and pedestrian projects. Yes – Chair Gloria, Vice Chair Salas, Supervisor Roberts, Mayor Sessom, MTS Chair Mathis, Councilmember Shaffer, Mayor Abed, NCTD Vice Chair Jones, and Councilmember Alvarez. No - None. Abstain –None. Absent – None.

6. PROPOSED CONSTRUCTION MANAGER/GENERAL CONTRACTOR (CMGC) DELIVERY METHOD: INTERSTATE 5/VOIGT BRIDGE AND COASTAL RAIL TRAIL SAN DIEGO: ROSE CREEK PROJECTS (RECOMMEND)

John Haggerty, Division Director of Rail, presented the item.

**Action:** Upon a motion by Supervisor Roberts, and a second by Vice Chair Salas, the Transportation Committee recommended that the Board of Directors: (1) approve Resolution Nos. 2015-29 and 2015-30, authorizing the use of the CMGC construction delivery method for the Interstate 5/Voigt Drive Bridge and Street Realignment and Coastal Rail Trail San Diego: Rose Creek Projects; and (2) authorize the Executive Director to negotiate and award the Preconstruction Services Contract for these Projects to Mid Coast Transit Constructors in coordination with the Mid-Coast Corridor Transit Project. Yes – Chair Gloria, Vice Chair Salas, Supervisor Roberts, Mayor Sessom, MTS Chair Mathis, Councilmember Shaffer, Mayor Abed, NCTD Vice Chair Jones, and Councilmember Alvarez. No - None. Abstain –None. Absent – None.

Charles “Muggs” Stoll, Land Use and Transportation Planning Director, presented the item.

Carlos Aguirre, Community Development Program Manager, City of National City, spoke about the Westside Infill Transit-Oriented Development and asked the Transportation Committee to approve staff’s recommendation.

Blake Hopkins, Project Manager, AMCAL Housing, spoke about the Villa Encantada Apartments asked the Transportation Committee to approve staff’s recommendation.

Mary Jane Jagodzinsky, Community Housing Works, spoke about the Westside Infill Transit-Oriented Development and asked the Transportation Committee to approve staff’s recommendation. Ms. Jagodzinsky also addressed concerns related to the ranking criteria categories B1, B2, 4 and 5.

Carolina Martinez, Environmental Health Coalition, spoke about the Westside Infill Transit-Oriented Development and submitted a fact sheet about the project.

Action: Upon a motion by Mayor Abed, and a second by Supervisor Roberts, the Transportation Committee recommended that the Board of Directors approve the regional prioritization of the applications for the AHSC Program from the San Diego region. Yes – Chair Gloria, Vice Chair Salas, Supervisor Roberts, Mayor Sessom, MTS Chair Mathis, Councilmember Shaffer, Mayor Abed, NCTD Vice Chair Jones, and Councilmember Alvarez. No - None. Abstain – None. Absent – None.

8. FY 2016 TRANSPORTATION DEVELOPMENT ACT PRODUCTIVITY IMPROVEMENT RECOMMENDATIONS (RECOMMEND)

Brian Lane, Senior Transit Planner, presented the item.

Action: Upon a motion by Councilmember Shaffer, and a second by Vice Chair Salas, the Transportation Committee recommended that the Board of Directors find that the Metropolitan Transit System and North County Transit District made a reasonable effort to implement productivity improvements during FY 2015 and approve continuing this program in FY 2016, which fulfills the requirements outlined in Section 99244 of the TDA. Yes – Chair Gloria, Vice Chair Salas, Supervisor Roberts, Mayor Sessom, MTS Chair Mathis, Councilmember Shaffer, Mayor Abed, NCTD Vice Chair Jones, and Councilmember Alvarez. No - None. Abstain –None. Absent – None.

9. CONTINUED PUBLIC COMMENTS

There were no additional public comments.

10. UPCOMING MEETINGS

The next meeting of the Transportation Committee is scheduled for June 5, 2015, at 9 a.m.

11. ADJOURNMENT

Chair Gloria adjourned the meeting at 10:05 a.m.
## CONFIRMED ATTENDANCE
### SANDAG TRANSPORTATION COMMITTEE MEETING
#### MAY 15, 2015

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<tr>
<th>JURISDICTION</th>
<th>NAME</th>
<th>MEMBER/ ALTERNATE</th>
<th>ATTENDING</th>
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<tr>
<td>North County Coastal</td>
<td>Lisa Shaffer</td>
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<td>Mike Nichols</td>
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<td>North County Inland</td>
<td>Judy Ritter (Vice Chair)</td>
<td>Member</td>
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<td>Sam Abed</td>
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<td>East County</td>
<td>Mary Sessom</td>
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<td>Bill Baber</td>
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<td>South County</td>
<td>Mary Salas</td>
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<td>Michael Woiwode</td>
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<td>City of San Diego</td>
<td>Todd Gloria (Chair)</td>
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<td>Mark Kersey</td>
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<td>County of San Diego</td>
<td>Ron Roberts</td>
<td>Member</td>
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<td>Greg Cox</td>
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<td>Metropolitan Transit System</td>
<td>Harry Mathis</td>
<td>Member</td>
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<td>Lorie Bragg</td>
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<td>North County Transit District</td>
<td>Rebecca Jones</td>
<td>Member</td>
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<td>John Aguilera</td>
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<td>San Diego County Regional Airport Authority</td>
<td>David Alvarez</td>
<td>Member</td>
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<td>Lloyd Hubbs</td>
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<td>ADVISORY MEMBERS</td>
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<td>Caltrans</td>
<td>Laurie Berman</td>
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<td>SCTCA</td>
<td>Raymond Hunter Sr.</td>
<td>Member</td>
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<td>Allen Lawson</td>
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<td>Other Attendees</td>
<td>Dahvia Lynch</td>
<td>NCTD</td>
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<td>Paul Jablonski</td>
<td>MTS</td>
<td>Yes</td>
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<td>Jack Dale</td>
<td>Chairman, SANDAG</td>
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UPTOWN BIKEWAYS PROJECT

Introduction

The Uptown Bikeways Project is a high-priority bikeway in the Regional Bike Plan Early Action Program (EAP), adopted by the Board of Directors in September 2013. The EAP is a $200 million program of Active Transportation improvements to be implemented over the next ten years.

The project’s 12 miles of on-street bikeways are within the City of San Diego’s urban core communities of Uptown (Five Points, Mission Hills, Hillcrest, and Bankers Hill neighborhoods), Old Town, Mission Valley, Downtown, North Park, and Balboa Park (Attachment 1).

Overall, proposed project features include protected bikeways that provide a buffer between people biking and traffic, pedestrian improvements like curb bulb outs at busy intersections, and traffic calming features like lane reductions and speed humps. As with all regional bikeway projects, these designs are meant to enhance the comfort level and safety of people biking of all ages and riding abilities in order to increase their use for everyday trips, including trips to work, school, and to take transit. The proposed project, at a preliminary engineering phase, includes many of these design concepts.

Discussion

Community Outreach and Input

Since 2012, SANDAG has completed advanced planning for the project, including more than 70 public meetings and workshops, concluding with the last community workshop in February 2014. During the past year, staff has progressed with project level engineering and environmental analysis on five separate corridors (Attachment 2). This work has been coordinated with the City of San Diego and Metropolitan Transit System (MTS).

Recommendation

The Transportation Committee is asked to review the Uptown Bikeways Project and direct staff to continue development of the proposed project along the Old Town, Mission Valley, Downtown, Park Boulevard, and Washington Street corridors. In addition, due to numerous design limitations and a lack of consensus on improvement strategies, direct staff to continue development of a constrained alignment for the University Avenue corridor between Washington Street and Normal Street.
As part of this project-level analysis, potential roadway and parking changes were considered, with many of these roadway concepts suggested by community members. In summer 2014, a specific proposal referred to as “Transforming Hillcrest” was developed by community members for sections of the University Avenue corridor. The concept was based on a “road diet,” with two of the four existing through lanes reconfigured to accommodate additional on-street parking and streetscape enhancements such as wider sidewalks. Like the original SANDAG design concept, Transforming Hillcrest also proposed a protected bikeway facility.

Much input has recently been received from the community regarding portions of the University Avenue section of Corridor #2, between Washington Street and Normal Street, including both support for the project and expressions of concern for potential impacts to parking, neighborhood access, and traffic. In response to this additional community feedback, SANDAG is seeking direction on a change in project features for this project section to a more constrained bikeway project than the original design concepts. In general, this alternative proposes shared travel lanes rather than protected bikeways along the more constrained sections of the corridor.

**Alternatives Analysis**

An analysis of more than 50 routes was conducted in 2013 with community input. The alignment and design concepts were evaluated using the following five goals, also established with community input, including that of the Community Advisory Group, whose membership is shown in Attachment 3:

1. Mobility: Increase choices; connect communities
2. Experience: Improve travel safety for everyone, and create an exceptional biking experience
3. Community: Build on and support related community initiatives
4. Placemaking: Enhance community identity and public spaces
5. Economic Development: Improve public infrastructure and strengthen opportunities for community and business development

The analysis included both quantitative and qualitative evaluation of a variety of factors, including connectivity, directness, grade, and existing traffic stress level of the street. The process resulted in recommended project alignments for each of the five corridors and design concepts for each alignment. The outcomes of the alignment analysis were brought to community stakeholders in early 2014. Since that time, work has focused on developing more detailed design solutions as part of the preliminary engineering phase of the project.

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1 In general, a road diet is a reallocation of roadway width usually involving reducing the number of through traffic lanes to provide for other transportation purposes such as bicycles, pedestrian, or transit improvements.
Overview of Five Project Segments

For the purposes of preliminary engineering, the project alignments were grouped into five segments and several sub-sections: (1) Downtown to Hillcrest, (2) Five Points to North Park, (3) Hillcrest to Mission Valley, (4) Hillcrest to Balboa Park, and (5) Five Points to Old Town (Attachment 2).

Design Principles in the Bike Early Action Program

The project objective is to provide street improvements to allow for the safe movement of people walking, biking, riding transit, and driving. This is generally accomplished by designing each alignment to reduce speeding traffic, lower traffic volumes, create safer crossings for people walking, and provide separated space for people biking. The combined effect is increased accessibility by facilitating a variety of transportation choices.

Protected bikeways provide separation between people traveling on bikes and traffic lanes using a combination of raised medians, planters, parked cars, or bollards. This separated or protected space within a street is a critical accommodation to realize an increase in the number of people biking for short trips, a key long-range regional transportation strategy. Traffic calming design features are also being applied to segments to enhance the comfort and safety for all roadway users.

In December 2014, the City of San Diego converted one of three travel lanes to a buffered bike lane along sections of Fourth and Fifth Avenues north of downtown, including a painted three foot buffer between the bike lane and the next travel lane. The buffered bike lane along Fifth Avenue was recently extended north to Robinson Avenue. Ridership has steadily grown since December: on Fourth Avenue, by 49 percent to 1,700 monthly riders and on Fifth Avenue, by 21 percent to 2,200 monthly riders.

Proposed Project Along University Avenue

In the planning phase, three east-west alignments through the center of the project area (through Mission Hills and Hillcrest) were analyzed: Washington Street, Robinson Avenue, and University Avenue. The analysis was conducted to identify a recommended alignment that could be feasibly implemented within the project budget, provide the most overall community benefit, and the most potential to increase the number of people choosing biking as a travel choice for short trips. The recommendation resulting from the analysis was the University Avenue alignment. Conditions along University Avenue vary and some portions west of State Route 163 are highly constrained.
On-Street Parking

Where there is potential parking loss, adjustments to the proposed project design have been made to minimize the effect on on-street parking. Furthermore, the implementation of parking reconfigurations on side streets is being facilitated in coordination with the City and Uptown Community Parking District. A comprehensive parking strategy, including evaluation of parking demand, inventory of nearby parking lots, and recommended parking management tools to increase availability in high demand areas is currently under development.

Washington Street/University Avenue access ramps to First Avenue (Mission Hills)

Based on early community input, the project concept included a sidewalk and protected bikeway on the uphill side of Washington Street in Corridor #2. Furthermore, the original design concept called for the eastbound ramp from Washington Street to University Avenue in Mission Hills to be reserved for people walking and biking, while only emergency vehicles would continue to access the ramp.

Recently, community members raised concerns regarding these concepts, particularly the eastbound ramp closure to vehicles. The original design concept for this segment was reevaluated. A modified ramp design was developed to maintain access for people walking, biking and driving (Attachment 4).

First Avenue to Normal Street (Hillcrest)

Loss of on-street parking is of great concern to the local business community. SANDAG completed an inventory of parking in the vicinity that indicated limited availability of on-street parking and parking spaces in adjacent lots. During summer 2014, a community member presented a design concept for two segments of University Avenue, First to Third and Tenth to Normal, called “Transforming Hillcrest”. The road diet concept was supported at the time by some Hillcrest community groups. SANDAG, together with the City of San Diego, conducted a traffic analysis of the basic lane reduction concept included in the design, and several scenarios were modeled. The analysis was submitted to the City of San Diego for review and determination of whether to include the road diet concept into the bikeway project design. The City of San Diego concluded the following in an April 13, 2015, memo:

“Unfortunately, the analysis by KOA [traffic analysis consultant] indicates that this location is not a good candidate for a road diet. Road diets are ideal when a roadway has excessive width, no bus routes, carries a relatively light load of traffic compared to its capacity, and parallel streets have the capacity to absorb any diverted traffic. None of these conditions exist on University Avenue between Tenth Avenue and Normal Street and further, the ability to provide efficient public transit service through this segment would be particularly hindered by the proposed geometrics and increased delay. Accordingly, we recommend that SANDAG continue its analysis of corridor #2 of the Uptown Bikeway Project without linkage to the Transforming Hillcrest concept.” (Attachment 5)
Constrained Project Alternative

Staff has developed an alternative for the University Avenue segment that limits the bikeway features, given the design constraints that include parking and vehicular traffic. Under the constrained option along the majority of this segment, bikes would share the travel lane with vehicles (Attachments 6 and 7). In some slightly less constrained blocks, a standard bike lane could be accommodated, either on one or both sides of the block. Pedestrian improvements also would be evaluated as part of this alternative.

Next Steps

Pending Transportation Committee comments and direction, staff will continue to work with the City of San Diego, MTS, and community stakeholders to advance the project by first completing preliminary engineering and environmental in 2015 and progressing into final design and construction.

CHARLES “MUGGS” STOLL
Director of Land Use and Transportation Planning

Attachments: 1. Regional Bike Network
2. Uptown Regional Bike Corridors Project
3. Uptown Regional Bike Corridor Project Community Advisory Group
4. Eastbound Ramp to University Avenue
5. Traffic Analysis of “Transforming Hillcrest” Concept Memo
6. University Avenue: Fourth Avenue to Fifth Avenue
7. University Avenue: Seventh Avenue to Eighth Avenue

Key Staff Contact: Linda Culp, (619) 699-6957, linda.culp@sandag.org
UPTOWN BIKEWAYS PROJECT
Corridor Segments and Sub-sections

1. Downtown to Hillcrest
   a. Fourth and Fifth Avenues - C Street to Elm (Downtown)
   b. Fourth and Fifth Avenues – Elm Street to Upas Street (Bankers Hill)
   c. Fourth and Fifth Avenues - Upas Street to Washington Street (Hillcrest)

2. Five Points to North Park
   a. Washington Street - Trolley Station to University Avenue access ramps (Five Points)
   b. University Avenue - Washington Street access ramps to First Avenue (Mission Hills)
   c. University Avenue - First Street to Normal Street (Hillcrest)
   d. Normal Street and Lincoln Avenue and Herbert Street and Robinson Avenue (connections to North Park Mid-City Bikeways project)

3. Hillcrest to Mission Valley
   a. Third Avenue
   b. Bachman Place
   c. Hotel Circle South
   d. Camino De La Reina

4. Hillcrest to Balboa Park
   a. Park Boulevard - Robinson Avenue to Upas Street
   b. Park Boulevard - Upas Street to Village Place

5. Five Points to Old Town
   a. San Diego Avenue – Washington Street to Congress Street
   b. Congress Street – San Diego Avenue to Old Town Trolley Station
The following community groups are established within the Uptown project area.

**Business Improvement Districts & CDCs**
- BID Council
- Adams Ave Business Association
- Downtown San Diego Partnership (BID)
- El Cajon Boulevard Business Improvement Association
- Hillcrest Business Improvement Association
- Mission Hills Business Improvement District
- North Park Organization of Businesses, Inc. (BID dba North Park Main Street)
- Old Town San Diego Chamber of Commerce
- Bankers Hill Business Association
- University Heights Community Development Corporation
- 5 Points Business Group
- Five Points/ Middletown Business Association
- Bankers Hill/Park West/Five Points CDC

**Parking Districts & Parking Committees**
- Uptown Community Parking District
- Bankers Hill Neighborhood Parking Committee
- Hillcrest Parking Committee
- Greater Mid-City Parking District
- University Heights Community Parking District (UHCDC)
- Old Town Parking District (Old Town San Diego Chamber of Commerce)

**Planning Groups**
- Greater North Park
- Uptown Planners
- Centre City
- Old Town
- Mission Valley
- Balboa Park

**Town Councils, Community Associations & Residents Groups**
- Bankers Hill Park West Community Association
- Bankers Hills Residents Group
- Mission Hills Town Council
- Hillcrest Town Council
- North Park Community Association
- University Heights Community Association
- Western Slope Community Association
- Downtown Residents Group

**Other Organized Groups and Community Based Organizations**
- Mission Hills Heritage
- San Diego County Bicycle Coalition
- BikeSD
- Circulate San Diego
Mission Hills Segment
Eastbound Ramp To University Avenue

Constrained with Sidewalk and Bikeway
CITY OF SAN DIEGO
M E M O R A N D U M

TR No: TR 340, 839

DATE: April 13, 2015

TO: Distribution

FROM: Stephen Celniker, Senior Traffic Engineer, Transportation Engineering Operations Division, Transportation and Storm Water Department

SUBJECT: Traffic Analysis of “Transforming Hillcrest” Concept

Background
The San Diego Association of Governments (SANDAG) has proposed several on-street bikeways as part of the Regional Bikeway Network. Five corridors are included in the Uptown bike project (Attachment 1). Of these, corridor 2 is the segment of Washington Street and University Avenue between Pacific Highway and Normal Street. Within corridor 2, the SANDAG project team has proposed changes to traffic lane configurations and reductions in on-street parking in order to install bicycle lanes. In response to SANDAG’s proposals for corridor 2, some interested parties in the Uptown community proposed a streetscape concept known as “Transforming Hillcrest” (Attachment 2).

Summary of Transforming Hillcrest Concept
Transforming Hillcrest proposes incorporating streetscape changes to the portion of corridor 2 on University Avenue for the three blocks between Tenth Avenue and Normal Street.

The existing conditions on the three block segment are: two mixed-flow traffic lanes plus left-turn lanes at all four of the signalized intersections; westbound right-turn lanes at Richmond Street, Vermont Street, and Tenth Avenue; parallel parking on both sides between Tenth Avenue and Vermont Street; and a mix of parallel and angle parking on both sides on the other two blocks. A median separates the opposing directions of traffic. There are crosswalks controlled by pedestrian signals at all four signalized intersections. This segment is served by MTS bus routes 1, 10, and 11 with three bus stops in each direction.

The Transforming Hillcrest concept features:
• One eastbound mixed-flow through lane, with left-turn lanes at each intersection
• One westbound mixed-flow through lane, with left turn lanes at each intersection; in addition there is a westbound parking access lane separated from the main through lane by a median
• For eastbound traffic, parking is parallel between Tenth Avenue and Vermont Street, and angle parking between Vermont Street and Normal Street
• For westbound traffic, parking is from the parking access lane, with parallel parking on the left side of the lane for the two blocks between Normal Street and Vermont Street and angle parking on the right side for all three blocks
• No median separating the opposing directions of traffic
• It is unclear whether westbound right-turns are intended to be made from the westbound parking access lane or from the westbound through lane
• Bicycle lanes are provided in both directions between parking and the curb
• In addition to the controlled crosswalks at the signalized intersections, uncontrolled crosswalks are provided in the middle of the block between Tenth Avenue and Vermont Street, and the block between Vermont Street and Normal Street
• Near-side westbound bus stops are provided at Richmond Street and at Vermont Street in the mixed-flow regular traffic lane; the locations of eastbound bus stops are unclear
• The concept includes both an “Existing Median” option as described above and a “Widened Median” option
• The Widened Median option differs by replacing the parallel parking on the left side of the westbound parking access lane between Normal Street and Vermont Street with a widened median to accommodate a pedestrian walkway
• In addition to the three-block streetscape plan, Transforming Hillcrest also proposes to reduce the through lanes on University Avenue from Fifth Avenue to Tenth Avenue from two in each direction to one in each direction.

**Traffic Study**
SANDAG authorized KOA Corporation to perform a traffic study analyzing traffic proposals from both the Uptown bikeway project and the Transforming Hillcrest concept. KOA responded with two work products, a memorandum dated March 17, 2015 (Attachment 3) and follow-up dated March 30, 2015 (Attachment 4).
KOA performed intersection and arterial analysis comparing year 2020 “no project” and “project” scenarios using standard methods from the Highway Capacity Manual. The street segment was modeled using forecasted traffic volumes and the Synchro traffic modeling software package.

Referring to the three-block Transforming Hillcrest streetscape concept, the March 17th memorandum, on page 4, Table 4, in the eighth box from the top under the heading “Conclusion + Summary,” states, “This feature is not recommended in view of the total traffic volumes forecasted for this area.” It goes on to describe problems from redirected traffic onto the parallel roadways of Washington Street and Robinson Avenue, which are already over-capacity. The memorandum also recommends against reducing lanes on University Avenue west of Sixth Avenue and is mixed about lane reduction from Sixth Avenue to Tenth Avenue.

In the March 30th memorandum, the graphic titled “2020 Scenario 2 – Transforming Hillcrest Concept From 4th Avenue to Park Bl” illustrates a sharp reduction in level of service between the “project” and “no project” scenarios on both University Avenue and Robinson Avenue. Also, the chart titled “Arterial Analysis – University Avenue 2020 PM Peak Hour” shows signal delay increasing from 122.6 seconds in the “no project” scenario to 163.4 seconds in the “project” scenario (a delay increase of 33%) for eastbound traffic. For westbound traffic, the signal delay increases from 138.4 seconds to 260.5 seconds (+88%). Travel time also increases. For eastbound it increases from 284.8 seconds to 325.6 seconds (+14%) and for westbound it increases from 298.6 seconds to 420.7 seconds (+41%).

Note that KOA’s scope of work did not include analysis of any of these features of Transforming Hillcrest concept:

- Traffic flow on the westbound parking access lane (they modeled westbound right turns to be shared in the westbound through lane)
- Potential conflicts between turning traffic and the westbound parking access lane
- The geometric feasibility of the proposed streetscape, bicycle lanes, and parking layout
- The feasibility of traffic signal phasing accommodating the westbound parking access lane and the median pedestrian movements at intersections
- The potential conflicts regarding the placement of bicycle lanes to the right of right-turning vehicles
- The appropriateness of the uncontrolled mid-block pedestrian crosswalks
- The operational feasibility of the proposed westbound bus stops and apparent lack of eastbound bus stops
Conclusion
Transforming Hillcrest is essentially a “road diet” concept, in that it redistributes roadway width away from through traffic lanes and uses the roadway space for other purposes such as parking and bicycle lanes. Both the City and SANDAG have been promoting and implementing projects of this type.

Unfortunately, the analysis by KOA indicates that this location is not a good candidate for a road diet. Road diets are ideal when a roadway has excessive width, no bus routes, carries a relatively light load of traffic compared to its capacity, and parallel streets have the capacity to absorb any diverted traffic. None of these conditions exist on University Avenue between Tenth Avenue and Normal Street. The ability to provide efficient public transit service through this segment would be particularly hindered by the proposed geometrics and increased delay.

Accordingly, we recommend that SANDAG continue its analysis of corridor 2 of the Uptown bikeway project without linkage to the Transforming Hillcrest concept.

Stephen Celniker

SPC:

Distribution:
Jaymie Bradford, Deputy Chief of Staff, Mayor’s Office
Kris McFadden, Director, Transportation & Storm Water Department
Nancy Bragado, Deputy Director, Long Range Planning Division, Planning Department
Gregory Hopkins, Deputy Director, Engineering Division, Development Services Department
Elyse Lowe, Deputy Director, Project Submittal and Management Division, Development Services Department
Linda Marabian, Deputy Director, Transportation Engineering Operations Division, Transportation & Storm Water Department
Farah Mahzari, Development Program Manager III, Engineering Division, Development Services Department

Attachments:
1. Uptown Regional Bike Corridors Project Map
2. Transforming Hillcrest
3. KOA Memorandum of March 17th
4. KOA Memorandum of March 30th
MEMORANDUM

To:  Beth Robrahn, SANDAG Project Manager
From:  Arnold Torma, T.E., Senior Engineer
Re:  Preliminary Analysis of Traffic LOS Results | Transforming Hillcrest
Project:  Uptown Bikeways Project – A&E Task Order #2 (KOA Project # B32097)
Date:  March 17, 2015

Transforming Hillcrest
During summer 2014, community stakeholders developed and demonstrated collective support for a design concept involving lane reductions on portions of University Avenue through Hillcrest. SANDAG and the City of San Diego jointly made a commitment to analyze the operational feasibility of the community supported design concept known as “Transforming Hillcrest.” To meet this commitment, a traffic analysis for “Transforming Hillcrest” was conducted, comparing expected future conditions to the future conditions with the lane reduced community concept. Analysis was also conducted on other lane configurations, suggested through community input, along portions of the main east-west project alignment through the center of the Uptown Bikeways project area.

Purpose and Objective
The purpose of this analysis is to preliminarily identify and address the basic effects upon the vehicular circulation system as a result of implementing various lane configuration scenarios. The analysis establishes the basic future (2020) conditions for the traditional vehicular circulation system to evaluate access, feasibility and diversion. The analysis is considered preliminary and will serve to inform which lane configurations warrant additional analysis and further investment in the short term for the Uptown Bikeways project and potentially in the long term for the community.

The area of focus for the operational analysis includes portions of Washington Street, University Avenue, and the westerly portion of Robinson Avenue, generally between India Street and Park Boulevard. The analysis includes a basic traffic operations level-of-service analysis of the segmental lane and intersection configurations of the “Transforming Hillcrest” concept. Several alternative approaches to handling the allocation of lanes throughout this segment of University Ave were also considered. Transit operation was considered within the context of the basic traffic operations. However, this analysis did not include a detailed assessment of the effects on transit operations. This analysis also did not include a geometric assessment of the specific design concepts included in Transforming Hillcrest, beyond the basic changes to the number of through lanes suggested in the concept.

The analysis discussed herein is meant to help guide the selection of a scenario for incorporation into the project design for further development and provide basic information about traffic operations associated with the “Transforming Hillcrest” concept.
**Scenarios Considered**

The following locations have varying choices for the direction of travel or the number of lanes and refer to the attached matrix of scenarios. While not all possible permutations among the scenarios have been tested, the main permutations have been tested in order to help narrow in on the permutations that would likely be most feasible and warrant further analysis. Table 1 summarizes the basic lane configuration changes between the different scenarios modeled and tested. The Transforming Hillcrest concepts are shown in bold.

**Table 1: Scenarios Comparison Table**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Washington St. from India St. to University Ave. On/Off Ramps</th>
<th>Washington St. to University Ave. On/Off Ramps</th>
<th>University Ave. from Albatross St. to Front St.</th>
<th>University Ave. from 1st Ave. to 4th Ave.</th>
<th>University Ave. from 4th Ave. to Normal St.</th>
<th>Normal St. from University Ave. to Lincoln Ave.</th>
<th>Park Blvd. from Upas St. to Village Pl.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Conditions (2013)</td>
<td>2 WB Descending 2 EB Ascending</td>
<td>EB Off-Ramp and WB On-Ramp OPEN</td>
<td>1 lane EB and 1 lane WB (two-way street)</td>
<td>1 lane EB and 1 lane WB (two-way street)</td>
<td>2 lane EB and 2 lane WB (two-way street)</td>
<td>2 lane NB and 2 lane SB (two-way street)</td>
<td>2 lane NB and 2 lane SB (two-way street)</td>
</tr>
<tr>
<td>1 (2020)</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
</tr>
<tr>
<td>2 (2020)</td>
<td>1 WB Descending 2 EB Ascending</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
</tr>
<tr>
<td>3 (2020)</td>
<td>2 WB Descending 1 EB Ascending</td>
<td>EB Off-Ramp CLOSED WB On-Ramp OPEN</td>
<td>1 lane EB (one-way Street)</td>
<td>1 lane EB (one-way street)</td>
<td>1 lane NB and 1 lane SB (two-way street)</td>
<td>1 lane NB and 1 lane SB (two-way street)</td>
<td>1 lane NB and 1 lane SB (two-way street)</td>
</tr>
<tr>
<td>4 (2020)</td>
<td>Same as Existing Conditions</td>
<td>EB Off-Ramp CLOSED WB On-Ramp OPEN</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
</tr>
<tr>
<td>5 (2020)</td>
<td>Same as Existing Conditions</td>
<td>EB Off-Ramp CLOSED WB On-Ramp CLOSED</td>
<td>1 lane NB (one-way street)</td>
<td>1 lane NB (one-way street)</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
</tr>
<tr>
<td>6 (2020)</td>
<td>Same as Existing Conditions</td>
<td>EB Off-Ramp CLOSED WB On-Ramp CLOSED</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
<td>Same as Existing Conditions</td>
</tr>
</tbody>
</table>

**Methods**

Existing data for roadway segment volumes and turning movements used to develop the future traffic volumes were obtained by either commissioning a count, or by making use of data recently obtained by other studies in the area, such as the Uptown Community Plan Update. The street segmental Levels of Service (LOS) scores are derived from the City of San Diego’s Traffic Study Guidelines and Council-adopted standards, while intersection delay and LOS score calculations are derived from Highway Capacity Manual (HCM) techniques embedded in Synchro Software. The lane configuration for each scenario has been incorporated into the calculations to reflect each concept scenario. The determination of significance of the impact of the scenarios has been accomplished by presenting relative impact in the year 2020 between having “no project” and comparing it relatively to each scenario (1-6). A series of 2020 year traffic forecasts were prepared, using the Series 12 regional traffic model, to uniquely represent each scenario and provide unique traffic volumes for each scenario.
General Summary
The relative impacts resulting from each scenario have been measured using commonly accepted traffic operational measures of performance for roadway segments and intersections. The “no build” case in the forecast year of 2020 is compared to each scenario, and locations where a significant impact results are identified (see methods discussion above). The overall summary of segment and intersection performance between scenarios is shown in Table 2 and Table 3 respectively. The metrics measured in the tables below are the Volume to Capacity ratio (V/C) for roadway segments, and delay (in seconds) for peak period intersections. These metrics are converted to LOS scores and significant impact designations based on the City of San Diego Traffic Impact Study Manual.

When looking at Table 2 Scenario 2 as an example, the first column of results show that the sequence of lane reductions stemming from scenario 2 result in 13 segments that perform at an LOS score of E or F. These LOS scores indicate that the volume on those 13 segments exceed the capacity that is normally considered acceptable. The second column summarizes the results of comparing scenario 2 to scenario 1, the no build condition. If the changes in LOS and volume to capacity ratio correspond to a significance threshold set by the city, then those segments are included in the significant impact column. The final column summarizes the number of segments that improve the volume to capacity ratio when changing from scenario 1 to scenario 2.

Table 2: Summary of Daily Roadway Segment Performance

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Number at LOS E-F</th>
<th>Number with Significant Impact</th>
<th>Number that Improve*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (no build) 2020</td>
<td>9</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>2 2020</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>3 2020</td>
<td>13</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>4 2020</td>
<td>12</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>5 2020</td>
<td>12</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>6 2020</td>
<td>12</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

*By “improve”, the V/C ratio was diminished compared to the “no build” case, even slightly.

Table 3: Summary of Peak Period Intersection Performance

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Number at LOS E-F (AM/PM)</th>
<th>Number with Significant Impact (AM/PM)</th>
<th>Number that Improve* (AM/PM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (no build) 2020</td>
<td>3/5</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>2 2020</td>
<td>4/5</td>
<td>4/4</td>
<td>12/16</td>
</tr>
<tr>
<td>3 2020</td>
<td>4/5</td>
<td>3/4</td>
<td>13/18</td>
</tr>
<tr>
<td>4 2020</td>
<td>4/5</td>
<td>2/3</td>
<td>14/15</td>
</tr>
<tr>
<td>5 2020</td>
<td>4/5</td>
<td>1/4</td>
<td>7/16</td>
</tr>
<tr>
<td>6 2020</td>
<td>3/7</td>
<td>2/4</td>
<td>17/15</td>
</tr>
</tbody>
</table>

*By “improve” the average intersection delay in seconds was diminished compared to the “no build” case, even slightly.

Analysis and Recommendations
Each scenario sought to identify the basic traffic operations impact of different lane configuration changes to the network. A brief summary of each network change and associated conclusions are addressed in the Table 4. Once a preferred combination of lane configurations is determined, further analysis will be required. The Transforming Hillcrest concepts are shown in bold.
**Washington Street**

<table>
<thead>
<tr>
<th>Location</th>
<th>Bounds</th>
<th>Scenario</th>
<th>Feature</th>
<th>Conclusion + Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>from India to</td>
<td>from India to University Ave.</td>
<td>3</td>
<td>2 WB Descending Lane</td>
<td>This feature is not recommended. The normal ADT standards of the City of San Diego would be exceeded indicating a segmental impact. <strong>Slow moving vehicles would block and delay other drivers</strong> and if parking is adjacent anywhere on the south side of the roadway a parking maneuver would stop all vehicles.</td>
</tr>
<tr>
<td>University Ave.</td>
<td>On/Off Ramps</td>
<td></td>
<td>1 EB Ascending Lanes</td>
<td></td>
</tr>
<tr>
<td>to University</td>
<td>2</td>
<td>2</td>
<td>1 WB Descending Lane</td>
<td>If the geometric configuration on Washington Street along these bounds needs to be changed, <strong>this method would be preferred</strong>. While the normal ADT standards of the City of San Diego would be exceeded indicating a segmental impact, the entire roadway is likely to operate adequately because the westbound side of Washington along this segment <strong>functions similar to a one lane freeway</strong>. There are no driveways or avenues for vehicles to enter or exit this stretch of Washington until India Street. We have assumed the intersection at India Street would have a dedicated left turn lane separated from the through lane.</td>
</tr>
<tr>
<td>Ave. On/Off</td>
<td>2-5</td>
<td></td>
<td>EB Ramp CLOSED</td>
<td>Either of the ramp configurations studied function adequately and can be a project feature. Both ramp closure scenarios are workable and do not create additional segmental or intersection impacts on nearby streets. In all scenarios the ADT along University Avenue decreases and other segments throughout the network see a slight increase in ADT that does not trigger a significant impact per City of San Diego standards.</td>
</tr>
<tr>
<td>Ramps</td>
<td>6</td>
<td></td>
<td>EB Ramp CLOSED OPEN</td>
<td></td>
</tr>
<tr>
<td>to Front</td>
<td>2-6</td>
<td></td>
<td>EB Ramp CLOSED</td>
<td></td>
</tr>
<tr>
<td>Albatross</td>
<td>2-6</td>
<td></td>
<td>1 lane EB (one-way street)</td>
<td>This can be a feature of the project. Having one lane of traffic operating one-way in this portion <strong>does not induce an impact</strong> elsewhere in the traffic operations. The MTS 11 bus route travels down University Avenue along this segment in the eastbound direction only. This lane configuration should not affect the turning movements for bus operation along this segment.</td>
</tr>
<tr>
<td>from 1st to</td>
<td>4</td>
<td></td>
<td>1 lane EB (one-way street)</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>5</td>
<td></td>
<td>1 lane WB (one-way street)</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>from 4th to 6th</td>
<td>2-6</td>
<td>1 lane EB (two-way street)</td>
<td>This feature is not recommended. The normal ADT standards of the City of San Diego would be exceeded indicating a segmental impact. Additionally, the <strong>delay at the intersections</strong> of 4th Avenue and University Avenue and 6th Avenue and University Avenue increase significantly impacting the flow of traffic through corridor. Currently MTS bus routes 1, 10, 11, 83, and 120 operate along this segment. While current bus turning movements would not be affected, bus operations would be affected as part of the traffic flow impacts.</td>
</tr>
<tr>
<td>Avenue</td>
<td>from 6th to 10th</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-6</td>
<td></td>
<td>1 lane EB</td>
<td>If the geometric configuration on University Avenue along these bounds needs to be changed, <strong>a one-way street in the eastbound direction is preferred</strong>. The normal ADT standards of the City of San Diego would be exceeded indicating a segmental impact even though there is less traffic volume on this segment as a one-way street in either direction. However, Scenario 4 (one-way EB) performs better segmentally than Scenario E (one-way westbound). While a one-way configuration also increases delay at all intersections through this segment, <strong>Scenario 4 does not create any significant impacts and performs better than Scenario 5 through the same intersections</strong>. The MTS 11 bus route westbound operations would be affected under the one-way eastbound scenario through this segment.</td>
</tr>
<tr>
<td></td>
<td>1 lane WB (two-way street)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From 10th to</td>
<td>From 10th to Normal</td>
<td>2-6</td>
<td>1 lane NB</td>
<td>This feature is not recommended in view of the total traffic volumes forecasted for this area. Traffic analysis reveals that daily traffic volumes today are already above what would normally be reasonable traffic levels for a two-lane street. Additionally, Robinson Avenue and Washington Street have daily traffic volumes that exceed the ADT standards of the City of San Diego under this lane reduced scenario. Using the forecast developed for this corridor, these segmental impacts grow worse. Were this to be implemented, substantial redirection of traffic would have to occur beyond anything indicated by modeling alone furthering the segmental impacts. It should be noted that the intersections appear to have acceptable LOS levels. Currently MTS bus routes 1, 10, and 11 operate along this segment. Bus routes would continue to operate through this lane reduced segment. While it is possible to accommodate transit in road diets with measures such as signal prioritization, further analysis is required to determine the extent of any impacts on bus operations and whether such measures could be effective for transit operations.</td>
</tr>
</tbody>
</table>

**Table 4: Scenario Analysis Conclusions**

<table>
<thead>
<tr>
<th>Location</th>
<th>Bounds</th>
<th>Scenario</th>
<th>Feature</th>
<th>Conclusion + Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Street</td>
<td>from University to Lincoln</td>
<td>2-6</td>
<td>1 lane NB</td>
<td>This can be a feature of the project. Having one lane of traffic operating in each direction for this portion <strong>does not induce an impact</strong> elsewhere in the traffic operations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 lane SB (two-way street)</td>
<td></td>
</tr>
</tbody>
</table>
Attachments:
- Summary Tables for Roadway Segment Results
- Summary Tables for Intersection LOS
MEMORANDUM

To: Beth Robrahn, SANDAG Project Manager
From: Arnold Torma, T.E., Senior Engineer
Re: Supplemental Analysis of Traffic LOS Results
Project: Uptown Bikeways Project – A&E Task Order #2 (KOA Project # B32097)
Date: March 30, 2015

In order to help you better understand how the “Transforming Hillcrest” concept might operate with respect to traffic and associated diversion we have prepared some supplemental information, particularly for the portion of University Avenue to the east of SR163. Attached are two graphics and a table. We hope this can provide some additional useful information.

The first figure entitled “2020 Scenario 1 – (No Project Condition)” represents year 2020 daily traffic volumes with current geometry on segments along with peak hour intersection conditions in the AM/PM as already reported in our analysis of all the alternatives being considered. This is simply a graphic portrayal of the same information contained in the Tables in our March 4, 2015 memo on Corridor II.

The second figure entitled “2020 Scenario 2 – (Transforming Hillcrest concept – from 4th Ave. to Park Blvd.)” uses some of the same data from the March 4, 2015 memo to represent conditions most likely to represent the Transforming Hillcrest concept. The analysis looked at the same number of through traffic lanes proposed in the Transforming Hillcrest concept and did not analyze the additional overall effect on intersection operations by introducing the complexity of the “parking lanes” between 10th and Normal Street. This includes the total daily volumes and intersection conditions and the amount of traffic that would be introduced to parallel facilities like Robinson Ave and Washington St that would have to carry the burden of some of the diverted traffic. What we also recognize is that this represents our best interpretation of the modeled results, but in fact even greater amounts of traffic are likely to be diverted once the reality of trying to move as many as 27,000 plus cars per day on a two-lane University Ave were to be experienced. What you can see is an increasing number of segments and intersections begin to have failing conditions in Scenario 2.

We have also included a Table based on using the Highway Capacity Manual Arterial Analysis methods to determine both the total travel time and the arterial level of service in the PM peak period. This is a different calculation than what we have already reported in the March 4, 2015 memo at the intersections. This table portrays how the change in operating speed during the PM peak periods on the roadway segments is affected by direction. The rows of the table represent differing combinations of the entire length of roadway in the area, and one can select which group of segments may be of interest and see the results. We show year 2020 results both with and without the Transforming Hillcrest project in the columns and a comparison of the two in the last columns on the right, particularly if there is a significant difference using the City’s Guidelines for determining significance.

MTS could also use the appropriate rows in this table under the Total Travel Time column to estimate the effect upon the bus operations in the future during the PM peak. The running time is the result of a calculation using the segment length and average speed. An estimate of increased transit total travel time is included in the Arterial Analysis Results table attached.
Attachments:
- 2020 LOS Scenario 1 & 2 Maps
- Arterial Analysis Results
2020 Scenario 2 – (Transforming Hillcrest concept - from 4th Ave. to Park Blvd.)

Shape Legend
- AM Intersection LOS
- PM Intersection LOS
- Segment LOS

Color Legend
- LOS Score of A-C
- LOS Score of D
- LOS Score of E
- LOS Score of F

~35,600 vehicles per day

~27,100 vehicles per day

~27,800 vehicles per day

~45,700 vehicles per day

~+1000 vehicles

~+500 vehicles

~+50 vehicles

~13,900 vehicles per day

~+1000 vehicles

~+500 vehicles

Although volume decreases, the capacity is halved

~3000 vehicles

~+600 vehicles

~+400 vehicles

~+200 vehicles

~11,000 vehicles per day

~+500 vehicles

~24

24
<table>
<thead>
<tr>
<th>Location</th>
<th>Urban Street Class</th>
<th>Segment Length (miles)</th>
<th>Direction</th>
<th>Without Project - Scenario 1</th>
<th>With Project - Scenario 2</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Running Time (s)</td>
<td>Signal Delay (s)</td>
<td>Total Travel Time (s)</td>
</tr>
<tr>
<td>1st Ave to 4th Ave</td>
<td>IV</td>
<td>0.13</td>
<td>EB</td>
<td>35.1</td>
<td>27.2</td>
<td>62.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WB</td>
<td>35.1</td>
<td>29.2</td>
<td>64.3</td>
</tr>
<tr>
<td>4th Ave to 6th Ave</td>
<td>IV</td>
<td>0.13</td>
<td>EB</td>
<td>33.7</td>
<td>66.3</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WB</td>
<td>33.7</td>
<td>23.1</td>
<td>56.8</td>
</tr>
<tr>
<td>6th Ave to 10th Ave</td>
<td>IV</td>
<td>0.24</td>
<td>EB</td>
<td>64.5</td>
<td>29.8</td>
<td>94.3</td>
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TRANSFORMING HILLCREST:
University Ave East Improvements
July 1, 2014

James Frost, AIA-E  jtfrost@msn.com  2288 Sixth Ave, San Diego CA 92101
Hillcrest: University Ave East Improvements

CONCEPT CREATES A FEASIBLE PROJECT ON UNIVERSITY AVE. FROM 10TH TO NORMAL STREET THAT:

- INCREASES PARKING SPACES
- PROVIDES BICYCLE Lanes
- DEVELOPS A UNIQUE DESTINATION FOR HILLCREST
- ACCOMODATES TRAFFIC DEMANDS
- USES EXISTING STREET IMPROVEMENTS TO MINIMIZE COST
Hillcrest: University Ave East Improvements

University Ave. from Richmond to Normal

SANDAG Bike Corridor

Existing Median

Plan 1.3

July 1, 2014

1:100

J.T. Frost, AIA-E
Hillcrest: University Ave East Improvements

Plan 2.1

University Ave. from Vermont to Richmond

SANDAG Bike Corridor

Widened Median Option

1:100

July 1, 2014

J.T. Frost, AIA-E
Hillcrest: University Ave East Improvements

Plan 2.2

University Ave. from Richmond to Normal

SANDAG Bike Corridor Widened Median Option

1:100

July 1, 2014

J.T. Frost, AIA-E
Hillcrest: University Ave East Improvements

Mid-Block Crossing at Widened Median Option View 2.3

SANDAG Bike Corridor, July 1, 2014, J.T. Frost, AIA-E
HILLCREST: UNIVERSITY AVE. EAST IMPROVEMENTS

CONCEPT
Create feasible project for increased parking, bicycle lanes, and civic improvements on University Ave from 10th Ave. to Normal Street that are acceptable to major stakeholders.

PROJECT GOALS
- Increase surface parking spaces
- Maintain existing parking on University Ave. south curb
- Use SANDAG Bike Plan as framework to fully improve University Ave.
- Provide Class 1 bicycle lanes on University Ave. in east and west directions
- Provide well designed, unique destination for entire area, 10th Ave. to Normal
- Retain existing landscaped medians (Option 1); Widen existing landscaped medians (Option 2)
- Accommodate anticipated traffic volumes on University Ave.
- Encourage non-Hillcrest related traffic to use Washington
- Create multiple use possibilities in new parking areas and medians (street fairs, markets, civic events)
- Utilize all existing improvements where possible to minimize costs

PROJECT INFORMATION
- Accepts that incoming University Ave. traffic capacity is limited to two lanes at the boundaries of Hillcrest
- Uses eastbound traffic lanes on south side of University Ave for 3 traffic lanes (one eastbound, center turn lane, one westbound) which are sufficient to accommodate anticipated traffic volumes
- Converts westbound traffic lanes on north side of University Ave. to parking
- Increases street existing parking of 122 spaces by 40 to 50 spaces to new total of 162-172 spaces (Option 1)
- Increases street existing parking of 122 spaces by 8 to 18 spaces to new total of 130-140 spaces (Option 2)
- Improves pedestrian safety; provides pedestrian linkage between north and south sides of University Ave.
- Develops mid-block intermittent plazas, landscaped areas and mid-block pedestrian crossings
- Accommodates MTS bus routes on University Ave.

FINANCIAL INFORMATION
Increases annual gross parking meter revenue from approximately $365,000 currently to $485,000 (Option 1) at completion
Proposes using parking revenue to pay for improvements and maintenance costs not covered by SANDAG

Hillcrest: University Ave East
Improvements Summary
Hillcrest Segment
University Ave: Fourth Ave to Fifth Ave

Constrained Option
(same as Existing Condition)

Original Design Concept
Hillcrest Segment
University Ave: Seventh Ave to Eighth Ave

Constrained Option
(same as Existing Condition)

Original Design Concept