CAPITAL GRANT APPLICATION FORM

Project Title:
CSUSM Bike and Pedestrian Urban Trail

Applicant (Jurisdiction):
City of San Marcos

Amount Requested:
600,000

APPLICATION CHECKLIST

☐ Ten hard copies and one CD of the complete Active Transportation application (including all attachments, clearly labeled).

☐ Resolution authorizing the application, committing to provide matching funds, and authorizing staff to accept grant funds and execute the grant agreement, and documenting community support.

☐ Format: narrative pages on 8.5x11 paper, all narrative text has at least 1 inch margins on all sides and no less than 10pt. font size (footers and headers exempt from the above requirements).

☐ Baseline data collection included in Scope of Work, Schedule, and Budget.

☐ Documentation of matching funds.

☐ Vicinity maps showing project location and local/ regional street, bicycle, transit, and highway facilities within and near the project area (may be printed on up to 11x17 paper).

☐ Documentation of support for the project from community groups or individuals (recommended but not required).

☐ Aerial photos and other photographs depicting existing conditions.

☐ Feasibility study or project study report (include in CD ONLY, do NOT attach as hard copy).

☐ Completed application form:
  ☐ Project Summary
  ☐ Project Location Map
  ☐ Project Costs & Funding Sources
  ☐ Project Readiness
  ☐ Project Connections and Safety

☐ Quality of Project
  ☐ Supportive Policies and Programs
  ☐ Scope of Work, Schedule, and Budget
  ☐ Engineer’s Estimate
  ☐ Plans showing that minimum design standard has been met

If any of the above are not included with the application by the deadline (with the exception of documentation of community support), the application will be deemed ineligible.
GRANTEE STATEMENTS

☒ The proposed grantee has read the standardized sample grant agreement.

☒ The proposed grantee understands that SANDAG will not reimburse applicants for expenses incurred prior to execution of a grant agreement.

☒ If the SANDAG Board of Directors approves the grant, the proposed grantee agrees to sign and return the standardized grant agreement to SANDAG, without exceptions, within 45 days of receipt.

☒ The proposed grantee agrees to comply with SANDAG’s Board Policy No. 035 Competitive Grant Program Procedures, which outlines “use-it-or-lose-it” project milestones and completion deadlines. Board Policy No. 035 is included in the standardized grant agreement as Attachment B, and is also on the SANDAG website at the following link: http://www.sandag.org/organization/about/pubs/policy_35.pdf

☒ The proposed grantee understands that all invoices must be accompanied by a written progress report of the charges for both requested reimbursement of grant and matching funds and submitted to SANDAG no less frequently than quarterly. Invoice and progress report templates are available on the SANDAG website at the following link: http://www.sandag.org/grants/forms

☒ The proposed grantee understands that upon approval of funding by the SANDAG Board of Directors, the applicant will provide a copy of their approved indirect cost rate audit or their proposed indirect cost rate methodology, if charging for overhead, to SANDAG for review and approval, which must occur prior to execution of the grant agreement.

☒ The proposed grantee understands that a resolution including the requirements of Board Policy No. 035, Section 4.1, must be submitted to SANDAG at least two weeks prior to the recommendation by the Transportation Committee of the list of grant projects to be considered eligible. SANDAG will provide applicants with advance notice of the Transportation Committee’s anticipated meeting dates.

I certify that I agree with the above statements, have reviewed the Active Transportation Grant Program Guidelines, and that the information submitted in this application is accurate and in accordance with these guidelines.

I have the authorization to submit this grant on behalf of my organization.

Mike Edwards

City Engineer/Public Works Director

Grantee Name (print or type) 

Title

07/17/2012

Grantee Signature (signature cannot be electronic) 

Date (mm/dd/yyyy)
# PROJECT SUMMARY

## Applicant (Agency):
City of San Marcos

## Project Title:
CSUSM Bike and Pedestrian Urban Trail

## Project Area Limits: e.g. 4th St. between Laurel St. and Ash St., and 5th St. between Laurel St. and Ash St.
Twin Oaks Valley Road, between Craven Road and Barham Drive.

## Project Description: (6 lines max)
The project will design and construct approximately 1600 lineal feet of shared use urban trail (10' wide) on the east side of Twin Oaks Valley Road from Craven Road to Barham Drive between the existing curb and gutter. The project will also install pedestrian countdown signals, signage, and pedestrian lighting, to enhance safety.

## Primary Contact Person (Project Manager):
Omar Dayani

## Title:
Principal Civil Engineer

## Street Address:
1 Civic Center Drive

## City and Zip Code:
San Marcos 92069

## Phone:
760.744.1050

## E-mail Address:
ODayani@san-marcos.net

Is this project in your agency's adopted capital improvement program? (Y/N) Y

Is the project part of a larger capital improvement project?
If so, describe the larger project in its entirety, as well as the funding sources:
No.

## Active Transportation Grant Funds Request

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<tr>
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<tbody>
<tr>
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<tr>
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</table>

Total Project Cost = Active Transportation Grant Funds + Matching Funds

Can this project be broken into phases? (Y/N) N

If yes, briefly list phased scope and costs:
(Please use separate page if necessary.)

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CAPITAL GRANTS FY 2011/2012 ACTIVE TRANSPORTATION GRANT APPLICATION FORM

A-3
PROJECT COSTS AND FUNDING

TOTAL ESTIMATED PROJECT COST:

Project Cost Estimates: On a separate sheet, provide an itemized engineer's cost estimate for all eligible expenses.

Summary of Cost Estimates

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<td>Construction Contract</td>
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Total Cost $760,000

Funding Sources:

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<td>Other (specify source)</td>
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<td>CSUSM Funds</td>
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</table>

Total Funding $760,000

MINIMUM DESIGN STANDARDS & GUIDELINES

Clearly illustrate that the minimum design standard is being met. Plans provided must be actual cross-section drawings. (Provide photographs, if applicable) See Eligibility Criteria for more information on design standards and guidelines.
**PROJECT READINESS**

**COMPLETION OF MAJOR MILESTONES**

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<th>Phase</th>
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<th>Completion Date</th>
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<tr>
<td>1. Community Active Transportation Strategy/Neighborhood-level plan/corridor study</td>
<td>March-11</td>
<td>February-12</td>
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<td>2. Environmental Documentation/Certification</td>
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<td>July-12</td>
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<td>3. Right-of-Way Acquisition</td>
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<tr>
<td>4. Final Design</td>
<td>November-11</td>
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</table>
PROJECT CONNECTIONS AND SAFETY

Connection to Regional Bicycle Network, Completes Connection in Local Bicycle Network, Completes Connection in Existing Pedestrian Network, Connection to Transit

Provide a map that clearly illustrates the project's relationship to existing bicycle, pedestrian, and transit facilities.
Safety Improvements and Overcoming Barriers (250 words max plus collision data attachments)

Describe, in bullets, the specific safety issues addressed by the project. Please attach documentation for safety and collision history. If collision data is provided, it must be annotated to highlight collisions applicable to the project and why they are relevant.

If applicable,(1) attach a map and/or photos indicating gaps and barriers, including changes in facility type where appropriate; (2) describe any locations within the project limits where barriers or hazardous conditions exist that prohibit safe access for bicyclists and pedestrians.

The proposed project will correct all of the safety issues itemized below:
- Lack of paved sidewalks forces students and pedestrians to walk on an uneven dirt path to access the SPINTER station and the adjoining shopping/activity centers and services.
- The unpaved path poses safety issues for bicyclist and pedestrians because it is prone to loose gravel, dust, mud and rock collection.
- Utility boxes, poles and the uneven dirt shoulder along the path create obstructions for pedestrians. These obstructions also limit accessibility for American s with disabilities. Pedestrians who cannot traverse over the uneven terrain have to use main roadway, increasing conflict with vehicles.
- Lack of pedestrian lighting posts safety concerns for pedestrians and bicyclists at night.
- According to Statewide Integrated Traffic Records System, there have been thirty-five 35 collisions within the project limits resulting in 16 people injured since 2000 (see Attachment 8-Feasibility Study). Currently only one collision is reported to have involved a pedestrian, while the majority of accidents involved high speeds. However, providing a safer pedestrian and bike path along such a high speed high accident roadway will reduce the vehicular traffic and pedestrian/bicycle traffic conflict.
- The busy eight lane crossing section of Twin Oaks Valley Road at Craven Road poses safety issues for pedestrians and bicyclist alike. A near miss accident at this crossing was recently reported.

| Street Name: Twin Oaks Valley Road between Barham Drive and Craven Road |
| Speed Limit: 45 mph | ADT: 23,489 |

| Street Name: |
| Speed Limit: | ADT: |

| Street Name: |
| Speed Limit: | ADT: |

| Street Name: |
| Speed Limit: | ADT: |
QUALITY OF PROJECT

For this section, please provide answers in bullet format. A short, concise narrative may be provided, if necessary, to describe the project.

Effectiveness and Comprehensiveness of Proposed Bicycle, Pedestrian, and/or Traffic Calming Measures, and Relationship to Program Objectives

Describe the need for traffic calming, pedestrian, and bicycle improvements in the project area, in bullets. (*) lines max

- There is a need to improve the existing unpaved dirt path with uneven surface and utility obstructions to resolve safety issues.
- There is a need to close the missing link in the pedestrian network to provide better connectivity to the transit station, campus, hospital and retail/activity centers.
- There is a need to improve lighting conditions to provide safe passage for pedestrians and bicyclists at night.
- Need to improve intersection safety conditions for pedestrian and bicycle crossing.

List the goals of the project, in bullets. (*) lines

- Improve bicycle and pedestrian neighborhood connectivity to regional transit facilities and other essential destinations.
- Ensure access to public transportation services for residents and commuters of all backgrounds.
- Increase community support for bicycling and walking as a means of improving community health.
- Encourage bicycling and walking as a viable mode of transportation
- Improve pedestrian and bicycle safety.

Describe the proposed improvements and why they are particularly suited to address the needs stated above, in bullets. (*) lines max

- The proposed project will increase pedestrian safety by installing a paved trail with proper pedestrian lighting.
- The improved trail will incorporate current storm water standards and native drought tolerant landscaping to support improved environmental conditions and an attractive transportation corridor.
- The completed trail will encourage walking and biking to support reductions in green house gas emissions created. The project will improve the pedestrian and bicycle network by providing connectivity to the nearby SPRINTER transit station, CSUSM campus, and other essential destinations.
- The proposed count down and audible pedestrian crossing signals will enhance safety.

INNOVATION

Is this or will this project be an FHWA or State experimentation effort? ☐ Yes ☑ No If yes, evidence must be attached.

Does this project propose any solutions that are new to the region? If so, please describe, in bullets. (*) lines max

- The design of the project will incorporate unique architectural features to enhance the pedestrian environment such as inlaid pavers, colored concrete, energy efficient lighting, shade trees in decorative tree wells, pedestrian pop-outs to increase sidewalk space for street furniture and enhanced pedestrian-oriented signage.
- The project will retrofit traffic signals with enhanced pedestrian and bicycle features utilizing innovative audible technology at three primary crossing locations at Craven Rd, Campus Marketplace and Barham Dr
SUPPORTIVE POLICIES AND PROGRAMS

COMPLEMENTARY PROGRAMS

Describe in bullets, any programs that complement the proposed capital improvements: awareness, education efforts, increased enforcement, bicycle parking. Describe who will be responsible in implementing the programs and how they relate directly to the capital improvements. In order to receive points, programs must be included in project Scope of Work, Schedule, and Budget.

- The City will coordinate with CSUSM to circulate project flyers to educate students and staff on the improved connectivity and environmental benefits of active transportation.
- The project will be coordinated with the CSUSM police force and the City-contracted Sheriff's traffic officers.
- The City will produce updated trail maps to illustrate the improve connectivity and safety achieved by the project.
- The City will work with the design consultant to host a public workshop demonstrating the project benefits and encouraging use of the proposed facilities.
- Similar efforts were very successful relative to the recently-completed Barham Urban Trail project.

SUPPORTIVE POLICIES AND PLANS

Cite in bullets, any policy language in approved plans that support this project, or cite Community Active Transportation Strategy that was completed prior to this application.

San Diego Regional Bicycle Plan Policies:
- Support bicycle improvement projects that close gaps in the regional bicycle network
- Encourage local government bicycle projects that connect local facilities to the regional bicycle corridors.
- Promote consistent signage that directs bicyclists to destinations and increases the visibility of the regional bicycle network.
- Support the development of bicycle facilities that provide access to regional and local public transit

City of San Marcos General Plan Update 2012, Mobility Element Policies:
- Policy M-1.6
- Policy M-3.2
- Policy M-3.3
- Policy M-3.5
- Policy M-3.9

Briefly describe any other relevant aspects of the project.

The City Council approved the University District Specific Plan in November, 2009. The University District is a 194-acre planned development near CSUSM located on both sides of Twin Oaks Valley Road between SR-78 and East Barham Drive from Industrial Street to the east and the proposed extension of Discovery Street to Craven Road/Bent Avenue to the west. The development will be mixed uses of residential, student- and faculty-serving retail, and dining establishments that supports SANDAG's Sustainable Communities Strategy. The City is working with the University closely to build up University District. The proposed project will provide an important pedestrian and bicycle connection from the current campus to the future university district. The City has also demonstrated its ability to deliver a similar project, the Barham Urban Trail Project, using Active Transportation funds.
SCOPE OF WORK, SCHEDULE, AND BUDGET

In the section below, state the scope of work, schedule, budget, and project deliverables (including specific quantities and locations of improvements). Please note that if this project is funded, this will be added to the grant agreement and the grantee will be held to this scope, budget, and schedule, for the purpose of project oversight. Applicants are required to identify phasing for the project, in the event that the project cannot be fully funded by SANDAG.

Please print completed Excel scope of work, schedule, and budget sheet and attach to application.

The project will design and construct approximately 1600 lineal feet of shared use urban trail (10 feet wide) on the east side of Twin Oaks Valley Road from Craven Road to Barham Drive between the existing curb and gutter. The project will also install pedestrian countdown signals, signage, and pedestrian lighting, to enhance safety.

This project cannot be completed in phases.

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<tr>
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<th>Task Description</th>
<th>Deliverables</th>
<th>Start Date</th>
<th>Completion Date</th>
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<td>Sep-13</td>
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<td>May-13</td>
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<td>Public Outreach- Workshops &amp; Open House</td>
<td>PowerPoint, Graphics &amp; Displays</td>
<td>Jun-13</td>
<td>Mar-14</td>
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<td>Encouragement &amp; Education Flyers</td>
<td>Feb-14</td>
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<td>Construction Support, Reports &amp; Inspection</td>
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<td>General Construction</td>
<td>Completed project</td>
<td>Sep-13</td>
<td>Mar-14</td>
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ATTACHMENTS

Attachment 1: City Council Resolution
Attachment 2: Scope of Work, Schedule & Budget
Attachment 3: Documentation of Matching Funds
Attachment 4: Aerial Photos
Attachment 5: Letters of Support
Attachment 6: Feasibility Study
RESOLUTION NO. 2012-7661

A RESOLUTION AUTHORIZING THE FILING OF FOUR APPLICATIONS FOR ACTIVE TRANSPORTATION GRANT PROGRAM FUNDS THROUGH THE SAN DIEGO ASSOCIATION OF GOVERNMENTS FOR THE SAN MARCOS BICYCLE AND PEDESTRIAN MASTER PLAN, SAN MARCOS BOULEVARD COMPLETE STREET MULTI-WAY BOULEVARD, CSUSM BIKE & PEDESTRIAN URBAN TRAIL AT TWIN OAKS VALLEY ROAD, AND SAN MARCOS BICYCLE DETECTION ENHANCEMENT, AND ACCEPTING THE TERMS OF THE GRANT AGREEMENT.

WHEREAS, $8.8 million of Transportation Development Act/TransNet funding for capital and non-capital active transportation projects is available to local jurisdictions and the County of San Diego from Fiscal Year 2011-2012; and

WHEREAS, CITY OF SAN MARCOS wishes to receive up to $1,309,000 in Active Transportation Grant funds for the following projects: San Marcos Bicycle and Pedestrian Master Plan, San Marcos Boulevard Complete Street Multi-Way Boulevard, CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road, and San Marcos Bike Detector System; and

WHEREAS, City of San Marcos understands that the Active Transportation Grant Program funding is fixed at the programmed amount, and therefore project cost increases that exceed the grant awarded will be the sole responsibility of the grantee; and

WHEREAS, City of San Marcos agrees to complete the proposed grant project within a timely matter and in compliance with Board Policy No. 035.

NOW, THEREFORE, BE IT RESOLVED by City Council of the City of San Marcos that the City Engineer/ Public Works Director is authorized to submit an application to SANDAG for Active Transportation Grant Program funding in the amount for the following projects:

1) $600,000 for CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road;

2) $500,000 for San Marcos Bicycle Detection Enhancement;
Resolution No. 2012-7661
Page 2

3) $80,000 for San Marcos Bicycle and Pedestrian Master Plan;

4) $124,000 for San Marcos Boulevard Complete Street Multi-Way Boulevard; and

BE IT FURTHER RESOLVED that, if a grant award is made by SANDAG to fund the above
mentioned projects, City Council of the City of San Marcos commits to providing $301,000 of
matching funds and/or in-kind contributions and authorizes the City Engineer/ Public Works
Director to accept the grant funds, execute the grant agreement with SANDAG with no
exceptions (a sample of which is attached), and complete the Project.

PASSED, APPROVED AND ADOPTED by the City Council of the City of San Marcos this 12th
day of June, 2012, by the following roll call votes:

AYES: COUNCILMEMBERS: JABARA, JONES, MARTIN, ORLANDO, DESMOND

NOES: COUNCILMEMBERS: NONE

ABSENT: COUNCILMEMBERS: NONE

James M. Desmond, Mayor
City of San Marcos

ATTEST:

Susie Vasquez, City Clerk
City of San Marcos
ATTACHMENT 2

SANDAG ACTIVE TRANSPORTATION GRANT PROGRAM SCOPE OF WORK, SCHEDULE, AND BUDGET

Project Title: CSUSM Bike and Pedestrian Urban Trail at Twin Oaks Valley Road

Project Location/Limits:
Twin Oaks Valley Road between Craven Road and Barham Drive

Project Description:
The project will design and construct approximately 1600 linear feet of shared use urban trail (10' wide) on the east side of Twin Oaks Valley Road from Craven Road to Barham Drive between the existing curb and gutter. The project will also install pedestrian countdown signals, signage, and pedestrian lighting, to enhance safety.

Contract No.: SANDAG Use Only
Claim (TDA)/Project (TNet) No.: SANDAG Use Only

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<tr>
<th>Task No.</th>
<th>Task Description</th>
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TOTALS $600,000 $150,000 $750,000

PROJECT REVENUES

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TOTALS $0 $35,000 $695,000 $750,000
May 30, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, California 92101

Dear Ms. Eary,

It is with great pleasure that I submit this letter in strong support of the City of San Marcos' application for Active Transportation Grant Program funding consideration for the Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project. **The University pledges to support the project with up to a $150,000 match.**

The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings. The proposed project encourages pedestrian and bicycling commuting by providing a safe and convenient connection to the California State University San Marcos (CSUSM) Sprinter Station, public transit and the neighborhoods adjacent to the campus. The project would provide pedestrian access to the various Cal State San Marcos athletic facilities, encouraging community participation from the existing and future high-density neighborhoods surrounding Cal State San Marcos.

As President, I strongly endorse the City's efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits Cal State San Marcos but benefit pedestrians, bicyclists and residents that live, work and play in San Marcos and further connects the region to their University.

Thank you for your time and consideration.

Sincerely,

Karen S. Haynes, Ph.D.
President

Cc: Lydia Romero, City of San Marcos
    Linda Hawk, CFO and Vice President for Finance and Administrative Services
    Jan Jackson, Vice President for Community Engagement
Item Number: 2013-42
Title: CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road
Project Code: TBD
Description: The project will design and construction an urban trail along Twin Oaks Valley Road fronting California State University San Marcos. The project will widen pedestrian facilities and enhance landscaping and lighting to complement the newly constructed Barham Drive Urban Trail.
Justification: This project will provide connectivity to regional trail system, encourage multimodal travel and improve safety for pedestrians and bicyclists.

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May 30, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, California 92101

Dear Ms. Eary,

It is with great pleasure that I submit this letter in strong support of the City of San Marcos’ application for Active Transportation Grant Program funding consideration for the Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project. The University pledges to support the project with up to a $150,000 match.

The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings. The proposed project encourages pedestrian and bicycling commuting by providing a safe and convenient connection to the California State University San Marcos (CSUSM) Sprinter Station, public transit and the neighborhoods adjacent to the campus. The project would provide pedestrian access to the various Cal State San Marcos athletic facilities, encouraging community participation from the existing and future high-density neighborhoods surrounding Cal State San Marcos.

As President, I strongly endorse the City’s efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits Cal State San Marcos but benefit pedestrians, bicyclists and residents that live, work and play in San Marcos and further connects the region to their University.

Thank you for your time and consideration.

Sincerely,

Karen S. Haynes, Ph.D.
President

Cc: Lydia Romero, City of San Marcos
    Linda Hawk, CFO and Vice President for Finance and Administrative Services
    Jan Jackson, Vice President for Community Engagement
June 28, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, CA 92101

RE: Active Transportation Grant Program

Dear Ms. Eary:

It is with great pleasure that I submit this letter in support of the City of San Marcos’ application for Active Transportation Grant Program funding consideration for the following project:

- **CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project** - The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings along Twin Oaks Valley Road to be completed by the City.

As the Executive Director of Facilities Planning and Development, I strongly endorse the City’s efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits the San Marcos Unified School District, but benefits all pedestrians, bicyclists and residents who live, work and play in San Marcos.

Thank you for your time and consideration.

Sincerely,

[Signature]

Katherine Tanner
Executive Director
Facilities Planning & Development

KT/ntd

C: Gary Hamels, Assistant Superintendent
June 26, 2012

Ms. Christine Eary
SANDAG
401 B Street, Suite 800
San Diego, CA 92101

Dear Ms. Eary:

Support Letter for City of San Marcos’s Applications for Active Transportation Grant Program

North County Transit District wished to lend its full support to the City of San Marcos’ applications for Active Transportation Program Grant funding for the following two projects:

- CSUSM Urban Trail at Twin Oaks Valley Road
- San Marcos Bicycle and Pedestrian Master Plan

The proposed CSUSM Urban Trail at Twin Oaks Valley Road project will construct a multi-purpose paved urban trail which will connect to the existing urban trail on Barham Drive and lead to the California State University-San Marcos area Sprinter Station. The projects encourage and support pedestrian and bicycling commuting by providing a safe and convenient connection between the university, commercial areas and the major regional transit station (SPRINTER station).

The proposed Bicycle and Pedestrian Master Plan project will focus on completion of the bicycle and pedestrian network by identifying new routes to provide additional connectivity, identify deficiencies, and provide recommendations for improvements to the existing network. The project will provide safe mobility for non-motorized users throughout the City and encourage use of public transportation.

NCTD strongly endorses the City’s efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefit our riders but also the pedestrians, bicyclists and residents that live, work and play in San Marcos.

Thank you for your time and consideration.

Sincerely,

William Olszanicky
Manager of Service Implementation

CC: NCTD - J. Dunning, B. Hennessey, K. Kranda, J. Lee; City of San Marcos – C. Comes
July 5, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, California 92101

Dear Ms. Eary,

It is with great pleasure that I submit this letter in support of the City of San Marcos’ application for Active Transportation Grant Program funding consideration for the CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project. The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings along Twin Oaks Valley Road.

As the Executive Director, I strongly endorse the City’s efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits The San Diego County Bicycle Coalition but benefits all pedestrians, bicyclists and residents that live, work and play in San Marcos.

Thank you for your time and consideration.

Sincerely,

[Signature]

Andy Hanshaw
Executive Director
San Diego County Bicycle Coalition
June 15, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, California 92101

Dear Ms. Eary,

It is with great pleasure that I submit this letter in support of the City of San Marcos' application for Active Transportation Grant Program funding consideration for the following project:

- **CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project**
  The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings along Twin Oaks Valley Road.

As the City of San Marcos Trails Advisory Committee Chair, I strongly endorse the City's efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits the City of San Marcos, but benefits all pedestrians, bicyclists and residents that live, work and play in San Marcos.

Thank you for your time and consideration.

Sincerely,

Gary S. Hill
Trails Advisory Committee Chair
June 13, 2012

San Diego Association of Governments
Attn: Christine Eary
401 B Street, Suite 800
San Diego, California 92101

Dear Ms. Eary,

It is with great pleasure that I submit this letter in support of the City of San Marcos’ application for Active Transportation Grant Program funding consideration for the following projects:

- **CSUSM Bike & Pedestrian Urban Trail at Twin Oaks Valley Road Project-** The project will construct a multi-purpose paved urban trail and enhanced parkway landscaping with pedestrian lighting and site furnishings along Twin Oaks Valley Road.

As the Fire Chief, I strongly endorse the City’s efforts in seeking funding to support projects that encourage pedestrian and bicycling commuting that not only benefits San Marcos Fire Department but benefits all pedestrians, bicyclists and residents that live, work and play in San Marcos.

Thank you for your time and consideration.

Sincerely,

[Signature]

Todd Newman
Fire Chief
San Marcos Fire Department
North County Cycle Club  
P.O. Box 1668  
Carlsbad, CA 92018-1668

June 29, 2012

Christine Eary  
SANDAG  
401 B Street, Suite 800  
San Diego, CA 92101

Subject: Support Letter for City of San Marcos' Grant Application

Dear Ms. Eary,

As the president of the North County Bicycle Club, it is with great pleasure that I submit this letter in support of the City of San Marcos' applications for the Active Transportation Grant Program funding for the following projects:

- San Marcos Bicycle and Pedestrian Master Plan,  
- San Marcos Bicycle Detection Enhancement Project, and  
- CSUSM Bike and Pedestrian Urban Trail at Twin Oaks Valley Road.

The San Marcos Bicycle and Pedestrian Master Plan project will provide a comprehensive plan to provide safe mobility for non-motorized users. The project will provide recommendations for improvements to the existing network and identify programs to educate motorists, bicyclists, and pedestrians on the rules of the road, and encourage even more residents to walk and bicycle throughout the City. The San Marcos Bicycle Detection Enhancement Project will allow safer crossing at signalized intersections for bicyclists. The CSUSM Urban Trail will be constructed on Twin Oaks Valley, a San Diego regional bike corridor. The project will improve bicycle/pedestrian neighborhood connectivity.

We believe that these projects will support and promote bicycling commuting by providing safer and more enjoyable bike paths and trails. The North County Bicycle Club strongly endorse the City's efforts in seeking funding to support projects that promote multimodal transportation and provide safer facilities for bicyclists and pedestrians. It is our hope that the City's applications will result in a successful award of Active Transportation Grant Program funds.

Thank you for your time and consideration.

Sincerely,

[Signature]

John G. Wellwood  
President North County Cycle Club
CSUSM BIKE AND PEDESTRIAN URBAN TRAIL AT TWIN OAKS VALLEY ROAD FEASIBILITY STUDY

City of San Marcos Engineering
May 2012
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1. **INTRODUCTION**

The City of San Marcos is leading an effort to investigate the feasibility to provide a shared use path along the east side of Twin Oaks Valley Rd to connect Craven Rd to Barham Dr. The Purpose of the proposed project is to provide a safe pedestrian and bicycle path for students, faculty and residents. A Project Location Map showing the general project area is shown in Figure 1.

The project corridor is located in front of the California State University San Marcos. If constructed, the trail will provide the missing pedestrian link that will directly connect students, employees, faculty and residents to the existing urban trail on Barham Drive, leading to the CSUSM SPRINTER Station located at Barham Drive and La Moree Road. It will also expand the existing pedestrian connections to major population centers including CSUSM, Campus Market Place, Palomar Pomerado Health Center and residential neighborhoods located within the project area as shown on Figure 2.

In addition to serving existing facilities, the project will also serve the future University District located across the project limits. University District is identified as a Smart Growth Opportunity Area (SGOA) that will encompass 194 acres of mixed use development that focuses on establishing a pedestrian friendly environment in connection to transit. The University District Specific Plan was approved in November 2009. The project is a part of this vision and will make walking, bicycling and transit attractive by providing the necessary linkages to access transit, bicycle and pedestrian facilities.

This report investigates the feasibility of the project including field evaluation, alternative analysis, right of way and environmental requirements identification, design guidelines, development of concept drawings, horizontal alignment and cost estimate, and documentation of preliminary community input and potential challenges.

2. **EXISTING CONDITIONS**

The staff conducted a field evaluation of the existing condition of the project site. The project site is a high pedestrian traffic location because of the adjacent and nearby facilities which include: Cal State San Marcos University, Campus Marketplace, La Moree Sprinter Station and residential areas. The current conditions forces pedestrians to travel on approximately 1600 feet of an uneven dirt path to access the SPRINTER station and adjoining population centers. The unpaved path is prone to dust, mud and rock collection which adds to the challenge of providing a safe walking route for pedestrians and students. As shown in Figure 3, uneven dirt shoulder and obstructive utility boxes and poles along the path cause problems for pedestrians, especially those with disabilities. Pedestrians who can’t traverse over the uneven terrain have to use main roadway, increasing conflict with vehicles. Pedestrians with disabilities have a hard time traveling along the uneven dirt path and often have to travel along the bike lane. Lack of pedestrian lighting posts safety concerns for pedestrians and bicyclists at night.
Every effort has been made to assure the accuracy of the maps and data provided; however, some information may not be accurate or current. The City of San Marcos assumes no responsibility arising from use of this information and incorporates by reference the disclaimer regarding the lack of any warranties, whether expressed or implied, concerning the use of the same. For additional information see the Disclaimer on the City's website.

City of San Marcos
CSUSM Bike & Pedestrian
Urban Trail at Twin Oaks
Valley Road

Figure 1 Project Area Map
Figure 3 Existing Site Photo - Obstructions
3. DEVELOPMENT OF ALTERNATIVES

Based on the field evaluation, three alternatives were identified for the trail improvement. All alternatives use the same alignment but with different construction method and materials. All of the alternatives considered would include installation of pedestrian lighting along the trail. Additionally, all of the alternatives fit into the City of San Marcos existing right-of-way. Therefore no encroachment permit or shared use agreement is needed for any of these alternatives.

1) Urban Trail – This alternative investigated the feasibility to construct a shared use 10’ wide concrete path and a plant buffer.

2) Conventional Sidewalk – This alternative investigated the feasibility to construct a conventional 5’ wide sidewalk.

3) Compacted Dirt Path – This alternative investigated the feasibility to construct a compacted dirt path.

3.1 Alternative 1 – Urban Trail

This alternative involves construction of a 10-foot wide concrete path with a 3’ plant buffer. This alternative would match the settings of the connecting trails on Barham Dr. and the trail south of Craven Rd. This alternative provides sufficient access for ADA and will improve the Level of Service for pedestrian and bicyclist. This alternative eliminates unwanted dust and provides a leveled safer walkway. The plant buffer separates the pedestrians from the road and provides a positive factor of safety for pedestrians. Additionally, this alternative will also retrofit two signalized intersections along the project limits with pedestrian countdown signals, audible pedestrian push buttons and pedestrian/bicycle signage to enhance safety. Landscape maintenance work will be required for this alternative. The estimated probable construction cost for this alternative is $685,000.
3.2 **Alternative 2 - Conventional Sidewalk**

This alternative involves construction of a 6-foot wide conventional concrete sidewalk. The leveled concrete foot path will improve safety for pedestrians; however, will be too narrow for shared use. The narrower sidewalk and lack of separation between the trail and vehicular traffic lanes will degrade the pedestrian LOS and safety compared to alternative 1. This alternative will not match adjacent urban trails and will be visually unappealing. The estimated probable construction cost for this alternative is $400,000.

3.3 **Alternative 3 - Compacted Dirt Path**

The alternative involves clearing and compacting the existing dirt path. This alternative is the least visually appealing alternative. Although compacted, dirt will still be kicked up by pedestrians causing unsafe conditions. This alternative is not ADA complaint and will be challenging for people with disabilities to travel along. This alternative is the cheapest of all alternatives. The estimated probable construction cost for this alternative is $230,000.
3.4 *Comparison of Alternatives*

Evaluation criteria listed below were developed and applied to the identified viable alternatives to allow for “side-by-side” comparisons based on several key factors.

- **Project Cost:** The estimated probable project cost of the alternative in dollars.
- **Constructability:** Ease of constructing the facility.
- **Right-of-Way:** Impacts to adjacent properties due to construction of the alternative.
- **Visual Impacts:** Impacts due the visual intrusiveness of the proposed trail.
- **Functionality:** A facility with a practical and uncomplicated design that operates in a straightforward, efficient manner.
- **Pedestrian Safety:** Potential safety concerns for pedestrians using the facility (ADA compliance).
- **Cost-Effectiveness:** The extent to which an alternative is economical based on the tangible benefits produced by the money spent.

**Table 1 Comparison of Alternatives**

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*Notes: 3 = Most Favorable Impact  1 = Least Favorable Impact*

Based on the comparison of alternatives described above, Alternative 1 had the highest total score. It exhibited the highest favorable combination of impacts. The primary disadvantage of this alternative is the cost of the project. However, the proposed alternative incorporates safety to pedestrians because of the plant buffer that is put into place. The plant buffer also creates a higher level of service because of the higher perceived factor of safety. The concrete path will also be easier for ADA pedestrians and provide a cleaner environment. This proposed alternative is also the most visually appealing and will match well with the already existing urban trails adjacent to this path.
4. DESIGN STANDARDS AND GUIDELINES

This study ensures that the proposed improvements meet the minimum geometric standards set forth in the following sources: American Public Works Association (APWA), Americans with Disabilities Act (ADA), Caltrans Highway Design Manual, and California MUTCD 2012. The study also ensures that proposed improvement is consistent with the guidelines outlined in the San Diego Regional Bike Plan and Planning and Designing for Pedestrians. Design standards and guidelines relevant to the proposed improvements are summarized below.

4.1 Caltrans Highway Design Manual

- The minimum width of a sidewalk should be 8 feet between a curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip.
- Using the minimum width may not be enough to satisfy the actual need if additional width is necessary to maintain an acceptable Level of Service (LOS) for pedestrians.
- All pedestrian facilities shall be ADA compliant as outlined in DIB 82.
- Cross slopes of standard gutter flatter than 8.33 percent should be avoided, except where gutters are adjacent to curb ramps where ADA requirements limit the slope to a maximum of 5 percent.
- If grate inlets must be placed within a pedestrian path of travel, the grate must be compliant with the Americans with Disabilities Act (ADA) regulations which limit the maximum opening in the direction of pedestrian travel to no more than 0.5 inch.
- Without an existing gutter, bicycle lanes must be a minimum of 4 feet wide.
- With an existing gutter, bicycle lanes must be a minimum of 5 feet wide.
- Bicycle lanes shall be comprised of a 6 inch solid white stripe on the outside of the lane, and a 4 inch solid white stripe on the inside of the lane.
- Bicycle lanes must never be delineated with raised barriers.
- The inside 4 inch stripe of the bicycle lane should be dropped 200 feet prior to any intersection where right turns are permitted, and the outside 6 inch stripe should be dashed in this location. Bicycle lanes are generally not marked through intersections.
- Bicycle lanes shall never be striped to the right of a right-hand turn lane.


- Landings requirements (Section 4.8.4): 60” x 60” (5’ x 5’) minimum
- Clear widths for two wheelchairs: 60” (5’) minimum
- Accessible Route for 90 degree turn minimum depth of leg: 48” (4’)
- Accessible Route Turn around an Obstruction: 42” (3’-6”) passage width minimum if the obstruction is less than 48” (4’).
- Ramp runs shall have a running slope not steeper than 1:12.
4.3  **CA MUTCD (2012)**

- Accessible pedestrian signals that provide information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces) should be provided where determined appropriate by engineering judgment.

- When used, accessible pedestrian signals shall be used in combination with pedestrian signal timing. The information provided by an accessible pedestrian signal shall clearly indicate which pedestrian crossing is served by each device.

- If two accessible pedestrian pushbuttons are placed less than 10 feet apart or on the same pole, each accessible pedestrian pushbutton shall be provided with the following features:
  - A pushbutton locator tone,
  - A tactile arrow,
  - A speech walk message for the WALKING PERSON (symbolizing WALK) indication, and
  - A speech pushbutton information message.

- Where countdown pedestrian signals are used, the countdown shall always be displayed simultaneously with the flashing UPRAISED HAND (symbolizing DONT WALK) signal indication displayed for that crosswalk.

- Countdown pedestrian signals shall consist of Portland orange numbers that are at least 6 inches in height on a black opaque background. The countdown pedestrian signal shall be located immediately adjacent to the associated UPRAISED HAND (symbolizing DONT WALK) pedestrian signal head indication.

- The display of the number of remaining seconds shall begin only at the beginning of the pedestrian change interval (flashing UPRAISED HAND). After the countdown displays zero, the display shall remain dark until the beginning of the next countdown.

- The countdown pedestrian signal shall display the number of seconds remaining until the termination of the pedestrian change interval (flashing UPRAISED HAND). Countdown displays shall not be used during the walk interval or during the red clearance interval of a concurrent vehicular phase.

4.4  **SANDAG Planning and Designing for Pedestrians**

- Trails and pathways should be well-lit (except where environmental constraints preclude this kind of lighting) and have uninterrupted lines-of-sight to improve visibility and safety.

- In general, accessible trails and pathways should be built to meet ADA standards and should be easy to maintain over time - namely asphalt or concrete. Non-accessible trails and pathways may be surfaced with crushed stone or gravel.

- Pathways and trails expected to have a high volume of users should have a paving width between 10 and 12 feet with a minimum two foot graded area adjacent to the pathway on both sides.

- There should be a minimum vertical clearance of eight feet.

- Grades should be no steeper than five percent with a graduated scale up to 11 percent for short distances for designated ADA accessible trails. Cross slopes should not exceed two percent.
5. **THE PREFERRED ALTERNATIVE**

This section presents right-of-way, environmental requirements, preliminary design and cost estimate for the preferred alternative – urban trail.

5.1 **Right of Way Requirement**

This existing City right-of-way line extends 16' to 19' from the curb line on the east side of Twin Oaks Valley Road within the project limit (from Craven Road to Barham Drive). The proposed project alignment fits into the existing City Right-of-Way (ROW) and no additional ROW acquisition will be needed.

5.2 **Environmental Requirements**

There are no environmental impacts associated with the proposed project and the City filed a CEQA exemption in July 2012.

5.3 **Concept Drawing / Horizontal Alignment**

The proposed improvement includes construction of a 10-foot wide concrete path with a 3' plant buffer. This alternative would match the settings of the connecting trails on Barham Dr. and the trail south of Craven Rd. Figure 4 shows the proposed cross-section. The conceptual drawing and horizontal alignment is also illustrated in Appendix A.

---

Figure 4 Cross-Section of the Preferred Alternative
5.4 60% Design Plans
The City has completed 60% design and a set of plans is included in Appendix B.

5.5 Cost Estimate
Table 2 shows the preliminary cost estimate for the proposed improvements. Detailed itemized cost estimate is provided in Appendix C.

Table 2 Estimated Project Cost

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6. COMMUNITY INPUT
Community input was gathered from the public as part of the City's recent General Plan update as well as the University District Specific Plan development process. Specific policies and programs were established in these plans to support future projects. The proposed project is consistent with these programs and policies. In addition, the California State University San Marcos strongly supports the project and has committed to provide $150,000 of matching funds for the project.

7. REFERENCES
Appendix A  Conceptual Drawing and Horizontal Alignment
Appendix B  60% Design Plans
GENERAL TRAFFIC NOTES:

TRAFFIC SIGNING NOTES:

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**SPECIFICATIONS**

1. FULL EDGES SHALL BE THE SIZE CALLED OUT ON THE PLAN. ALL FULL EDGES SHALL BE PREPARED WITH GEOMETRICALLY TRUELY STRAIGHT, RESISTANT TO WEATHER, AND EXCEPTED.

2. RUSK HOLDERS SHALL BE WATERPROOF, RUSKMAN TYPE HEAVY, OR EQUIVALENT.

3. ALL EWING TO BE SOLID COPPER CONDUCTOR WITH MINIMUM 3/0 STRAND COPPER ISOLATION RATED AT 600 VOLTS; 600 VOLT CONDUCTOR SHALL BE STRANDED COPPER.

4. ALL EDGES BELOW GRADE SHALL BE MADE IN APPROVED GALVANIZED AND SHALL BE WATERPROOF. WATERPROOF TREATED SURFACE ON EDGES, INCORPORATED ONLY.

5. ALL 80 DEGREE EDGES SHALL BE FRENCHMADE EDGES.

6. CONTRACTOR SHALL MAINTAIN PROPER SEPARATION AS REQUIRED BY Utility Companies.

7. ALL GROUND CONDUCTORS SHALL BE SPACED TOGETHER WITH APPROVED CONNECTOR AT 12 INCH INTERVALS.

8. CONTRACTOR SHALL LABEL EACH UNIT WITH BLACK MARKERS IN A LOCATION THAT EASILY READABLE, THIS LABEL SHALL NOT BE LIABLE TO LIGHT WEATHER AND BURIED ELECTRICAL ENCLOSURES AND PANELS. CIRCUIT NUMBER AND VOLTAGE SHALL BE IDENTICAL.

9. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS AND CHANGES FROM 10% START OF CONSTRUCTION. ANY DISCREPANCIES ARE TO BE ADDRESSED PRIOR TO PERFORMING WORK.

---

**PEDESTRIAN LIGHT DETAIL**

**METER PEDESTAL WIRING DIAGRAM - 120/240 VOLT PULL BOX/Foundation LAYOUT DETAIL**

**CITY OF SAN MARCOS-ENGINEERING DIVISION**

**PROJECT NUMBER**: CSUSM URBAN TRAIL @ TWIN OAKS VALLEY RD

**Drawing No.**: P-4832A

**Scale**: 1" = 20' (1:240)
Appendix C  Detailed Cost Estimate
## Detailed Engineer's Estimate for CSUSM Urban Trail at Twin Oaks Valley Road Project

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Cost</th>
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<th>Estimate</th>
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