DRAFT
ENVIRONMENTAL IMPACT REPORT

RANCHO SANTA FE ROUNDABOUTS PROJECT

State Clearinghouse # 2007101081

Appendices A–D

Lead Agency:

County of San Diego
Department of Public Works
Environmental Services Unit
5510 Overland Avenue, Suite 410
Mail-Stop O-385
San Diego, California 92123

December 2012

DRAFT
ENVIRONMENTAL IMPACT REPORT

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State Clearinghouse # 2007101081

Appendices A–D

Lead Agency:

County of San Diego
Department of Public Works
Environmental Services Unit

5510 Overland Avenue, Suite 410
Mail-Stop O-385
San Diego, California 92123
Contact: Gail Jurgella, Environmental Planner, Project Manager
858.694.3911

Prepared by:

ICF International
9775 Businesspark Avenue, Suite 200
San Diego, California 92131

Project Proponent:

County of San Diego
Department of Public Works

December 2012

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Notice of Preparation

County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER
DIRECTOR

5555 OVERLAND AVE, SAN DIEGO, CALIFORNIA 92123-1295

(858) 694-2212 FAX: (858) 268-0461
Web Site: sdcdpw.org

NOTICE OF PREPARATION
ENVIRONMENTAL IMPACT REPORT
FOR THE PROPOSED RANCHO SANTA FE ROUNDABOUTS PROJECT
RANCHO SANTA FE, SAN DIEGO COUNTY, CALIFORNIA
OCTOBER 15, 2007

The County of San Diego (County) is the lead agency in the preparation of an Environmental Impact Report (EIR) for the Rancho Santa Fe Roundabouts Project as specified by Sections 15120-15131 of the California Environmental Quality Act (CEQA) Guidelines.

This notice is issued pursuant to Section 15082 of the State CEQA Guidelines. It is intended to inform those persons and organizations that may be concerned with the environmental effects of the project. Those public agencies with specific statutory responsibilities are requested to indicate their specific role in the project approval process.

Because of the time limits mandated by State law, responses should be sent at the earliest possible date, but no later than 30 days after receipt of this notice. Please send your response to:

County of San Diego
Department of Public Works,
Environmental Services Unit
5469 Kearny Villa Rd., Suite 305
San Diego, CA 92123

Attn: Sean McClain
Fax: (858) 874-4068
e-mail: sean.mcclain@sdcounty.ca.gov

ENVIRONMENTAL DOCUMENT

The environmental document will be an EIR and is intended to allow the County to examine the environmental effects of the proposed Rancho Santa Fe Roundabouts Project and to take steps to avoid unnecessary environmental impacts.

PROJECT LOCATION

The proposed Rancho Santa Fe Roundabout Project is located at three intersections in the unincorporated community of Rancho Santa Fe in San Diego County (Thomas Bros. 1168: F1, F2 and F3). These intersections are part of the Paseo Delicias Corridor located between Via de la Valle and El Camino del Norte. The proposed project is located at the following intersections:

- Paseo Delicias/Via de la Valle/La Fremontia (Thomas Bros. 1168: E3)
- Paseo Delicias/El Montevideo/La Valle Plateada (Thomas Bros. 1168: F2)
- Paseo Delicias/El Camino Del Norte/Del Dios Highway (Thomas Bros. 1168: F1)

PROJECT DESCRIPTION

The County Department of Public Works (DPW) is proposing the construction of three roundabouts in the community of Rancho Santa Fe. Currently the two westernmost intersections are all-way stop controlled and the easternmost intersection is stop controlled on El Camino del Norte approaching Paseo Delicias/Del Dios Highway. All three intersections experience a Level of Service (LOS) F in peak traffic hours. Vehicles traveling along this stretch of roadway must wait in long queues at each of the three stop sign controlled intersections. At the request of the community, a roundabout feasibility study was completed which determined that roundabouts at the three subject intersections would function at a LOS A or B in peak traffic hours.

The project objective is to implement the least environmentally damaging project that provides efficient traffic movements, protects life and property, protects natural and cultural resources, minimizes visual impacts while ensuring community compatibility, and protects recreation resources.

POTENTIAL ENVIRONMENTAL IMPACTS

The Following environmental factors will be analyzed in the environmental document: Air Quality, Biological Resources, Cultural Resources, Recreational Uses, Noise, Traffic, and Water Quality/Hydrology as a result of implementation of the project. These environmental factors, along with an analysis of project alternatives, cumulative effects, and potential for growth inducement, will be analyzed and discussed in the EIR.

LIST OF AGENCIES, ORGANIZATIONS, AND INDIVIDUALS TO RECEIVE THIS NOTICE OF PREPARATION

All Property Owners within 300 feet of the Project
AT&T Communications
Audubon Society
California Department of Fish and Game
California Department of Transportation, District #11
California Department of Transportation
California Native Plant Society
California Office of Historic Preservation
California Office of Planning and Research – State Clearinghouse
California Regional Water Quality Control Board – San Diego Region
County of San Diego, Air Pollution Control District
County of San Diego, Department of Planning and Land Use
County of San Diego, Sheriff's Department
County of San Diego, Supervisor Bill Horn
Native American Heritage Commission
Rancho Santa Fe Association
San Diego Association of Governments
San Diego County Archaeological Society, Inc.
San Diego County Water Authority
San Diego Gas and Electric Co.
San Dieguito Planning Group
Sierra Club, San Diego Chapter
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service

Summary of Verbal Comments from January 9, 2007
Rancho Santa Fe Association Public Meeting

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Peter B. Smith
Association Manager

Rancho Santa Fe Association
Post Office Box A • Rancho Santa Fe, CA 92067-0359
(858) 756-1174 • FAX (858) 756-9814
www.rsfassociation.org

ART JURY

Mark McClure, President
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Gail Frazar
Ken Markstein

Robert J. Green
Building Commissioner

January 9, 2007

Ms. Jill Bankston, P.E.
County of San Diego
CIP Project Development
Engineering Services, DPW
5555 Overland Avenue, Ste 6106 (MS 0340)
San Diego, CA 92123-1295

Re: Paseo Delicias Roundabouts EIR Scoping – Rancho Santa Fe

Dear Ms. Bankston:

The Association requests that the following issues be considered within the EIR process:

- An assessment whether the project will provide adequate room for roundabout intersection landscaping that will be compatible with the prevailing pattern of heavy landscaping on adjacent properties in particular, and on Ranch roadways generally.
- Can the diameters of the proposed roundabouts be reduced to lessen impacts (encroachments) onto adjacent properties?
- Can the proposed roundabout at Via de la Valle be designed with a smaller diameter and/or realigned to reduce the encroachment onto the Village Church property?
- Would an additional traffic control of some kind at the intersection of Via de la Valle and Las Colinas enhance the metering of traffic and the overall operational efficiency of the proposed Via de la Valle roundabout?
- What alternatives are available to provide for safe equestrian crossings at or near the proposed roundabouts?

Thank you for your inclusion of these issues within the EIR's scope of work. We are indebted to County staff for their continuing good efforts on behalf of the community.

Sincerely,

Keith Behner
Planning Director

NOP Comments

Commenter	Date
Office of Planning and Research, Scott Morgan	10/17/2007
CDFG, Ed Pert	11/15/2007
San Diego County Archaeological Society, James W. Royle, Jr.	10/14/2007
Pechanga Cultural Resources Department, Anna M. Hoover	10/29/2007
Pala Band of Mission Indians, Joseph M. Nixon	11/16/2007
Resident, Anne O'Sullivan	10/16/2007
Resident, Hugh and Jean Stewart	10/17/2007
Resident, Steve Horine	11/02/2007
Resident, Johnson	11/06/2007
Resident, Russ Sande	11/14/2007
Resident, Samuel M Ursini	11/29/2007
Resident, Robin C. and Gerald L. Parsky	12/12/2007
Resident, Rankine Van Anda	12/13/2007

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

October 17, 2007

To: Reviewing Agencies

Re: Rancho Santa Fe Roundabouts Project
SCH# 2007101081

Attached for your review and comment is the Notice of Preparation (NOP) for the Rancho Santa Fe Roundabouts Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Sean McClain
San Diego County Department of Public Works
5469 Kearny Villa Road, #305 (0385)
San Diego, CA 92123-1152

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2007101081
Project Title Rancho Santa Fe Roundabouts Project
Lead Agency San Diego County Department of Public Works

Type NOP Notice of Preparation

Description The County Department of Public Works (DPW) is proposing the construction of three roundabouts in the community of Rancho Santa Fe. Currently the two westernmost intersections are all-way stop controlled and the easternmost intersection is stop controlled on El Camino del Norte approaching Paseo Delicias/Del Dios Highway. All three intersections experience a Level of Service (LOS) F in peak traffic hours. Vehicles traveling along this stretch of roadway must wait in long queues at each of the three stop sign controlled intersections. At the request of the community, a roundabout feasibility study was completed which determined that roundabouts at the three subject intersections would function at a LOS A or B in peak traffic hours.

Lead Agency Contact

Name Sean McClain
Agency San Diego County Department of Public Works
Phone 858-694-2212 **Fax** 858-874-4068
email sean.mcclain@sdcounty.ca.gov
Address 5469 Kearny Villa Road, #305 (0385)
City San Diego **State** CA **Zip** 92123-1152

Project Location

County San Diego
City
Region
Cross Streets Paseo Delicias/Via de la Valle/Fremontia/El Montavideo/La Valle Plateada/El Camino Del Norte/Del
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways Del Dios Highway
Airports
Railways
Waterways
Schools
Land Use

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Recreation/Parks; Noise; Traffic/Circulation; Water Quality

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; California Highway Patrol; Caltrans, District 11; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 9

Date Received 10/17/2007 **Start of Review** 10/17/2007 **End of Review** 11/15/2007

Note: Blanks in data fields result from insufficient information provided by lead agency.

SCH# 2007101081

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  David Johnson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Sharon Howell
- [ ] **California Energy Commission**
  Paul Richins
- [ ] **Cal Fire**
  Allen Robertson
- [ ] **Office of Historic Preservation**
  Wayne Donaldson
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **Reclamation Board**
  DeeDee Jones
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [■] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Banky Curtis
- [ ] **Fish & Game Region 3**
  Robert Floerke
- [ ] **Fish & Game Region 4**
  Julie Vance
- [■] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Gabrina Getchel
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Robert Sleppy
  Environmental Services Section
- [ ] **Dept. of Health Services**
  Veronica Malloy
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Debby Eddy
- [ ] **Office of Emergency Services**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [■] **Native American Heritage Comm.**
  Debbie Treadway

Public Utilities Commission

- [ ] **Public Utilities Commission**
  Ken Lewis
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [■] **California Highway Patrol**
  Shirley Kelly
  Office of Special Projects
- [ ] **Housing & Community Development**
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Jeff Pulverman
- [ ] **Caltrans, District 4**
  Tim Sable
- [ ] **Caltrans, District 5**
  David Murray
- [ ] **Caltrans, District 6**
  Marc Birnbaum
- [ ] **Caltrans, District 7**
  Cheryl J. Powell
- [ ] **Caltrans, District**
  Dan Kopulsky
- [ ] **Caltrans, District**
  Gayle Rosander
- [ ] **Caltrans, District**
  Tom Dumas
- [■] **Caltrans, District**
  Mario Orso
- [ ] **Caltrans, District**
  Ryan P. Chamberl

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [■] Transportatioojects
  Ravi Ramalin
- [ ] Industrial Pro
  Mike Tollstru

- [ ] **California Integr Waste Management Bo**
  Sue O'Leary
- [ ] **State Water Resces Control Board**
  Regional Programmit
  Division of Financssistance
- [ ] **State Water Resces Control Board**
  Student Intern, 40ater Quality Certification Unit
  Division of Water lity
- [ ] **State Water Reses Control Board**
  Steven Herrera
  Division of Water nts
- [ ] **Dept. of Toxic Stances Control**
  CEQA Tracking Ctr
- [ ] **Department of Pcide Regulation**

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [■] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

Last Updated on 09/11/07

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

November 15, 2007

Mr. Sean McClain
Department of Public Works
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Rancho Santa Fe Roundabouts Project, San Diego County, SCH# 2007101081 (CEQA2007-0802-R5)

Dear Mr. McClain:

The Department of Fish and Game (Department) has reviewed the above-referenced Notice of Preparation (NOP). The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (CEQA Guidelines Section 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines Section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq.) and Fish and Game Code Section 1600 et seq.

The project area is located at three intersections in the unincorporated community of Rancho Santa Fe in San Diego County. These intersections are part of the Paseo Delicias Corridor, and are located at Paseo Delicias/Via de la Valle/La Fremontia, Paseo Delicias/El Montevideo/La Valle Plateada, and Paseo Delicias/El Camino De Norte/Del Dios Highway. Currently the two western most intersections are all-way stop controlled and the eastermot intersection is stop controlled on El Camino del Norte approaching Paseo Delicias/Del Dios Highway. All three intersections experience a level of Service (LOS) F in peak traffic hours. At the request of the community, a roundabout feasibility study was completed which determined that roundabouts at the three subject intersections would function at a LOS A or B in peak traffic hours.

The Department offers the following comments and recommendations to assist the County in avoiding or minimizing potential project impacts on biological resources.

1. To enable the Department to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR.

a) A complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas.

b) A range of feasible alternatives to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives which should avoid or otherwise minimize impacts to sensitive biological resources particularly wetlands. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

Biological Resources within the Project's Area of Potential Effect

2. To provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. The DEIR should include the following information.

a) Per CEQA Guidelines, §15125(c), information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis should be placed on resources that are rare or unique to the region.

b) A thorough assessment of rare plants and rare natural communities, following the Department's May 1984 Guidelines (Attachment 1, revised May 2000) for Assessing Impacts to Rare Plants and Rare Natural Communities.

c) A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Data Base in Sacramento should be contacted at (916) 322-2493 or www.dfg.ca.gov/biogeodata/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

d) An inventory of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, §15380). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

Analyses of the Potential Project-Related Impacts on the Biological Resources

3. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR.

a) A discussion of impacts associated with increased lighting, noise, human activity, changes in drainage patterns, changes in water volume, velocity, and quality, soil erosion, and /or sedimentation in streams and water courses on or near the project site, with mitigation measures proposed to alleviate such impacts should be included.

b) Discussions regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (*e.g.*, preserve lands associated with a Natural Community Conservation Plan). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated and provided. A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater.

c) The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.

d) A cumulative effects analysis should be developed as described under CEQA Guidelines, §15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

4. The DEIR should include measures to fully avoid and otherwise protect Rare Natural Communities (Attachment 2) from project-related impacts. The Department considers these communities as threatened habitats having both regional and local significance.

5. The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

6. For proposed preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

7. In order to avoid impacts to nesting birds, the DEIR should require that clearing of vegetation, and when biologically warranted construction, occur outside of the peak avian breeding season which generally runs from March 1through September 1 (as early as January for some raptors). If project construction is necessary during the bird breeding season, a qualified biologist should conduct a survey for nesting birds, within three days prior to the work in the area, and ensure no nesting birds in the project area would be impacted by the project. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer shall be a minimum width of 300 feet (500 feet for raptors), shall be delineated by temporary fencing, and shall remain in effect as long as construction is occurring or until the nest is no longer active. No project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project.

8. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.

9. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Leslee Newton-Reed at (858) 467-4281.

Sincerely,

Ed Pert
Regional Manager

Enclosures

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

Sensitivity of Top Priority Rare Natural Communities in Southern California

cc: Scott Morgan (State Clearinghouse)

LNR:lnr
Rancho Santa Fe Roundabouts Project 2007101081

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

a. Experience conducting floristic field surveys;
b. Knowledge of plant taxonomy and plant community ecology;
c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project

area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

a. Project description, including a detailed map of the project location and study area.
b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
c. Detailed description of survey methodology.
d. Dates of field surveys and total person-hours spent on field surveys.
e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
h. Recommended measures to avoid impacts.
i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
l. Name of field investigator(s).
m. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

ATTACHMENT 2

Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows:

S1.# Less than 6 known locations and/or on less than 2,000 acres of habitat remaining.

S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh

S1.2	Southern Foredunes
	Mono Pumice Flat
	Southern Interior Basalt Flow Vernal Pool
S2.1	Venturan Coastal Sage Scrub
	Diegan Coastal Sage Scrub
	Riversidean Upland Coastal Sage Scrub
	Riversidean Desert Sage Scrub
	Sagebrush Steppe
	Desert Sink Scrub
	Mafic Southern Mixed Chaparral
	San Diego Mesa Hardpan Vernal Pool
	San Diego Mesa Claypan Vernal Pool
	Alkali Meadow
	Southern Coastal Salt Marsh
	Coastal Brackish Marsh
	Transmontane Alkali Marsh
	Coastal and Valley Freshwater Marsh
	Southern Arroyo Willow Riparian Forest
	Southern Willow Scrub
	Modoc-Great Basin Cottonwood Willow Riparian
	Modoc-Great Basin Riparian Scrub
	Mojave Desert Wash Scrub
	Engelmann Oak Woodland
	Open Engelmann Oak Woodland
	Closed Engelmann Oak Woodland
	Island Oak Woodland
	California Walnut Woodland
	Island Ironwood Forest
	Island Cherry Forest
	Southern Interior Cypress Forest
	Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes
	Active Desert Dunes
	Stabilized and Partially Stabilized Desert Dunes
	Stabilized and Partially Stabilized Desert Sandfield
	Mojave Mixed Steppe
	Transmontane Freshwater Marsh
	Coulter Pine Forest
	Southern California Fellfield
	White Mountains Fellfield
S2.3	Bristlecone Pine Forest
	Limber Pine Forest

San Diego County Archaeological Society, Inc.

Environmental Review Committee

14 October 2007

To: Mr. Sean McClain
Environmental Services Unit
Department of Public Works
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

Subject: Notice of Preparation of a Draft Environmental Impact Report
Rancho Santa Fe Roundabouts Project

Dear Mr. McClain:

Thank you for the Notice of Preparation for the subject project, received by this Society last week.

We are pleased to note the inclusion of cultural resources in the list of subject areas to be addressed in the DEIR, and look forward to reviewing it during the upcoming public comment period. To that end, please include us in the distribution of the DEIR, and also provide us with a copy of the cultural resources technical report(s).

SDCAS appreciates being included in the County's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 • San Diego, CA 92138-1106 • (858) 538-0935

McClain, Sean

From: Anna Hoover [ahoover@pechanga-nsn.gov]
Sent: Monday, October 29, 2007 4:41 PM
To: McClain, Sean
Subject: Rancho Santa Fe Roundabouts project

Mr. McClain:
Thank you for forwarding this notice to the Temecula Band of Luiseño Indians. On behalf of the Tribe, I am requesting any additional information you may have on this project including maps, archaeological studies with confidential appendices, initial studies, etc. so that we can make an informed decision in our comments. Please forward these documents either via hard copy or electronic copy if they are available in that format; if they are available via a website or ftp site, please forward that information and I will review the documents.

Thank you!
Anna

Anna M. Hoover
Cultural Analyst
Pechanga Cultural Resources Department
P.O.Box 2183
Temecula, CA 92592

951.308.9295 (O)
951.770.8104 (D)
951.757.6139 (C)
951.506.9491 (F)
ahoover@pechanga-nsn.gov

PALA BAND OF MISSION INDIANS
Tribal Historic Preservation Office
35008 Pala Temecula Rd. PMB 445
Pala, CA 92059

Ph: (760) 891-3591
Fax: (760) 742-4543

November 13, 2007

Molly Leuttgerodt, Planner
Dan Diego County Department of Public Works
5469 Kearny Villa Road, Suite 305
San Diego, California 92123-M. S., O385

Re: **Consultation, Rancho Santa Fe Roundabouts Project, San Diego County, California**

Ms. Leuttgerodt,

The Pala Band of Mission Indians Tribal Historic Preservation Office received your notification of the project as above. This letter constitutes our response on behalf of Chairman Robert Smith.

We have consulted our maps and have determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. It also is beyond the boundaries of territory that the Tribe considers its Traditional Use Area. Therefore, we have no objection to continuation of project activities as currently planned and we defer to the wishes of Tribes in closer proximity to the project area. However, if the project boundaries are modified to extend beyond the currently proposed limits, we do request updated information and the opportunity to respond to your changes.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions about cultural resource management in general, do not hesitate to contact us. If you have questions about Tribal involvement in this particular project, or if you need additional information, please do not hesitate to contact Joseph M. Nixon at 1 (760) 891 3592 or at e.mail jnixon@palatribe.com.

Cordially,

Joseph M. Nixon, Ph. D., RPA
Tribal Historic Preservation Office
Pala Band of Mission Indians

Cc: Leroy Miranda

C:\JMN\thpo\consultations\out of area\2007\sd_cy_dpw_roundabout_11_13__07.doc

McClain, Sean

From: Anne O'Sullivan [anne@seapropertymanagement.com]

Sent: Tuesday, October 16, 2007 1:49 PM

To: McClain, Sean

Subject: RSF Roundabouts: Notice of Preparation

I am in receipt of your Notice of Preparation of Environmental Impact Report for the proposed roundabouts project in Rancho Santa Fe dated 10-15-07.

We own a home at 6194 La Fremontia and would appreciate if we were kept informed as to the progress of this project by receiving any and all mailings and reports as they become available.

Please send all mailings to:

Frank M. Goldberg
PO Box 300
6194 La Fremontia
Rancho Santa Fe, CA 92067

Sincerely,

Frank M. Goldberg

October 17, 2007

County of San Diego
Dept of Public Works,
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

Attn: Sean McClain

Subject: EIR for Proposed RSF Roundabouts

In response to your October 15, 2007 Notice, we as residents in the area (corner of Paseo Delicias and La Fremontia) are seriously concerned about many of the potential environmental impacts of the proposed roundabouts, and are particularly concerned about at least, the following potential problems:

#1. Safety issues: The intent, apparently, is to speed traffic through the Paseo Delicias corridor. However, between the Via de La Valle/Paseo Delicias juncture and the El Montevideo entry there are currently:

(a) some 20 domestic driveways to Paseo Deliciaas whose residents will be severely impacted and threatened by a faster moving, non-stop traffic on Paseo Delicias;

(b) Entry from at least three feed roads to Paseo Delicias from side roads, Las Colinas (moderate density), La Valle Plateada (by the church), and La Fremontia(low density);

(c) The Community Church front entrance and parking lot entrance currently have entries directly from Paseo Delicias slightly east of the proposed La Valle/Paseo roundabout. Traffic to and from these entries could be endangered both for church attendees and church school attendees.

(d) Recently constructed Bus Stops exist on both sides of Paseo Delicias slightly east of the proposed Valley Road/Paseo Delicias roundabout. Public transmuters could be seriously impaired by the faster traffic on Paseo.

(e) A cross-path for pedestrians and equestrians currently exists across Paseo Delicias to the La Fremontia Park. A roundabout at this juncture could foreclose that crosswalk and one entry for equestrians to the Park area.

(f) With no sidewalks between the Valley Road and El Montevideo, pedestrians frequently use the road sides for walks to and from the Village center. With the faster traffic, this could pose a hazard to would-be pedestrians in this corridor.

#2. Village entry essentially begins at the proposed Valley-Road roundabout. A speed change from a high-speed roundabout to an acceptable and safe village speed would be hard to enforce in an-otherwise "shopping" area without traffic lights. And, in fact, the village main street feeds into another inland corridor to the coast. Would roundabouts or stop lights then be suggested for the rest of the corridor through the village and to Solana Beach?

#3. Turning from environmental concerns of "safety" (clearly an important one) to others, such as Cultural Resources, Biological Resources, Recreational Uses, etc., as already pointed out, a village Park already exists in the area within La Fremontia. This is a "home" to much wild life, small animal life, equestrian trails, and modest hiking trails. The proposed roundabout at the Via de La Valle/Paseo Delicias site would practically eliminate that area as a public park.

#4. Although not specifically an "environmental factor", the economic impact (road changes, bus-stop changes, property encroachments, water-supply reroutes, electrical reroutes, overpasses (or tunnels) for pedestrians, and equestrians), plus other unanticipated expenses and/or environmental encroachments would almost certainly be entailed.

As an alternative to the suggested roundabouts, it is suggested that more consideration be given to the "economic" and "environmental" costs of installing signal lights at the three intersections. Indeed, the traffic light installation at the Via de Valle/Calzada dl Bosque intersection seems to have been successful, and probably much less expensive than a roundabout.

Sincerely,

Hugh B. Stewart

Jean H. Stewart

Hugh and Jean Stewart

Luettgerodt, Molly

From: Steve Horine [steve@horine.biz]
Sent: Friday, November 02, 2007 3:38 PM
To: Luettgerodt, Molly
Cc: 'Donald MacNeil'; 'Martinez, Ray'; david.keitel@domusstudio.com
Subject: Rancho Santa Fe Roundabout Environmental Process Notice

Molly – As a follow up to our telephone conversation today, I understand the notice received (Notice of Environmental Report dated 10-15-07) regarding a proposed Roundabout Project was issued for the purpose of notifying adjacent property owners that an environmental process is set to commence, and should one have comment or concern, such comments should be sent in writing to the County of San Diego Dept of Public Works Environmental Services Division to your attention. I further understand that due to the fires the public comment period will be extended two weeks, and a notice will be sent updating this period. Furthermore, I understand that because the process is just commencing, there are currently no public documents available for review. Consequently the opportunity for comment is broad, and your department will consider all comments when preparing the environmental document. In the meantime, should you identify any documents associated with this project, please notify me as soon as practicable. Thank you.

Steve Horine
Real Estate Consultants
2190 Carmel Valley Road, Suite C
Del Mar, CA 92014
(858) 755-7890 phone
(858) 414-7139 cell
www.horine.biz

Box 161
Rancho Santa Fe
November 6, 200

Dear Mr. McClain,

I should like to oppose the planned roundabout at Paseo Delicias, Via de la Valle / La Bremontia.

Having lived on La Bremonta for almost fifty years, I have found no difficulty in driving onto Paseo Delicias (very cautious driver on Paseo Delicias even at rush hours). But principally I do not like the necessary destruction of the open space (too informal to call it a park) - at the intersection

(over)

Every park-like space is valuable, and I believe it should be maintained as it presently is.

Thank you for your consideration.

Very truly yours,
Frances Johnson

I live at 6212 La Bremontera, Rancho Santa Fe

Natalie Sande
Phone: (858) 794-5500
Fax (858) 794-5514

The Sande Company

Fax

To: County of San Diego
Department of Public Works

From: Russ Sande

Fax: 858.874.4068

Date: November 14, 2007

Phone:

Pages: 2

Re: RANCHO SANTA FE ROUNDABOUTS PROJECT

CC:

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

•Comments:

Dear Mr. McClain,

In response to your Notice of Preparation of an EIR for the above referenced project, I feel compelled to document my concerns as the owner of the property located at 7052 La Valle Plateada, Rancho Santa Fe.

* The environmental impact would be significant, considering how much DPW is intending to encroach on our property (and others).

* A roundabout would greatly disturb this cultural resource, as our home is an historical Lillian Rice residence.

* Creating more hardscape in a natural environment has to be viewed as having a negative impact.

* Having occupied our home for the past eighteen years, we are convinced that a roundabout will actually attract, rather than reduce or streamline traffic, bringing more noise and air pollution, as well.

* The only viable alternative is a traffic signal, which would be the least disruptive to the environment and clearly the most efficient and cost effective solution.

Sincerely,

Russell E. Sande

Russell E. Sande
7052 La Valle Plateada
Rancho Santa Fe, CA 92067
858 756 1804

Luettgerodt, Molly

From: McClain, Sean
Sent: Thursday, November 29, 2007 8:48 AM
To: Luettgerodt, Molly
Subject: FW: NOP

Hi Molly,

I received an email comment on the RSFR.

Sean

From: SAMUEL URSINI [mailto:ursini1@sbcglobal.net]
Sent: Thursday, November 29, 2007 8:43 AM
To: McClain, Sean
Subject: NOP

TO: SEAN McCLAIIN
FROM: SAMUEL M URSINI
THESE COMMENTS ARE IN REGARD TO THE NOP FOR THE ROUND ABOUTS IN RANCHO SANTA FE.
IT APPEARS THAT THE ROUND ABOUTS MAY BE A FEW YEARS IN COMING, BEFORE THEY BECOME A REALITY IN THE INTERIM PLEASE PROVIDE THE ANALYSIS SUPPORTING THE USE OF TEMPORARY TRAFFIC LIGHTS AT EACH OF THE INTERSECTIONS PROPOSED FOR THE ROUNG ABOUTS. THESE TRAFFIC LIGHTS WILL , IN MY JUDGEMENT, PROVIDE IMMEDIATE RELIEF FOR THE EXISTING CUT THROUGH TRAFFIC IN BOTH THE MORNING AND AFTERNOON PERIODS.
PLEASE ANALYZE THE IMPACT OF THIS TEMPORARY SOLUTION AS WE AWAIT SEVERAL YEARS FOR THE ROUND ABOUTS TO BECOME A REALITY. KEEP IN MIND THAT THESE LIGHTS WILL INDEED ASSIST IN THE FLOW OF TRAFFIC, WHICH NOW IS BUMPER TO BUMPER DURING THE PEEK HOURS.

BUENA VISTA FARMS
P.O. BOX 1846
RANCHO SANTA FE, CA 92067

December 12, 2007
Re: Notice of Preparation
Environmental Impact Report for Proposed Rancho Santa Fe Roundabout Project
Rancho Santa Fe
San Diego County, CA

To: Sean McClain

Many in our Community feel the traffic problems on Paseo Delicias, El Montevideo and Via de la Valle intersections in Rancho Santa Fe have become "extreme" and need immediate attention. The long wait to get through two stop and go signs has created "road rage" on the side streets of Rancho Santa Fe which are now being used for "cut thru" to get around the stop signs. As a result there is excessive speeding and more usage than these rural roads can bare.

Traffic Signals at the major intersections of Paseo Delicias/El Montevideo and Paseo Delicias/Via de la Valle would provide immediate relief and increase road safety. There would be a marked improvement for East/West traffic flow and much of the cut-thru would stop as soon as lights are installed.

Please add this option to your EIR Study. For many reasons, first and foremost expediency, Signals would be the preferred choice for many in our community. The roundabout project is not acceptable to the whole community and might face litigation due to their size and the fact they are not "equestrian friendly". We are all fearful this means more delays in solving the problem and more traffic accidents in the near future.

Five to ten years, the stated time it would take to complete roundabouts, is too long to wait to solve this egregious problem. Automated Traffic Signals could be very beneficial and immediately accepted as were the signals on Calzada del Basque and Via de la Valle and at El Apajo and San Dieguito Road.

We request that you put Traffic Signals as an option on the country roads improvement request. Signals would be the least environmentally damaging and the least costly in time and money. Our community is more than ready to embrace this option.

Sincerely,

Robin C. and Gerald L. Parsky

Robin C. and Gerald L. Parsky
17 year residents of Rancho Santa Fe
6025 El Montevideo
Rancho Santa Fe
E-mail: rparsky@buenavistafarms.com

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Rd., Ste 305
San Diego, CA 92123
Attn: Sean McClain
Subj: Response to NOP for Rancho Santa Fe Roundabouts

Dear Mr. McClain,

I am a resident of Lago Lindo in Rancho Santa Fe, and have observed the negative impact on both commuters and residents of the current stop signs along the Paseo Delicias corridor, which are to be replaced by the proposed roundabouts.

In a typical weekday morning commute, it takes a vehicle 10-14 minutes to travel the 1.2 miles on Paseo Delicias from the Del Norte intersection to the Via De La Valle intersection. Because of this extensive delay, one-third of the traffic cuts off at Del Norte and makes a left hand turn onto Lago Lindo. Most of them then make a left turn on Avenida Acacias and filter back through the Village covering a little over 3 miles and taking about 8 minutes.. The Linscott Law & Greenspan report in the RSF School EIR published in January 2006 put the count at 430 vehicles turning onto Lago Lindo in the peak hour. A count made on April 24, 2007 between 7am and 8am totaled 462 vehicles. Similarly, in the afternoon peak hour the delay is approximately 6-7 minutes to cover the 0.6 mile between Via de la Valle and El Montevideo. This delay causes over 350 vehicles to cut off of Paseo Delicias onto La Valle de Plateada at the Village Church, and reenter Delicias at the El Montevideo intersection. An additional 100 vehicles utilize Mimulus for the same cut-through purpose.

Apart from the noise, pollution, and general degradation in the quality of life for the residents of Lago Lindo, there is also a serious safety issue. The roadway is 24 feet wide with vegetation in most instances extending to the edge of the road. This makes the roadway picturesque in keeping with the ambiance of the Ranch. It also makes it dangerous to walk or to exit from driveways during the peak traffic hours, as a vehicle passes by every 7 seconds.

Speed is also a factor on Lago Lindo despite the efforts of the Highway Patrol to control it. In the latest radar certification the speeds have increased over the past five years. The latest County measurement dated 1/17/07 shows 73% of the vehicles exceed the 35mph speed limit, and 43% drive at 40mph or faster. The latest statistics reported by the RSF Patrol show 6 accidents on Lago Lindo including 1 fatality. This safety issue is greatly exacerbated by the heavy volume of cut-through traffic and it needs to be addressed promptly.

While the Roundabouts will increase the capacity of the Paseo Delicias corridor, and thereby make it possible to absorb the cut-through traffic, the process of getting the roundabouts is likely to be long and contentious. Consider the following estimated time frame and some of the major hurdles to be overcome.

YEARS

Draft Environmental Impact Report to Final EIR 1 - 3

Issues to overcome include land taking with its inevitable extended negotiation and probable litigation. Initially, the proposed taking at the Via de la Valle intersection was 104 square feet, and that has now grown to 11,000 sq. ft., seriously impacting the Village Church parking.
At the El Montevideo intersection an historic Lillian Rice home is severely impacted, with the owner observing that when her yard was being staked out for the roundabout, she felt she would be able to lean out her kitchen window and serve coffee to the passing motorists. Mitigation in this instance will require the relocation of the intersection and a difficult land taking from the owner on the opposite corner. The Equestrian Crossing issue is unresolved, and there are serious environmental issues at the Del Norte intersection.

Funding 3 - 5

Funding will be delayed because the EIR must be complete before being able to get on the waiting list for County Funding.
The project has an escalating cost- initially 600k each, now 1.5M.
Only 600K of Developer Fees are currently identified.
The project is not eligible for Transportation Impact Fee (TIF) monies.

Construction 1 - 2

Bidding, building

TOTAL ESTIMATED TIME SPAN (YEARS) 5 - 10

Because of the extended time to realize the roundabouts, consideration must be given to an interim solution, and such a solution exists in the form of ***temporary*** traffic signals at these intersections.

Some members of the RSF Association oppose traffic signals, even temporary ones, because they believe such lights conflict with the rural ambiance of the Ranch. Such a subjective evaluation should not override a serious safety issue on the cut-through roadways, or the LOS F condition of the Paseo Delicias corridor. It is interesting to note that a traffic signal has existed for many years in the Covenant at Calzada del Bosque, but not once has anyone suggested replacing that traffic signal with a roundabout, when lists for additional roundabouts have been proposed. Additionally, there is concern that temporary lights will become permanent and the roundabouts will never materialize.

Some suggested ways the County might address the concerns of the Association are:

1) Although the Board of Supervisors has already approved the roundabout project, the County can give further assurance that the project will continue by committing to a realistic completion date (e.g. 7 years or less).

2) The temporary signal lights could be rudimentary (not smart) and therefore would not possess the capability of a permanent installation.
3) The County could work with the Association in determining the "look" of the traffic signals. For example, the steel structure could be painted in a muted color, as is the case with the signal light at Via de la Valle and Calzada del Bosque, or the structure could be of classic cast iron construction (as seen in towns like Santa Barbara) that might be more in keeping with the historic character of Ranch Santa Fe..
4) There would be no additional illumination of the intersection as is the case with the Calzada del Bosque/Via de la Valle intersection.
5) Since the traffic signals will have a long cycle with most of the green time devoted to Paseo Delicias in the peak traffic hours, consideration could be given to having the lights flash red during the balance of the time, and effectively turn the intersections into an allway stop situation as exists today.
6) Since the temporary traffic signals would be an integral part of the roundabout project, the $600,000 already in hand would be more than enough to provide for their installation.

MISCELLANEOUS COMMENTS

1. In the initial Roundabout Study, Darnell & Associates uses SANDAG data to forecast future traffic volumes at the roundabout intersections. At the Via de la Valle intersection, westbound future a.m. peak hour traffic increments 102 vehicles over existing conditions, when in fact it should increment 102 + 400=502 vehicles to accommodate the 400 vehicles that currently cut through on Lago Lindo. This future figure represents an 80% increase in westbound peak hour traffic from the present condition. Accordingly, LOS figures for the roundabout should incorporate the cut-through traffic on Lago Lindo in the a.m. in order to calculate a realistic future Level of Service.

2. The size of the roundabouts should be held to an absolute minimum so as to limit the use of eminent domain and limit the adverse visual impact of expanded hardscape. The land taking for the Via de la Valle roundabout has increased from 104 sq. ft. to approximately 11,000 sq. ft., severely impacting the parking facility of the Village Church. It is unclear at this point what the curb-to-curb diameter of the roundabout is, but it should not exceed 100 feet, which is the specified minimum for 18 wheelers. By way of reference the Encinitas roundabout on Santa Fe Drive ranges from 90'-96' in diameter.

   a) If current speed levels on Paseo Delicias are causing a larger diameter then it is suggested that a 15mph speed zone be established on the approach to the roundabout.

   b) If the equestrian trail is contributing to the increase in size, then it is suggested that the trail be rerouted to behind the Church.
3. The Del Norte roundabout appears to be the most expensive and most environmentally challenging roundabout. Existing conditions are not a material

problem to the traffic flow in the Del Dios/Paseo Delicias corridor, as no stop signs impede the east/west traffic flow at that intersection. It is proposed that consideration be given to postponing this roundabout to a future date, in order to expedite the completion of the other two. The problem at this intersection relates to the vehicles on Del Norte trying to make a left turn onto Del Dios, particularly in the afternoon peak hours. An acceleration lane on Del Dios would greatly mitigate this problem and perhaps could suffice in lieu of either a traffic signal or a roundabout- at least in the near term.

4. The EIR should address the concerns of residents along the Paseo Delicias corridor that the continual traffic flow during peak hours (over 1,100 vehicles per hour in a single lane) will impede their access and egress relative to driveways, and side streets.

Respectfully submitted,

Rankine Van Anda
P.O. Box 2626
Rancho Santa Fe, CA 92067
December 9, 2007

Appendix B
Public Comments on the 2008 Draft Environmental Impact Report

2008 EIR Comments

Commenter	Date
State Clearinghouse	12/10/2008
Department of the Army	10/24/2008
Pala Band of Mission Indians	10/29/2008
San Diego County Archaelogical Society	11/29/2008
San Dieguito Planning Group, Lois A. Jones, Secretary/Member	12/4/2008
San Dieguito Planning Group, Chaco Clotfelter	12/5/2008
Rancho Santa Fe Association, Lois Jones, President	12/4/2008
Rancho Santa Fe Association, Ivan Holler, Planning Director	12/5/2008
Resident, Margaret E. Carl	10/16/2008
Resident, Richard E. Carlson	10/22/2008
Resident, Gordon Larsen	11/14/2008
Resident, Margaret E. Carl	11/15/2008
Residents, Allen and Carine Chitayat	11/17/2008
Resident, Dan Weisman	11/20/2008
Resident, Louise D. Kasch	11/27/2008
Resident, Rosemary Neeb	11/28/2008
Residents, Hugh B. Stewart & Jean H. Stewart	11/28/2008
Resident, David Brooks & Peggy Brooks	12/1/2008
Resident, Russ Sande & Sue Sande	12/1/2008
Resident, Patricia Simmons	12/2/2008
Resident, Russ Sande & Sue Sande	12/2/2008
Resident, Daniel Bunn	12/4/2008
Resident, Brian Ardolino	12/5/2008
Residents, Robin C. Parsky & Gerald L. Parsky	12/5/2008
Resident, Matthew Peterson	12/5/2008
Resident, Rankine Van Anda	12/6/2008
Residents, Gregory Hillgren and Nancy Hillgren	12/8/2008
Resident, W. Kent Jessee	12/8/2008
Resident Representative, George McGill	12/8/2008
Resident, Patricia Simmons	12/8/2008
Resident, Samuel Ursini	12/8/2008
Resident, Leonard Glass	12/9/2008
Resident, Paul Daniel Marks	1/6/2009

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

December 10, 2008

Julia M. Quinn
San Diego County Department of Public Works
5469 Kearny Villa Road, #305
San Diego, CA 92123

Subject: Rancho Santa Fe Roundabouts Project
SCH#: 2007101081

Dear Julia M. Quinn:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on December 8, 2008, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2007101081
Project Title Rancho Santa Fe Roundabouts Project
Lead Agency San Diego County

Type **EIR** Draft EIR

Description Construction of traffic roundabouts at the following three intersections along Paseo Delicias in unincorporated community of Rancho Santa Fe in northwest San Diego Co.: Paseo Delicias/El Camino del Norte/De Dios Highway (El Camino del Norte), Paseio Delicias/El Montevideo/La Valle Plateada (El Montevideo/La Valle Plateada), and Paseo Delicias/Via de la Valle/La Fremontia (Via de la Valle/La Fremontia).

Lead Agency Contact

Name Julia M. Quinn
Agency San Diego County Department of Public Works
Phone 858-874-4054 **Fax**
email
Address 5469 Kearny Villa Road, #305
City San Diego **State** CA **Zip** 92123

Project Location

County San Diego
City
Region
Lat / Long 33° 1' 18" N / 117° 12' 3" W
Cross Streets Paseo Delicias between Via de la Valle and El Camino Del Norte
Parcel No.
Township 13S **Range** 3W **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways Unnamed Stream
Schools Rancho Santa Fe
Land Use Residential Urban RU7 and Rural Residential RR.5

Project Issues Biological Resources; Vegetation; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 11; Regional Water Quality Control Board, Region 9; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 10/16/2008 **Start of Review** 10/16/2008 **End of Review** 12/08/2008

Note: Blanks in data fields result from insufficient information provided by lead agency.

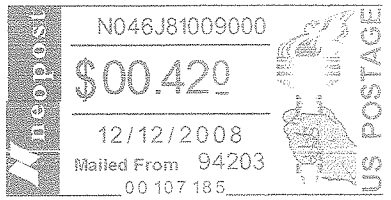
State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

STATE CLEARINGHOUSE

P.O. BOX 3044

SACRAMENTO, CALIFORNIA 95812-3044



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STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Memorandum

Date: November 21, 2008

To: All Reviewing Agencies

From: Scott Morgan, Senior Planner

Re: SCH # 2007101081
Rancho Santa Fe Roundabouts Project

Pursuant to the attached letter, the Lead Agency has extended the review period for the above referenced project to December 8, 2008 to accommodate the review process. All other project information remains the same.

cc: Julia M. Quinn
County of San Diego, Department of Public Works
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER
DIRECTOR

5555 OVERLAND AVE, SUITE 2188
SAN DIEGO, CALIFORNIA 92123-1295
(858) 694-2212 FAX: (858) 268-0481
Web Site: sdcdpw.org

November 21, 2008

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State of California
Office of Planning & Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812

To whom it may concern:

NOTICE OF EXTENSION OF PUBLIC REVIEW PERIOD
DRAFT ENVIRONMENTAL IMPACT REPORT
RANCHO SANTA FE ROUNDABOUTS PROJECT (SCH#2007101081)

This is to advise the State Clearinghouse the County of San Diego Department of Public Works has extended the public review period for the Rancho Santa Fe Roundabouts Project Draft Environmental Impact Report (EIR) at the request of the community in order to provide additional time for the public to comment on the project. Attached is the Notice of Extension of the Public Review Period.

The public review began on Thursday, October 16, 2008, and will conclude on Monday, December 8, 2008, instead of the initially planned date of December 1, 2008.

If you have any questions or require additional information, please contact Julia Quinn at (858) 874-4054 or by e-mail at julia.quinn@sdcounty.ca.gov.

Sincerely,

Julia M Quinn

JULIA M. QUINN
Environmental Planning Manager

JMQ: JMQ

Attachment

County of San Diego

DEPARTMENT OF PUBLIC WORKS

JOHN L. SNYDER
DIRECTOR

5555 OVERLAND AVE, SUITE 2188
SAN DIEGO, CALIFORNIA 92123-1295

(858) 694-2212 FAX: (858) 268-0461
Web Site: sdcdpw.org

NOTICE OF EXTENSION OF PUBLIC REVIEW PERIOD RANCHO SANTA FE ROUNDABOUTS PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT (SCH#2007101081)

November 24, 2008

NOTICE IS HEREBY GIVEN that the County of San Diego has extended the public review period for the Rancho Santa Fe Roundabouts Project Draft Environmental Impact Report (EIR) at the request of the community in order to provide additional time for the public to comment on the project. The public review began on Thursday, October 16, 2008, and will conclude on Monday, December 8, 2008, instead of the initially planned date of December 1, 2008.

Comments on the Draft EIR must be received no later than December 8, 2008 at 5:00 pm (a 52-day public review period). If you wish to challenge the County's action on the Draft EIR in court, you may be limited to raising only those issues that you, or someone else, have raised in written correspondence.Comments should be sent to Julia Quinn by mail at 5469 Kearny Villa Road Suite 305 San Diego CA 92123, by fax at (858) 874-4043, or by e-mail at julia.quinn@sdcounty.ca.gov. For additional information please contact Julia Quinn at (858) 874-4054.

The Draft EIR can be reviewed at the Department of Public Works (DPW), Environmental Services Unit, 5469 Kearny Villa Road, Suite 305, San Diego, CA 92123; the Rancho Santa Fe Branch Public Library, 17040 Avenida de Acacias, Rancho Santa Fe, CA 92067; and online at www.sdcounty.ca.gov/dpw/engineer/envrnsvcs.

Print Form

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2007101081

Project Title: Rancho Santa Fe Roundabouts Project Draft Environmental Impact Report (EIR)

Lead Agency: County of San Diego, Department of Public Works | Contact Person: Julia M. Quinn

Mailing Address: 5469 Kearny Villa Road, Suite 305 | Phone: 858-874-4054

City: San Diego | Zip: 92123 | County: San Diego

Project Location: County: San Diego | City/Nearest Community: Rancho Santa Fe

Cross Streets: Paseo Delicias between Via de la Valle & El Camino del Norte | Zip Code: 92067

Lat. / Long.: 33 ° 1 ' 18 " N/ 117 ° 12 ' 3 " W | Total Acres: 2.6 miles long

Assessor's Parcel No.: NA | Section: NA | Twp.: 13S | Range: 3W | Base: NA

Within 2 Miles: State Hwy #: NA | Waterways: Unnamed stream

Airports: NA | Railways: NA | Schools: Rancho Santa Fe

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☑ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

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Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other Road

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational ____
☐ Recreational ____

☐ Water Facilities: Type ____ MGD ____
☑ Transportation: Type Roadway Improvements
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☐ Aesthetic/Visual
☐ Agricultural Land
☐ Air Quality
☐ Archeological/Historical
☑ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☐ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☐ Toxic/Hazardous
☐ Traffic/Circulation
☑ Vegetation
☐ Water Quality
☐ Water Supply/Groundwater
☑ Wetland/Riparian
☑ Wildlife
☐ Growth Inducing
☐ Land Use
☐ Cumulative Effects
☐ Other ____

Present Land Use/Zoning/General Plan Designation:
Residential Urban RU7 and Rural Residential RR.5

Project Description: *(please use a separate page if necessary)*

Construction of traffic roundabouts at the following three intersections along Paseo Delicias in the unincorporated community of Rancho Santa Fe in northwest San Diego County: Paseo Delicias/El Camino del Norte/Del Dios Highway (El Camino del Norte), Paseo Delicias/El Montevideo/La Valle Plateada (El Montevideo/La Valle Plateada), and Paseo Delicias/Via de la Valle/La Fremontia (Via de la Valle/La Fremontia).

State Clearinghouse Contact:
(916) 445-0613

State Review Began: 10-16-2008

SCH COMPLIANCE 12-8-2008
extended

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2007101081

Please forward late comments directly to the Lead Agency

AQMD/APCD 27

(Resources: 10/18)

Project Sent to the following State Agencies

- X Resources
- ____ Boating & Waterways
- ____ Coastal Comm
- ____ Colorado Rvr Bd
- ____ Conservation 5
- X Fish & Game # ____
- ____ Delta Protection Comm
- ____ Cal Fire
- ____ Historic Preservation
- X Parks & Rec
- ____ Central Valley Flood Prot.
- ____ Bay Cons & Dev Comm
- X DWR
- ____ OES (Emergency Svcs)

Bus Transp Hous

- ____ Aeronautics
- X CHP
- X Caltrans # 11
- ____ Trans Planning
- ____ Housing & Com Dev
- ____ Food & Agriculture
- ____ Health Services

State/Consumer Svcs

- ____ General Services

Cal EPA

- ____ ARB – Airport Projects
- ____ ARB – Transportation Projects
- ____ ARB – Major Industrial Projects
- ____ Integrated Waste Mgmt Bd
- ____ SWRCB: Clean Wtr Prog
- ____ SWRCB: Wtr Quality
- ____ SWRCB: Wtr Rights
- X Reg. WQCB # 9
- X Toxic Sub Ctrl-CTC

Yth/Adlt Corrections

- ____ Corrections

Independent Comm

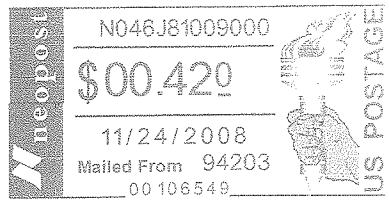
- ____ Energy Commission
- X NAHC
- ____ Public Utilities Comm
- ____ State Lands Comm
- ____ Tahoe Rgl Plan Agency

____ ____
Conservancy

____ Other: ____

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE
P.O. BOX 3044
SACRAMENTO, CALIFORNIA 95812-3044



92123@1159 C023

DEPARTMENT OF THE ARMY

SAN DIEGO FIELD OFFICE
6010 Hidden Valley Road, Suite 105
Carlsbad, CALIFORNIA 92011

October 24, 2008

REPLY TO
ATTENTION OF:
Office of the Chief
Regulatory Division

Julia Quinn
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

Dear Ms. Quinn:

It has come to our attention that you plan to construct traffic roundabouts at three intersections: Paseo Delicias/El Camino del Norte/Del Dios Highway, Paseo Delicias/El Montevideo/La Valle Plateada and Paseo Delicias/Via de la Valle/La Fremontia associated with the Rancho Santa Fe Roundabouts Project. The proposed project is located in the unincorporated community of Rancho Santa Fe in northwest San Diego County, California. This activity may require a U.S. Army Corps of Engineers permit.

A Corps of Engineers permit is required for:

a) structures or work in or affecting "navigable waters of the United States" pursuant to Section 10 of the Rivers and Harbors Act of 1899. Examples include, but are not limited to,

1. constructing a pier, revetment, bulkhead, jetty, aid to navigation, artificial reef or island, and any structures to be placed under or over a navigable water;

2. dredging, dredge disposal, filling and excavation;

b) the discharge of dredged or fill material into, including any redeposit of dredged material within, "waters of the United States" and adjacent wetlands pursuant to Section 404 of the Clean Water Act of 1972. Examples include, but are not limited to,

1. creating fills for residential or commercial development, placing bank protection, temporary or permanent stockpiling of excavated material, building road crossings, backfilling for utility line crossings and constructing outfall structures, dams, levees, groins, weirs, or other structures;

2. mechanized landclearing, grading which involves filling low areas or land leveling, ditching, channelizing and other excavation activities that would have the effect of destroying or degrading waters of the United States;

3. allowing runoff or overflow from a contained land or water disposal area to re-enter a water of the United States;

4. placing pilings when such placement has or would have the effect of a discharge of fill material;

c) the transportation of dredged or fill material by vessel or other vehicle for the purpose of dumping the material into ocean waters pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972;

d) any combination of the above.

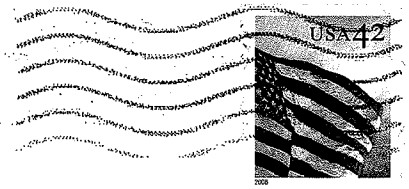
Please visit our website at www.spl.usace.army.mil/regulatory for a permit application and to view additional information regarding our regulations. If you have any questions, please contact Terry Dean at 760.602.4833 or via e-mail at Terrence.Dean@usace.army.mil. Please refer to this letter and SPL-2008-01046-TCD in your reply.

Sincerely,

for Terry Dean
Senior Project Manager
San Diego Section
Regulatory Division

U. S. Army Corps of Engineers
San Diego Field office
Regulatory Division
6010 Hidden Valley Rd., Suite 105
Carlsbad, CA 92011

SAN DIEGO CA 921
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Julia Quinn
County of San Diego
5469 Kearny Villa Rd, Suite 305
San Diego, CA 92123

92123+1139

PALA BAND OF MISSION INDIANS
Tribal Historic Preservation Office
35008 Pala Temecula Rd. PMB 445
Pala, CA 92059

Ph: (760) 891-3591
Fax: (760) 742-4543

October 29, 2008

Julia Quinn
County of San Diego
Department of Public Works
5469 Kearny Villa Rd., Suite 305
San Diego, CA 92123

Re: Rancho Santa Fe Roundabouts Project, 1009758, SCH No. 2007101081

Dear Ms. Quinn:

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). Therefore, we have no objection to the continuation of project activities as currently planned and we defer to the wishes of Tribes in closer proximity to the project area. However, if the project boundaries are modified to extend beyond the currently proposed limits, we do request updated information and the opportunity to respond to your changes.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact me by telephone at 760-891-3591 or by e-mail at sgaughen@palatribe.com.

Sincerely,

Shasta C. Gaughen, MA
Tribal Historic Preservation Officer
Pala Band of Mission Indians

Pala Band Of
Mission Indians

35008 Pala Temecula Road
PMB 50
Pala, CA 92059
Tel. (760) 891-3500 • Fax (760) 742-1411

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Julia Quinn
County of San Diego
Department of Public Works
5469 Kearny Villa Rd., Suite 305
San Diego, CA 92123

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San Diego County Archaeological Society, Inc.

Environmental Review Committee

29 November 2008

To: Ms. Julia Quinn
Department of Public Works
County of San Diego
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

Subject: Draft Environmental Impact Report
Rancho Santa Fe Roundabouts Project

Dear Ms. Quinn:

I have reviewed the cultural resources aspects of the subject DEIR on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in DEIR and its Appendices E and F, we have the following comments:

1. We agree that the project should not impact either of the two potentially-historic residences. We also agree that the drainage channel does not appear to be a significant historic residence.
2. Both the appendices and page 3-43 of the DEIR cite the Rancho Santa Fe Irrigation District as confirming that the portion of the Lake Hodges Flume in the APE was "replaced with an underground pipe. Can the District confirm that all portions of the old flume in the APE were destroyed? In other words, is there a possibility that bypassed and abandoned portions of the flume may still exist in the APE? If it is not known with certainty, it may be necessary to have an archaeological monitor present during excavation work in that portion of the APE.

Thank you for providing this DEIR to SDCAS for our review and comment.

Sincerely,

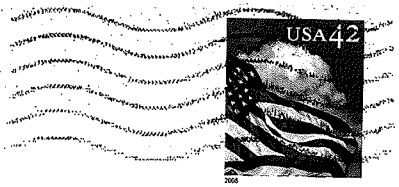
James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: EDAW
SDCAS President
File

P.O. Box 81106 • San Diego, CA 92138-1106 • (858) 538-0935

San Diego County
Archaeological Society
P.O. Box 81106
San Diego, CA 92138-1106

SAN DIEGO CA 921
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Department of Public Works
County of San Diego
5469 Kearney Villa Road, Suite 305
San Diego, CA 92123-1295

92123+1159

SAN DIEGUITO PLANNING GROUP

P. O. Box 2789, Rancho Santa Fe, California 92067

December 4, 2008

Ms. Julia Quinn
5469 Kearny Villa Road Suite 305
San Diego CA 92123

Re: COMMENTS TO DRAFT ENVIRONMENTAL IMPACT REPORT FOR ROUNDABOUTS

Dear Ms. Quinn:

Following are the motions taken at our regularly scheduled meeting of the San Dieguito Planning Group on December 4, 2008. Please accept this as our comments to the subject DEIR.

MOTION #1 by Lois Jones to submit following comments: (Seconded: Mecklenburg)
Ayes=12, nos=0,abstain =1

1. The design and subsequent traffic flow of the Via de la Valle roundabout eastbound onto Paseo Delicias does not promote slowing of traffic to manipulate the radial. The ingress to the circle is too straight which allows cars to circumvent the circle.
2. Does the pedestrian/equestrian crossing sit far enough away from the traffic circle for eastbound traffic from Via de la Valle to Paseo Delicias to safely allow for the lack of sight distance?
3. The access from Las Colinas onto Via de la Valle westbound does not allow safe entry. It should have a center access lane to enter traffic incrementally.
4. Are there appropriate bus turn-out lanes to allow cars t pass while the buses service passengers at the bus stops and still allow the buses to re-enter traffic safely?
5. There are no accommodations for bicyclists transitioning through the circles.
6. Is the design of the trails leading to the equestrian/pedestrian crossing at Paseo Del Norte far enough off the road to prevent startling of the animals as they approach the crossing from subsequent noise of traffic?
7. Community character of the area is more rural. The design of the curbs and circle should be more in tune with a more rural nature.
8. Has the federal manual for design and engineering of roundabouts been referenced to determine if single lane design and other stated criteria of roundabouts could handle this level of traffic?
9. Where within reasonable distance can we observe the operation of a roundabout with our level of traffic to determine if they will be effective?

MOTION #2 by Bill Schlosser to to request comments to address if the roundabouts have to be increased or decreased, how that affects the management of traffic flow. (Seconded: Epstein) Ayes=12, nos=0, abstain=1

Thank you for the opportunity to comment.

Sincerely,

Lois A. Jones
Secretary/Member
San Dieguito Planning Group

SAN DIEGUITO PLANNING GROUP

P. O. Box 2789, Rancho Santa Fe, California 92067

December 5, 2008

Ms. Julia Quinn
5469 Kearny Villa Road Suite 305
San Diego CA 92123

Re: COMMENTS TO DRAFT ENVIRONMENTAL IMPACT REPORT FOR ROUNDABOUTS

Dear Ms. Quinn:

Following are some additional comments that materialized after the conclusion of our San Dieguito Planning Group meeting on December 4, 2008. Please accept these comments in addition to the motion forwarded by our secretary Lois Jones on or about December 5, 2008 in regards to the DEIR.

1. US Department of Transportation publishes a number of compelling documents in regards to roundabouts. Each of these publications must be thoroughly analyzed in order to determine the efficacy of such roundabouts in our community. Two of these publications are the following:

- **NCHRP Report 572: Roundabouts in the United States**, Transportation Research Board, The National Academies, 2007. [PDF 4.33 MB]
  Based on a comprehensive evaluation of roundabouts in the United States, the report presents methods of estimating the safety and operational impacts of roundabouts and updates design criteria for them. The report will be useful to geometric designers and traffic engineers considering improvements to an intersection.
- **Pedestrian Access to Roundabouts: Assessment of Motorists' Yielding to Visually Impaired Pedestrians and Potential Treatments To Improve Access**, FHWA-HRT-05-080, May 2006. [HTML, PDF 1.14 MB]

The NCHRP Report 572 goes into detail regarding minimum standards that must be considered prior to even conceptualizing such a roundabout plan, many of which may be remiss in our community. The Report also goes into detail regarding various data: safety, operational, geometric, speed, pedestrian and bicycle. Perhaps most important is the analyses regarding capacity and traffic flow.
The 125-page report can be found and printed here:
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_572.pdf
This document and other related materials can be found here:
http://safety.fhwa.dot.gov/intersections/roundabouts.htm

Thank you for the opportunity to comment.

Sincerely,

Chaco Clotfelter 858-342-3050
Member
San Dieguito Planning Group

Quinn, Julia

From: Lois Jones [Loikaj@earthlink.net]

Sent: Thursday, December 04, 2008 10:26 PM

To: Quinn, Julia

Cc: 'Bill Schlosser'; 'Bruce Liska'; 'Chaco Clotfelter'; 'Don Willis'; 'Doug Dill'; 'Ira Epstein'; 'Jack McGee'; 'John Mecklenburg'; 'Laurel Lemarie'; 'Nancy Reed'; 'Neil Weinstein'; 'Nicko Christenfeld'; 'Paul Marks'; 'Tom Hickerson '

Subject: Comments to Draft Environmental Impact Report/Rancho Santa Fe Roundabouts

Attachments: 08-12-04 Letter to DPW for Motion 5-3.doc

Attached is our letter commenting on the Draft EIR for Rancho Santa Fe Roundabouts.

Please feel free to contact me if you have questions or comments.

Regards,
Lois Jones
Secretary
San Dieguito Planning Group

Quinn, Julia

From: Chaco Clotfelter [chaco@WILLISALLEN.com]
Sent: Friday, December 05, 2008 12:38 PM
To: Quinn, Julia
Subject: Additional comments to Rancho Santa Fe DEIR for Roundabouts

Dear Ms. Quinn:

Following are some additional comments that materialized after the conclusion of our San Dieguito Planning Group meeting on December 4, 2008. Please accept these comments in addition to the motion forwarded by our secretary Lois Jones on or about December 5, 2008 in regards to the DEIR.

1. US Department of Transportation publishes a number of compelling documents in regards to roundabouts. Each of these publications must be thoroughly analyzed in order to determine the efficacy of such roundabouts in our community. Two of these publications are the following:

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The 125-page report can be found and printed here:
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_572.pdf
This document and other related materials can be found here:
http://safety.fhwa.dot.gov/intersections/roundabouts.htm

Thank you for the opportunity to comment.

Sincerely,

Chaco Clotfelter 858-342-3050
Member
San Dieguito Planning Group

BOARD OF DIRECTORS

Lois A. Jones, President
Timothy R. Sullivan, Vice President
William R. Beckman, Treasurer
Kimberly K. Higgins, Director
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Deborah Plummer, Director
Thomas P. Lang, Director

Peter B. Smith
Association Manager

Rancho Santa Fe Association
Post Office Box A • Rancho Santa Fe, CA 92067-0359
(858) 756-1174 • FAX (858) 756-9814

ART JURY

Jack Queen, President
Paul Slater, Vice President
Diane Larsen, Secretary
Bruce Hall
Michael Hammes

Robert J. Green
Building Commissioner

December 4, 2008

Ms. Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

COMMENTS ON THE DRAFT EIR FOR THE RANCHO SANTA FE ROUNDABOUTS PROJECT

Dear Ms. Quinn,

The Rancho Santa Fe Association appreciates this opportunity to comment on the Draft Environmental Impact Report (EIR) for the Rancho Santa Fe Roundabouts. In our review of the Draft EIR, the Association was pleased to see that many of our previous comments had been incorporated into the revised project design. Such revisions include minimizing impacts on adjacent existing residences, providing user-activated, in pavement warning lights at pedestrian and equestrian crossings, and assessing signalized traffic control alternatives including their effect on cut-through traffic.

However, there are a few topics that require additional analysis. In particular, the Draft EIR does not adequately address the following specific project features or topic areas:

- The Traffic section of the Draft EIR does not directly address whether the use of roundabouts would result in any difference in traffic speeds on Paseo Delicias, between Via de la Valle and El Montevideo, as opposed to the use of traffic signals

- While the Draft EIR states that the roundabouts would be constructed to FHWA standards, there is no discussion of whether the diameter could be reduced and still comply with those standards and prevailing traffic speeds. The Draft EIR should also discuss the entrance and exit speeds for the roundabouts, especially the entrance speed and exit speed from eastbound Via de la Valle to eastbound Paseo Delicias. This should

include an assessment of the roundabout geometry at that particular intersection and whether traffic speed will be slow enough through the roundabout to maintain adequate spacing for merging vehicles and pedestrian/equestrian safety

- Assess whether an acceleration lane on westbound Via de la Valle would provide additional safety for vehicles making a left turn from Las Colinas

- For the signalization altemative, the left turn pocket on westbound Paseo Delicias can stack approximately 10 vehicles. However, during peak am traffic times, the majority of cars turn left from Paseo Delicias onto Via de la Valle. The Draft EIR should assess whether long traffic queues will exist on westbound Paseo Delicias because of the inability to stack more vehicles in the left turn pocket

- For the signalization alternatives, please confirm that adequate ROW exists to accommodate the through travel lanes, dedicated left-turn pockets and right turn only lanes where appropriate, without reducing the standard lane widths

- Where any proposed retaining walls are visible at the roundabout intersections, they should be adequately screened to minimize their visual impact. Please review whether a segmental retaining wall with planting spaces and an appropriate degree of batter would provide such visual screening

- For all affected bus stop locations, please assess whether traffic will be affected when busses are present and loading passengers. Please review the available paved shoulder dimensions and whether additional paving will be required to create a bus pocket outside of the regular travel lanes so that the movement of other vehicles will not be impeded.

Thank you again for the opportunity to comment on the Draft EIR. The Rancho Santa Fe Association looks forward to reviewing the Final EIR and to the successful completion of the planning and environmental review phase for this project. It remains our hope that a thorough analysis of these and other public comments will result in roundabouts that are well designed and will function well to meet the needs of our community for years to come.

Sincerely,

Lois Jones, President
Rancho Santa Fe Association

Rancho Santa Fe Association
Post Office Box A
Rancho Santa Fe, CA 92067-0359



Ms. Julia Quinn
County of San Diego Dept. of Public
Works, Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

92123$1159 C023

Quinn, Julia

From: Ivan [ivan@rsfassociation.org]
Sent: Friday, December 05, 2008 11:18 AM
To: Quinn, Julia
Cc: Torbett, April; Liz
Subject: Rancho Santa Fe Roundabout DEIR Comments
Attachments: DEIRletter.pdf

Julia,

On behalf of the Rancho Santa Fe Association, I have attached a .pdf file of our comment letter for your review. We have also mailed a hardcopy of our comment letter to the address contained in the public notice.

While the Association is generally pleased with the DEIR responses to previous community comments, I cannot overstate our concern with the geometry of the roundabout at the Paseo Delicias / Via de la Valle intersection. As described in our comment letter, it appears that traffic speeds will not be adequately reduced through the roundabout when transitioning from eastbound Via de la Valle to eastbound Paseo Delicias. Again, this is perhaps our most significant concern regarding the roundabout project.

Thank you for the opportunity to comment on the DEIR. We look forward to reviewing the Final EIR when it is completed. In the meantime, if you have any questions, please feel free to contact me at (858) 756-1174 or by e-mail at ivan@rsfassociation.org.

Would you please send me a quick reply acknowledging receipt of this e-mail?

Thanks,

Ivan Holler, Planning Director
Rancho Santa Fe Association

Quinn, Julia

From: Margaret Swirles [mebcarl@sbcglobal.net]
Sent: Thursday, October 16, 2008 12:24 PM
To: Quinn, Julia
Subject: Roundabouts in Rancho Santa Fe

I wish to strongly OPPOSE the installation of roundabouts in Rancho Santa Fe.

Margaret E. Carl

Richard E. Carlson
P.O. Box 2275
Rancho Santa Fe, CA 92067
858/756-9852

October 22, 2008

Ms. Julia Quinn
5469 Kearny Villa Road
Suite 305
San Diego, CA 92123

Dear Ms. Quinn:

The Rancho Santa Fe EIR for roundabouts has significant deficits in analysis. I have used the Paseo/Via de la Valle/Las Colinas (PVL) intersection for the past 20 years.

There is significant local traffic on Las Colinas, but very little or no bypass traffic. Your traffic analysis of bypass traffic is flawed or encompasses no data, if you are suggesting bypass traffic on Las Colinas. An analysis of all bypass traffic in the area is not included in the report, except as anecdotal evidence. Traffic on the Del Dios highway has declined for the past few years and is down this year. Why is a project of such scale being proposed to solve a problem that seems self limiting?

The Las Colinas intersection serves 20% of the houses in the Rancho Santa Fe Covenant. Egress onto Via de la Valle from Las Colinas will be significantly impacted by the roundabout project. The current intersection provides a traffic gap for egress onto Via de la Valle and Las Colinas. Motorists are mindful and respectful of this gap and allow left turns onto Via de la Valle and left turns onto Las Colinas. The proposed project eliminates this gap. Even with the realignment of Las Colinas, there is no provision for merging onto Northbound Via de la Valle at rush hour. Southbound traffic turning left onto Las Colinas may cause complete gridlock of the roundabout as truck and car traffic backs up waiting for an opening to turn left. One cement truck from Escondido will freeze all traffic, as no opening will be available at evening rush hour. The engineers at the last meeting stated that they had not observed traffic themselves, so they are designing in a vacuum. The EIR should encompass local user feedback.

The plan creates a dangerous "raceway" for turning right onto Del Dios from Via de la Valle. Northbound traffic will have no constraint to slow at the turn, as the radius has been made wider than the existing 90-degree turn. Motorists who now regularly "run' the light will not yield to those in the roundabout, causing potential fatal accidents. Those residents on La Fermontia will be trapped in the morning rush hour by fast moving streaming traffic. Your assumption of slowing traffic at the roundabout is seriously flawed.

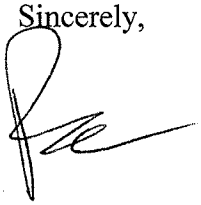
The current intersection at PVL is not a constraint to traffic. At evening rush hour, traffic flow is rarely backed up on the northbound side of Via de la Valle. The engineers did not

observe real traffic flows. The problem is greater at the next two easterly intersections. A simple traffic control light at those two intersections instead of costly roundabouts would ease congestion. The traffic control light can be programmed to cause more east-west flow when needed. The delay times in the report under 3.1.10 appear to be completely incorrect.

The view plain of the project has been severally underestimated. The rural character will be completely changed. The roundabouts are massive in scale compared to existing conditions. No amount of landscaping will conceal them. They are so large, adjacent property must be condemned, streets closed and highways widened, curbing installed and several new flashing warning lights installed. That is a poor solution to a simple problem that can be controlled with a traffic light. Lighted warning signs in all directions around the roundabouts will impact the rural character as stated in 3.1.1.4. We are also in danger of life and limb from unobtrusive crossing lights, which drivers will not see. A single overhead light is much less obtrusive than flashing signs and crossing lights and less expensive and more functional. The roundabout proposal has 6-7 lights versus the single traffic light alternative. The conclusion in 3.1.1.4 is completely at odds with a single traffic light alternative.

I suggest you incorporate suggestions from local residents in the report as many have historical perspective as opposed to a rubber counter in the road. We are opposed to the roundabout project, which is not needed. If a traffic light solves the problem, why not use that solution first. This project appears to be complete overkill and another bridge to nowhere.

Sincerely,



Cc: Rancho Santa Fe Association

RANCH ROUNDABOUTS 11-14-08

Julia Quinn

The prime goal of all improvements is safety to the public. The law establishes that vehicles in roundabouts have the right of way, so that establishes the public must have separate means to cross the streets. Does your design provide separate crossings for the public? Does it provide separate means for horses to cross? Without these features it is an unrealistic design and not valid for the public, as safety is far more important than the loss of traffic.

In addition to the above, private land must to condemned to provide sufficient design. So property owners must provide this land as their loss.

Presently the intersection at Paseo Delicias/Via de la Valle/La Fremont have speed limits of 25 mph, 40 mph and 25 mph., so the safe speed of 25-mph must prevail for safety which slows down traffic and does not increase the traffic flow.

The intersection of Paseo Delicias / El Montevideo / La Valle Pateada has speed limits of 35 mph, 45 mph, 40 mph and 50 mph. Again safety must prevail and speeds will be reduced.

With separate crossings for the public and horses, and speed limits reduced, and vehicles inside the roundabouts having the right of way; I see and maintain round abouts have no value for the intersections proposed. Roundabouts are for the ease of traffic where as our prime concern is safety.

Sincerely
Gordon Larsen
858-756-1368

EL MONTEVIDEO AND VIA DE FORTUNA
5718 EL MONTEVIDEO
POST OFFICE BOX 1295
RANCHO SANTA FE, CALIFORNIA 92067

November 15, 2008

Ms. Julia Quinn
5469 Kearny Villa Rd.
Suite 305
SanDiego, California
92123

Dear Ms. Quinn:

I strongly oppose the proposed roundabouts in Rancho Santa Fe. If you need further information, please feel free to contact me.

Very truly yours,

Margaret E. Carl

From: Allen Chitayat [mailto:allenchitayat@gmail.com]
Sent: Monday, November 17, 2008 10:48 AM
To: Quinn, Julia
Cc: Carine
Subject: Concerns Regarding Rancho Santa Fe Roundabouts at Paseo Delicias

Dear Julia,

We are writing to you in regards to the Rancho Santa Fe roundabouts that are planned to be located on Paseo Delicias. We are currently residing at 6715 Paseo Delicias and would like to take this opportunity to let you know our concerns. As you are aware, the traffic situation is especially severe on Paseo Delicias. We are not only confronted with traffic congestion at peak hours, but by dangerous speeding at off peak hours so much so that exiting our driveway safely is a severe challenge. It seems that the only way we can exit our driveway with any degree of safety is when drivers stop long enough at the stop sign to allow time for us to exit or when the traffic is such that it gives us the opportunity to "squeeze in". We have teenage children at home and are concerned as to how they can exit our driveway safely when the time will come for them to drive.

A further concern arises with the installation of the roundabouts and that is the safety of pedestrian and equine crossing on Paseo Delicias which is only currently possible at the location of the existing stop signs. We do not feel that the installation of the roundabouts and the lack of a mechanism that forces cars to stop adequately addresses this issue.

Please keep in mind that the speed limit on Paseo Delicias between El Montevideo and El Camino Del Norte is 50 Miles an hour and this is much too fast for adequate safety currently with stop signs (flashing). To allow traffic to continue through without stopping does not take safety into consideration.

Although the traffic flow may improve with the roundabouts, as well as the aesthetic appeal in keeping the rural feel of Rancho Santa Fe, we are very concerned that safety for Paseo Delicias residents will be severely compromised as we attempt to enter and exit our driveways and attempt to cross the road on foot or horseback at the current stop sign locations. There is too much traffic and the speed limits are too fast on Paseo Delicias for the installation of roundabouts to be safe.

Sincerely,

Allen & Carine Chitayat
P.O. Box 7278
Rancho Santa Fe, CA 92067
Telephone 858-756-7278
Facsimile 858-777-5419
Email allenchitayat@gmail.com

-----Original Message-----
From: Mr Dan Weisman [mailto:dweisman2002@yahoo.com]
Sent: Thursday, November 20, 2008 10:42 AM
To: Quinn, Julia
Subject: COMMENTS ON RSF ROUNDABOUTS EIR

Traffic signals are needed at the three key Rancho Santa Fe intersections to facilitate the flow of commuter traffic through the community.
Past Rancho Santa Fe Association director boards have derailed any efforts to bring sanity to the rush hour traffic gridlock. Their political contributions to elected officials appears to have unduly influenced the discussion of much needed traffic moving measures.

Temporary traffic signals should be installed at Paseo Delicias and Via de la Valle, Paseo Delicias and El Montevideo/La Valle Plateada and Paseo Delicias/Del Dios Highway at El Camino del Norte.

Temporary signals may be placed on permanent fixtures similar to those at Cielo and Crosby state. Although termed permanent, the fixtures may be removed if not useful.

Roundabouts are up to 10 times more costly and proven less effective in speeding traffic flow. They are three years away at the soonest. Should they fail, traffic lights will have to be tried anyway. Let's try them out sooner rather than later, for a few months and see what happens.

--
Dan Weisman
20108B Elm Lane
Escondido, Ca. 92029
760-480-0963

Quinn, Julia

From: Lcdkasch@aol.com
Sent: Thursday, November 27, 2008 1:31 PM
To: Quinn, Julia
Subject: RSFe Roundabouts

Dear Ms. Quinn -

The proposed issue of roundabouts in Rancho Santa Fe has been consistently opposed by a large segment of RFe population. There have been town meetings regarding this controversy, all in opposition for a variety of reasons. It is just not need nor wanted in this quiet community.

Yes, there is a line of commuter traffic at the intersections involved, but the numbers have drastically decreased in recent weeks, going from approximately 21,000 per day now to approximately 16,000. The cut-through traffic also has significantly decreased.

Installation of these roundabouts involves the taking of some parts of private properties, objectionable, of course. Also, much older and attractive vegetation on the corners would be removed . Those of us in the defined areas will find it impossible to access the main street during high traffic hours due to the fact that the traffic already in the circle has the right-of - way. Those residents on Paseo Delicias will have great difficulty exiting their driveways with no breaks in the on-going traffic. These residents MUST be given consideration along with those of us whose only way out of our neighborhood is by way of Paseo Delicias.

These are difficult financial times in California, and available monies should be put to better use. These are NOT NEEDED and certainly NOT WANTED !! This proposal has been met with and will be continued to meet with local opposition and further town meetings regarding the subject . It certainly is not environmentally friendly .

La Jolla has not been pleased with their installation, as we note. Please give this your additional consideration and vote NO on proceeding with this unwanted and costly project.

Sincerely,

Louise D Kasch
7109 Via De Maya
P.O. Box 1153
Rancho Santa Fe. CA
92067

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Larkmoor Farm
Rosemary Neeb
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Rancho Santa Fe, California 92067

Telephone 858 756-2648
Fax 858 756-3263
E-Mail: larkmoor@webtv.net

11/28/2008

MRS. Julia Quinn
5469 Kearny Villa Rd
STE 305
San Diego, CA. 92123

Dear Mrs. Quinn,

I have been a resident of Rancho Santa Fe since 1967. I am a property owner and member of the Rancho Santa Fe association.

I disagree with their position regarding the installation of Traffic Roundabouts in our community. I believe it is a mistake to do so, and much prefer the simpler, less costly, and proven safe alternative of traffic signals, which can be calibrated to react to heavy & light traffic.

These would be a help for all motorists. I pass through the intersections of El Monte Video and Paseo Delicias, and Paseo Delicias/Via de la Valle 6 days a week. Traffic signals would be a great improvement.

I have driven roundabouts in Europe, in urban, suburban and rural areas. I am unalterably opposed to them here.

I am opposed to the taking of land.

I am opposed to the danger inherent in this design when encountered by drivers

UNFAMILIAR WITH them.

I AM OPPOSED to THE RISK IN TRYING to CROSS THESE AS A PEDESTRIAN OR EQUESTRIAN.

I AM OPPOSED AS A TAXPAYER, being RESPONSIBLE for THE INEVITABLE ACCIDENT RELATED LAWSUITS.

I AM OPPOSED to SPENDING THE MONEY to IMPLEMENT THESE, AS OPPOSED to TRAFFIC SIGNALS.

I AM OPPOSED to OUR STREETS IN RANCHO SANTA FE BEING USED BY LARGE TRUCKS, HORSE VANS, AND ANYONE ELSE WHO CANNOT SAFELY UTILIZE A ROUNDABOUT DUE to UNYIELDING TRAFFIC.

WE HAVE EXCELLENT, PROVEN, COST EFFECTIVE ALTERNATIVES THAT ARE SAFER, RELIABLE AND WITH WHICH the PUBLIC HAS FAMILIARITY.

PUT IN TRAFFIC SIGNALS.

Thank ya,

Sincerely,

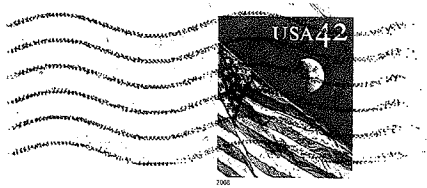
Ramsey Nutt

cc. Board of Directors
Rancho Santa Fe CSD

Mr. Robert Neeb
PO Box 1282
Rcho Santa Fe, CA 92067-1282

SAN DIEGO CA 921

01 DEC 2008 PM 1 T



MRS. Julia Quinn
5469 Kearny Villa Rd, STE 305
San Diego, CA.
92123

92123+1153

Quinn, Julia

From: Jean Hart Stewart [jswriter@earthlink.net]
Sent: Friday, November 28, 2008 10:54 AM
To: Quinn, Julia
Cc: Lcdkasch@aol.com
Subject: Another RSF roundabout letter

Dear Ms. Quinn,

We are long time residents of Rancho Santa Fe and live opposite the Village Church. We've reviewed the plans of the roundabouts at the RSF library, and have also written you several times voicing our objection to the roundabouts.

Our driveway exits onto Paseo Delicias, and while we have little trouble now it is chiefly because drivers are courteous enough to pause and let us out. They are already slowing for the stop sign. so it fairly easy for them. With the roundabout and increased speed there will doubtless be many, many times we will find it impossible to exit. At our age I can see the need for possible medical assistance we'll be unable to get or receive.

We cannot emphasize enough our opposition to the roundabouts. I think the feeling of opposition is deeper and wider than you know. We both heartily endorse the recent remarks and sentiments of Mrs. Louise Kasch's letter of 11/27/08.

Sincerely,

Dr. Hugh B. Stewart
Jean Hart Stewart

The Hart of Romance.
www.jeanhartstewart.com. Learn about Druid Magic! Also check in at myspace.com/jeanhartstewart. Now in print, Druid Desires at Amazon as well as www.cerridenprint.com.Coming soon, Druid in Flight at Cerridwen, Druid Duet at Amazon

6557 La Valle Plateada
PO Box 464
Rancho Santa Fe, CA 92067
December 1, 2008

Mrs. Marie Addario, Chair
Rancho Santa Fe Association Board
PO Box A
Rancho Santa Fe, CA 92067

Dear Mrs. Addario,

We have consistently supported efforts to deal with traffic on Paseo Delicias, and overflow traffic onto our street. We tried to read and digest the 212 page draft EIR noted in the 11/27/08 *Rancho Santa Fe Review.* Is it just one of several analyses supporting the decision? It deals well enough with environmental impacts, but does not address the economic cost and benefit of each alternative. Presumably "No Project Alternative" would have no costs and zero or negative benefits. If "Signalized Intersections" costs 20% as much as "Roundabouts" and has 50% of the projected benefits, would it not be a better alternative in a period of increasingly scarce tax revenue? Could some of it be implemented quickly and relatively inexpensively to help reduce traffic now?

Sincerely,

David R. Brooks

Peggy G. Brooks

Cc:
Mr. Hugh Bancroft
PO Box 25
Rancho Santa Fe, CA 92067

Mr. Ronald Hahn
PO Box 2168
Rancho Santa Fe, CA 92067

Mr. Rankine Van Anda
PO Box 2626
Rancho Santa Fe, CA 92067

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

David Brooks
PO Box 464
Rancho Santa Fe, CA 92067

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01 DEC 08 PM 4 L

USA 42

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

92123+1159

Jurgella, Gail

From: Russ Sande [rsande@cresapartners.com]
Sent: Monday, December 01, 2008 10:11 AM
To: Quinn, Julia
Cc: 'Susan Sande'
Subject: Draft EIR / Roundabouts

Good morning, Julia.
My wife and I (and our daughters) have resided at 7052 La Valle Plateada for the past twenty years.
We have been opposed to the creation of roundabouts since they were first presented.
We have attended the meetings, written letters and examined the Draft EIR.
We continue to oppose them for three, primary reasons:

They detract from the "rural" character that has always set Rancho Santa Fe apart.

We, like other property owners affected, are concerned about encroachment and noise pollution disturbing our quiet enjoyment. In our case, we are also concerned about any encroachment negatively impacting the value or historical significance of our Lillian Rice home.

We believe that the long line of cars discourages drivers and that the roundabouts may actually encourage traffic.

We trust that you will make our comments a part of the public record.

Sincerely,

Russ and Sue Sande

Russ Sande
Managing Principal

CresaPartners
The Tenant's Advantage
12230 El Camino Real, Suite 110 | San Diego, CA 92130
858.794.5500 main | 858.794.5514 fax
www.cresapartners.com

Quinn, Julia

From: Patricia Simmons [MsDelMar@hughes.net]
Sent: Tuesday, December 02, 2008 9:55 AM
To: julia.quinn@sdcounty.ca.gov.
Subject: RSF Roundabout project

Good Morning Julia Quinn,

I am the owner of one of the properties that will be affected by the proposed roundabout. I own 7057 La Valle Plateada.
I had thought this project was over until I received a letter for the County of SD Public Works Department. I am totally confused.

I had inquired as to how this would affect my piece of property and how far into my property the road would intrude. I never got a clear answer. I was told that it hadn't been decided, then I was told it wasn't going to happen. Now it appear it is back on the table.

Can you please answer my questions? How much land am I going to lose? Will new landscaping be put in by the city? Will a wall be constructed to cut down on noise and head lights going into bedroom windows? Will sprinklers that I have installed be put back? My landscaping is thick and lush. I have worked hard to maintain it to give security, privacy and noise protection. Some of the trees closest to the street are 50 years old or more. Will these be cut down?

As you see, I am very concerned. I am unable to get to the Department of Public Works this week to see any plans. Can these plans be emailed to me and my questions answered by you? The web site mentioned in the letter would not open.

I am apposed to this roundabout until I have clear answers!!

I eagerly await your reply.

Patricia Simmons

Quinn, Julia

From: Russ Sande [rsande@cresapartners.com]
Sent: Tuesday, December 02, 2008 5:11 PM
To: Quinn, Julia
Cc: 'Susan Sande'
Subject: RSF Roundabouts

Hi, Julia.
I felt compelled to tell you that Sue and I are feeling a lot better about the proposed roundabouts after visiting the library today and examining the three reports more closely. We would welcome the opportunity to physically inspect the one planned for La Valle Plateada/El Montivideo with you, an engineer or surveyor.
Please let us know if that can be arranged.

Regards,

Russ & Sue Sande

Russ Sande
Managing Principal

CresaPartners
The Tenant's Advantage
12230 El Camino Real, Suite 110 | San Diego, CA 92130
858.794.5500 main | 858.794.5514 fax
www.cresapartners.com

4 December, 2008

County of San Diego
Department of Public Works
Environmental Services Unit
Contact: Julia Quinn, Environmental Planning Manager
5469 Kearny Villa Road, Suite 305
San Diego, California 92123
858.874.4054

RE: DRAFT ENVIRONMENTAL IMPACT REPORT
RANCHO SANTA FE ROUNDABOUTS PROJECT SCH# 2007101081

Ms. Quinn,

The proposed roundabout project is not appropriate for the locations indicated and poses a conflict to the community of Rancho Santa Fe which has not been addressed. I submit with this letter, objections to the proposal with the following considerations.

I have resided at the intersection of El Montevideo and Paseo Delicias for nearly 30 years and have witnessed firsthand the growth of traffic and the abuses perpetrated by commuters through the community during that time.

EASTBOUND TRAFFIC
Each day, hundreds of vehicles are circumventing the traffic delays at Via De La Valle and Paseo Delicias, as well as the El Montevideo intersection, by passing through the village on Via de Santa Fe, turning on Ave de Acacias, and then to Mimulus, finally leading back to El Montevideo to catch a left turn back on to Paseo Delicias eastbound. That has occurred ever since the stop sign was initially installed at that intersection in the 1980s. As the traffic counts have grown over the years, other routes abused include La Valle Plateada and even to some extent, Las Colinas for eastbound commuters. It is a safety issue for many residents as well as the wear and tear on the community access roads which generates greater maintenance requirements. The traffic is not exclusive to the Rancho Santa Fe Community either. Del Dios Highway and Via Rancho Parkway eastbound traffic frequently extends west from that intersection up to and beyond Rancho Road in the Del Dios area.

WESTBOUND TRAFFIC
Each morning, the traffic backs up through the proposed intersections while many divert and try to circumvent this route by taking El Camino Del Norte, Lago Lindo, and Ave De Acacias up into the Village. The irony is that when the County installed stop signs at El Camino del Norte and Paseo Delicias, the traffic became so bad that it was determined necessary to remove the stop signs. As previously stated this creates safety issues for many residents as well as excessive wear and tear on the community access roads. This is

not limited to personal vehicles. Commercial trucks, Cement trucks, etc. have been observed on many occasions using the alternative "shortcuts." The current traffic control measures are ineffective to sufficiently manage the traffic on the proposed project areas.

It is clear that an alternative must be implemented. However, I firmly disagree with the "roundabouts" proposal because it is basically opening a floodgate of constant travel on these roads creating a significant division of the community to the North and South of the Via De La Valle, Paseo Delicias, and Del Dios highway route for eastbound and westbound traffic. Installing a roundabout traffic system will make it virtually impossible to cross this route safely or conveniently for the residents of the community, those most greatly impacted long term by the proposed project. The equestrian community, pedestrians, elderly driving residents, and many others will never have a clear opportunity to safely merge or cross these intersections with roundabouts in place, particularly during peak traffic hours. Considering the propensity of drivers currently exploring alternative routes through the community indicates a clear rushed attitude inclined to driving beyond the speed limit and leaves a clear indication that the transient population utilizing this thoroughfare is completely insensitive to the safety of our community.

Additionally, the properties adjacent to these proposed "roundabouts" will be impacted in numerous ways. Mainly, the property owners will be subject to losing some of their property for the project. Secondly, a constant flow will generate an undying noise level at all hours due to the popularity of a constant flow of traffic to the non-resident commuter traffic. Furthermore, at night when vehicle are required to circle the radius of a roundabout, the headlights will be directed away from the roads and directed toward each and every property adjacent to the roadway on the side of the direction of travel. The greatest impact to the community and the property owners is a plan that has no opportunity to change in the future, which may be desirable in the event that the calculations and considerations of the Draft EIR are inaccurate.

In the Draft EIR, alternatives are outlined for consideration. Signalized intersections being the next best alternative to roundabouts from a strictly LOS perspective. There are other benefits to this alternative which I support. Firstly, signals are a proven method of traffic control for safety. Signals provide designated intervals for safe crossing and merging to traffic routes. The equestrian community, pedestrians, elderly driving residents, and others all clearly understand the function of signals and will be provided a consistent opportunity to negotiate these highly traveled intersections. Secondly, signals are programmable to accommodate peak periods. Roundabouts are not thus presenting potentially unforeseen variables to the traffic issues for this corridor. Third, the cost, time and effort required to install signals is significantly less than the proposed roundabout project. As far as aesthetics are concerned, which is very important to the Rancho Santa Fe Community, signals could be designed to compliment the rustic setting with an historic design for the lighting, posts, etc. at a relative low cost to the County and RSF Community. Lastly and perhaps most significant, is that traffic needs to be consistent beyond the scope of this 1.4 stretch through this region in order to optimize the image and convenience to our commuter transient traffic. Take into consideration that other

signals currently exist at both ends of the route. To the West, Via De La Valle and Calzada Del Bosque, Via De La Valle and Concha de Golf, Via De La Valle and El Camino Real are all intersections within RSF with signals. To the East, Bing Crosby Blvd and Del Dios Hwy, El Cielo and Del Dios Hwy, Rancho Rd and Del Dios Hwy, and Via Rancho Parkway and Del Dios Hwy are all signalized intersections along this corridor, not within the RSF Covenant Community boundaries, but still very important to the traffic flow in the area. The concept of roundabouts at the proposed locations will most likely generate a bottleneck at these other areas, thus resulting in a mere transfer of the problem to other areas which have not been considered in the Draft EIR.

My proposal is to submit a plan for traffic signals to be installed for a period of time no less than 3 years to immediately improve the traffic LOS at a relatively low cost. The economics of that is, in my opinion, reason enough. It will give the community an opportunity to adjust for the problem of excess traffic, redirect the "shortcut" users, and provide a safe method of traffic control with very little effort or construction requirements.

Finally, there are many members of the RSF Community and the County who have a very clear understanding of the genesis of this traffic problem. It is unfortunate that a more proactive approach was not pursued more aggressively before this problem developed. This is the only road available to the thousands of commuters presently and in the future. If nothing else, I strongly urge you to consider taking a step toward correcting the traffic issues of this corridor by installing signals. The worst case scenario is that they prove ineffective over time and can be modified in the future. The roundabouts will not afford the community any other options if they were to prove faulty despite projections and analysis, and that is never a practical position

I strongly urge the County of San Diego to reconsider the roundabouts project in light of this information.

Thank you for your consideration

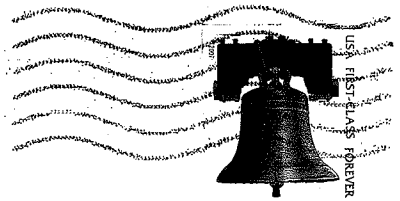
Sincerely,

Daniel R. Bunn

Daniel R. Bunn
6710 El Montevideo
P. O. Box 1566
Rancho Santa Fe, CA 92067
Home 858-756-5576
Office 858-756-5225
Cell 619-540-2346

Daniel R. Bunn
P.O. Box 1566
Rancho Santa Fe, CA 92067

SAN DIEGO CA 921
06 DEC 08PM 11 L



County of San Diego
Department of Public Works
Environmental Services Unit
Contact: Julia Quinn, Environmental Planning Manager
5469 Kearny Villa Road, Suite 305
San Diego, California 92123

92123+1153

Jurgella, Gail

From: Brian Ardolino [bardolino@plsaengineering.com]
Sent: Friday, December 05, 2008 12:01 PM
To: Torbett, April; Quinn, Julia
Subject: Rancho Santa Fe Roundabouts - TM 5447-1
Attachments: 1214 PGP (11-21-08).pdf

Hello April, Julia,

I am contacting you in regards to the conceptual roundabout proposed at the intersection of El Camino Del Norte and Del Dios Highway. We are currently preparing construction drawings for TM 5447-1. We are conditioned to dedicate a portion of our site for the roundabout right-of-way. The site for our development is located directly southeast of the intersection. On the southeast side of the proposed roundabout and the northwest corner of our site, there lies habitat and wetlands. We are concerned about the encroachment of the roundabout into these wetlands and more specifically how the construction of the roundabout will encroach upon the 100 year lines of inundation running through the wetlands on our site. We need to be sure the EIR for the roundabout addresses these encroachments and construction of the roundabout. We need to be sure the roundabout does not affect the TM or the EIR for our development. Also we need to be sure the construction of the roundabout does not affect the open space limits or limited building zone line on our site. We would like if at all possible to meet to share our concerns with you based on the conceptual layout of the proposed road improvements. I have attached a copy of our preliminary grading plan for our approved development. Please contact us if you have any questions.

Thank you,

PLSA
Brian Ardolino, PE | Project Engineer
PASCO LARET SUITER & ASSOCIATES
ph 858.259.8212| fx 858.259.4812
535 N Coast Highway 101 Ste A Solana Beach, CA 92075 | www.plsaengineering.com

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Quinn, Julia

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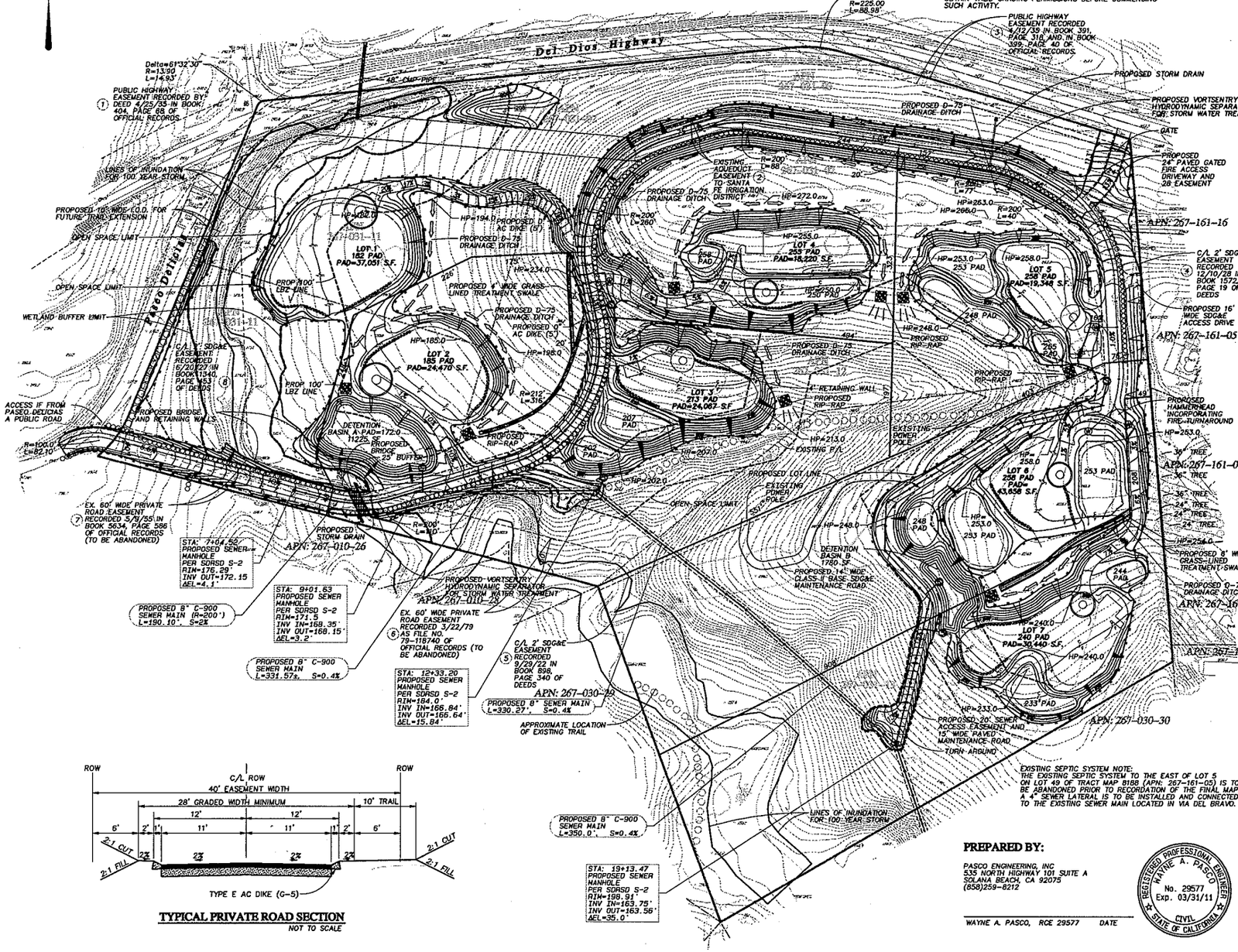
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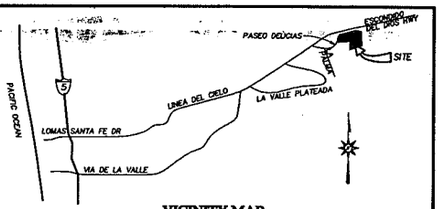
QUANTUM RESIDENTIAL ESTATES II
PRELIMINARY GRADING PLAN
TM 5447 (RPL 1)

GRAPHIC SCALE 1"=80'
80 160 240 320

THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.



TYPICAL PRIVATE ROAD SECTION
NOT TO SCALE



VICINITY MAP
NTS. TB COORD: 1168 F1

LEGEND

PROPOSED SEWER — S
FINISH GRADE CONTOURS — 250
EXISTING GRADE CONTOURS
DAYLIGHT LINE — F
PROPOSED STORM DRAIN SYSTEM — S
PROPOSED WATER — W
EXISTING PROPERTY LINE
BOUNDARY LINE
PROPOSED LOT LINE
EASEMENT
EXISTING TREE
EXISTING BRUSH LINE
PROPOSED PRIVATE TRAIL
CUT SLOPE (2:1 MAX.)
FILL SLOPE (2:1 MAX.)

LEGAL DESCRIPTION:

THAT PORTION OF LOTS 1, 2 AND 3 IN BLOCK 14 OF RANCHO SANTA FE MAP NO. 1742 IN THE COUTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY DECEMBER 28, 1922.

A.P.N.:

267-031-2, 3, 10, 11, 12,& 13

PROPERTY ADDRESS:

PASEO DELICIAS
RANCHO SANTA FE, CA 92067

PREPARED FOR:

QUANTUM ESTATES II INC.
GEORGE MCGILL, PRESIDENT
1328 SUN VALLEY ROAD
SOLANA BEACH, CA 92075-1647
858-481-8446

EARTHWORK QUANTITIES:

38,000 CY CUT
38,000 CY FILL
0 IMPORT/EXPORT (BALANCE ON SITE)

PROJECT INFORMATION:

COUNTY ZONING: RR-35
COMMUNITY PLAN DESIGNATION: ESTATE 17
NUMBER OF EXISTING PARCELS: 1
NUMBER OF PROPOSED PARCELS: 7 Residential
GROSS ACREAGE: 39.42 acres
NET ACREAGE: 36.89 acres
MINIMUM ACREAGE REQUIRED PER PARCEL: 2.86 Net
PROPOSED GRADING: Grading for pads, driveways and roods shown for conceptual purposes only.

GRADING SUMMARY:

MAX. DEPTH OF CUT = 10'
MAX. DEPTH OF FILL = 10'

	GROSS ACRES	NET ACRES	AVERAGE SLOPE
LOT 1	10.10ac	9.28ac	19.6%
LOT 2	3.55ac	3.19ac	11.8%
LOT 3	5.34ac	5.02ac	20.6%
LOT 4	3.98ac	3.61ac	14.8%
LOT 5	4.06ac	3.98ac	16.2%
LOT 6	6.25ac	6.11ac	15.9%
LOT 7	6.14ac	6.12ac	15.0%
OPEN SPACE	11.96ac		

PROPERTY OWNER:

QUANTUM ESTATES II INC.
GEORGE MCGILL, PRESIDENT
1328 SUN VALLEY ROAD
SOLANA BEACH, CA 92075-1647
858-481-8446

GEORGE MCGILL DATE

EASEMENTS:

EASEMENTS DEPICTED ON THIS TOPOGRAPHIC SURVEY WERE PLOTTED PER A PRELIMINARY TITLE REPORT FROM FIRST AMERICAN TITLE, DATED

(1) PUBLIC HIGHWAY EASEMENT RECORDED BY DEED 4/25/35 IN BOOK 404, PAGE 68 OF OFFICIAL RECORDS
(2) EXISTING AQUEDUCT EASEMENTTO SANTA FE IRRIGATION DISTRICT
(3) PUBLIC HIGHWAY EASEMENT RECORDED 4/12/35 IN BOOK 391, PAGE 318 AND IN BOOK 399, PAGE 40 OF OFFICIAL RECORDS.
(4) C/L 2' SDG&E EASEMENT RECORDED 12/10/28 IN BOOK 1572, PAGE 19 OF DEEDS
(5) C/L 2' SDG&E EASEMENT RECORDED 9/29/22 IN BOOK 898, PAGE 340 OF DEEDS
(6) EX. 60' WIDE PRIVATE ROAD EASEMENT RECORDED 3/22/79 AS FILE NO. 79-118740 OF OFFICIAL RECORDS (TO BE ABANDONED)
(7) EX. 60' WIDE PRIVATE ROAD EASEMENT RECORDED 5/9/55 IN BOOK 5634, PAGE 586 OF OFFICIAL RECORDS (TO BE ABANDONED)
(8) C/L 2' SDG&E EASEMENT RECORDED 6/20/27 IN BOOK 1340, PAGE 453 OF DEEDS

PREPARED BY:

PASCO ENGINEERING, INC
535 NORTH HIGHWAY 101 SUITE A
SOLANA BEACH, CA 92075
(858)259-8212

WAYNE A. PASCO, RCE 29577 DATE

REGISTERED PROFESSIONAL ENGINEER
WAYNE A. PASCO
No. 29577
Exp. 03/31/11
CIVIL
STATE OF CALIFORNIA

PASCO ENGINEERING
535 N. HWY 101, STE. A
SOLANA BEACH, CA 92075

ER 05 08 022

N:\1214 tm.pro11/21/2008 PE 1214

BUENA VISTA FARMS
POST OFFICE BOX 1846
RANCHO SANTA FE, CA 92067

December 5, 2008

County of San Diego
Department of Public Works
Environmental Services Unit
Attention: Julia Quinn
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

RE: Draft EIR - Roundabouts in Rancho Santa Fe

After reviewing your Draft EIR, it has become even more obvious to us that the better solution to the traffic problems on Del Dios Highway/Paseo Delicias would be controlled traffic signals. For the following reason roundabouts are not only not feasible, they are not preferable:

#1) The cost for roundabouts is too high and far greater than for controlled traffic signals. During this economic crisis, when the State and the County are in deficit it is irresponsible to spend millions of dollars for roundabouts when traffic signals can accomplish the objective for approximately 5% of the cost of roundabouts. The RSF Association has stated it would not pay for roundabouts.

#2) The impact on private landowners is far greater than traffic signals would be. In order to create roundabouts, private land would have to be taken causing great dislocation to the residents.

#3) Timing is crucial and the EIR does not identify a timeline for immediate relief of a very critical traffic problem which exists now. The grade for these intersections is "F" now. The solution needs immediate attention. Traffic signals could be installed quickly with much less cost. Attempting to proceed with roundabouts would result in costly lawsuits that would delay addressing the problem for years and cause great discontent in the community.

#4) The roundabouts are not equestrian friendly in our very horse-oriented community. Limited access to trails in our community would cause much unhappiness and make the area less rural. Equestrians support traffic signals.

#5) Roundabouts have not been proven to relieve cut-through traffic. In reality greater access to our local roads would occur with roundabouts causing more usage of our rural community streets. Traffic signals, as exist at other areas on Del Dios and Via de la Valle actually give drivers straight through capability, therefore relieve the smaller community roads where children, horses, dogs and homeowners spend most of their outdoor life on our trails.

We strongly encourage the County to reconsider the expensive and time consuming efforts you are putting into roundabouts and ask you to consider traffic signals as the much less expensive and more immediate solution to this dire problem.

Sincerely,

Robin C. Parsky
Gerald L. Parsky

CC: Rancho Santa Fe Association Board
County Supervisors
El Montevideo Neighbors

BUENA VISTA FARMS

POST OFFICE BOX 1846
RANCHO SANTA FE, CA 92067

To:	Julia Quinn	From:	Robin Parsky
Fax:	858-874-4043	Pages:	2
Phone:	858-874-4054	Date:	December 8, 2008
Re:	Roundabouts in Rancho Santa Fe	cc:	

Comments:

Ms. Quinn,

Please see the attached letter to San Diego regarding roundabouts in Rancho Santa Fe.

Sincerely,

Robin Parsky

facsimile

BUENA VISTA FARMS
POST OFFICE BOX 1846
RANCHO SANTA FE, CA 92067

December 5, 2008

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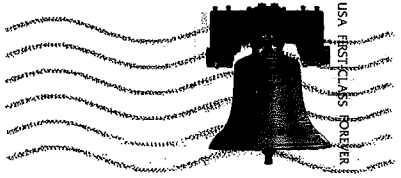
Sincerely,

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Gerald L. Parsky

CC: Rancho Santa Fe Association Board
County Supervisors
El Montevideo Neighbors

SAN DIEGO CA 921

06 DEC 06 PM 11 T



County of San Diego
Dept. of Public Works
Environmental Services Unit
ATTN: Julia Quinn
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123
92123-1153

Parsky
Post Office Box 1846
Rancho Santa Fe · California · 92067

Matthew A. Peterson

From: Matthew A. Peterson
Sent: Friday, December 05, 2008 4:13 PM
To: (julia.quinn@sdcounty.ca.gov.)
Subject: RSF Roundabouts Project # 1009758 EIR SCH No. 2007101081
Importance: High

Dear Julia. We represent Daniel Bunn with regard to his Property located at the north east corner of Paseo Delicias/El Montevideo Intersection. It is a 8 lot final map (San Diego Tract Map # 4351 Final Map No.10723). Can you please add me the the Email and noticing list for all aspects of this project?

Please accept the following as our initial comments to the adequacy of the Draft EIR. Our client has separately sent in other comments.

1) The proposed alignment appears to be outside of the existing street Right of Way and would require acquisition of a portion of our client's property. (see attached Aerial with overlay) He is not willing to sell any of his property to accommodate a widening or re-alignment of the existing ROW for the proposed Roundabout. Has a cost analysis/comparison of condemnation vs.. signalization been included in the EIR? The proposed Roundabout; 1) would require a Final Map revision, 2) could preclude vehicular access to lot # 4, 3) would significantly devalue of lots 3, 4 & 7 because of traffic daily noise, squealing tires late at night as motorist speed thru it for a thrill, the degraded visual character, road dust, headlight impacts, & car crash noise & disturbance, flashing warning lights). The condemnation action for the right of way would reduce the net lot area of Lot No. 4 to below the minimum lot size established by the zone (which is 2.0 acres net) requiring a Variance. Further the building setback line from Paseo Delicias and El Montevideo will cut further into lot 4 negatively impacting the build able pad area within Lot 4. The setback line is measured from the centerline of both streets which are proposed to now encroach into Lot 4.

2) The roundabouts will allow traffic to flow unimpeded through the intersection increasing road noise impacts over what they are now. It appears that no noise mitigation is proposed in the EIR. This is apparently because the noise impact increases were deemed to be "insignificant". We do not agree with this conclusion. Noise impacts have not been adequately addressed. It appears as though the preparer of the EIR is viewing our client's property as unimproved raw land even though there is a recorded 8 lot Map on the property. Any impacts as a result of the roundabouts to our client's property when developed with 8 homes must be addressed in the EIR.

3) We do not believe there has been adequate CEQA review re: traffic, noise, crashes (Life & Safety), night light (automobile light impacts), other street light impacts, flashing warning light (which must also be audible for Blind persons) resulting in additional noise impacts. There does not appear to be adequate Environ.analysis re: public safety (with the significant increased crash potential based upon existing & proposed traffic counts).

Finally, the signalization alternative is the environmentally preferred alternative, it must be the most cost effective and it would not necessitate extremely costly and contested condemnation of private property. Simply put, there is no public necessity since the signalization can be done without the need for condemnation.

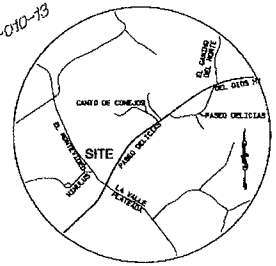
Matt Peterson

Matthew A. Peterson
Peterson & Price, A Professional Corporation
655 West Broadway, Suite 1600
San Diego, CA 92101-3301
(619) 234-0361
(619) 234-4786 fax

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AERIAL PHOTOGRAPH





VICINITY MAP

NOTES

1.) THE PHOTOGRAPHY SHOWN HEREON IS BASED UPON AN ORTHO AERIAL PHOTOGRAPH FLOWN SEPTEMBER 5, 2008.

2.) THE LEGAL DESCRIPTION OF THE PROPERTY SHOWN HEREON IS LOTS 1 (ONE) & 2, INCLUSIVE, COUNTY OF SAN DIEGO TRACT NO. 4531, ACCORDING TO MAP THEREOF NO. 10723, FILED SEPTEMBER 14, 1983.

GRAPHIC SCALE

(IN FEET)

PREPARED BY:

JAMES A. LARET RCE 28335 EXP 3-31-09 DATE

PASCO LARET SUITER & ASSOCIATES
CIVIL ENGINEERING • LAND PLANNING • LAND SURVEYING
[illegible]

JN 1026

PETERSON & PRICE

A PROFESSIONAL CORPORATION

LAWYERS

655 West Broadway, Suite 1600
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EDWARD F. WHITTLER
MARSHAL A. SCARR
MATTHEW A. PETERSON
LARRY N. MURNANE
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MIRANDA M. BORDSON
AMY M. STRIDER
CHRISTOPHER R. MORDY

OF COUNSEL
PAUL A. PETERSON

7074-004

map@petersonprice.com

December 5, 2008

TELECOPIER TRANSMITTAL

	NAME	PHONE	FAX
To:	Julia Quinn	(858) 874-4054	(858) 874-4043
From:	Matthew A. Peterson, Esq.	(619) 234-0361	(619) 234-4786

Total number of pages including this cover: 4

Comments: Please see the attached email correspondence and aerial photograph.

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Sender's Initials: KVA

Matthew A. Peterson

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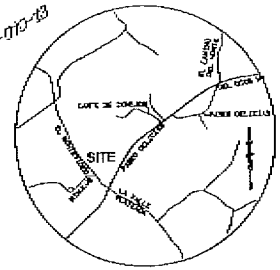
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12/5/2008

AERIAL PHOTOGRAPH





VICINITY MAP

NOTES

GRAPHIC SCALE

PREPARED BY:

PASCO LARET SUITER

12-05-2008 05:30PM FROM- T-088 P.004/004 F-313

Quinn, Julia

From: Kina Aziewicz [kva@petersonprice.com]
Sent: Friday, December 05, 2008 4:41 PM
To: Quinn, Julia
Subject: RSF Roundabouts Project #1009758 EIR SCH No. 2007101081
Attachments: doc20081205181830

P. O. Box 2626
Rancho Santa Fe, CA 92067

December 6, 2008

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Rd., Ste 305
San Diego, CA 92123

Attn: Julia Quinn, Environmental Planning Manager
Subj: Draft EIR, Rancho Santa Fe Roundabouts

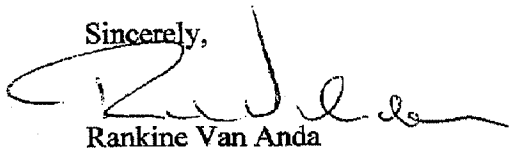
Dear Ms. Quinn,

In my letter of 12/9/07, in response to the NOP, I expressed concern over the potentially long time that it was going to take to complete the roundabouts on Paseo Delicias. In particular I pointed out several hurdles at that time facing the project. Examples were the equestrian crossing, the expanded land taking at the Village Church, and the encroachment on the historic Lillian Rice home on La Valle de Plateada. With that in mind I suggested the use of *temporary* traffic signals as an interim measure to address the traffic congestion during peak hours on the Paseo Delicias corridor. Such action would also bring immediate relief from the cut-through traffic experienced by the residents of Lago Lindo and La Plateada. That suggestion no longer seems to be necessary.

It appears from reviewing the Draft EIR, and discussions with County personnel, that the issues cited above have been satisfactorily resolved, and the County Staff is to be commended for that achievement. Furthermore, in meeting Federal Highway requirements, the length of time to acquire funding should be shortened, particularly since it looks like the federal government is going to step up infrastructure expenditures.

My understanding is the final EIR will be published next spring, and that there is a realistic possibility that the roundabouts could be completed in two years, which is excellent.

Sincerely,



Rankine Van Anda

GREGORY R. HILLGREN
P.O. BOX 1096
RANCHO SANTA FE, CA 92067
(858) 756-3010 / (858) 756-6886 FAX / ghillgren@calvest.com

December 8, 2008

Ms. Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

SUBJECT: COMMENTS ON THE DRAFT EIR FOR THE RANCHO SANTA FE ROUNDABOUTS PROJECT

Dear Ms. Quinn,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Rancho Santa Fe Roundabouts project. Our comments and observations are as follows:

- The geometry of the Via de la Valle/Paseo Delicias roundabout, particularly with respect to the northbound Via de la Valle transition to eastbound Paseo Delicias, is inconsistent with the project's stated objectives of slowing traffic and providing safe transitions, and is designed in a manner that enables and encourages unimpeded sweeping, high-speed right turns that will be extremely dangerous to adjacent equestrians and pedestrians negotiating the intersection at that point. Although a very slight bend has been designed into the Via de la Valle approach, there is nothing in the proposed design that will effectively cause drivers to reduce their speed as they transition through the roundabout towards eastbound Paseo Delicias.

- The proposed configuration of the equestrian trail immediately adjacent (e.g. without setback) to the northbound Via de la Valle transition lane to eastbound Paseo Delicias is extremely unsafe and provides inadequate protections, particularly given the improper geometric design of the traffic circle (described above) at that point. In order to provide minimum safety to equestrians and drivers alike at that particular trail section, the following aspects must be incorporated into the plan:

    - The 10 foot wide equestrian trail should be moved at least 5 feet away from the proposed edge of roadway. It is grossly negligent to design an equestrian trail at such a high traffic count intersection immediately adjacent to the parallel roadway... particularly at an intersection where the ability to stop every car (e.g. the existing stop sign condition) will not exist.
    - A 'peeled pole' wooden pasture fence (consistent with existing RSF Association Design Guidelines) and a low landscape barrier should be installed in the required 5 foot setback area at this trail section to clearly separate the automobile/truck traffic from the equestrians. When panicked (which often happens when automobiles/trucks/buses and equestrians interface at this existing intersection), horses are more likely to be instinctively calmed and secured by the presence of a fence which separates them from the immediately adjacent traffic while they transition this key section of trail. With appropriate fencing and landscaping, any horse will be less likely to – and will be prevented from – bolting into traffic if startled by the roundabout's traffic situation.

- It would be preferable if the imbedded, crosswalk flashing strobes are red instead of yellow. To provide a minimum level of safety to equestrians, it is necessary to temporarily stop all traffic around the circle until the horses have entirely crossed the roadway. It is extremely dangerous when drivers continue to move through the intersection while a crossing is occurring. While human riders may understand traffic laws and reasonably anticipate intentions of careless drivers, horses are animals that cannot comprehend the situation and could panic and bolt as an instinctive reaction to an unexpected motion or threat of approaching vehicles.

- The EIR's renderings show a crosswalk material consisting of cobblestones or river rock. While it is critical that the crosswalk surface material be highly visible and clearly contrast with the primary asphalt roadway paving material, cobblestones or river rock – any material that is either highly rounded or otherwise slippery – is inappropriate for equestrian (or for that matter, pedestrian) traffic.

- The EIR and the appended Equestrian Usage Assessment Report contain several statements of unsupported opinion presented as facts, in order to draw predetermined conclusions. For example, the reports claim that the mid-road median provides a safety area for equestrians who can wait between lanes for traffic to clear. In fact, this is the exact opposite of how a safe equestrian crossing should occur. Under no circumstances should equestrians ever be required to wait in the middle of traffic for clearance, particularly with proposed, undersized median dimensions (which will not safely contain horses). Rather, crossings should be done in one movement. Circulating traffic, along with the horse's basic instinct for 'herding' makes it extremely dangerous for horses to be stranded in the middle of a crosswalk or otherwise separated from other riders when crossing roadways.

- The EIR's findings/conclusions that the proposed roundabouts will increase corridor traffic counts both today and at 2030 by only 4% - 8% are merely assumptions not supported by fact. These findings disregard common sense and appear highly understated, at best. The 'freeway corridor effects' of enhanced traffic flows through intersections if upgraded to uncontrolled 'A' and 'B' conditions will likely substantially increase commuter traffic along the Via de la Valle/Paseo Delicias corridor. This in turn will degrade Rancho Santa Fe's rural character, and thereby invalidate many of the EIR's findings re significant, unmitigated environmental effects.

- The roundabout design should include an acceleration/safety lane for traffic turning left from Las Colinas into southbound Via de la Valle.

Thank you for the opportunity to comment on the Draft EIR. Should you have any questions or wish to discuss this further, please contact us directly at your convenience.

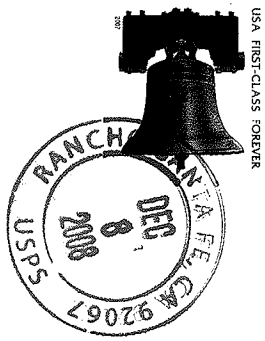
Sincerely,

Gregory R. Hillgren

Nancy C. Hillgren

Copy: Ivan Holler, Planning Director, RSF Association
Pete Smith, Manager, RSF Association

CALVEST
REALTY ADVISORS



Ms. Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123

P.O. Box 1096 • 6673 Las Colinas
Rancho Santa Fe, CA 92067

92128159 C023

Quinn, Julia

From: Kent Jessee [wkj@wkjessee.com]
Sent: Monday, December 08, 2008 3:37 PM
To: Quinn, Julia
Subject: Roundabout Rancho Santa Fe

Ms. Quinn, I just received a call from my neighbor 30 minutes ago advising me that I must communicate my concerns over a Roundabout that is being considered adjacent my home by 5:00 PM today. Please consider this my letter of opposition to the Roundabout. This project will reduce my property value significantly, increase noise in my home, take away the charm of Rancho Santa Fe, remove old growth tree that are home to many birds, and create a "Safety" hazard for all cyclist, joggers and even vehicle drivers that travel this intersection. My home is located at 6795 El Montevideo. I am sure I will have many more reasons to not install a Roundabout once I have more time to consider the project.

Sincerely,
W. Kent Jessee Ed.D.
W. Kent Jessee & Associates

2815 Jefferson St., Ste. 300
Carlsbad, CA 92008

::p 760.918.9630 ext 104
::f 760.918.9631

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Please consider the environment before printing this email

GEORGE McGILL

Attorney at Law

1328 Sun Valley Road
Solana Beach, Ca. 92075

Phone (858) 481-8446
Fax (858) 481-1246

December 8, 2008

Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road - Suite 305
San Diego, CA 92123

VIA FAX (858) 874-4043
AND FIRST CLASS MAIL

Re: Rancho Santa Fe Roundabouts Project
Draft Environmental Impact Report

Dear Ms. Quinn:

This office represents Quantum Estates II, Inc. ("Quantum"), the owner of an approximate 39-acre parcel adjacent to the Del Dios Highway near the highway's intersection with Camino Del Norte.

In behalf of Quantum, we ask that the DPW accept this letter as Quantum's comments with respect to subject draft EIR.

We have carefully reviewed the design as described in the draft EIR. As the long-time owner of property directly abutting and fronting the proposed project, Quantum is concerned with the significant impact on its property of the proposed project, particularly including but not limited to the lack of provision of any access to the Quantum property (among numerous other, separable impacts that we are presently assessing). At a minimum, Quantum believes the proposed roundabout should provide for an unimpeded access to its 39-acre parcel. The draft EIR should also address all environmental impacts referable to any proposed additional access, together with other probable impacts not addressed clearly, or at all, in the draft EIR.

Quantum is also concerned with traffic impacts associated with the proposed project. Concerning the processing and approval of its tentative map through the DPLU and County Planning Commission, Quantum has previously obtained certain traffic impact analysis reports by Linscott, Law & Greenspan Engineers, as well as various other studies which include but are not limited to a consideration of projected traffic flow based upon the SANDAG Regional Transportation Model. Quantum will be utilizing such information now in its possession in order to monitor traffic impact analyses set forth in this and any future versions of the draft EIR as the DPW proceeds therewith.

Thank you for your consideration of these comments.

Very truly yours,

GEORGE McGILL

GM:k

Copy: Quantum Estates II, Inc.
Attention: Andrew Parkinson

GEORGE McGILL
Attorney at Law

1328 Sun Valley Road
Solana Beach, Ca. 92075

Phone (858) 481-8446
Fax (858) 481-1246

December 8, 2008

Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road - Suite 305
San Diego, CA 92123

VIA FAX (858) 874-4043
AND FIRST CLASS MAIL

Re: Rancho Santa Fe Roundabouts Project
Draft Environmental Impact Report

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Thank you for your consideration of these comments.

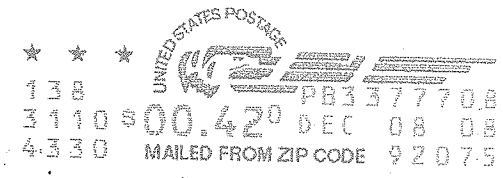
Very truly yours,

GEORGE McGILL

GM:k

Copy: Quantum Estates II, Inc.
Attention: Andrew Parkinson

GEORGE McGILL
ATTORNEY AT LAW
1328 Sun Valley Road
Solana Beach, CA 92075



Julia Quinn
County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road - Suite 305
San Diego, CA 92123

92123+1153

Quinn, Julia

From: Patricia Simmons [MsDelMar@hughes.net]
Sent: Monday, December 08, 2008 4:46 PM
To: Quinn, Julia
Cc: WKJ@WKJessee.com
Subject: RE: RSF Roundabout project

Dear Julia Quinn,

First of all, thank you for putting me in touch with the project manager for the proposed Roundabout project.
We met this morning and discussed the proposed project affecting my home (and property) located at 7057 La Valle Plateada in Rancho Santa Fe.

I was shocked and appalled when I was shown how much of my property was going to be damaged and lost to this proposed project.

I am strongly opposed to the proposed roundabout project for reasons including but not limited to the following:

1. **I have many 50-100 year old trees that will be sacrificed to complete this project.**
2. **These trees are a part of the historic landmarks of Rancho Santa Fe and are nesting places to numerous owls, hawks and other birds indigenous to the area.**
3. **Not only will I lose the security and environmental barrier that I now have on Delicious, after this morning's meeting I now understand I will lose all security and environmental barrier I now have on La Valle Plateada.**
4. **My home currently has a driveway gate that is 25 feet from the edge of the street. After the proposed project it will be 7 feet from the street. This will eliminate the hammerhead turnout for vehicles and will create a safety hazard by requiring vehicles to back into a constant flow of traffic.**
5. **The Rancho Santa Fe Art Jury has always promoted and enforced the idea that RSF does not want to look like a residential track neighborhood. Homes were not to be seen, only thick natural landscaping. Removing the developed mature trees and foliage would expose my entire home in opposition to the Art Jury's Rules and Regulations.**
6. **Once the trees are removed my home would be without protection from any noise, vehicle pollutions and trespassers.**
7. **I purchased my home in RSF because of the value created by the upscale country atmosphere, control to keep it that way and the security that it would remain a sound investment for my children.**
8. **When this project was initiated several years ago, the traffic was**

substantially worse than today (now that the 56 freeway opened). Today it is not a necessity to control a higher volume of traffic. In fact, it will bring more cars through our community.

9. I have also been told that this is being funded by the developers of Cielo to ease traffic and benefit their new housing project. DO THE RICH DEVELOPERS HAVE THIS CONTROL OVER AN EXCLUSIVE COMMUNITY LIKE RANCO SANTA FE?

10. Three roundabouts are an excessive, destructive and fiscally irresponsible expenditure for this 1.5 mile distance?

11. The recently improved bus stop is also proposed to be destroyed/moved further down my property line. To eliminate hazards associated with the new bus stop location, it is proposed that an area of the road will be widened so the buses can exit the street and pick up passengers. This proposed addition will require me to lose more of my property to this project (for the new bus stop location) and will damage income producing fruit tree I now have.

In conclusion, based on the limited information that was only given to me this morning, I will be adversely financially impacted in at least three ways.

- **The lose of income from my lemon grove**
- **The loss of income from temporarily renting my home (my tenant would without a doubt expect to be compensated for the loss of privacy, noise, inconvenience [both during and after the construction] and the reduction of lot size).**
- **Most importantly I would suffer a permanent long term loss of property value.**

I am strongly opposed to this project!

Sincerely,

Patricia Simmons
Home Owner - 7057 La Valle Plateada

Cc: Kent Jessee
Rancho Santa Fe Association
Bill Horn
Brian Bilbray
David Gallo Esq.

To: Julia Quinn
From: Samuel Ursini
Subject: RSF Roundabouts Draft EIR

Following are a couple comments on the draft EIR.

Figures 3.1.9-3.1.12 show that Lago Lindo traffic volume drops from 3000 to 2280 with existing traffic, and from 4600 to 3800 with projected 2030 traffic. That is a 24% and 17% drop in turn. This reduction in cut through traffic utilizing the roundabouts does not appear to be significant. Why isn't it more pronounced? In other words, there will still be a large amount ot traffic that would prefer to use the cut through method, rather than using the roundabouts. Would this reduction be the same utilizing traffic signals.

The drawings showing the road curvature from Via de la Valle heading East to Del Dios appears to be quite gradual---- definitely not 90 degrees more like 60 degrees. This will encourage traffic to go much too fast. This will be a significant problem particuarly with the equestrian crossing nearby. A traffic light there would be a much safer remedy. Safety should be a prominent issue rather than just traffic flow. Thank you for your report.

Samuel Ursini
Box 2346
Rancho Santa Fe, CA 92067

Quinn, Julia

From: lwglassmd@aol.com
Sent: Tuesday, December 09, 2008 6:55 PM
To: Quinn, Julia
Subject: rancho s .f. eir roundabouts

Ms. Quinn- As I mentioned in our phone conversation, I am quite concerned about traffic problems which will be CREATED by the roundabouts. As an example, I wish to call attention to the fact that those of us who reside or visit La Fremontia will probably be unable to enter the street from Paseo Delicias when headed eastbound. This will be especially true if one enters the roundabout from Via de la Valle, exits headed east (which is where the one remaining entrance to La Fremontia will be) and attempts to make a left turn into La Fremontia immediately after leaving the roundabout across westbound Paseo Delicias traffic (which will often be in a que awaiting entrance to the roundabout). Those heading eastbound from the Village center on Paseo Delicias will experience the same problem. I suspect that the only practical means of entering La Fremontia will be to drive 2-3 miles out of one's way to get onto westbound Paseo Delicias from which a simple right turn could be utilized to enter La Fremontia. Such travel is unnecessary and contributes to more air pollution.

The next roundabout at Paseo Delicias and El Montivideo will also create a traffic problem. I think that for approximately two or three hours twice a day the heavy traffic on Paseo Delicias will be so slow awaiting entrance into the roundabout that the cross street traffic from both north and south will experience unreasonable delays as compared to the minimal delays experienced presently with four way stop sign control at that intersection.

Please process these comments as formal comments on the e.i.r. with distribution to the appropriate persons and/or departments and agencies.

Leonard W. Glass, M.D.
P. O. Box 423
Rancho Santa Fe, Ca. 92067
858 692-3875
lwglassmd@aol.com

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ESCONDIDO, CA 92025-5055
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January 6, 2009

RECEIVED
JAN 09 2009
San Diego County
DEPT. OF PLANNING & LAND USE

Department of Planning & Land Use
County of San Diego
5201 Ruffin Road, Suite B
San Diego, CA 92123

Re: Rancho Santa Fe Roundabouts
Draft EIR

Sirs:

The San Dieguito Planning Group, by vote of 11-0-0, at our meeting of November 29, 2007, voted to request the following items be addressed in the draft Environmental Impact Report regarding the proposed roundabouts for Rancho Santa Fe:

1. How will staging for horse crossings be handled at roundabouts, including room for multiple animals? Will crossings for animals be separated from the roundabouts, and if so how will traffic be halted for crossing?

2. How will traffic be stopped to handle bicyclists, pedestrians, and horses crossing the roads?

3. Will there be a provision that sidewalks will be established remote from each roundabout, and is remote siting necessary for safety of persons crossing?

4. How will the existing bus stops be located, will it prevent it from interfering with the roundabouts, and permit access from the intersection, including bicyclists and pedestrians?

5. Will there be sidewalks or other provisions to enable pedestrians to move from an intersection crossing to the next intersection crossing?

6. Will the proposed design of the intersection between Via de la Valle and Paseo Delicias be converted to a T-intersection? Is such conversion necessary and appropriate to prohibit rush hour traffic from refusing to slow or stop as it

heads northbound from Via de la Valle to turn right onto Paseo Delicias? Will merging traffic from the west on Paseo Delicias have difficulty if the intersection does not change in some fashion, and what changes need to be made?

Very truly yours,

PAUL DANIEL MARKS

PDM:jam

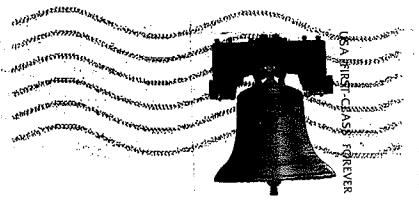
cc: Lois Jones
Laurel Le Marie

I:\SDPG\Corresp\DPLU 07-12-06 RSF Roundabouts.doc

Paul Daniel Marks
Certified Specialist - Family Law
345 West Ninth Avenue, Suite 202
Escondido, California 92025-5055

SAN DIEGO CA 921

07 JAN 09 PM 9 T



Department of Planning & Land Use
County of San Diego
5201 Ruffin Road, Suite B
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92123+1666

Appendix C
Biological Resources Technical Report

Biological Resources Technical Report

Rancho Santa Fe Roundabouts Project

Project # 1009758

Prepared for:

County of San Diego
Department of Public Works
Environmental Services Unit
5469 Kearny Villa Road, Suite 305
San Diego, CA 92123
Contact: Gail Jurgella

Prepared by:

Technology Associates International Corporation
5473 Kearny Villa Road, Suite 300
San Diego, CA 92123

January 13, 2012

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ACRONYMS AND ABBREVIATIONS

APE – Area of Potential Effects
AMSL – Above Mean Sea Level
BMPs – Best Management Practices
CDFG – California Department of Fish and Game
CEQA – California Environmental Quality Act
CESA – California Endangered Species Act
CNDDB – California Natural Diversity Database
CNPS – California Native Plant Society
Corps – U.S. Army Corps of Engineers
CSS – Diegan coastal sage scrub
CWA – Clean Water Act
DPW – County of San Diego Department of Public Works
ESA – Endangered Species Act
FD – Federally delisted
FE – Federally endangered
FESA – Federal Endangered Species Act
FSC – Federal species of concern
FT – Federally threatened
GIS – Geographic Information Systems
HLP – Habitat Loss Management Permit
LOS – Level of Service
MBTA – Migratory Bird Treaty Act
MSCP – Multiple Species Conservation Program
NCCP – Natural Communities Conservation Program
NEPA – National Environmental Policy Act
NRCS – Natural Resource Conservation Service
OHWM – Ordinary High Water Mark
PAMA – Pre-Approved Mitigation Area
RPO – Resource Protection Ordinance
RWQCB – Regional Water Quality Control Board
SANDAG – San Diego Association of Governments
SCS – Soil Conservation Service
SDNHM – San Diego Natural History Museum
SE – State endangered
SFP – State fully protected
SR – State rare
SSC – State species of concern

ST – State threatened
TAIC – Technology Associates International Corporation
USDA – U.S. Department of Agriculture
USEPA – U.S. Environmental Protection Agency
USFWS – United States Fish and Wildlife Service
USGS – U.S. Geological Survey
USFS – U.S. Forest Service

Executive Summary

The County of San Diego Department of Public Works (DPW) is proposing the construction of three roundabouts in the community of Rancho Santa Fe, a largely residential unincorporated community of northern San Diego County. These intersections are along Paseo Delicias, between Via de la Valle and El Camino del Norte, which is a two-lane light collector road which is one of few roads in this area that connects I-5 to I-15.

The proposed Rancho Santa Fe Roundabouts Project (Project) would involve the construction of roundabouts to replace the existing stop sign controls of the intersections of Paseo Delicias/El Camino del Norte/Del Dios Highway, Paseo Delicias/El Montevideo/la Valle Plateada, and Paseo Delicias/Via de la Valle/La Fremontia. Currently, vehicles traveling along this stretch of roadway must wait in significantly long queues at each of the three stop sign controlled intersections. At the request of the community, a roundabout feasibility study was completed in 2004 which determined that roundabouts at the three subject intersections would improve Level of Service (LOS) in peak hours. The project aims to provide a streamlined traffic corridor that maintains the rural character of the community and also incorporates safe pedestrian crossings and the maintenance of the existing equestrian trail crossings at all intersections along Paseo Delicias. As currently designed, the proposed construction activities would involve the widening of intersections, repaving and striping, improvements to the drainage systems, and the construction of retaining walls.

The study area is located in unincorporated San Diego County within the North County Multiple Species Conservation Program (MSCP) Planning area. Because the North County MSCP Plan has not yet been approved, the project is not currently subject to Natural Communities Conservation Planning Program (NCCP) regulations. In addition, DPW projects are exempt from the County's Resource Protection Ordinance (RPO) and will therefore be evaluated based on applicable state and Federal laws and regulations.

To identify and analyze potential project impacts to biological resources, a number of biological surveys were conducted of vegetation communities, flora, wildlife, sensitive habitats, jurisdictional wetlands and waters, and wildlife corridors for the study area. Land uses in the vicinity include rural residential, single-family residential, undeveloped land, and agriculture. Vegetation types within the study area surrounding the three intersections include Diegan coastal sage scrub, scrub oak chaparral, freshwater marsh, freshwater, orchards and vineyards, disturbed habitat, and urban/developed areas.

An analysis of potential significant impacts to sensitive species, habitats, and jurisdictional resources from implementation of the proposed Project is summarized as follows.

- Removal or disturbance Diegan coastal sage scrub vegetation would be considered an adverse, direct impact to a sensitive natural communities and mitigation is proposed to reduce the impact to a level less than significant.
- Clearing, grubbing, and other construction activities have the potential to (directly and indirectly) impact nesting and foraging activities of bird species protected under the Migratory Bird Treaty Act.
- Potential impacts to state-regulated wetlands would include direct impacts to non-vegetated channel (RWQCB/CDFG jurisdictional streambed); state wetlands permits would be required and mitigation is proposed.
- One coast live oak tree is located within the area of potential impact (shown on figures as permanent or temporary impact areas), however, as currently designed construction of the proposed project would be able to avoid removal of or impacts to root zone of the coast live oak tree within the area of potential impact. It is expected the project would not result in any direct or indirect impacts to this species. In the event that the coast live oak tree within the project footprint cannot be avoided during construction, replacement 5-gallon coast live oak individuals shall be planted at a ratio of 5:1 within the landscaped areas of the proposed project.

The measures proposed to mitigate these impacts to a level below significant include using exclusionary fencing where necessary to protect sensitive native habitat adjacent to construction areas; conducting pre-construction focused species surveys for special status plants and animals that have the potential to occur within or adjacent to construction areas; creating protective buffer zones of the appropriate size to protect sensitive species or nests that are identified within or adjacent to construction; avoiding clearing, grubbing or activities that might generate excessive noise or nighttime lighting during the bird breeding season; conducting nest surveys prior to construction if the bird breeding season cannot be avoided; and by conducting a pre-construction education program for construction contractors. Finally, unavoidable impacts to non-vegetated channel and sensitive natural communities will be mitigated in-kind pursuant to the MSCP's mandated mitigation ratios and those required by other applicable state regulatory agency permits.

1.0 INTRODUCTION

1.1 Purpose of the Report

The purpose of this biological resources technical report is to document the biological and jurisdictional wetlands resources identified as present or potentially present within the project study area, to identify potential biological resources impacts that may result from the proposed project, and to recommend avoidance, minimization, and mitigation measures to mitigate these impacts. This report includes: (i) analysis of vegetation communities, flora, wildlife, sensitive habitats, jurisdictional wetlands and waters, and wildlife corridors for the study area; (ii) an initial analysis of potential project impacts to biological resources; (iii) an analysis of the significance of impacts to the resources present on each site pursuant to Federal, state, and local laws and policies, including the California Environmental Quality Act (CEQA), County of San Diego Multiple Species Conservation Program (MSCP), and (iv) an analysis of mitigation measures that would avoid, minimize, and/or mitigate significant impacts.

1.2 Project Location and Description

The County of San Diego Department of Public Works (County DPW) proposes to construct traffic roundabouts at three intersections along Paseo Delicias in the unincorporated community of San Dieguito in northwest San Diego County (Figures 1 - 3). These roundabouts would ease traffic congestion along Paseo Delicias without alterations to the width of the road or number of lanes. No changes to the posted speed limits or segment characteristics of any of the affected roadways are planned as part of the proposed project.

Paseo Delicias is a two-lane road between Via de la Valle and El Camino del Norte that provides a link between Interstate 15 (I-15) along Via Rancho Parkway and Del Dios Highway and connects to other westbound local roads for access to Interstate 5 (I-5). Paseo Delicias is classified as a 2.2.A Light Collector in the County of San Diego General Plan Mobility Element. Vehicles traveling along or accessing this roadway corridor must wait in long queues during peak commute periods at the three project intersections. To avoid long waits, some motorists divert onto surrounding residential roadways, which results in potential traffic conflicts and delays to residents accessing their driveways.

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Rancho Santa Fe Roundabouts Project

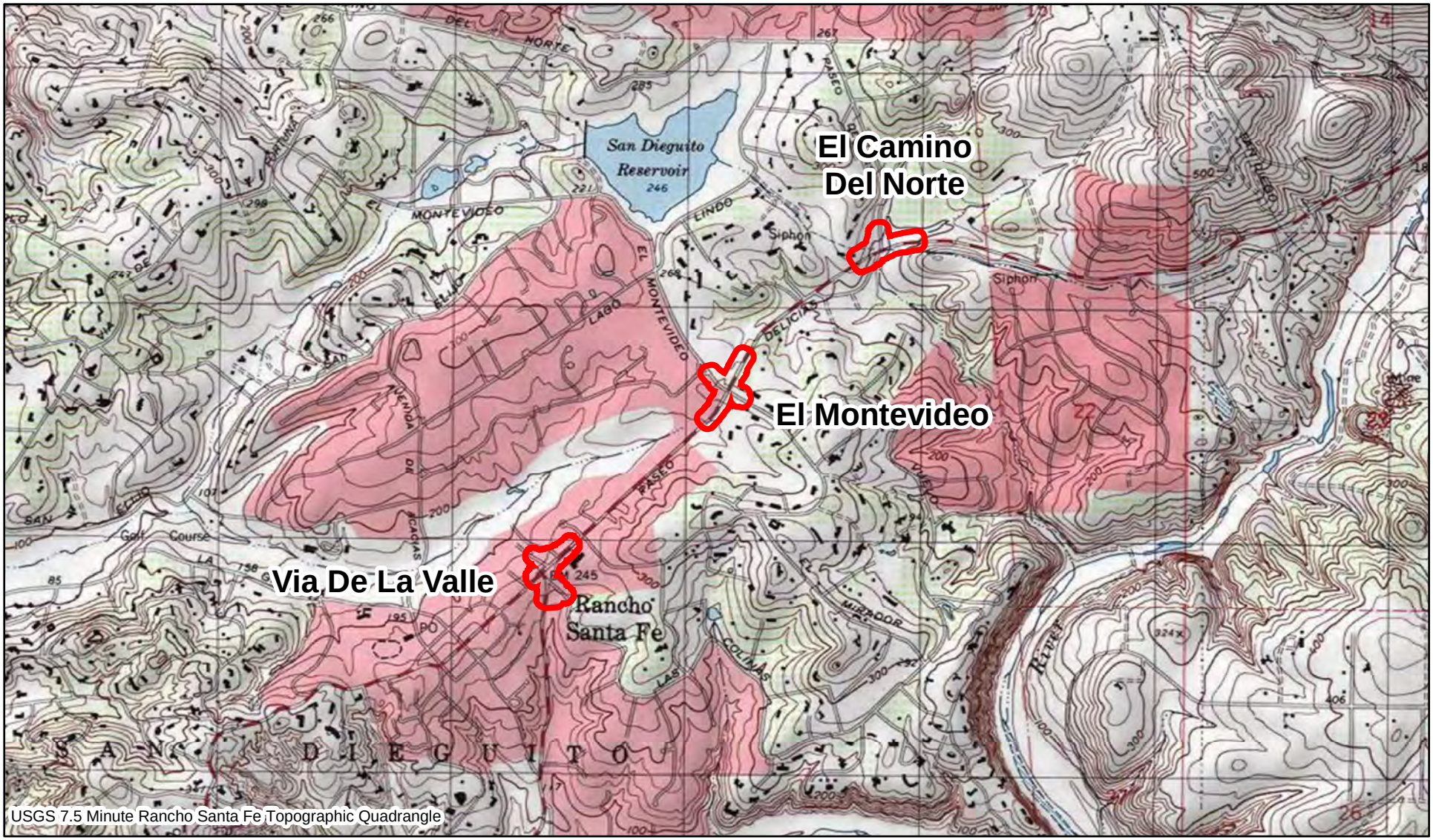
Regional Location Map

Figure 1

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Legend

Study Area Boundaries

N

Feet

0 2,000

Rancho Santa Fe Roundabouts Project

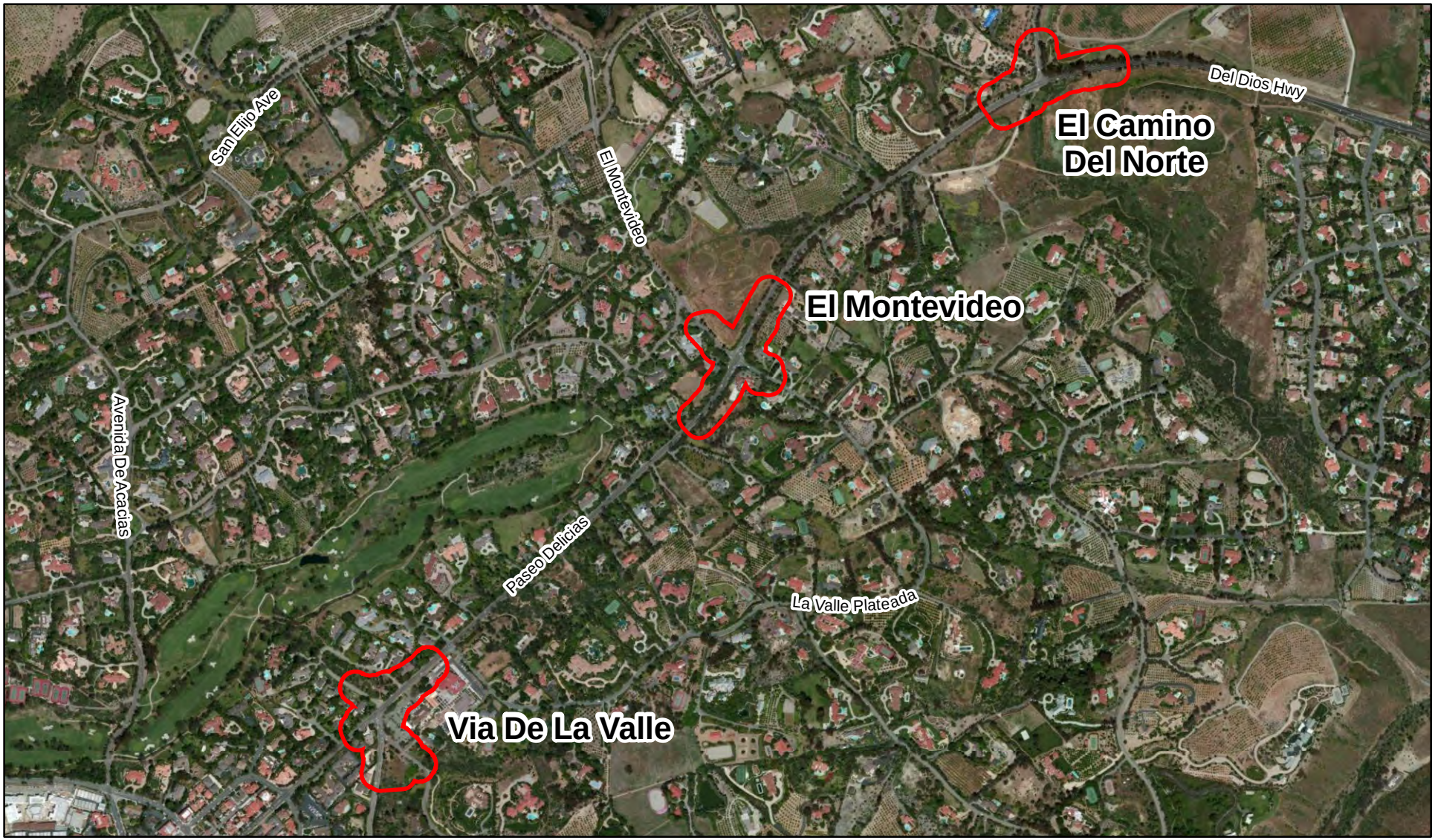
USGS Topographic Quadrangle

Figure 2

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Rancho Santa Fe Roundabouts Project

RSFR Study Area

Figure 3

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Date: 10/24/2011

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The roundabouts would be built according to Federal Highway Administration guidelines for design of rural roundabouts. Roundabout construction would include adequate signage and illumination to provide for pedestrian, bicyclist, equestrian and motorist safety. The roundabouts' diameters would be 110 feet and, from the center to the edge, would include a 12-15 foot wide truck apron, a 16 foot wide travel lane and a 48-54 foot diameter central island. The center of each roundabout would be landscaped and curbs would be installed around the perimeter of each roundabout to direct the circular flow of traffic. Curbs would also be installed for the raised medians at the approach to each roundabout. The roundabouts are individually described below.

Via de la Valle/La Fremontia Intersection

The Via de la Valle/La Fremontia roundabout would have three intersecting street segments: Paseo Delicias from the west and east, and Via de la Valle from the south. The design for this roundabout includes the closure of the western La Fremontia intersection. The western leg of La Fremontia would be made into a cul-de-sac and access to this road would be east of the roundabout at its eastern intersection with Paseo Delicias. A landscaped berm would be constructed between the new cul-de-sac and the roundabout. The southwest and southeast corners at the intersection of Paseo Delicias/Via de la Valle would be widened to accommodate the roundabout and for the realigned equestrian trail that would follow along the southeast side of the intersection. Existing bus stops on Paseo Delicias would be relocated to match the alignment of the roundabout. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout and cul-de-sac.

South of the proposed roundabout, the intersection of Las Colinas with Via de la Valle would be realigned to the south to intersect Via de la Valle at a right angle. This realignment would allow continuous traffic flow through the three street segments in the roundabout and allow full access to Las Colinas from Via de la Valle. Transition lanes to facilitate right turns into and out of Las Colinas and a left turn pocket into Las Colinas would also be constructed. Two private driveways on Las Colinas would be lengthened to connect with the realigned roadway.

West of the roundabout, the eastern access to a circular driveway at a private residence on the south side of Paseo Delicias would be closed. Ingress and egress to the private residence would be maintained via the western side of the circular driveway. Left-out access from a residential driveway located on the northwest corner of the intersection of Via de la Valle and Paseo Delicias would be prohibited due to the presence of the

proposed splitter island on the eastbound approach of Paseo Delicias to the intersection with Via de la Valle.

El Montevideo/La Valle Plateada Intersection

The El Montevideo/La Valle Plateada roundabout would have four intersecting street segments: Paseo Delicias from the west and east, El Montevideo from the north, and La Valle Plateada from the south. To accommodate the roundabout, the intersection would be widened and shifted slightly in a northeasterly direction, and would undergo a minor elevation increase to meet safety requirements for roundabouts design. No widening would be required at the southwest side of the intersection. Existing bus stops on Paseo Delicias would be relocated farther to the east and west of the roundabout.

El Camino del Norte Intersection

The El Camino del Norte roundabout would have three intersecting street segments: Paseo Delicias approaching from the west, Del Dios Highway from the east, and El Camino del Norte from the north. The intersection would be widened on the northwest and northeast corners to accommodate the roundabout. Retaining walls would be constructed on the south side of Paseo Delicias / Del Dios Highway and the east side of El Camino del Norte. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout. The equestrians approaching the roadway from the existing trail would be rerouted along the shoulders of Paseo Delicias to access the proposed crosswalk to be located just west of the roundabout. Two driveways on the west side of El Camino del Norte would be combined and provided access to El Camino del Norte north of the proposed splitter island. Combining these driveways would allow full driveway access for the residences located at the northwest corner of the El Camino del Norte intersection.

Study Area

The study area for this Biological Technical Report consists of the area of potential impact (project footprint) and a 100-foot-wide buffer area immediately beyond the limits of the project footprint of each proposed roundabout for a total study area of 30.41 acres (Figure 3). For the gnatcatcher surveys, all suitable gnatcatcher habitat within 500 feet of the project footprint of the three roundabouts was included in the survey area. A total of 41 species of vascular plants (19 native and 22 non-native) and 14 species of wildlife (11 birds, and 3 mammals) were observed during the surveys as shown in Appendices A and B of this report.

1.3 Survey Methods

On behalf of the County of San Diego (County) Department of Public Works (DPW), TAIC conducted surveys in 2006, 2007, 2008 and 2011 to assess the biological resources within the study area. Additionally, on February 28, March 4, and March 11, 2008, TAIC conducted a formal jurisdictional delineation of the Project survey area to identify and delineate the limits of Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act in accordance with the Corps' most current guidance, California Department of Fish and Game (CDFG) jurisdiction pursuant to Section 1602 of the California Fish and Game Code, and Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act of 1969 (California Water Code).

After the initial surveys in 2008, the project footprint was adjusted to accommodate altered features in the proposed roundabouts. As a result, an additional field survey was completed in 2011 to assess the altered features and re-evaluate the delineation and wildlife information within the study area.

1.3.1 Literature Review

Prior to conducting biological surveys, potentially occurring sensitive biological resources were identified through a review of the most current versions of following species databases: California Natural Diversity Database (CNDDB), MSCP Species Database (SANDAG), U.S. Fish and Wildlife Service (2004), California Department of Fish and Game, California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants , the San Diego Natural History Museum's (SDNHM) Bird and Mammal Atlas databases.

In addition to establishing the presence of sensitive species within the study area, an analysis was performed to determine which additional species could potentially occur in the study area. This was done by conducting species database queries within 3 km of the study area, and evaluating the habitat requirements for the species within this zone. An additional literature review in 2011 identified no additional potentially occurring sensitive biological resources within the updated study area. The potentially occurring species list remained unaltered from the 2006 literature search.

1.3.2 Vegetation Mapping

Vegetation communities mapping was conducted by qualified TAIC biologists within the study area on November 22, December 8, 2006, and March 3, 2011 (Table 1-1). The presence or absence, and/or percent cover of indicator plant species were used to determine the vegetation type. The boundaries of vegetation communities were then drawn onto a 200-scale (1" = 200') 2006 color aerial photograph and later incorporated into a Geographic Information System (GIS) spatial database. The natural vegetation community classification used in this report follows Holland (1986) and Oberbauer (2005).

Table 1-1 Schedule of General Biological Reconnaissance and Habitat Assessment Surveys

Survey Type	Dates	Personnel[1]
Vegetation Communities Mapping	November 22, 2006 December 8, 2006 March 3, 2011	RH, MH RH KS
General Biological Reconnaissance Survey	November 22, 2006 March 3, 2011	RH, MH KS
Coastal California Gnatcatcher Habitat Assessment	November 22, 2006 December 8, 2006	RH, MH RH
Jurisdictional Wetland Delineation	February 28, 2008 March 4, 2008 March 11, 2008	JA

[1] TAIC Personnel: MH = Marissa Hedman, RH = Rosanne Humphrey, JA = Jonathan Appelbaum, KS = Kelcey Stricker

1.3.3 General Biological Resources Inventory

TAIC biologists conducted a general biological resources inventory on November 22, 2006. This involved reconnaissance survey of the study area and observing and recording the plant and animal species, signs of wildlife, potential habitat for sensitive species, and potential wildlife movement corridors. When the project footprint was adjusted, an additional general biological resources inventory was performed on March 3, 2011. Species detections were noted and potential habitat for sensitive species was assessed. The additional field survey confirmed the previous results and no additional focused surveys or wetlands delineations were necessary.

1.3.4 California Gnatcatcher Habitat Assessment

A habitat assessment survey was conducted by TAIC biologists on November 22, and December 8, 2006 to evaluate the suitability of the project site to support the Federally-listed as threatened coastal California gnatcatcher (*Polioptila californica californica*); the habitat assessment results were re-assessed on March 3, 2011. To assess potential indirect impacts to this species, such as construction noise, the habitat assessment was conducted within a survey area of 500 feet from the El Camino del Norte/Paseo Delicias portion of the study area. Suitable Diegan coastal sage scrub habitat was not present within the vicinity of the other two intersections.

Potentially suitable habitat was mapped onto a 200-scale (1" = 200') 2006 color aerial photograph to help guide the habitat assessment fieldwork. Gnatcatchers prefer coastal sage scrub habitat and ecotonal habitat between sage scrub and chaparral. Several specific habitat characteristics were assessed, including the presence of indicator plant species, such as California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and white sage (*Salvia apiana*); canopy height for nesting; level of fragmentation and isolation of habitat; size of habitat patch; distance to documented gnatcatcher observations in the vicinity; level of disturbance in the area; density of invasive non-native vegetation; and level of ambient noise from nearby traffic.

1.3.5 Focused Gnatcatcher Surveys

The gnatcatcher survey area was determined based on the results of the habitat assessment survey, as described above. Gnatcatcher surveys for the proposed project were conducted by Rosanne Humphrey (Recovery Permit TE-051526) and Mark Roll following the U.S. Fish and Wildlife Service survey protocol for the species. All suitable gnatcatcher habitat within 500 feet of the project footprint was included in the survey area. Pursuant to the USFWS protocol, a total of 9 surveys were conducted between December 8, 2006 and March 23, 2007 two weeks apart because (a) the study area was not within an approved NCCP area, and (b) the majority of surveys were conducted during the non-breeding season between July and March 14. Surveys were conducted on foot, and all bird and other wildlife species were identified visually and by ear. A taped gnatcatcher vocalization was played at regular intervals throughout each survey to increase the chances of locating gnatcatchers. Following the survey protocol, taped vocalizations were to be discontinued if a response ensued. A list of all observed wildlife species was recorded. All surveys were conducted during times of appropriate weather conditions and are detailed in Table 1-2 below.

Table 1-2 Survey Conditions for Coastal California Gnatcatcher Surveys

Date	Time	Surveyors[1]	Temp (°F)	Wind (mph)	Cloud Cover (% cover)	Precipitation
12/8/06	1037-1142	RH	68-69	0	0	0
12/27/06	0842-0900	RH	62	0	80	0
1/4/07	0749-0815	RH	54	0	100	0
1/19/07	0927-0948	RH	58	0-2	75-8	0
2/2/07	0810-0827	RH	51	0	0	0
2/16/07	1030-1050	RH	77	0	0	0
3/2/07	0845-0925	MR, RH	55	0	<10	0
3/12/07	0845-0930	MR, RH	65	0	0	0
3/23/07	0850-0915	MR, RH	60	0	0	0

[1]Rosanne Humphrey (RH), Mark Roll (MR)

1.3.6 Jurisdictional Wetlands Delineation

TAIC conducted a formal jurisdictional delineation survey on February 28 and March 11, 2008 to identify the limits of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG) jurisdictional wetlands and waters of the U.S and of the State within the study area. The purpose was also to assess the potential impacts of the Proposed Action on Corps jurisdiction within the study area. The jurisdictional boundaries were re-evaluated qualitatively on March 3, 2011.

During the jurisdictional delineation survey, suspected Corps jurisdiction was evaluated using the methodology set forth in the 2007 *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (*Instructional Guidebook*). Potential Corps-jurisdictional wetland habitats were evaluated using the methodology set forth in the 1987 U*.S. Army Corps of Engineers Wetland Delineation Manual (Wetland Manual)* and the and the *Arid West Wetland Delineation Supplement* (August 2008), and updated regulatory guidance letter (July 2010). According to the 1987 Corps Manual and 2008 Regional Supplement, a site must demonstrate positive indicators of each of three specified parameters (the presence of wetland hydrology, hydric soils, and dominance of hydrophytic vegetation) to meet the definition of a Corps-jurisdictional wetland.

At locations with conspicuous changes in topography and/or vegetation community types, wetland sampling stations were established along transects. In accordance with accepted survey methods, soil profiles up to 18 inches deep were excavated at each sampling location and data on dominant vegetation, soils characteristics, and hydrology

indicators were collected. Data related to Corps-defined wetlands were recorded onto standardized wetland data sheets

In addition, California Department of Fish and Game (CDFG) jurisdictional wetlands and streams were delineated according to the guidance presented in *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600–1607*. (Environmental Services Division, 1994). CDFG-jurisdictional wetlands are typically consistent with the USFWS approved Cowardin wetland classification system (Cowardin *et al.* 1979).

The adjusted 2011 project footprint did not affect any jurisdictional boundaries and an additional jurisdictional wetlands delineation was not needed.

1.3.7 Survey Limitations

Limitations of the biological surveys include a seasonal bias for plants. Herbaceous annual or perennial plant species that flower in the spring are difficult to observe during the winter months (e.g., November and December), which is when the current surveys were conducted. Another limitation of this study is a seasonal bias for birds. Many migrating birds occur in San Diego County only during the breeding season, which is roughly February 15 to September 15 (Unitt, 2004).

1.4 Environmental Setting

This section provides a description of the environmental setting in which the proposed project occurs, including uses and ownership of land in the vicinity, a discussion of relevant approved or proposed conservation plans, and a description of biological resources present within the study area.

The study area is located within a highly residential portion of northern San Diego County. Land uses in the vicinity include rural residential, single-family residential, undeveloped land, and agriculture (EDAW 2006). It can be reasonably anticipated that the undeveloped land in and around the study area will be developed consistent with current land use, which is predominantly rural in nature. Local policies and planning regulations will ensure that the rural atmosphere is retained as development continues (EDAW 2006). Rural residential parcels must be at least one acre in size; sidewalks and streetlights are prohibited in residential areas; and many estates have horses, and or small plots of field crops or orchards/vineyards within the property boundary.

1.4.1 Regional Context

The study area is located in unincorporated San Diego County within the North County Multiple Species Conservation Program (MSCP) planning area. Because the North County MSCP Plan has not yet been approved, the project is not currently subject to Natural Communities Conservation Planning Program (NCCP) regulations. In addition, DPW projects are exempt from the County's Resource Protection Ordinance (RPO) and will therefore be evaluated based on applicable state and Federal laws and regulations, as discussed in Section 1.5. The study area occurs outside (within half a mile) of the planned Pre-Approved Mitigation Area (PAMA), which is the area within which the North County MSCP preserve system will be created.

1.4.2 Habitat Types/Vegetation Communities

Vegetation communities are assemblages of plants that coexist in space and time, and are affected by climate, soils, and topography. The study area is situated on the coastal terraces of San Diego County within the Peninsular Range between approximately 180 and 240 feet above mean sea level (AMSL). San Diego County experiences a Mediterranean climate, which is characterized by wet winters and dry summers. This is largely due to a semi-permanent high pressure zone that sits over the Pacific Ocean during much of the year. The vegetation communities observed within the study area and described in this report were classified according to the Thomas Oberbauer modification of Holland Community Types (Holland 1986; Oberbauer 2005), which uses species composition to classify community types.

This section provides a general description of conditions within the study area surrounding each of the proposed roundabout locations, and a description of vegetation communities observed (Table 1-3). A full compendium of plant species observed within the study area is included in this report for reference (Appendix A).

El Camino del Norte Intersection

Land use surrounding the El Camino del Norte intersection includes rural residential development and undeveloped land. The habitats surrounding the site consist of coastal sage scrub, freshwater marsh, and disturbed and developed habitats. A drainage channel extends along the south side of Paseo Delicias as well as east and west of El Camino del Norte (Figure 4).



Legend

- Study Area
- Vegetation Boundary
- California adolphia
- Permanent Impact
- Temporary Impact
- Staging Area (Temporary Impact)

Code	Vegetation Type
CSS	Diegan Coastal Sage Scrub
DEV	Urban/Developed
DIS	Disturbed Habitat
FWM	Coastal and Valley Freshwater Marsh
FW	Freshwater

N

Feet

0 150

Rancho Santa Fe Roundabouts Project

El Camino Del Norte
Impacts to Biological Resources within the Study Area

Figure 4

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El Montevideo Intersection

Land use surrounding the El Montevideo intersection includes rural residential development. The intersection is surrounded by orchards/vineyards and urban/disturbed habitats. Urban/disturbed habitats are present on the northwest, south west and south east corners of the intersection. The north east corner contains parcels zoned for rural residential but are currently undeveloped and contain disturbed habitat (Figure 5).

Via de la Valle Intersection

Land uses surrounding the proposed Via de la Valle intersection includes rural residential development, a religious facility, and open space/park land with coastal sage scrub, scrub oak chaparral, and urban/disturbed habitat. Vegetation at this intersection includes non-native eucalyptus trees (*Eucalyptus* sp.), pepper trees (*Schinus molle*, and *S. terebinthifolius*), pines (*Pinus* spp.), and native coast live oak (*Quercus agrifolia*). A small amount of jurisdictional wetlands and associated ephemeral streambed occurs in the study area at this location (Figure 6).

Table 1-3 Vegetation Communities within the Study Area (Acres)

Vegetation Community[1]	El Camino del Norte	El Montevideo	Via de la Valle	Total
Riparian Habitat				
Freshwater (13140)[2]	0.22	0.00	0.00	0.22
Coastal and Valley Freshwater Marsh (52410)[2]	0.06	0.00	0.00	0.06
Upland Habitat				
Diegan Coastal Sage Scrub (32500) [2]	0.37	0.00	0.06	0.43
Scrub Oak Chaparral (37900)	0.00	0.00	0.24	0.24
Orchards and Vineyards (18100)	0.00	0.58	0.00	0.58
Disturbed Habitat (11300)	2.83	2.22	2.88	7.93
Urban/Developed (12000)	5.28	7.98	7.69	20.95
TOTAL HABITAT	**8.76**	**10.78**	**10.87**	**30.42**

[1] Holland codes are given in parentheses.
[2] Habitats regulated or considered sensitive by Federal, state, regional, or local agencies.

Freshwater (13140)

Freshwater refers to open water areas, including reservoirs, lakes, ponds, and relatively large sloughs, channels, and rivers or streambeds that contain water throughout the year. Freshwater is a habitat type that is considered sensitive by county, state, and Federal agencies due to its wildlife habitat value. Vegetation includes native and non-native

aquatic species. The open freshwater in the study area consists of 0.22 acre of an artificial cement-lined pond, surrounded by ornamental landscaping on the northeastern corner of the intersection of El Camino del Norte. No freshwater habitat exists within the study area at either of the other two intersections.

Coastal and Valley Freshwater Marsh (52410)

Coastal and valley freshwater marsh is a riparian vegetation community that is considered sensitive by county, state, and Federal agencies due to its wildlife habitat value. Freshwater marsh is dominated by perennial, emergent monocots to 1.3 to 2 m (4.3 to 6.6 ft.) tall. Uniform stands of bulrushes (*Scirpus* spp.) or cattails (*Typha* spp.) characterize this habitat. Freshwater marsh occurs in wetlands that are permanently flooded by standing fresh water (Holland 1986). Coastal and valley freshwater marsh occurs within the study area in the perennial/intermittent drainage along the southeastern corner of the El Camino Del Norte intersection. The freshwater marsh at this locationconsists primarily of broadleaf cattail (Typha latifolia), but also includes bulrushes, nutsedges (Cyperus spp.), San Diego marsh elder (Iva hayesiana), and watercress (Rorippa nasturtium-aquaticum). Also included in the mapping of this community were large, mature ornamental trees including one large Peruvian pepper (Schinus molle) and one large palm tree (Washingtonia sp.). There is no freshwater marsh habitat present within the study area at either of the other two intersections. The total acreage of freshwater marsh habitat in the study area is 0.06 acres.

Diegan Coastal Sage Scrub (32500)

Diegan Coastal sage scrub is considered a sensitive upland habitat by county, state, and Federal agencies due to its habitat value for sensitive wildlife, most notably the Federally threatened coastal California gnatcatcher. Coastal sage scrub is comprised of low, soft-woody subshrubs to about 1 meter (3 ft.) high, many of which are drought-deciduous. Dominant plant species include California sagebrush, flat-top buckwheat, laurel sumac (*Malosma laurina*), white sage, and black sage. Other, less frequent, constituents of this community include spiny redberry (*Rhamnus crocea*), deerweed (*Lotus scoparius*), and broom baccharis (*Baccharis sarothroides*).

The study area contains four small, isolated fragments of Diegan coastal sage scrub which total 0.43 acre. Three patches are found within the El Camino Norte intersection portion of the study area. One of these fragments is a small (0.16 acre) patch of intact coastal sage scrub that occurs at the top of a knoll, south of Paseo Delicias at the intersection with El Camino del Norte. This patch of habitat is fairly diverse, containing California sagebrush, black sage, bush monkeyflower, toyon (*Heteromeles arbutifolia*),



Legend

- Study Area
- Vegetation Boundary
- Permanent Impact
- Temporary Impact

Code	Vegetation Type
DEV	Urban/Developed
DIS	Disturbed Habitat
ORC	Orchards and Vineyards

N

Feet

0 150

Rancho Santa Fe Roundabouts Project

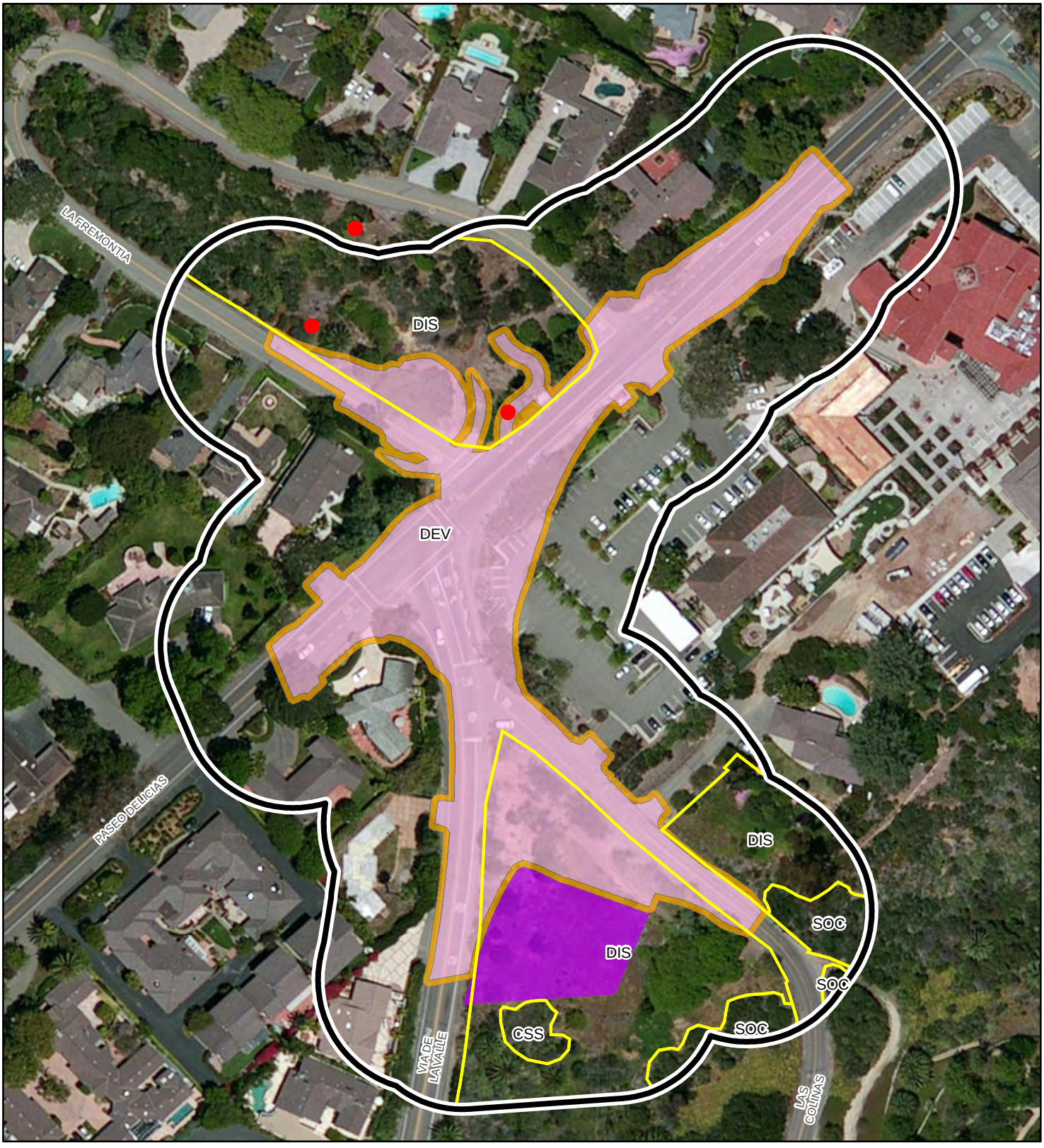
El Montevideo
Impacts to Biological Resources within the Study Area

Figure 5

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Legend

- Study Area
- Vegetation Boundary
- Coast Live Oak
- Permanent Impact
- Temporary Impact
- Staging Area (Temporary Impact)

Code	Vegetation Type
CSS	Coastal Sage Scrub
DEV	Urban/Developed
DIS	Disturbed Habitat
SOC	Scrub Oak Chaparral

N

Feet

0 130

Rancho Santa Fe Roundabouts Project

Via De La Valle
Impacts to Biological Resources within the Study Area

Figure 6

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scrub oak, lemonadeberry (*Rhus integrifolia*), and coyote brush (*Baccharis pilularis*). The strip is adjacent to a disturbed area of regularly mowed invasive non-native vegetation consisting mostly of fennel, tocalote, non-native grasses, and mustards.

The other two fragments of coastal sage scrub at El Camino Norte are disturbed and contain a low diversity of facultative coastal sage scrub species mixed in with many non-natives. One of these fragments is a thin strip located along the north side of a steep embankment along Paseo Delicias at El Camino del Norte (0.10 acre). The other fragment consists of a small patch (0.11 acre) of coyote brush located between the freshwater marsh and another large, regularly mowed field of invasive non-native annual grasses and other annual and perennial species at the El Camino del Norte intersection. This fragment is surrounded by non-native plants such as hottentot fig, eucalyptus, Peruvian pepper trees, mustards and non-native grasses. A fourth small patch (0.06 acre) of coastal sage scrub is located at the Via de la Valle intersection portion of the study area and is surrounded and intermixed with non-native plants.

Because the fragments are small, isolated, infested with invasive species, and completely surrounded by disturbed or developed habitat, they would not be considered suitable habitat for coastal California gnatcatcher.

Scrub Oak Chaparral (37900)

Scrub oak chaparral is a dense, evergreen chaparral up to 20 feet tall, dominated by scrub oak (*Quercus dumosa)* with considerable California mountain mahogany (*Cercocarpus betuloides).* In San Diego County, California scrub oak (*Quercus berberidifolia)* is often the dominant (over 50% cover) and usually occurs in small patches within a variety of other vegetation communities. Small patches of scrub oak chaparral (totaling 0.24 acre) occur at Via de la Valle intersection portion of the study area, straddling the Las Colinas road.

Orchards and Vineyards (18100)

Orchards and vineyards are comprised of land that has been altered through the intentional planting of trees or shrubs maintained for food production. Native vegetation is rarely present, and the planted vegetation type is usually monotypic. A small portion (0.58 acre) of a citrus orchard extends into the study area at the northeastern corner of the El Montevideo/La Plateada intersection.

Disturbed Habitat (11300)

Disturbed habitat is any land on which the native vegetation has been significantly altered by agriculture, construction, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of one of the plant associations within the study region. Such habitat is typically found in vacant lots, roadsides, construction staging areas, or abandoned fields, and is dominated by non-native annual species and perennial broadleaf species.

Disturbed habitat within the study area consists of barren or weed infested areas impacted by human activities (recent and historic) such as past agricultural activities, road construction, water and power right of way maintenance, etc. Disturbed habitat is present in a large area (2.83 acres) south of Paseo Delicias at the intersection of El Camino del Norte. Disturbed habitat also occurs in patches at the intersections of El Montevideo/La Valle Plateada (2.22 acres), and Via de la Valle/La Fremontia (2.88 acres). Characteristic plant species observed in the disturbed habitats within the study area included mustards, radish, sweet fennel (*Foeniculum vulgare*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), hottentot fig, bristly ox-tongue (*Picris echioides*), red brome (*Bromus madritensis*), Russian thistle (*Salsola tragus*) red-stem filaree (*Erodium cicutarium*), crimson fountain grass (*Pennisetum setaceum*), artichoke thistle (*Cynara cardunculus)*, curly dock (*Rumex crispus*), and yellow sweet clover (*melilotus indica*) among others. Non-native trees, such as eucalyptus (*Eucalyptus* spp.) and two species of pepper trees were also common. Individual eucalyptus trees were observed along the roadways at all of the intersections.

Disturbed habitat located south of Paseo Delicias at the intersection of El Camino del Norte occurs within and adjacent to Corps and CDFG jurisdictional wetlands and waters of the U.S. where anthropogenic disturbances and infestation of non-native species have degraded natural wetland / riparian communities. This community is depicted on Figure 4 of this report as well as included within the mapped areas of Corps and CDFG jurisdiction depicted on Figure 8.

At the Via de la Valle/La Fremontia intersection, there is a patch of disturbed habitat, within which a naturalized artificial storm drain (comprising CDFG-jurisdictional streambed) and two small patches of CDFG-jurisdictional wetlands occur. These isolated wetlands support native and non-native wetland / riparian plant species including cattails (*Typha* sp.), pickleweed (*Salicornia virginica*), salt grass (*Distichlis spicata*), and salt cedar (*Tamarisk ramosssissima*). The remainder of the disturbed habitat in this area consists of a mixture of bare ground, non-native ornamental vegetation including

eucalyptus and pepper trees, acacia (*Acacia* spp.), date palm (*Phoenix canariensis*), hottentot fig, and native vegetation including two coast live oak trees and scattered toyon, scrub oak (*Quercus berberidifolia*), chamise (*Adenostoma fasciculatum*), and lemonadeberry. This community is depicted on Figure 6 of this report as well as included in those areas mapped as CDFG jurisdiction depicted on Figure 10.

Urban/Developed (12000)

Developed areas support no native vegetation and may be additionally characterized by the presence of man-made structures such as buildings or roads. The level of soil disturbance is such that only the most ruderal plant species would be expected. The agricultural component of developed areas includes actively cultivated lands or lands that support nursery operations. Developed areas within the study area include permanently impacted areas such as structures, roadways, and driveways. Limited amounts of ornamental vegetation such as pine (*Pinus* spp.), eucalyptus (*Eucalyptus* spp.) and Peruvian pepper (*Schinus molle*) trees, and ornamental ground covers including daisy (*Osteospermum* spp.) hottentot fig (*Carpobrotus edulis*), and other ornamental turf grasses and groundcovers are included in the urban/developed classification. Approximately 20.95 acres (69%) of the study area along Paseo Delicias consists of developed land including residential development and associated landscaped ornamental vegetation.

1.4.3 Flora

Due to the level of development in and surrounding the study area, much of the flora observed by TAIC biologists was typical of that found in urban or disturbed environments. Many of the plants were ornamentals or non-natives invasive species, such as Russian-thistle, sweet fennel, mustards, fountain grass, and castor bean, among others. Non-native trees, such as eucalyptus and Peruvian pepper trees, were also common. See Appendix A for a full inventory of plants observed during the 2006 biological surveys.

1.4.4 Fauna

The study area supports a low diversity of wildlife species due to the high level of disturbance and habitat fragmentation caused by development in the vicinity. Many of the wildlife species observed or detected in the study area are commonly found in the urban interface or on disturbed habitat, such as the house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchus*), California ground squirrel (*Spermophilus*

beecheyi), and pocket gopher (*Thomomys bottae*). Other urban dwelling native species that may occur in the area include the raccoon (*Procyon lotor*), and coyote (*Canus latrans*). Additional species observed during the wildlife survey conducted in May 2011 include woodrat (*Neotoma* sp.), and the common honey bee (*Apis* sp.). A full list of wildlife species observed within the study area during the biological surveys has been attached as Appendix B for reference.

1.4.5 Sensitive Plant Species

Sensitive plant species are plants that have been identified as a candidate, sensitive, covered, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS. A query of the sensitive species databases identified records of occurrence for two sensitive plant species within the vicinity (3 kilometers) of the study area. These species, Orcutt's spineflower (*Chorizanthe orcuttiana*), a CNPS List 1B species, and Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), a CNPS List 1B species, were not incidentally observed during the field surveys. No focused rare plant surveys were conducted for the project because no suitable habitat for these species was identified within the study area due to the high levels of historic disturbance and site modification. A third sensitive species; California adolphia, a California Native Plant Society (CNPS) List 2 species, was incidentally observed during the vegetation mapping for this project. Three adolphia individuals were found on an embankment on the northern side of Paseo Delicias west of El Camino del Norte, in a mixed disturbed/ornamental vegetation community (Figure 4). This short shrub is often intermixed with coastal sage scrub, but occasionally occurs in peripheral chaparral habitats, particularly hillsides near creeks (Reiser 1994). California adolphia usually occurs in dry areas where shrub canopy reaches four or five feet in height. During late summer and fall it may be virtually leafless, and therefore not apparent from a distance; however, its spiny stems are readily noted at close range.

In addition, two coast live oak (*Quercus agrifolia*) trees occur in ornamental landscaping within the study area surrounding the Via de la Valle/La Fremontia Roundabout location (Figure 6). Pursuant to Senate Bill 1334 conversion of oak woodlands (defined as "a tree habitat with five or more oaks per acre") are subject to CEQA and must be mitigated by planting of replacement trees at a five to one ratio on up to ten acres. One of the coast live oak trees is outside of the area of potential effect. One tree is located within the project footprint, however, as currently designed construction of the proposed project would be able to avoid removal of and disturbance to the root zone of the coast live oak tree within the project footprint.

Per request from Caltrans, the USFWS provided a list of proposed, threatened, or endangered species potentially occurring in the vicinity of the project study area (see Appendix C). While habitat for the Federally threatened and State endangered Encinitas baccharis (*Baccharis vanessae*) occurs in the general area east of the Project site, no habitat for this species exists in the Project's study area and the plant was not encountered during any of the surveys conducted for this project. Other plant species on the list from USFWS [San Diego ambrosia (*Ambrosia pumila*), thread-leaved brodiaea (*Brodiaea filifolia*), Del Mar Manzanita (*Arctostaphylos glandulosa subsp. Crassifolia*), San Diego thornmint (*Acantomintha ilicifolia*), Orcutt's hazardia (*Hazardia orcuttii*)] were also not incidentally observed during field mapping surveys and no focused rare plant surveys were conducted due to high level of disturbance of the project study area.

1.4.6 Sensitive Wildlife Species

A query of sensitive species databases identified records of occurrence for three sensitive wildlife species within the vicinity (three kilometers) of the study area. These species included Dulzura pocket mouse (*Chaetodipus californicus femoralis*), a CDFG Species of Special Concern, Quino checkerspot butterfly (*Euphydryas editha quino*), a Federally endangered species, and coastal California gnatcatcher, a Federally-listed as threatened species. The USFWS also included the Least Bell's vireo (*Vireo bellii pusillus*), a Federally-listed endangered species, as potentially occurring within the study area (Appendix C) along with the coastal California gnatcatcher. The habitat within the study area is not considered suitable for any of these species due to high levels of traffic noise, dominance of disturbed and developed habitat, invasive species, and habitat fragmentation. Potentially suitable habitat for the coastal California gnatcatcher within 500-feet project area at the El Camino Real intersection was surveyed; however no gnatcatchers were detected. Figure 7 shows the survey area and previously documented locations of gnatcatchers in the vicinity of the study area.

1.4.7 Jurisdictional Resources

Wetlands and unvegetated waters are considered a sensitive resource by several regulatory agencies, including the Corps, CDFG, RWQCB, and the County of San Diego. Section 404 of the Clean Water Act (CWA) of 1972 regulates activities that result in the discharge of dredged or fill material into wetlands and other waters of the U.S. Waters of the U.S., as defined by the Corps, include navigable waters, interstate waters, and all other waters where the use, degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. In the absence

of identifiable adjacent wetlands, the limits of Corps jurisdiction in waters of the U.S. (including perennial and intermittent streams and ephemeral drainages), extends to the Ordinary High Water Mark (OHWM). The OHWM is typically indicated by physical characteristics such as clear, natural line impressed on the bank, incised shelving, changes in character of soil, destruction of terrestrial vegetation, debris lines, sediment deposits, exposed roots on the bank, or a lower limit of moss growth on channel banks. The study area was formally delineated by TAIC biologists as described in Section 1.3.6 to interpret and identify the limits of regulatory jurisdiction as evidenced by the indicators described above. The limits of Corps and/or CDFG jurisdictional wetlands and waters are depicted for the El Camino del Norte, El Montevideo, and Via de la Valle roundabout locations on Figures 8-10, respectively.

Corps/RWQCB Jurisdiction

Corps and RWQCB jurisdictional wetlands and/or waters of the U.S. and of the State were identified within the study area at each of the three proposed roundabout locations. Corps/RWQCB jurisdiction within the study area is presented in Table 1-4.

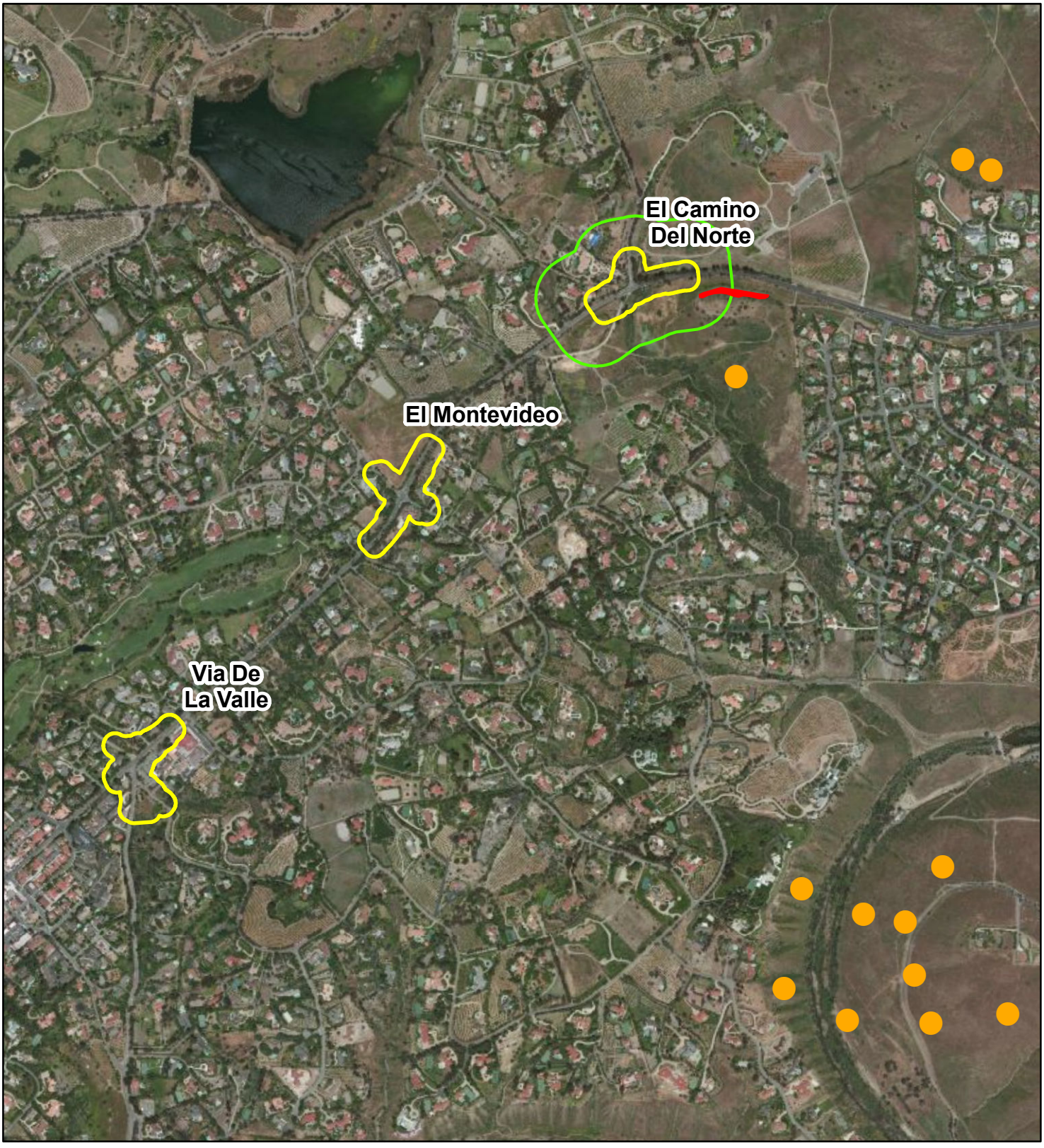
There is currently approximately 0.17 acre of Corps/RWQCB jurisdictional wetlands within the project study area at the proposed El Camino del Norte Roundabout location. In addition, approximately 0.23 acre of Corps/RWQCB jurisdictional waters of the U.S. and waters of the State are located at the El Camino del Norte location.

Table 1-4. Area of Corps / RWQCB Jurisdictional Wetlands and Waters of the U.S. within the Study Area (Acres)

Corps/RWQCB Jurisdiction	El Camino del Norte	Via de la Valle	Total
Wetlands	0.17	0.02*	0.19
Waters	0.23	0.02*	0.25
TOTAL JURISDICTIONAL RESOURCES	**0.40**	**0.04***	**0.44**

*Isolated waters subject to RWQCB under the Porter Cologne Act

Corps/RWQCB-jurisdictional wetland occurs along the south side of Paseo Delicias at El Camino del Norte. This wetland extends along a drainage feature located on the south side of Paseo Delicias at El Camino del Norte at the bottom of the steep embankment. This drainage supports approximately 0.17 acre of Corps/RWQCB jurisdictional wetlands within the study area. The Corps/RWQCB jurisdictional wetland within this



Legend

- Study Area
- California Gnatcatcher Locations (1991-2002)
- Suitable Gnatcatcher Habitat (Coastal Sage Scrub)
- RSFR Gnatcatcher Survey Area

N

Feet

0 1,280

Rancho Santa Fe Roundabouts Project

California Gnatcatcher Locations

Figure 7

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Legend

- Study Area
- Permanent Impact
- Temporary Impact
- Staging Area (Temporary Impact)
- Corps/RWQCB Wetlands & CDFG Wetland/Riparian
- Corps/RWQCB Waters of the US (Non-Wetland) and CDFG Streambed
- Culverts, etc. (Jurisdictional, Non-Impacted)
- Wetland Sampling Point

N

Feet

0 150

Rancho Santa Fe Roundabouts Project

Impacts to Jurisdictional Wetlands and Waters at El Camino Del Norte

Figure 8

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Rancho Santa Fe Roundabouts Project

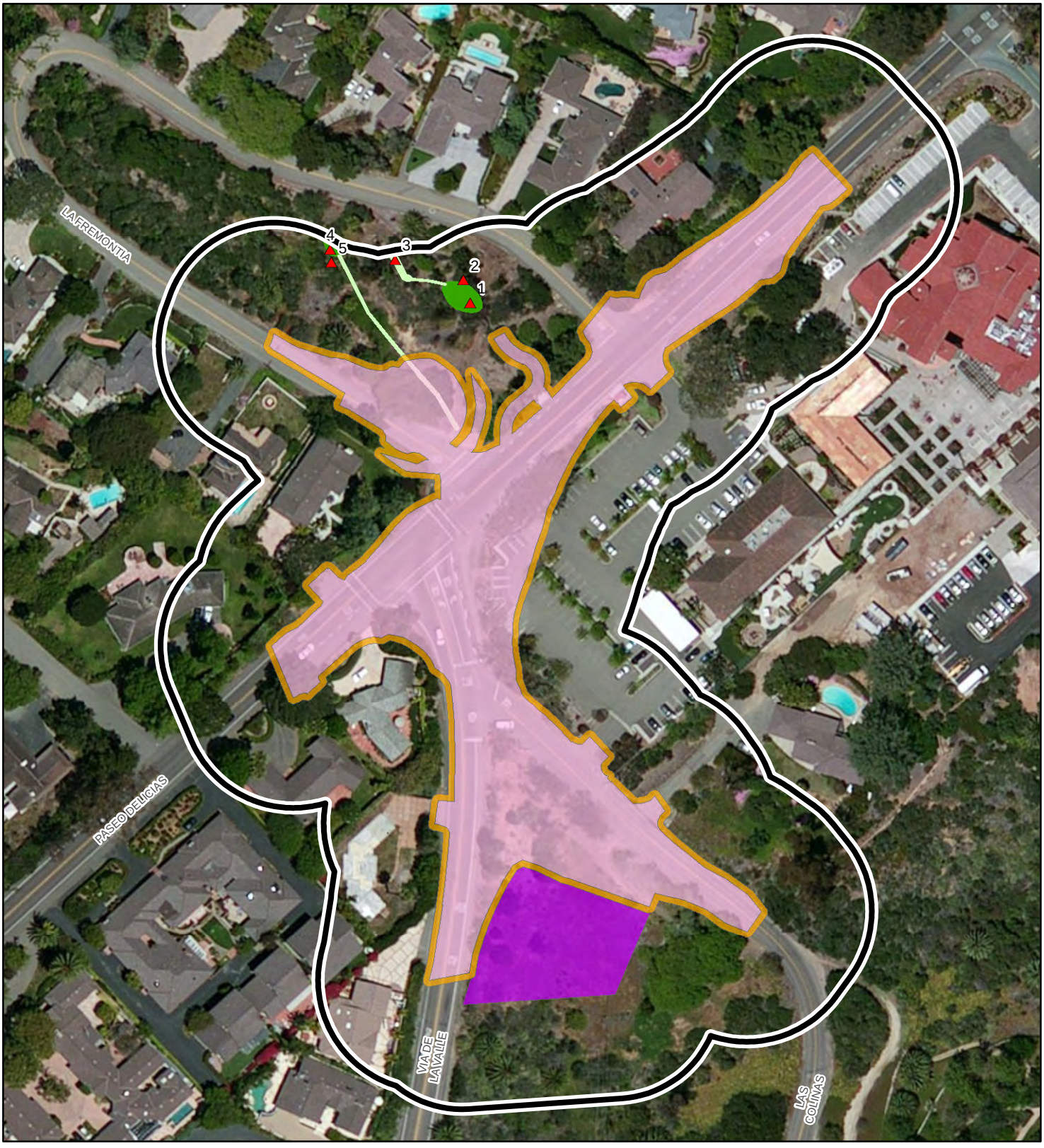
Impacts to Jurisdictional Wetlands and Waters at El Montevideo

Figure 9

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Legend

- Study Area
- Permanent Impact
- Temporary Impact
- Staging Area (Temporary Impact)
- CDFG Wetland/Riparian/RWQCB Wetlands*
- CDFG Streambed/RWQCB Isolated Water of the State*
- Wetland Sampling Point

*The RWQCB may or may not invoke jurisdiction to this area under the Porter Cologne Act.

N

Feet

0 130

Rancho Santa Fe Roundabouts Project

Impacts to Jurisdictional Wetlands and Waters at Via De La Valle

Figure 10

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drainage consists of 0.07 acre of cattail-dominated freshwater marsh and 0.10 acre of other vegetation types (ornamental vegetation, disturbed habitat, etc.) which were observed to meet the three-parameter definition of Corps wetlands. Broadleaf cattail-dominated freshwater marsh is an obligate wetland vegetation community commonly found in association with jurisdictional wetlands.

The same drainage east of the freshwater marsh habitat also exhibits indicators of an OHWM and was determined to comprise other (non-wetland) waters of the U.S. In addition to this small reach of ephemeral drainage ditch on the south side of the roadway, other non-wetland waters of the U.S. located within the study area at this roundabout include a concrete-lined artificial stockpond / impoundment located at the northeastern corner of the intersection and a 54 inch diameter corrugated metal pipe overflow culvert which conveys water beneath Paseo Delicias. Including the stockpond, drainage culvert, and ephemeral ditch, the total acreage of Corps/RWQCB jurisdictional non-wetland waters of the U.S. and of the State at the El Camino del Norte intersection is approximately 0.23 acre.

At the El Montevideo/La Valle Plateada Roundabout Location there are no wetland or jurisdictional resources within the current study area. As part of the previous project design and study area boundary, approximately 0.01 acre of Corps/RWQCB jurisdictional waters of the U.S. and of the State occurred within the old study area as part of an ephemeral stream that is conveyed beneath Paseo Delicias via a 60 inch corrugated metal pipe culvert. The drainage is connected to a blue-line stream which, according to historic USGS mapping, terminates less than 200 feet west of the study area boundary.

The following vegetated wetlands were found to not be subject to the jurisdiction of the Corps under Section 404 of the Clean Water Act. At the Via de la Valle/La Fremontia Roundabout location, there are two very small vegetated wetlands (0.02 acre total) observed within the study area, located north of the Via de la Valle / La Fremontia intersection and east of La Fremontia. These areas meet the 3 parameter definition of wetlands, but are hydrologically isolated. In addition, a small amount (0.02 acre) of potential Corps jurisdictional non-wetland waters of the U.S. also occurs in the study area at this location in the form of a naturalized artificial storm drain. It was determined that these vegetated wetlands and non-wetland areas would not be subject to Corps jurisdiction because a surface water connection to navigable waters and, therefore, a federal nexus, could not be established.

Pursuant to Section 401 of the Clean Water Act, in the State of California, Corps jurisdictional wetlands and other waters of the United States, such as those identified

within the study area, are subject to the regulatory jurisdiction of the RWQCB under the Porter Cologne Act. The RWQCB may or may not invoke jurisdiction to these areas under this Act.

CDFG Jurisdictional Resources

The CDFG has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under California Fish and Game Code Sections 1600 to 1607. A "Stream" is defined by CDFG as a body of water that flows at least periodically or intermittently through a bed or channel having banks and that supports aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. This includes watercourses having a surface or subsurface flow that support or has supported riparian vegetation, including intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams, and watercourses with subsurface flows.

CDFG-defined wetlands are "lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water," and they exist where at least one of the following conditions are present: hydrophytic vegetation, hydric soil types, and wetland hydrology. Because only one of these criteria must be met, CDFG wetlands are more broadly defined than Corps wetlands and may extend beyond Corps jurisdiction (Figures 6-8). In general, CDFG-jurisdictional wetlands are typically consistent with the USFWS Cowardin wetland classification system (Cowardin *et al.* 1979).

In this situation CDFG jurisdictional streambed and wetland habitat is identical to the waters of the U.S. and wetlands regulated by the Corps and RWQCB at the El Camino del Norte and El Montevideo/La Valle Plateada Roundabout locations. At the Via de la Valle/La Fremontia location, only CDFG jurisdictional streambed and wetland habitat was identified. It was determined that these vegetated wetlands and non-wetland areas would not be subject to Corps jurisdiction since a surface water connection to navigable waters and, therefore, a federal nexus, could not be established. Note the RWQCB may or may not invoke jurisdiction to this area under the Porter Cologne Act. In general, the OHWM of a Corps/RWQCB jurisdictional water of the U.S. comprises a subset of CDFG jurisdictional streambed. Categories of habitats regulated by CDFG identified within the study area included freshwater marsh and open water and other wetlands and non-vegetated waters included in the mapping of other vegetation communities. Other CDFG jurisdictional streambed occurs within the study area in the disturbed or developed habitats (including ornamental vegetation communities) and is included within the

mapping of these communities. Table 1-5 summarizes CDFG jurisdiction within the study area.

Table 1-5. Acreage of CDFG Jurisdictional Resources within Study Area (Acres)

CDFG Jurisdiction	El Camino del Norte	Via de la Valle	Total
CDFG Wetlands	0.17	0.02	0.19
CDFG Streambed	0.23	0.02	0.25
TOTAL CDFG JURISDICTION	**0.40**	**0.04**	**0.44**

1.4.8 Habitat Connectivity and Wildlife Corridors

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between core habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage is a potential route for gene flow and long-term dispersal. Habitat linkages may serve both as habitat and avenues of gene flow for plants and small animals such as reptiles, amphibians, and rodents. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as stepping stones for dispersal and movement (especially for birds and flying insects).

Wildlife movement corridors are linear features that connect large patches of natural open space and provide avenues for dispersal or migration of animals, as well as dispersal of plants (e.g., via wildlife vectors). Wildlife corridors contribute to population viability in several ways. For example, they (1) assure continual exchange of genes between populations which helps maintain genetic diversity; (2) provide access to adjacent habitat areas representing additional territory for foraging and mating; (3) allow for a greater carrying capacity; and (4) provide routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes.

Site conditions within this study area are mostly characterized by disturbed or developed habitat. The habitat quality of the three intersections is impacted by the urban interface and subsequent edge effects, which create non-suitable habitat. Therefore, the study area does not function as a habitat linkage or movement corridor for terrestrial wildlife.

The small strip of coastal sage scrub at the eastern edge of the study area at El Camino del Norte may function as a stepping stone for dispersal of the coastal California gnatcatcher, as this species has been documented in the vicinity of the study area (Figure 7). However, given the amount of disturbance to the vegetation surrounding this patch from regular mowing, the small size, and level of isolation, this fragment is only expected to provide habitat for short term occupancy.

1.5 Applicable Regulations

1.5.1 Federal Regulations and Policies

- **National Environmental Policy Act of 1969 (NEPA)**, as amended (42 United States Code [USC] §§ 4321 *et seq*). This national policy promotes efforts that prevent damage to the environment and that benefit human health and welfare.
- **Federal Endangered Species Act (FESA),** Sections 7 and 9 (16 USC §§1531 *et seq.*; 50 Code of Federal Regulations [CFR] Part 402). FESA prohibits the "take" (i.e., harm, harass, or kill individuals, or destroy associated habitat) of species Federally listed as threatened or endangered. Take incidental to otherwise lawful activities can be authorized by the U.S. Fish and Wildlife Service (USFWS) under Section 7 of FESA.
- **Federal Endangered Species Act (FESA) Special 4d Rule**, As part of the Interim Habitat Loss Management process, in conformance to Section 4(d) of the Federal Endangered Species Act (FESA) (16 U.S.C.§1533(d), see also Fed. Reg. Vol. 58. No. 236, Dec. 10, 1979), special rule 4d to the listing of the coastal California gnatcatcher authorizes incidental "Take" of significant amounts of coastal sage scrub through the issuance of an Interim Habitat Loss Management Permit (HLP) for jurisdictions that have not yet implemented an NCCP.
- **Clean Water Act (CWA)**, Sections 401 and 404 of the CWA (33 USC §§1344). Activities that have the potential to discharge fill materials into "waters of the United States," including wetlands, are regulated under Section 404 of the CWA, as administered by the U.S. Army Corps of Engineers (Corps). The Corps takes jurisdiction over man-induced wetlands such as those found around reservoirs. Fill activities may be permitted under a Nationwide or Individual Permit. The Nationwide Permit Program involves certain activities that have been pre-authorized by the Corps. Individual Permits require the Corps to rule in favor of the least environmentally damaging practicable alternative when multiple alternatives are available for a project. Typically, the Corps requires temporary impacts to be mitigated through restoration, and permanent impacts to be mitigated through creation, restoration or enhancement of additional wetland areas at a

pre-determined ratio. Alternatively, permanent impacts can be mitigated through in-lieu fees that are paid into a mitigation-banking fund.

- **Migratory Bird Treaty Act** (16 USC 703-712; 50 CFR 10). The Federal Migratory Bird Treaty Act prohibits the direct or indirect take of migratory birds and their active nests unless permitted.

1.5.2 State Regulations and Policies

- **Natural Community Conservation Planning Act (NCCP),** as amended (California Fish and Game Code §§2800-2835). The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

- **California Environmental Quality Act of 1970 (CEQA),** as amended (Public Resources Code [PRC] §§21000 *et seq.*). The goal of CEQA is to assist California public agencies in identifying potential significant negative environmental impacts caused by their actions, and avoiding or mitigating those impacts, when feasible.

- **California Endangered Species Act (CESA)** (California Fish and Game Code §§2050 *et seq.*). Section 2050 of the California Fish and Game Code prohibits any activities that would jeopardize or take a species designated as threatened or endangered by the state.

- **Porter-Cologne Water Quality Control Act.** The state enforces Federal water quality protection programs for which they have been delegated authority. The Porter-Cologne Water Quality Control Act provides a comprehensive statewide system for water pollution control. Under the Porter-Cologne Act, the State Water Resources Control Board is responsible for adopting water quality standards as required to fulfill the state's responsibilities under the Federal CWA (Sections 401 and 402), and for regulating discharges and potential discharges to groundwater.

- **California Department of Fish and Game Code §1600 – Streambed Alteration Agreement**. Section 1600 of the Fish and Game Code regulates the alteration of the bed, bank, or channel of a stream, river, or lake, including dry washes. Generally, the California Department of Fish and Game (CDFG) asserts jurisdiction up to the top of significant bank cuts or to the outside of any riparian vegetation associated with a watercourse.

- **California Native Plant Protection Act of 1977** (California Fish and Game Code 1900-1913). These provisions preserve, protect, and enhance endangered or rare native plants of the state.

- **California Fully Protected Wildlife Species Provisions** (California Fish and Game Code §§3511, 4700, 5050, and 5515). These provisions prohibit the taking of fully protected birds, mammals, amphibians, and fish.
- **Birds of Prey Protection Provision** (California Fish and Game Code § 3503.5). This provision prohibits the taking of birds of prey (Orders Falconiformes and Strigiformes), including their nests and eggs.

2.0 PROJECT EFFECTS

The following section provides a brief summary of estimated project impacts to sensitive biological resources. Detailed impact analyses for each required resource/regulatory concern are provided in Sections 3.2, 4.2, 5.2, 6.2, and 7.2 of this document. Each section provides an explanation of the County of San Diego's guidelines for determining impact significance, an analysis of project effects, a brief description of associated cumulative impacts, a discussion of mitigation measures, and conclusions pertaining to impact significance, mitigation and design alternatives, and additional considerations.

2.1 Special Status Species

The proposed Rancho Santa Fe Roundabouts Project would not result in any direct impacts to (or "take" of) any state- or Federally-listed species or occupied habitat. Impacts to raptors and other bird species covered under the Migratory Bird Treaty Act (MBTA) could be affected by loss of nesting sites (from tree removal) and by noise and light from construction activity during the breeding season. No other special status species are expected to be impacted due to a lack of suitable habitat for potentially occurring species.

Two coast live oak (*Quercus agrifolia*) trees occur in ornamental landscaping within the study area surrounding the Via de la Valle/La Fremontia Roundabout location. One of the coast live oak trees is outside of the area of potential effect. One tree is located within the project footprint, however, as currently designed construction of the proposed project would be able to avoid removal of and disturbance to the root zone of the coast live oak tree within the project footprint. It is expected the project would not result in any direct or indirect impacts to this species. In the event that the coast live oak tree within the project footprint cannot be avoided during construction, then the proposed project could potentially cause direct adverse impacts to the species.

2.2 Riparian Habitats and Sensitive Natural Communities

As currently designed, the proposed project would impact four different habitat types including one sensitive natural vegetation communities (Table 2-1). In addition, there would permanent impact to CDFG/RWQCB jurisdictional non-vegetated channel. A detailed description of the identified potential impacts to riparian habitats and sensitive natural communities is provided in Chapter 4 of this document. All identified impacts to sensitive natural communities would be mitigated in accordance with regulatory agency guidelines at ratios to be determined through consultation with the regulatory agencies.

Table 2-1. Habitat/Vegetation Communities and Impacts (Acres)

Habitat / Vegetation Community	Existing	Permanent Impacts	Temporary Impacts ***
Diegan Coastal Sage Scrub*	0.43	0.02	0.02
Scrub Oak Chaparral	0.24	0.00	0.00
Orchards/Vineyards	0.58	0.00	0.003
Disturbed Habitat	7.93	1.00	1.01
Urban/Developed	20.95	5.51	1.00
Coastal and Valley Freshwater Marsh*	0.06	0.00	0.00
Freshwater*	0.22	0.00	0.00
TOTAL	**30.42**	**6.53**	**2.04**
Non-vegetated channel**	0.25	0.005	0.00

*Habitats considered sensitive by local, state, and/or Federal jurisdictions
**Non-vegetated channel, as defined by Corps/RWQCB and CDFG, occurs within areas mapped as disturbed habitat and urban/developed
*** Temporary impacts include staging areas.

2.3 Wetlands

Corps, RWQCB and CDFG jurisdictional wetlands and waters of the U.S. / streambeds are present within the study area of the El Camino del Norte and Via de la Valle roundabout locations. As currently designed, the proposed project would result in no impacts to Corps, RWQCB and CDFG jurisdictional wetlands at the El Camino del Norte Roundabout location and would result in 0.005 acre of permanent impacts to CDFG and RWQCB jurisdictional streambed at the proposed Via de la Valle/La Fremontia Roundabout location (Table 2-2).

A 1602 Streambed Alteration Agreement is required to address impacts to CDFG Streambed and mitigation is proposed. If the RWQCB does not invoke jurisdiction of the 0.005 acre of isolated waters under the Porter Cologne Act, then this impact would not be applied.

Table 2-2. Summary of Jurisdictional Impacts (Acres)

Wetlands and Waters Type / Location	Permanent Impacts	Temporary Impacts
Corps / RWQCB Wetlands Via de la Valle Intersection	0.00	0.00
CDFG Streambed – RWQCB Isolated Water of the State * / Via de la Valle Intersection	0.005	0.00
TOTAL	**0.005**	**0.00**

* If the RWQCB does not invoke jurisdiction of the isolated waters under the Porter Cologne Act, then this impact would only be as CDFG Streambed

2.4 Wildlife Movement Corridors and Nursery Sites

As currently designed, the proposed project would have no impact on wildlife movement corridors, linkages, or wildlife nursery sites pursuant to the County of San Diego's guidelines for determining impact significance.

2.5 Consistency with Local Policies, Ordinances, and Adopted Plans

The project will be consistent with all applicable local laws and regulations guiding biological and wetlands resources (see Section 1.5). The North County MSCP is currently in the planning stages and does not yet apply to this project. Therefore, as currently designed, the proposed project would be consistent with all applicable local policies, ordinances, and adopted plans and would not result in any impacts to the same pursuant to the County of San Diego's guidelines for determining impact significance.

No federal permits will be required for this project. This project qualifies as exempt from the federal and state interim habitat loss (Special 4(d) Rule) approval process and does not require a Habitat Loss Permit (HLP). The County will submit a letter to the USFWS for concurrence on the HLP exemption based on the following:

1. The proposed project results in removal of less than one acre of coastal sage scrub.
2. The site is not occupied by the California gnatcatcher.
3. The project occurs in low value habitat following the Southern California Coastal Sage Scrub NCCP Conservation Guidelines methods for describing coastal sage value using the following factors:

a. The coastal sage scrub patch impacted is not a large size.
b. The coastal sage scrub patch impacted is not in proximity to higher value areas.
c. The coastal sage scrub patch impacted is not part of a linkage corridor.
d. The coastal sage scrub patch impacted is not occupied.

4. The habitat loss will not preclude the design or prevent the preparation of a subregional NCCP reserve system because it is outside any potential preserve planning areas.
5. The habitat loss will be counted toward the five percent allowance of loss.

State permits will be required in compliance with State regulations and policies including (1) a Waste Discharge Permit to address impacts to RWQCB Isolated Water of the State (if the RWQCB does invoke jurisdiction of the isolated waters under the Porter Cologne Act); and (2) a Section 1602 Streambed Alteration Agreement to address impacts to CDFG Streambed.

3.0 SPECIAL STATUS SPECIES

3.1 Guidelines for the Determination of Significance

The County of San Diego's published guidance for determining significance of project impacts to biological resources states that an affirmative response to or confirmation of any of the guidelines presented in Section 4.0 of the 2006 County of San Diego Guidelines of for Determining Significance (Guidelines) will generally be considered a significant impact related to biology as a result of project implementation, in the absence of scientific evidence to the contrary.

Section 4.1 of the Guidelines identifies the thresholds and guidelines for determining significance of project impacts to special status species as follows:

> ***Special Status Species:***
>
> *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Section 4.1 of the Guidelines continues with detailed thresholds and guidelines for determining significance of project impacts as related to special status species and identifies additional information that should be evaluated to provide evidence to support a conclusion of impact significance.

3.2 Analysis of Project Effects

The potential impacts to special status species and level of impact significance are described below. The only special status species with the potential to occur in the study area are Federally-listed as threatened coastal California gnatcatcher, California adolphia (CNPS List 2), and nesting raptors (state species of concern). Potentially significant impacts are labeled with a number (**Bio-#)** which corresponds with the applicable mitigation measures (**M-Bio-#**) that are expected to reduce the level of impact to less than significant.

3.2.1 Federally- and/or State-listed Species

Coastal California Gnatcatcher. Several gnatcatcher observations have been documented in the vicinity of the proposed project, although none have been recorded within the 500 foot survey buffer surrounding the area of potential effect (Figure 7) (CNDDB 2007, SDNHM 2007, SANDAG 2007, USFS 2007). No gnatcatchers were detected during the protocol-level focused surveys conducted for the proposed project. The project site is considered unsuitable to support coastal California gnatcatchers due to the small amount (0.47 acre) of coastal sage scrub habitat occurring onsite and the high level of fragmentation and relative isolation of the habitat patches on the project site (surrounded by unsuitable and highly disturbed habitat). Based on the absence of gnatcatchers and lack of suitable habitat onsite or within 500 feet of the project site, *no impact* would be expected to occur to coastal California gnatcatcher as a result of implementation of the proposed project.

3.2.2 Raptors

Raptors (nesting). The study area supports several different vegetation communities including disturbed/developed habitats which contain limited amounts of ornamental vegetation, including large eucalyptus and pepper trees, as well as several coast live oak trees, which may provide potential nesting habitat for tree-nesting raptors. Nest disturbance caused by removal of large trees within the impact zone would potentially result in a *significant direct impact* to nesting raptors, and noise from construction activity could potentially cause *significant indirect impacts* to nesting raptors. (**Bio-1**).

Raptors (foraging). The study area supports several different vegetation communities including limited amounts of coastal sage scrub and disturbed/developed habitats which may provide marginal foraging habitat for raptor species. The majority of suitable raptor foraging habitat is located outside the project footprint. Due to the regional abundance of these vegetation communities, the highly disturbed conditions of these communities on the project site, and the small total quantity of project-related impacts, the impacts of the proposed project on raptor foraging habitat would be considered *less than significant*.

3.2.3 Migratory Birds

Clearing and grubbing of vegetation and other construction activities during the breeding season would have the potential to impact California native birds as protected under the Migratory Bird Treaty Act. Impacts to nesting native birds due to clearing and grubbing

could result in a *significant direct impact*, while impacts to nesting birds due to noise from construction activities could result in a *significant indirect impact.* (**Bio-2**).

3.2.4 Non-listed Sensitive Species

As described in Section 1.4.5, two sensitive plant species were observed within the project study area: California adolphia (*Adolphia californica*), a California Native Plant Society (CNPS) List 2 and County of San Diego Sensitive Plant List B species and coast live oak (*Quercus agrifolia*).

California Adolphia. As described in Section 1.4.5, three California adolphia individuals were found on an embankment on the northern side of Paseo Delicias west of El Camino del Norte, in a mixed disturbed/ornamental vegetation community. As currently designed, construction of the proposed project would not result in the take of any adolphia specimens; however, the adolphia plants are located right on the edge of the impact footprint (Figure 4). In the event that any adolphia could not be avoided during construction, the resulting impact to this species would be considered *a less than significant impact* because the proposed project would not affect a major regional population or affect the long-term survival of this species. (**Bio-3**).

Coast Live Oak. As described in Section 1.4.5, two coast live oak (*Quercus agrifolia*) trees occur in ornamental landscaping within the study area surrounding the Via de la Valle Roundabout location. Pursuant to Senate Bill 1334 conversion of oak woodlands are subject to CEQA and must be mitigated. One of the coast live oak trees is outside of the area of potential effect. One tree is located within the project footprint, however, as currently designed construction of the proposed project would be able to avoid removal of and impacts to the root zone of the coast live oak tree within the project footprint. The project would not be expected to result in any direct or indirect impacts to this species. In the event that coast live oak trees cannot be avoided during construction, the resulting impacts to this species would be considered a *significant direct impact.* (**Bio-4**).

3.3 Cumulative Impact Analysis

Current and reasonably foreseeable future projects may potentially have a cumulative impact on the non-listed sensitive species California adolphia. The proposed project, however, provides mitigation to avoid impact to the one location of the plant within the project study area by flagging and if impact is unavoidable, by transplant. Therefore, the

project's contribution to the overall cumulative impact to this species would be *less than significant*.

In addition, although one other planned project in the vicinity (*The Bridges*) would have a significant impact on the Federally-listed as threatened coastal California gnatcatcher, the proposed project would not further contribute to any additional cumulative impacts to the species due to the absence of gnatcatchers within the study area and the lack of suitable habitat onsite or within 500 feet of the APE.

3.4 Mitigation Measures and Design Considerations

The following avoidance, minimization, and mitigation measures will reduce potential project impacts to biological and wetlands resources. Specific measures to reduce potentially significant impacts to a level below significant are given, and numbered to correspond with Section 3.2.

- **M-Bio-1a.** To avoid direct impacts to tree-nesting raptors from vegetation clearing, vegetation clearing shall occur outside of the raptor breeding season (January 15-July 15).

- **M-Bio-1b.** If such activities cannot be avoided during the breeding season, potential direct impacts shall be minimized through preconstruction nesting raptor surveys conducted within one week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 500 feet from the construction site. If nesting activity is detected on-site or within 500 feet of the site, a 500-foot buffer around the nest shall be marked and construction activity shall avoid the area until the nest has fledged or is no longer active. Potential indirect impacts to nesting raptors due to construction noise shall be avoided by initiating construction activities prior to the bird breeding season. Subsequent nesting raptor surveys shall be conducted if construction is halted for more than one week at any time during the raptor breeding season.

- **M-Bio-2a.** To avoid direct impacts to nesting migratory birds from vegetation clearing, vegetation clearing shall occur outside of the breeding season (February 15 – September 15).

- **M-Bio-2b.** If such activities cannot be avoided during the breeding season, potential direct impacts shall be minimized through preconstruction nesting bird surveys conducted within one week prior to commencement of construction

activities. Nest surveys shall be conducted within the construction site and extend to 500 feet from the construction site. If nesting activity is detected on-site or within 500 feet of the site, a 500-foot buffer around the nest shall be marked and construction activity shall avoid the area until the nest has fledged or is no longer active. Potential indirect impacts to nesting migratory birds due to construction noise shall be avoided by initiating construction activities prior to the bird breeding season. Subsequent nesting bird surveys shall be conducted if construction is halted for more than one week at any time during the breeding season.

- **M-Bio-3.** Within 30 days prior to commencement of construction within native habitat, sensitive plants within the project footprint, specifically California adolphia, should be located and flagged. An Environmentally Sensitive Area (ESA) shall be established and demarcated by orange construction fencing to protect these plants from construction-related impacts. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any associated sensitive plants.
- **M-Bio-4.** In the event that impacts to any coast live oak individuals (or its root zone) occur as a result of project implementation, five replacement 5-gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. These plantings would be monitored for a period of five years. In the event that the coast live oak replacement plantings do not successfully establish within the monitoring period, these plantings shall themselves be replaced.

3.5 Conclusions

The construction of three roundabouts in the community of Rancho Santa Fe would not significantly impact any special status species. The Federally-listed as threatened coastal California gnatcatcher was not observed onsite; therefore, the project would not result in any take of coastal California gnatcatcher or its occupied habitat. Impacted unoccupied coastal sage scrub habitats would be restored onsite if feasible or at an appropriate off-site location. Impacts to California adolphia, a non-listed sensitive species, and coast live oak trees will be avoided; if avoidance is not feasible because the species occurs too close to the construction footprint, impacts would be considered less than significant with implementation of mitigation measures.

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4.0 RIPARIAN HABITATS OR SENSITIVE NATURAL COMMUNITIES

4.1 Guidelines for the Determination of Significance

The County of San Diego's published guidance for determining significance of project impacts to biological resources (County of San Diego 2007) states that an affirmative response to or confirmation of any of the guidelines presented in Section 4.0 of the 2007 County of San Diego Guidelines of for Determining Significance (Guidelines) will generally be considered a significant impact related to biology as a result of project implementation, in the absence of scientific evidence to the contrary.

Section 4.2 of the Guidelines identifies the thresholds and guidelines for determining significance of project impacts to riparian habitats or sensitive natural communities. The general guidance is given below:

> ***Riparian Habitats or Sensitive Natural Communities***
>
> *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Section 4.2 continues with detailed thresholds and guidelines for determining significance of project impacts as related to riparian habitats or sensitive natural communities and identifies additional information that should be evaluated to provide evidence to support a conclusion of impact significance.

4.2 Analysis of Project Effects

As currently designed, the proposed project would impact four different habitat types including one sensitive natural vegetation communities (Table 4-1). In addition, there would permanent impact to CDFG/RWQCB jurisdictional non-vegetated channel.

Table 4-1. Summary of Project Impacts to Riparian Habitats and Sensitive Natural Communities (Acres)

Habitat / Vegetation Community	Existing	Permanent Impacts	Temporary Impacts ***
Diegan Coastal Sage Scrub*	0.43	0.02	0.02
Scrub Oak Chaparral	0.24	0.00	0.00
Orchards/Vineyards	0.58	0.00	0.003
Disturbed Habitat	7.93	1.00	1.01
Urban/Developed	20.95	5.51	1.00
Coastal and Valley Freshwater Marsh*	0.06	0.00	0.00
Freshwater*	0.22	0.00	0.00
TOTAL	**30.42**	**6.53**	**2.04**
Non-vegetated channel**	0.25	0.005	0.00

*Habitats considered sensitive by local, state, and/or Federal jurisdictions
**Non-vegetated channel, as defined by Corps/RWQCB and CDFG, occurs within areas mapped as disturbed habitat and urban/developed
*** Temporary impacts include staging areas.

4.2.1 Riparian Habitats

Riparian habitats subject to the regulatory jurisdiction of the CDFG and County of San Diego occur within the study area in the form of coastal and valley freshwater marsh habitat and ephemeral channels, seasonal streambeds, and freshwater habitats. Pursuant to the California Fish and Game Code, CEQA, and the County of San Diego's thresholds of significance (County of San Diego 2007), all permanent and temporary impacts to these habitats would be considered significant. Impacts to sensitive riparian habitats including coastal and valley freshwater marsh habitat will be avoided (Table 4-1). Permanent impacts will occur to non-vegetated channel at the Via de la Valle intersection location.

4.2.2 Coastal and Valley Freshwater Marsh Habitat

Within the study area, there is a small isolated area of sensitive wetland/riparian habitat comprised of coastal and valley freshwater marsh, dominated by broad-leaf cattail and sedges along the drainage south of the intersection of Paseo Delicias and El Camino del Norte (Figure 4). The total acreage of sensitive wetland and riparian communities (i.e. coastal and freshwater marsh) within the study area is approximately 0.06 acre. As currently designed, construction of the proposed project would avoid impacts to sensitive coastal and valley freshwater marsh habitat at this location.

4.2.3 Non-vegetated Waters (Ephemeral Channels, Streambeds, and Open Water)

Non-wetland waters including ephemeral channels, streambeds, and open waters are resources that are considered sensitive by county, state, and Federal agencies due to their wildlife habitat value, hydrologic functions, and water quality contributions. A small amount of ephemeral channel / streambed (approximately 0.01 acre) occurs in a small drainage ditch located on the south side of Paseo Delicias at the El Camino del Norte intersection at the bottom of the steep embankment (Figure 8). As currently designed, construction of the proposed project would avoid impacts to the non-wetland waters (i.e. ephemeral channel) at this location. In addition, an artificial stock pond occurs within the study area at the northeastern corner of this intersection. This concrete-lined stock pond contains approximately 0.22 acre of freshwater habitat within the study area. As currently designed, the proposed project would not result in any impacts to the freshwater habitat in the stock pond.

Small non-vegetated waters / ephemeral drainages also occur along the northern side of Paseo Delicias at the Via de la Valle / La Fremontia roundabout location (Figure 10). The drainage located at the Via de la Valle / La Fremontia intersection (comprising approximately 0.02 acre of streambed) is a naturalized artificial storm drain surrounded by disturbed habitat[1]. This drainage dissipates within an open space vegetated with ornamental non-native species and scattered coast live oak trees located between residential properties. Construction of the roundabout at this intersection would result in permanent impacts to 0.005 acre of CDFG/RWQCB jurisdictional non-wetland waters. Impacts to non-wetland waters at this intersection would be considered *significant direct impacts* (**Bio**-**5**).

4.2.4 Sensitive Upland Communities

Many native upland vegetation communities are considered sensitive by state, Federal, and local regulations due to their potential to support sensitive species, their limited regional distribution, and their continued reduction and fragmentation from development. Several upland habitat types are found within the study area including sensitive or potentially sensitive habitats such as coastal sage scrub as well as more common upland habitats such as orchards and vineyards, and disturbed/developed habitats.

[1] Note: approximately 0.02 acre of CDFG/RWQCB jurisdictional wetlands occur in association with the ephemeral drainage in the survey area at the Via de la Valle intersection. Similar to the drainage itself, these jurisdictional wetlands are included in the vegetation communities mapping as disturbed habitat due to the high level of disturbance, general degraded quality, and the absence of wildlife habitat value.

Coastal sage scrub is a regionally declining vegetation community which is considered sensitive due to the fact that it often provides suitable habitat for the Federally-listed as threatened coastal California gnatcatcher. Coastal sage scrub is considered one of the most sensitive habitat types in southern California. Within the study area, approximately 0.43 acre of coastal sage scrub was identified. As currently designed, construction of the proposed project would result in 0.02 acre of permanent impacts to Diegan coastal sage scrub habitat and 0.02 acre of temporary impacts to coastal sage scrub at the El Camino del Norte roundabout location (Table 4-1). Project-related impacts to Diegan coastal sage scrub habitat would be considered *significant direct impacts* (**Bio-6**).

4.3 Cumulative Impact Analysis

The proposed project, along with other current and reasonably foreseeable future projects would not have a cumulative impact on riparian habitats or sensitive natural communities due to the lack of permanent impacts to such habitats or communities associated with the proposed project. Although other projects in the vicinity would involve potentially significant impacts to sensitive natural communities such as southern mixed chaparral and eucalyptus woodland (*Rancho Cielo de Lusardi*), the proposed project would not contribute to cumulative impacts on these resources due to the absence of these communities within the project footprint.

4.4 Mitigation Measures and Design Considerations

Mitigation shall be required to reduce any significant environmental effects to riparian habitats and sensitive natural communities to a level below significance after the implementation of the project design features. DPW will implement the mitigation measures listed below to offset and avoid impacts to sensitive natural communities.

- **M-Bio-5:** Permanent impacts (0.005 acre) to non-vegetated channel (CDFG/RWQCB jurisdictional streambed) at the Via de la Valle/La Fremontia Roundabout would be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or at a suitable off-site location approved by the resource agencies at a 2:1 mitigation to impact ratio. Implementation of the proposed mitigation would reduce impacts to a *less than significant* level.

- **M-Bio-6:** Mitigation for temporary impacts to sensitive Diegan coastal sage scrub habitat would include restoration of all temporary construction impacts

onsite at a 1:1 mitigation to impact ratio. Mitigation would occur through revegetation of the manufactured slope of the retaining wall at the El Camino del Norte roundabout with a native Diegan coastal sage scrub seed mix. Mitigation for permanent impacts to Diegan coastal sage scrub habitat will be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or through off-site habitat conservation at a 2:1 mitigation to impact ratio. Implementation of the proposed mitigation would reduce impacts to a *less than significant* level.

4.5 Conclusions

The proposed project would impact small amounts of sensitive natural communities. Temporary and permanent impacts would occur to Diegan coastal sage scrub at the El Camino del Norte roundabout location that would be mitigated onsite and/or through offsite habitat conservation. Permanent impacts to non-vegetated channel (CDFG/RWQCB jurisdictional streambed) at the Via de la Valle roundabout location (0.005 acres) would be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or at a suitable off-site location approved by the resource agencies at a 2:1 mitigation to impact ratio.

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5.0 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 Guidelines for the Determination of Significance

The County of San Diego's published guidance for determining significance of project impacts to biological resources (County of San Diego 2007) states that an affirmative response to or confirmation of any of the guidelines presented in Section 4.0 of the 2007 County of San Diego Guidelines of for Determining Significance (Guidelines) will generally be considered a significant impact related to biology as a result of project implementation, in the absence of scientific evidence to the contrary.

Section 4.3 of the Guidelines identifies the general thresholds and guidelines for determining significance of project impacts to Jurisdictional Wetlands and Waterways. The general guidance is given below:

Federal Wetlands

Would the project have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?

Guidelines 4.2 B, C, and E in Section 4.2 comprise the specific thresholds and guidelines for determining significance of project impacts as related to Jurisdictional Wetlands and Waterways.

5.2 Analysis of Project Effects

Corps, RWQCB and CDFG jurisdictional wetlands and waters of the U.S. / streambeds are present within the study area of the El Camino del Norte and Via de la Valle roundabout locations. As currently designed, the proposed project would result in no impacts to Corps, RWQCB and CDFG jurisdictional wetlands at the El Camino del Norte Roundabout location and would result in 0.005 acre of permanent impacts to CDFG and RWQCB jurisdictional streambed at the proposed Via de la Valle/La Fremontia Roundabout location (see Table 2-2). A 1602 Streambed Alteration Agreement is required to address impacts to CDFG Streambed. If the RWQCB does not invoke jurisdiction of the 0.005 acre of isolated waters under the Porter Cologne Act, then this impact would not be applied.

If impacts to Federal (i.e. Corps-jurisdictional) wetlands and other waters of the U.S. including the removal of vegetation or discharge of fill cannot be avoided during project construction, these impacts would be considered a *significant direct impact* (**Bio-7**).

5.3 Cumulative Impact Analysis

The proposed project, along with other current and reasonably foreseeable future projects would not have a significant cumulative impact to jurisdictional wetlands and waterways due to the lack amount of impacts to such jurisdictional wetlands or waters associated with the proposed project and the absence of wetland impacts associated with all other planned projects in the vicinity.

5.4 Mitigation Measures and Design Considerations

As currently designed, the proposed project would have no impacts to Corps jurisdictional wetlands and waters of the U.S. If impacts cannot be avoided during construction, these impacts are subject to the regulatory jurisdiction of the Corps and the Regional Water Quality Control Board (RWQCB) under Sections 404 and 401 of the Clean Water Act and would require the issuance of regulatory permit approvals from the Corps and RWQCB. In accordance with the Corps' "No-net Loss" policy, all impacts to Corps jurisdiction would be mitigated at a ratio to be determined in consultation with the Los Angeles Corps district. The following mitigation measures are designed to ensure avoidance of impacts to Corps jurisdictional wetlands and waters of the U.S.

- **M-Bio-7:** Based on the findings of the formal jurisdictional delineation survey and impact assessment, an Environmentally Sensitive Area (ESA) shall be established around avoidable jurisdictional wetlands and waters of the U.S. within the study area and demarcated by orange construction fencing. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any Corps jurisdictional wetlands and water of the U.S.

  Construction contractors or personnel shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive

construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of noncompliance. This program should be conducted by a qualified biologist.

5.5 Conclusions

The proposed project would result in no amounts of impacts to Corps jurisdictional wetlands and waterways. Prior to construction, the County will demarcate sensitive jurisdictional resources in the study area to ensure avoidance.

6.0 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 Guidelines for the Determination of Significance

The County of San Diego's published guidance for determining significance of project impacts to biological resources (County of San Diego 2007) states that an affirmative response to or confirmation of any of the guidelines presented in Section 4.0 of the 2007 County of San Diego Guidelines of for Determining Significance (Guidelines) will generally be considered a significant impact related to biology as a result of project implementation, in the absence of scientific evidence to the contrary.

Section 4.4 of the Guidelines identifies the general thresholds and guidelines for determining significance of project impacts to Wildlife Movement and Nursery Sites. The general guidance is given below:

> ***Wildlife Movement and Nursery Sites***
>
> *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Section 4.4 continues with detailed thresholds and guidelines for determining significance of project impacts as related to Wildlife Movement and Nursery Sites and identifies specific information that should be evaluated to provide evidence to support a conclusion of impact significance.

6.2 Analysis of Project Effects

Wildlife Movement. Site conditions within this study area are mostly characterized by disturbed or developed habitat. The habitat quality of the study area is impacted by the urban interface and subsequent edge effects, which create non-suitable habitat. Therefore, the study area does not function as a habitat linkage or movement corridor for terrestrial wildlife.

The small strip of coastal sage scrub habitat at the eastern edge of the study area at El Camino del Norte has the potential to function as a part of a stepping stone/archipelago corridor for dispersal of the coastal California gnatcatcher, as this species has been

documented in the vicinity of the study area. However, given the amount of disturbance to the vegetation surrounding this patch from regular mowing, its small size, the level of isolation, and the negative results of the protocol-level focused survey for this species, this habitat fragment not expected to provide habitat for short term occupancy or movement and not expected to contribute to the genetic flow, migration, or colonization potential for this species.

Because no major wildlife movement corridors or nursery sites occur within the study area and because wildlife corridors outside the study area would not be affected by the proposed project; implementation of the proposed project would result in *no significant impact* to wildlife movement or nursery sites.

6.3 Cumulative Impact Analysis

The proposed project, along with other current and reasonably foreseeable future projects would not be expected to have any cumulative impact on wildlife movement corridors or nursery sites as neither the proposed project nor any other current and reasonably foreseeable future projects contain or support these resources within their respective construction footprints.

6.4 Mitigation Measures and Design Considerations

No mitigation would be necessary to minimize, avoid, or offset impacts wildlife movement and/or nursery sites.

6.5 Conclusions

The proposed project will not impact any wildlife movement corridors or wildlife nursery sites.

7.0 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

7.1 Guidelines for the Determination of Significance

The County of San Diego's published guidance for determining significance of project impacts to biological resources (County of San Diego 2007) states that an affirmative response to or confirmation of any of the guidelines presented in Section 4.0 of the 2007 County of San Diego Guidelines of for Determining Significance (Guidelines) will generally be considered a significant impact related to biology as a result of project implementation, in the absence of scientific evidence to the contrary.

Section 4.5 of the Guidelines identifies the general thresholds and guidelines for determining significance of project impacts to Local Policies, Ordinances, and Adopted Plans. The general guidance is given below:

> ***Local Policies, Ordinances, and Adopted Plans***
>
> *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

Section 4.5 continues with detailed thresholds and guidelines for determining significance of project impacts as related to Local Policies, Ordinances, and Adopted Plans and identifies specific information that should be evaluated to provide evidence to support a conclusion of impact significance.

7.2 Analysis of Project Effects

The project site is currently located within the County of San Diego Multiple Species Conservation Plan (MSCP) planning area outside of any adopted Sub-Area Plans. The North County MSCP that covers this area is currently being planned, but not yet final or applicable to this project. In addition, within San Diego County, impacts to coastal sage scrub habitat are covered under the County's Section 4d Interim Habitat Loss Permit.

This project will result in temporary and permanent impacts to coastal sage scrub that is less than one acre. In addition, the coastal sage scrub not occupied by California gnatcatcher, considered low value habitat, and outside of any potential preserve planning areas. This project qualifies as exempt from the County's Section 4d permit requirements and does not require a Habitat Loss Permit (HLP) (see Section 2.5).

As currently designed, the proposed project would not conflict with the provisions of the County's Section 4d Permit, or any adopted HCP, NCCP, or other approved local, regional or state habitat conservation plan, and would therefore result in *no significant impact* to local policies, ordinances, or adopted plans.

7.3 Cumulative Impact Analysis

Currently the study area and surrounding vicinity is not located within any adopted MSCP or NCCP and is not subject to any other local policy, ordinance, or adopted plan. Therefore, the proposed project, along with all other current and reasonably foreseeable future projects would not have a significant cumulative impact on compliance with local policies, ordinances, or adopted plans.

7.4 Mitigation Measures and Design Considerations

As currently designed, the proposed project would not conflict with any adopted HCP, NCCP, or other approved local, regional or state habitat conservation plan, therefore, no mitigation would be necessary to minimize, avoid, or offset the impacts of non-compliance with local policies, ordinances, or adopted plans.

7.5 Conclusions

The project is consistent with all applicable local policies, ordinances, and adopted planning policies that regulate biological and wetlands resources at this time.

8.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

The following section provides a brief summary of estimated project impacts to sensitive biological resources and associated mitigation measures. Detailed impact analyses for each required resource/regulatory concern are provided in Sections 3.2, 4.2, 5.2, 6.2, and 7.2 of this document.

8.1 Sensitive Species (Wildlife)

As currently designed, the proposed Rancho Santa Fe Roundabouts Project would not result in any direct impacts to (or "take" of) any state- or Federally-listed species or occupied habitat. Potential direct and indirect impacts to listed species (habitat modification and removal, noise, etc.) would be mitigated through the implementation of the following general avoidance and minimization measures: 1) As feasible, vegetation removal would be limited to the non-breeding season of tree-nesting raptors and other bird species, 2) in the event that vegetation must be removed during the nesting season, pre-construction nest monitoring would be required for vegetation removal involving ornamental trees and coast live oaks, 3) in the event that an active nest is located during pre-construction surveys, a buffer of sufficient size would be established to prevent impacts to breeding and fledging, and 4) all vegetation removal activities would occur under the supervision of a qualified biological monitor. A detailed description of relevant mitigation measures is provided in Section 3.4 of this document.

8.2 Sensitive Species (Plants)

One non-listed sensitive plant species, California adolphia (*Adolphia californica*), occurs within the study area. As currently designed, construction of the proposed project would not result in the take of any adolphia specimens. To this end, a biological monitor would be present to identify the limits of construction and direct construction activities away from the identified adolphia specimens. In the event that any adolphia could not be avoided during construction, the resulting impact to this species would be considered less than significant because the proposed project would not affect a major regional population or affect the long-term survival of this species.

Two coast live oak (*Quercus agrifolia*) trees occur in ornamental landscaping within the study area surrounding the Via de la Valle/La Fremontia Roundabout location. One of the coast live oak trees is outside of the area of potential effect. One tree is located within the project footprint, however, as currently designed construction of the proposed project would be able to avoid removal of and impact to the root zone of the coast live

oak tree within the project footprint; therefore, it is expected the project would not result in any direct or indirect impacts to this species. In the event that the coast live oak tree within the project footprint cannot be avoided during construction, five replacement 5-gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. These plantings would be monitored for a period of five years. In the event that the coast live oak replacement plantings do not successfully establish within the monitoring period, these plantings shall themselves be replaced.

8.3 Riparian Habitats and Sensitive Natural Communities

As currently designed, the proposed project would impact four different habitat types including one sensitive natural vegetation communities (Diegan coastal sage scrub). In addition, there would permanent impacts to CDFG/RWQCB jurisdictional non-vegetated channel.

A detailed description of the identified impacts to riparian habitats and sensitive natural communities is provided in Chapter 4 of this document. Mitigation for temporary impacts to sensitive Diegan coastal sage scrub habitat would include restoration of all temporary construction impacts onsite at a 1:1 mitigation to impact ratio. Mitigation would occur through revegetation at the El Camino del Norte roundabout with a native Diegan coastal sage scrub seed mix. Mitigation for permanent impacts to Diegan coastal sage scrub habitat will be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or through off-site habitat conservation at a 2:1 mitigation to impact ratio.

Permanent impacts (0.005 acre) to non-vegetated channel (CDFG/RWQCB jurisdictional streambed) at the Via de la Valle/La Fremontia Roundabout would be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or at a suitable off-site location approved by the resource agencies.

A summary of impacts and mitigation for sensitive natural communities is included in Table 8-1.

Table 8-1. Habitat/Vegetation Communities, Impacts, and Mitigation within Study Area (Acres)

Habitat/Vegetation Community[1]	Existing (acres)	Impacts (acres)		Mitigation Ratio		Mitigation Required (acres)
		Temp	Perm	Temp	Perm	
Freshwater (13140)[2]	0.22	0.00	0.00	N/A	3:1	0.00
Coastal and Valley Freshwater Marsh (52410)[2]	0.06	0.00	0.00	1:1	3:1	0.00
Diegan Coastal Sage Scrub (32500)[2]	0.43	0.02	0.02	1:1	2:1	0.06
Orchards and Vineyards (18100)	0.58	0.003	0.00	None	None	0.00
Disturbed Habitat (11300)	7.93	1.01	1.00	None	None	0.00
Urban/Developed (12000)	20.95	1.00	5.51	None	None	0.00
Non-vegetated Channel (within Disturbed Habitat or Developed)	0.25	0.00	0.005	1:1	2:1	0.010

[1] Holland codes are given in parentheses.
[2] Habitats regulated or considered sensitive by Federal, state, regional, or local agencies.

8.4 Wetlands and Waterways

As currently designed, the proposed project would have no impacts to Corps jurisdictional wetlands and waters of the U.S. If impacts cannot be avoided during construction, these impacts are subject to the regulatory jurisdiction of the Corps and the Regional Water Quality Control Board (RWQCB) under Sections 404 and 401 of the Clean Water Act and would require the issuance of regulatory permit approvals from the Corps and RWQCB. In accordance with the Corps' "No-net Loss" policy, all impacts to Corps jurisdiction would be mitigated at a ratio to be determined in consultation with the Los Angeles Corps district.

Prior to construction, the County will demarcate sensitive jurisdictional resources in the study area to ensure avoidance. Based on the findings of the formal jurisdictional

delineation survey and impact assessment, an Environmentally Sensitive Area (ESA) shall be established around avoidable jurisdictional wetlands and waters of the U.S. within the study area and demarcated by orange construction fencing. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any Corps jurisdictional wetlands and water of the U.S.

Construction contractors or personnel shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of noncompliance. This program should be conducted by a qualified biologist.

8.5 Wildlife Movement and Nursery Sites

Given the disturbed nature of the study area, the native and naturalized vegetation communities on the project site would not be expected to provide habitat for movement of significant wildlife resources, provide suitable nursery habitat for the rearing of juvenile wildlife, and would not expected to contribute to the genetic flow, migration, or colonization potential for any sensitive or endemic species. Therefore project impacts to wildlife movement and nursery sites would be considered less than significant. As such, no mitigation would be necessary to minimize, avoid, or offset impacts wildlife movement and/or nursery sites.

8.6 Local Policies Ordinances and Adopted Plans

As currently designed, the proposed project would not conflict with the provisions of the County's Section 4d Interim Habitat Loss Permit, or any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan. Therefore, no mitigation would be necessary to minimize, avoid, or offset non-compliance with local policies, ordinances, or adopted plans.

8.7 Summary of Mitigation Measures

Table 8-2 provides a summary of mitigation measures.

Table 8-2. Summary of Mitigation Measures

Proposed Mitigation	Level of Significance after Mitigation	Guideline Numbers
M-Bio-1a. To avoid direct impacts to tree-nesting raptors from vegetation clearing, vegetation clearing shall occur outside of the raptor breeding season (January 15-July 15).	Less than significant	4.1
M-Bio-1b. If such activities cannot be avoided during the breeding season, potential direct impacts shall be minimized through preconstruction nesting raptor surveys conducted within one week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 500 feet from the construction site. If nesting activity is detected on-site or within 500 feet of the site, a 500-foot buffer around the nest shall be marked and construction activity shall avoid the area until the nest has fledged or is no longer active. Potential indirect impacts to nesting raptors due to construction noise shall be avoided by initiating construction activities prior to the bird breeding season. Subsequent nesting raptor surveys shall be conducted if construction is halted for more than one week at any time during the raptor breeding season.	Less than significant	4.1
M-Bio-2a. To avoid direct impacts to nesting migratory birds from vegetation clearing, such activities shall occur outside of the migratory bird breeding season (February 15 – September 15).	Less than significant	4.1
M-Bio-2b. If such activities cannot be avoided during the breeding season, potential direct impacts shall be minimized through preconstruction nesting bird surveys conducted within one week prior to commencement of construction activities. Nest surveys shall be conducted within the construction site and extend to 500 feet from the construction site. If nesting activity is detected on-site or within 500 feet of the site, a 500-foot buffer around the nest shall be marked and construction activity shall avoid the area until the nest has fledged or is no longer active. Potential indirect impacts to nesting migratory birds due to construction noise shall be avoided by initiating construction activities prior to the bird breeding season. Subsequent nesting bird surveys shall be conducted if construction is halted for more than one week at any time during the breeding season.	Less than significant	4.1

Table 8-2. Summary of Mitigation Measures

Proposed Mitigation	Level of Significance after Mitigation	Guideline Numbers
M-Bio-3. Within 30 days prior to commencement of construction within native habitat, sensitive plants within the project footprint, specifically California adolphia, should be located and flagged. An Environmentally Sensitive Area (ESA) shall be established and demarcated by orange construction fencing to protect these plants from construction-related impacts. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any associated sensitive plants.	Less than significant	4.1
M-Bio-4. In the event that impacts to any coast live oak individuals (or its root zone) occur as a result of project implementation, five replacement 5-gallon coast live oak individuals shall be planted within the landscaped areas of the proposed project. These plantings would be monitored for a period of five years. In the event that the coast live oak replacement plantings do not successfully establish within the monitoring period, these plantings shall themselves be replaced.	Less than significant	4.1
M-Bio-5: Permanent impacts (0.005 acre) to non-vegetated channel (CDFG/RWQCB jurisdictional streambed) at the Via de la Valle/La Fremontia Roundabout would be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or at a suitable off-site location approved by the resource agencies at a 2:1 mitigation to impact ratio.	Less than significant	4.2
M-Bio-6: Mitigation for temporary impacts to sensitive Diegan coastal sage scrub habitat would include restoration of all temporary construction impacts onsite at a 1:1 mitigation to impact ratio. Mitigation would occur through revegetation of the manufactured slope of the retaining wall at the El Camino del Norte roundabout with a native Diegan coastal sage scrub seed mix. Mitigation for permanent impacts to Diegan coastal sage scrub habitat will be mitigated onsite (most likely at the El Camino del Norte location) to the degree feasible, or through off-site habitat conservation at a 2:1 mitigation to impact ratio.	Less than significant	4.2

Table 8-2. Summary of Mitigation Measures

Proposed Mitigation	Level of Significance after Mitigation	Guideline Numbers
M-Bio-7: Based on the findings of the formal jurisdictional delineation survey and impact assessment, an Environmentally Sensitive Area (ESA) shall be established around avoidable jurisdictional wetlands and waters of the U.S. within the study area and demarcated by orange construction fencing. A qualified biological monitor would ensure that the limits of the construction footprint would be located to avoid this ESA and any Corps jurisdictional wetlands and water of the U.S. Construction contractors or personnel shall implement a construction education program approved by County staff to ensure that contractors and all construction personnel are informed of the biological constraints associated with any particular construction site. The education program shall focus on (a) the purpose for resource protection, (b) contractor identification of sensitive resource areas in the field such as areas delineated on maps and by flags or fencing, (c) sensitive construction practices, (d) protocol to resolve conflicts that may arise at any time during the construction process, and (e) ramifications of noncompliance. This program should be conducted by a qualified biologist.	Less than significant	4.3

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10.0 LIST OF PREPARERS

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APPENDIX A

Observed Species List – Flora

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Inventory of Plants in the Rancho Santa Fe Roundabouts Study Area

Scientific Name[1]	Common Name
DICOTYLEDONS	
AIZOACEAE - Fig-Marigold Family	
**Carpobrotus edulis*	Hottentot Fig
ANACARDIACEAE - Sumac Family	
Malosma laurina	Laurel Sumac
Rhus integrifolia	Lemonade Berry
**Schinus molle*	Peruvian Peppertree
**Schinus terebinthifolius*	Brazilian Peppertree
APIACEAE - Carrot Family	
**Foeniculum vulgare*	Fennel
ASTERACEAE - Sunflower Family	
Ambrosia psilostachya	Western Ragweed
Artemisia californica	California Sagebrush
Baccharis pilularis	Coyote Bush
Brickellia californica	California Brickellbush
**Centaurea melitensis*	Tocalote
**Cynara cardunculus*	Artichoke Thistle
Hazardia squarrosa	Saw-toothed Goldenbush
Pluchea odorata	Fragrant Marsh Fleabane
Stephomeria diegensis	San Diego Wreathplant
BRASSICACEAE - Mustard Family	
**Brassica nigra*	Black Mustard
CACTACEAE - Cactus Family	
Opuntia sp.	Prickly-pear
**Opuntia ficus-indica*	Indian Fig
CAPPARACEAE - Caper Family	
Isomeris arborea	Bladderpod
CHENOPODIACEAE - Goosefoot Family	
**Salsola tragus*	Russian Thistle
EUPHORBIACEAE - Spurge Family	
**Ricinus communis*	Castor-bean
FABACEAE - Pea Family	
**Acacia sp.*	Acacia Tree
FAGACEAE - Oak Family	
Quercus agrifolia	Coast Live Oak
Quercus berberidifolia	Scrub Oak
LAMIACEAE - Mint Family	

Salvia mellifera	Black Sage
MYOPORACEAE - Myoporum Family	
**Myoporum laetum*	Myoporum
MYRTACEAE – Myrtle Family	
**Eucalyptus* sp.	Eucalyptus or Gum Tree
PLUMBAGINACEAE - Leadwort Family	
**Limonium sinuatum*	Sea Lavendar (Notch-leaf Marsh Rosemary)
POLYGONACEAE - Buckwheat Family	
Eriogonum fasciculatum	California Buckwheat
**Rumex crispus*	Curly Dock
RHAMNACEAE - Buckthorn Family	
Adolphia californica	California Adolphia
ROSACEAE - Rose Family	
Adenostoma fasciculatum	Chamise
Heteromeles arbutifolia	Toyon
SCROPHULARIACEAE - Figwort Family	
Mimulus aurantiacus	San Diego Monkeyflower
SOLANACEAE - Nightshade Family	
**Nicotiana glauca*	Tree Tobacco
TAMARICACEAE - Tamarisk Family	
**Tamarix* sp.	Tamarisk
TYPHACEAE - Cattail Family	
**Typha latifolia*.	Broad-leaf Cattail
MONOCOTYLEDONS	
ARECACEAE – Palm Family	
**Phoenix canariensis*	Date Palm
POACEAE - Grass Family	
**Bromus diandrus*	Ripgut Grass
**Bromus madritensis* ssp. *rubens*	Foxtail Chess
**Pennisetum setaceum*	African Fountain Grass

* Introduced

APPENDIX B

Observed Species List – Fauna

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Inventory of Wildlife in the Rancho Santa Fe Roundabouts Study Area

Scientific Name[1]	Common Name
Birds	
CLASS: AVES	
CICONIIFORMES (Herons, Storks, Ibises, and relatives)	
ARDEIDAE (Herons and Bitterns)	
Egretta thula	Snowy Egret
Ardea alba	Great Egret
Nycticorax nycticorax	Black-crowned Night-Heron
ANSERIFORMES (Screamers, Ducks, and relatives)	
ANATIDAE (Swans, Geese, and Ducks)	
Lophodytes cucullatus	Hooded Merganser
FALCONIFORMES (Vultures, Hawks, and Falcons)	
ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)	
Buteo jamaicensis	Red-tailed Hawk
PASSERIFORMES (Perching Birds)	
CORVIDAE (Jays, Magpies, and Crows)	
Corvus brachyrhynchos	American Crow
PARIDAE (Titmice and relatives)	
Poecile gambeli	Mountain Chickadee
AEGITHALIDAE (Bushtit)	
Psaltriparus minimus	Bushtit
FRINGILLIDAE (Finches)	
Carpodacus mexicanus	House Finch
EMBERIZIDAE (Emberizines)	
Pipilo maculates	Spotted Towhee
PARULIDAE (Wood Warblers and relatives)	
Dendroica coronata	Yellow-rumped Warbler
Mammals	
RODENTIA (RODENTS)	
SCIURIDAE (Squirrels)	
Spermophilus beecheyi nudipes	California Ground Squirrel
GEOMYIDAE (Pocket Gophers)	
Thomomys bottae	Botta's Pocket Gopher (mounds)
MURIDAE (Rats and Mice)	
Neotoma sp.	Woodrat (nests)

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APPENDIX C

USFWS List of Proposed, Threatened, or Endangered Species Potentially Occurring in the Vicinity of the Project Study Area

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

In Reply Refer To:
FWS-SDG-11B0004-11SL0007

OCT 07 2010

Robert James
California Department of Transportation
District 11
4050 Taylor Street
San Diego, California 92110

Subject: Request for a List of Proposed, Threatened, or Endangered Species Potentially Occurring in the Vicinity of the Proposed Roundabouts on Paseo Delicias / Del Dios Highway Corridor, Rancho Santa Fe, San Diego County, California

Dear Mr. James:

This letter is in response to your request, received by our office on August 11, 2010, for information on federally endangered, threatened, proposed, and candidate species that may occur in the vicinity of the Proposed Roundabouts on Paseo Delicias / Del Dios Highway Corridor. The project site is located along the Paseo Delicias / Del Dios Highway Corridor, in the vicinity of El Camino del Norte, El Montevideo, and Via de la Valle in Rancho Santa Fe, San Diego County, California. To assist you in evaluating the potential occurrence of federally listed endangered, threatened, proposed, and candidate species that may occur in the vicinity of the proposed action, we are providing the enclosed list.

Because we do not have site-specific information for the proposed project, we recommend that you seek assistance from a biologist familiar with the habitat conditions and associated species in and around the project site to assess the actual potential for direct, indirect, and cumulative impacts likely to result from the proposed activity. We also suggest that you contact the California Department of Fish and Game regarding State-listed and sensitive species that may occur within the project area. Please note that State-listed species are protected under the provisions of the California Endangered Species Act.

As a reminder, if a proposed project is authorized, funded, or carried out by a Federal agency and may affect a federally listed species, then section 7 consultation pursuant to the Endangered Species Act of 1973 (Act), as amended, is required. If a proposed project does not involve a Federal agency, but is likely to result in the take of a listed animal species, then the project proponent should apply for an incidental take permit, pursuant to section 10 of the Act.

Please note that due to out-of-date data on the U. S. Fish and Wildlife Service Critical Habitat Portal, the Carlsbad Fish and Wildlife Office is now hosting all critical habitat GIS data within

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our jurisdictional area on our website at http://www.fws.gov/carlsbad. Select the GIS DATA link to access current critical habitat layers.

Should you have any questions regarding the species listed or your responsibilities under the Act, please contact Sally Brown of this office at (760) 431-9440, extension 278.

Sincerely,

Sally Brown

for Karen A. Goebel
Assistant Field Supervisor

Enclosure

Federally Endangered, Threatened, Proposed, and Candidate Species and Critical Habitat that May Occur in the Vicinity of the Proposed Roundabouts on Paseo Delicias / Del Dios Highway Corridor, Rancho Santa Fe, San Diego County, California

October 6, 2010

Common Name	Scientific Name	Federal Status	Critical Habitat in Vicinity
Plants			
San Diego ambrosia	*Ambrosia pumila*	endangered	absent
thread-leaved brodiaea	*Brodiaea filifolia*	threatened	absent
Orcutt's spineflower	*Chorizanthe orcuttiana*	endangered	N/A*
Encinitas baccharis	*Baccharis vanessae*	threatened	N/A
Del Mar Manzanita	*Arctostaphylos glandulosa subsp. crassifolia*	endangered	N/A
San Diego thornmint	*Acanthomintha ilicifolia*	threatened	absent
Orcutt's hazardia	*Hazardia orcuttii*	candidate	N/A
Birds			
coastal California gnatcatcher	*Polioptila californica californica*	threatened	absent
Least Bell's vireo	*Vireo bellii pusillus*	endangered	absent

*N/A = not applicable

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APPENDIX D

Potential Sensitive Species Table – Flora

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Appendix D: Inventory of Sensitive Floral Species Potentially Occurring within Rancho Santa Fe Roundabouts Project Study Area

Common Name	Scientific Name	Status[1]	Covered by MSCP[2]
FERNS AND FERN ALLIES			
SELAGINELLACEAE - Spike-Moss Family			
Selaginella cinerascens	Mesa spike-moss	--/--	No
DICOTS			
ASTERACEAE - Sunflower Family			
Artemisia palmeri	San Diego Sagewort	--/List 4	No
Baccharis vanessae	Encinitas Baccharis	FT/SE/List 1B	Yes
Iva hayesiana	San Diego Marsh Elder	--/List 2	No
Machaeranthera juncea	Rush-like Bristleweed	--/List 4	No
BORAGINACEAE - Borage Family			
Harpagonella palmeri	Palmer's Grapplinghook	--/List 4	No
BRASSICACEAE - Mustard Family			
Lepidium virginicum var. *robinsonii*	Robinson's Peppergrass	--/List 1B	No
CACTACEAE - Cactus Family			
Ferocactus viridescens	San Diego Barrel Cactus	--/List 2	Yes
CONVOLVULACEAE - Morning-Glory Family			
Dichondra occidentalis	Western ponysfoot	List 4	No
CRASSULACEAE - Stonecrop Family			
Dudleya viscida	Sticky liveforever	List 1B	Yes
ERICACEAE - Heath Family			
Arctostaphylos Gladulosa var. *Crassifolia*	Del Mar Manzanita	FE/List 1B	Yes
Comarostaphylis diversifolia var. diversifolia	Summer Holly	--/List 1B	No
JUNCACEAE – Rush Family			
Juncus acutus var. *leopoldii*	Southwestern spiny rush	--/List 4	No
LAMIACEAE - Mint Family			
Acanthomintha ilicifolia	San Diego Thornmint	FE/SE	Yes
POLYGONACEAE - Buckwheat Family			
Chorizanthe orcuttiana	Orcutt's spine-flower	--/List 1B	No
RHAMNACEAE - Buckthorn Family			
Adolphia californica	California Adolphia	--/List 2	No
Ceanothus verrucosus	Wart-stemmed Ceanothus	List 1B	Yes
MONOCOTS			
THEMIDACEAE - Brodiaea Family			
Brodiaea orcutti	Orcutt's Brodiaea	--/List 1B	Yes
Muilla clevelandii	San Diego Goldenstar	--/List 1B	Yes

[1] **Status**: *Federal*: FE – endangered, FT – threatened, FFP – fully protected, BEPA – Bald Eagle Protection Act, FD – Federally delisted. *State*: SE – endangered, ST – threatened, SSC – special concern, SFP – fully protected. *California Native Plant Society (CNPS)*: List 1B – Plants rare, threatened, or endangered in California and elsewhere, List 2: Plants rare, threatened, or endangered in California, but more common elsewhere, List 3 – Plants about which we need more information, List 4 – Plants of limited distribution (a watch list).

[2] **MSCP Coverage**: Yes - covered by the County of San Diego Subarea Plan. NE – listed as Narrow Endemic in the County subarea plan. A narrow endemic is a species that is confined to a specific geographic region, soil type, and/or habitat.

APPENDIX E

Potential Sensitive Species Table – Fauna

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Appendix E
Inventory of Potentially Occurring (PO) Sensitive Wildlife Species within Rancho Santa Fe Roundabouts Project Study Area

Common Name	Scientific Name	Status[1]	Covered by MSCP[2]
PHYLUM: DATHROPODA			
CLASS: INSECTA			
LEPIDOPTERA			
NYNOHALIDAE (Brushfoots)			
Quino Checkspot Butterfly	***Euphydryas editha quino***	FE/--	Yes
CLASS: AMPHIBIA (Amphibians)			
ANURA (Frogs and Toads)			
PELOBATIDAE (Spadefoot Toads)			
Western Spadefoot	***Spea (Scaphiopus) hammondii***	--/SSC	No
CLASS: REPTILIA (Reptiles)			
TESTUDINES (Turtles)			
EMYDIDAE (Box and Water Turtles)			
Southwestern Pond Turtle	***Clemmys marmorata pallida***	--/SSC	Yes
SQUAMATA (Lizards and Snakes)			
PHRYNOSOMATIDAE			
Coast Horned Lizard	***Phrynosoma coronatum***	--/SSC	Yes
TEIIDAE (Whiptails and relatives)			
Orange-throated Whiptail	***Cnemidophorus hyperythrus***	--/SSC	Yes
BOIDAE (Boas)			
Coastal Rosy Boa	***Lichanura trivirgata roseofusca***	--/SSC	No
CLASS: AVES (Birds)			
FALCONIFORMES (Vultures, Hawks, and Falcons)			
ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)			
Northern Harrier	***Circus cyaneus***	--/SSC	Yes
White-tailed Kite	***Elanus leucurus***	--/SFP	No
PASSERIFORMES (Perching Birds)			
ALAUDIDAE (Larks)			
Horned Lark	***Eremophila alpestris***	--/SSC	No
LANIIDAE (Shrikes)			
Loggerhead Shrike	***Lanius ludovicianus***	--/SSC	No
PARULIDAE (Wood Warblers and relatives)			
Yellow-breasted Chat	***Icteria virens***	--/SSC	No
POLIOPTILIDAE (Verdin and Gnatcatcher)			
California Gnatcatcher	***Polioptila californica***	FT/SSC	Yes
TROGLODYTIDAE (Wrens)			
Coastal Cactus Wren	***Campylorhynchus brunneicapillus cousei***	--/SSC	Yes
TURDIDAE			
Western Bluebird	***Sialia mexicana***	--/--	Yes
VIREONIDAE (Typical Vireos)			
Least Bell's Vireo	***Vireo bellii pusillus***	FE/SE	Yes, NE
CLASS: MAMMALIA (Mammals)			
RODENTIA (Squirrels, Rats, Mice, and relatives)			
HETEROMYIDAE (Pocket Mice and Kangaroo Rats)			
California Pocket Mouse	***Chaetodipus californicus***	--/SSC	No
Dulzura Pocket Mouse	***Chaetodipus californicus femoralis***	--/SSC	
San Diego Pocket Mouse	***Chaetodipus fallax fallax***	--/SSC	No
Dulzura Kangaroo Rat	***Dipodomys simulans***	--/--	No
ARTIODACTYLA (Even-toed Ungulates)			
CERVIDAE (Deer, Elk, and relatives)			
Mule Deer	***Odocoileus hemionus***	--/--	Yes

[1] **Status**: *Federal*: FE – endangered, FT – threatened, FSC – special concern, FFP – fully protected, BEPA – Bald Eagle Protection Act, FD – Federally delisted. USFWS no longer keeps a list of Federal Species of Concern. *State*: SE – endangered, ST – threatened, SSC – special concern, SFP – fully protected.

[2] **MSCP Coverage**: Yes - covered by the County of San Diego Subarea Plan. NE – listed as Narrow Endemic in the County subarea plan. A narrow endemic is a species that is confined to a specific geographic region, soil type, and/or habitat.

APPENDIX F

Protocol survey reports

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23 March 2007

Sandy Marquez
Recovery Permit Coordinator
Carlsbad Field Office
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011

Regarding: Results of protocol surveys for the coastal California gnatcatcher conducted for the Rancho Santa Fe Roundabouts Project, San Diego County.

Dear Ms. Marquez:

This report summarizes the results of protocol level surveys conducted for the coastal California gnatcatcher (*Polioptila californica*) at the intersection of El Camino del Norte and Paseo Delicias in Rancho Santa Fe, San Diego, California (Figure 1). Nine surveys were conducted on behalf of the San Diego County Department of Public Works by Technology Associates (TAIC) to determine the status of gnatcatchers on site.

PROJECT BACKGROUND

The proposed project includes the construction of 3 roundabouts along Paseo Delicias at the intersections of El Camino del Norte, El Montevideo, and Via de la Valle (Figure 2). The intersections along with the approach roads would be widened to accommodate each roundabout. Only the intersection of El Camino del Norte contains potentially suitable gnatcatcher habitat within 500 feet of the project footprint. The environmental setting of this intersection includes rural residential homes surrounded by Diegan Coastal Sage Scrub (CSS), Non-native Grasslands (NNG), Orchards and Vineyards, Disturbed Habitat and Developed lands. A small drainage extends along the south side of Paseo Delicias.

METHODS

A query of species databases was conducted to determine the presence of coastal California gnatcatchers in the vicinity of the project site. Data sources included the California Natural Diversity Database (CNDDB) and San Diego Natural History Museum (SDNHM) bird atlas database. Gnatcatcher surveys for the proposed project were

conducted by Rosanne Humphrey (Recovery Permit TE-051526) and Mark Roll, and following the U.S. Fish and Wildlife Service survey protocol for the species. All suitable gnatcatcher habitat within a 500-foot buffer of the project footprint was included in the survey area. Pursuant to the USFWS protocol, a total of 9 surveys were conducted between December 8, 2006 and March 23, 2007 at least two weeks apart because (a) the survey area was not within an approved NCCP area, and (b) the majority of surveys were conducted between July and March 14. Surveys were conducted on foot, and all bird and other wildlife species were identified visually. A taped gnatcatcher vocalization was played at regular intervals throughout each survey to increase the chances of locating gnatcatchers. Following the protocol, taped vocalizations were to be discontinued if a response ensued. A list of all wildlife species was compiled as part of these surveys (See Species List). All surveys were conducted during times of appropriate weather conditions and are detailed in Table 1 below.

Table 1. Survey Conditions for Coastal California Gnatcatcher Surveys

Date	Time	Surveyors[1]	Temp (°F)	Wind (mph)	Cloud Cover (% cover)	Precipitation
12/8/06	1037-1142	RH	68-69	0	0	0
12/27/06	0842-0900	RH	62	0	80	0
1/4/07	0749-0815	RH	54	0	100	0
1/19/07	0927-0948	RH	58	0-2	75-8	0
2/2/07	0810-0827	RH	51	0	0	0
2/16/07	1030-1050	RH	77	0	0	0
3/2/07	0845-0925	MR, RH	55	0	<10	0
3/12/07	0845-0930	MR, RH	65	0	0	0
3/23/07	0850-0915	MR, RH	60	0	0	0

[1] Rosanne Humphrey (RH), Mark Roll (MR)

RESULTS

Several gnatcatcher observations have been documented in the vicinity of the proposed project, although none have been recorded within 500 feet of the area of potential impact (Figure 3). No gnatcatchers were detected during the nine protocol surveys conducted for the proposed project. The survey area contains very little suitable gnatcatcher habitat (approximately 0.26 acre of coastal sage scrub). Predominant plant species include California sage brush (*Artemisia californica*), coyote bush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus dumosa*), saw-tooth goldenbush (*Hazardia*

squarrosa), black sage (*Salvia mellifera*), deer weed (*Lotus scoparius*), lemonade berry (*Rhus integrifolia*), and monkey flower (*Mimulus arantiacus*). A complete list of plants and animals observed during the surveys is given at the end of this report. The area surrounding the thin sliver of habitat is regularly mowed and consists of non-native grasses, fennel (*Foeniculum vulgare*), and tocalote (*Centaurea melitensis*).

CONCLUSIONS

The site is considered unsuitable to support coastal California gnatcatchers for the following two reasons: 1.) A very small amount of suitable coastal sage scrub occurs onsite. 2.) The patch is approximately 0.26 acre and is surrounded by unsuitable and highly disturbed habitat. Based on the lack of gnatcatchers and lack of suitable habitat, no impacts to the species are expected as a result of the proposed project.

Sincerely,



Mark Roll
Biologist



Rosanne Humphrey
Biologist

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Technology Associates INTERNATIONAL CORPORATION

Regional Location Map

Figure 1

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Date: Dec 13, 2006

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Legend

Study Area Boundaries

N

Feet

0 2,000

Technology Associates INTERNATIONAL CORPORATION

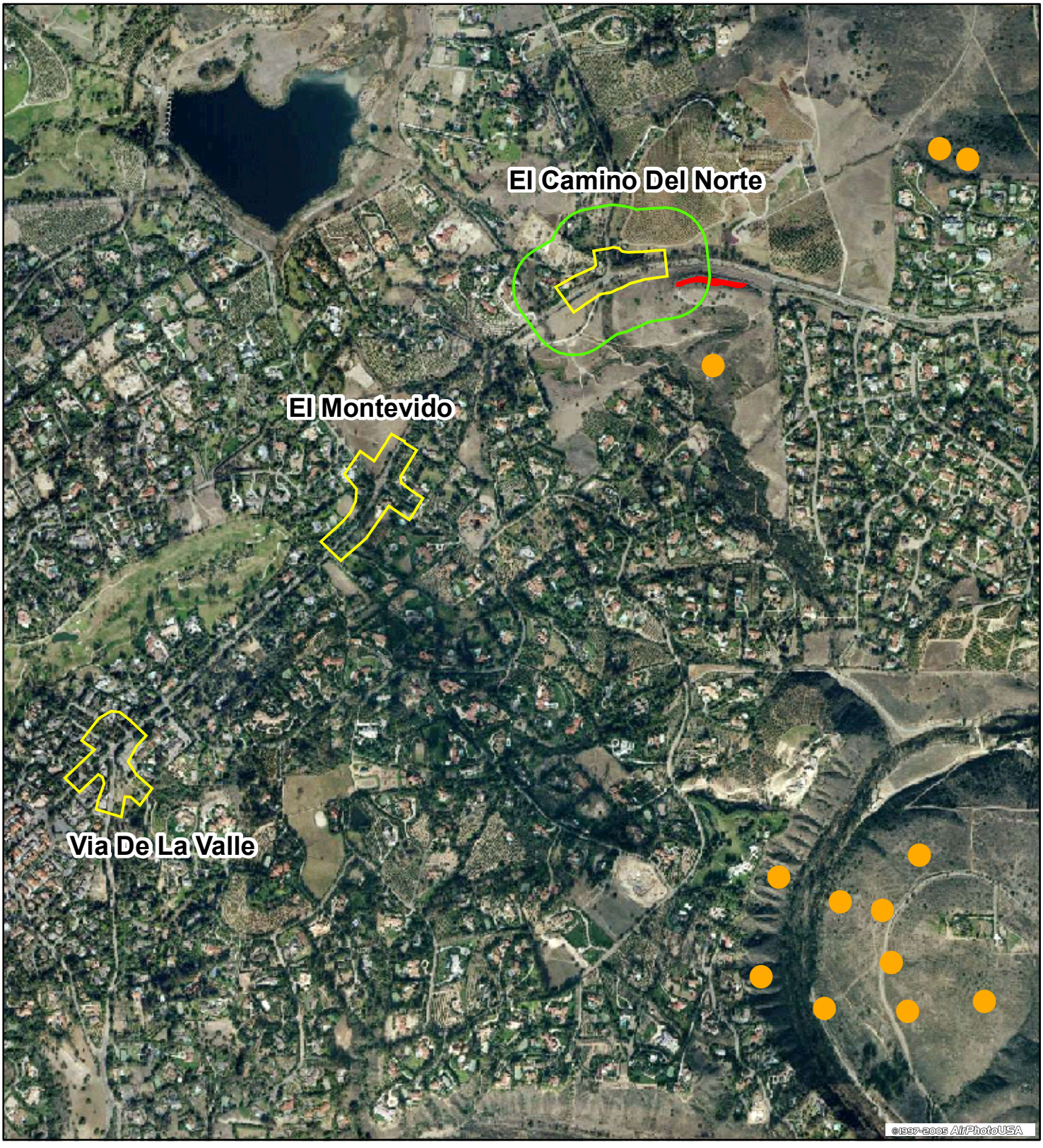
USGS Topographic Quadrangle

Figure 2

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Date: Dec 21, 2006

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Legend

- Study Area
- California Gnatcatcher Locations (1991-2002)
- Suitable Gnatcatcher Habitat (Coastal Sage Scrub)
- RSFR Gnatcatcher Survey Area

N

Feet

0 1,280

Technology Associates INTERNATIONAL CORPORATION

California Gnatcatcher Locations

Figure 3

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Species Observed During the Surveys

Common Name	Species Name
Plants	
Black Sage	*Salvia mellifera*
Deerweed	*Lotus scoparius*
Foxtail Brome	*Bromus madritensis rubens*
Pricklypear	*Opunita sp.*
Ripgut Brome	*Bromus diandrus*
San Diego Milk-aster	*Stephanomeria diegensis*
Saw-tooth Goldenbush	*Hazardia squarrosa*
Sticky Monkey Flower	*Mimulus aurantiacus*
Birds	
American Crow	*Corvus brachyrhynchos*
Anna's Hummingbird	*Calypte anna*
Bushtit	*Psaltriparus minimus*
California Towhee	*Pipilo crissalis*
Cassin's Kingbird	*Tyrannus vociferans*
House Finch	*Carpodacus mexicanus*
Lesser Goldfinch	*Carduelis psaltria*
Morning Dove	*Zenaida macroura*
Northern Mockingbird	*Mimus polyglottos*
Red-tailed Hawk	*Buteo jamaicensis*
Song Sparrow	*Melospiza melodia*
Western Scrub Jay	*Aphelocoma californica*
White-crowned Sparrow	*Zonotrichia leucophrys*
Wrentit	*Chamaea fasciata*
Yellow-rumped Warbler	*Dendroica coronata*
Mammals	
Botta's Pocket Gopher (mounds)	*Thomomys bottae*
California Ground Squirrel (burrows)	*Spermophilus beecheyi nudipes*
Woodrat (nest)	*Neotoma sp.*

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Appendix G

Wetland Delineation Datasheets

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 001

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 01' 25.5" Long: 117W 11' 56.9" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐				
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?**	**Yes**	☒	**No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐				

Remarks: **Fill from residential development and road construction**

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Eucalyptus spp.**	**50%**	**Yes**	**NI**
2.			
3.			
4.			
	50%	= Total Cover	
Sapling/Shrub Stratum			
1. **Typha latifolia**	**50%**	**Yes**	**Obl**
2. **Pluchea odorata**	**5%**	**No**	**Fac W**
3.			
4.			
5.			
	55%	= Total Cover	
Herb Stratum			
1. **Salicornia virginica**	**60**	**Yes**	**Obl**
2. **Carpobrotus edulis**	**20**	**Yes**	**NI**
3.			
4.			
5.			
6.			
7.			
8.			
	80%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum **20%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**4**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**50%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :		Multiply by:	
OBL species	**110**	x1 =	**110**	
FACW species		x2 =		
FAC species		x3 =		
FACU species		x4 =		
UPL species	**70**	x5 =	**250**	
Column Totals:	**180** (A)		**360**	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Yes Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-5	10YR3/2						Sandy Clay	
5-18	Gley 1 4/10Y						Sandy Clay Loam	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☒ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Atypical. Substrate comprised of fill from residential development and road construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☒	No	☐	Depth (inches):	12
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 002

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 01' 25.5" Long: 117W 11' 56.9" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☒	No ☐	**Is the Sampling Area within a Wetland?**	**Yes** ☐	**No** ☒
Wetland Hydrology Present?	Yes ☐	No ☒			

Remarks: **Fill from residential development and road grading**

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Eucalyptus spp.**	**20%**	**Yes**	**NI**
2. **Unknown ornamental**	**20**	**Y**	**NI**
3.			
4.			
	50%	= Total Cover	
Sapling/Shrub Stratum			
1. **None**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum			
1. **None**			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **100%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**0**	(A)
Total Number of Dominant Species Across All Strata:	**2**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**0%**	(A/B)

Prevalence Index worksheet:

Total %Cover of :	Multiply by:
OBL species	x1 =
FACW species	x2 =
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☐	**No**	☒

Remarks:

Project Site: Rancho Santa Fe Roundabaouts

SOIL

Sampling Point: 002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR3/3						Loam	
3-8	7.5YR 4/4						Sandy Clay Loam	
8-18	Gley 1 4/10Y						Loamy Sand	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☒ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Atypical. Substrate comprised of fill from residential development and road construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☐	No	☐	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	☐	No	☐	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 003

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 01' 26.0" Long: 117W 11' 57.8" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☒	No ☐	**Is the Sampling Area within a Wetland?**	**Yes** ☐	**No** ☒
Wetland Hydrology Present?	Yes ☒	No ☐			

Remarks: **Fill from residential development and road grading**

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**			
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **None**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum			
1. **None**			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **100%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**0**	(A)
Total Number of Dominant Species Across All Strata:	**0**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**0%**	(A/B)

Prevalence Index worksheet:

Total %Cover of :	Multiply by:
OBL species	x1 =
FACW species	x2 =
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☐	**No**	☒

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-2	10YR 4/1						Sand	
2-18	Gley 1 4/10Y						Loamy Sand	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☒ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Atypical. Substrate comprised of fill from residential development and road construction.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☒ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☒ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☒	No	☐	Depth (inches):	0
Water Table Present?	Yes	☐	No	☒	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Inundated with recent stormwater runoff. Situated in topographic low point within landscape.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 004

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 01' 26.0" Long: 117W 11' 58.2" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐				
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?**	**Yes**	☒	**No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐				

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**			
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **Tamarisk ramosissima**	**70%**	**Yes**	**FacW**
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum			
1. **Distichlis spicata**	**60%**	**Yes**	**FacW**
2. **Unknown ornamental pea-like vine**	**30%**	**Yes**	**NI**
3. **Bromus diandrus**	**10%**	**No**	**FacU**
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**3**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**66%**	(A/B)

Prevalence Index worksheet:

Total %Cover of :	Multiply by:
OBL species	x1 =
FACW species	x2 =
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5Y 2.5/1						Loamy Sand	
12-18	Gley 1 4/10Y	60	5YR 4/4	40%	C	M	Sandy Clay Loam	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☒ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☒ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☒	No	☐	Depth (inches):	4
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	2

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Water Table near surface possibly due to recent rain and proximity to drainage. Likely temporary / short term.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 005

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 01' 26.0" Long: 117W 11' 58.2" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☐	No ☒	**Is the Sampling Area within a Wetland?**	**Yes** ☐	**No** ☒
Wetland Hydrology Present?	Yes ☐	No ☒			

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Quercus berberdifolia**	**40%**	**Yes**	**NI**
2.			
3.			
4.			
	40%	= Total Cover	
Sapling/Shrub Stratum			
1. **Baccharis pilularis**	**20%**	**Yes**	**NI**
2. **Unknown Ornamental pea-like vine**	**50**	**Yes**	**NI**
3.			
4.			
5.			
	70%	= Total Cover	
Herb Stratum			
1. **Bromus diandrus**	**75%**	**Yes**	**NI**
2. **Unknown ornamental pea-like vine**	**25%**	**Yes**	**NI**
3.			
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**0**	(A)
Total Number of Dominant Species Across All Strata:	**4**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**0%**	(A/B)

Prevalence Index worksheet:

Total %Cover of :	Multiply by:
OBL species	x1 =
FACW species	x2 =
FAC species	x3 =
FACU species	x4 =
UPL species	x5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☐	**No**	☒

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 005

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-18	10YR 4/2						Sandy Loam	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☐	No	☒	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 3/4/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 006

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 02' 08.2" Long: 117W 11' 00.0" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☐ No ☒

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?** **Yes** ☒ **No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**	**0%**		
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **Typha latifolia**	**100%**	**Yes**	**OBL**
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum			
1. **Typha latifolia**	**100%**	**Yes**	**OBL**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**2**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**0%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :		Multiply by:	
OBL species	200	x1 =	200	
FACW species		x2 =		
FAC species		x3 =		
FACU species		x4 =		
UPL species		x5 =		
Column Totals:	200	(A)	200	(B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☒

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 006

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/2						Clay	
14-18	10YR 3/1						Clay	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Atypical. Located below road cut / fill slope. Sediment transported from uplands. Feature may be too recent for full soil reduction / hydric soil development.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1) - Adjacent
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☒ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☒	No	☐	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 2/28/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 007

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 5%

Subregion (LRR): Lat: 33N 02' 08.2" Long: 117W 11' 00.0" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampling Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**			
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **Picris echiodes**	**100%**	**Yes**	**Fac+**
2.			
3.			
4.			
5.			
	100%	= Total Cover	
Herb Stratum			
1. **Pichris echiodes**	**100%**	**Yes**	**Fac+**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**2**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**100%**	(A/B)

Prevalence Index worksheet:

Total %Cover of :		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	**200**	x3 =	**600**
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	200 (A)		600 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 007

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-18	10YR 4/2						Clay	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☒	No	☐	Depth (inches):	18
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	18

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 3/4/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 008

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 02' 07.6" Long: 117W 11' 00.7" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampling Area within a Wetland?** **Yes** ☒ **No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐	

Remarks: **Atypical Situation: Soils. See reverse.**

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Schinus molle**	**100%**	**Yes**	**NI**
2.			
3.			
4.			
	100%	= Total Cover	
Sapling/Shrub Stratum			
1. **None**			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum			
1. **Rorippa nasturtium-aquaticum**	**100%**	**Yes**	**Obl**
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**1**	(A)
Total Number of Dominant Species Across All Strata:	**2**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**50%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :		Multiply by:	
OBL species	**100**		x1 =	100
FACW species			x2 =	
FAC species			x3 =	
FACU species			x4 =	
UPL species	100		x5 =	500
Column Totals:	200	(A)		600 (B)

Prevalence Index = B/A = **3**

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

Yes Prevalence Index is $\leq 3.0^1$

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL Sampling Point: 008

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-18	10YR 3/2						Clay	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks: Atypical. Sediment transported from adjacent uplands. Feature may be too recent for full soil reduction and development of hydric soil characteristics.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☒ Sediment Deposits (B2) **(Riverine)**
- ☒ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☒	No	☐	Depth (inches):	12
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	3

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 3/4/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 009

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 02' 07.8" Long: 117W 11' 00.9" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☒, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☐	No	☒	**Is the Sampling Area within a Wetland?** **Yes** ☒ **No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐	

Remarks: **Atypical Situation: Soils. See reverse.**

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**			
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **Typha latifolia**	**100%**	**Yes**	**Obl**
2.			
3.			
4.			
5.			
	100%	= Total Cover	
Herb Stratum			
1. **None**			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**1**	(A)
Total Number of Dominant Species Across All Strata:	**1**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**100%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :	Multiply by:	
OBL species	**100**	x1 =	100
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	100 (A)		100 (B)

Prevalence Index = B/A = **1**

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL Sampling Point: 009

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-18	10YR 3/2						Clay	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks: Atypical. Sediment transported from adjacent uplands. Feature may be too recent for full soil reduction and development of hydric soil characteristics.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☒ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☐	No	☒	Depth (inches):	>18
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	12

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 3/11/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 010

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 02' 07.4" Long: 117W 11' 00.9" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒			
Hydric Soil Present?	Yes ☐	No ☒	**Is the Sampling Area within a Wetland?**	**Yes ☐**	**No ☒**
Wetland Hydrology Present?	Yes ☐	No ☒			

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Schinus molle**	**50%**	**Yes**	**NI**
2.			
3.			
4.			
	50%	= Total Cover	
Sapling/Shrub Stratum			
1. **Baccharis pilularis**	**40%**	**Yes**	**Obl**
2. **Picris echiodes**	**40%**	**Yes**	**Fac+**
3. **Brassica nigra**	**20%**	**Yes**	**FacU**
4.			
5.			
	100%	= Total Cover	
Herb Stratum			
1. **Pichris echiodes**	**50%**	**Yes**	**Fac+**
2. **Brassica nigra**	**50%**	**Yes**	**FacU**
3.			
4.			
5.			
6.			
7.			
8.			
	100%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **0%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**6**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**33%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :		Multiply by:	
OBL species	**40**	x1 =	**40**	
FACW species	**0**	x2 =	**0**	
FAC species	**90**	x3 =	**270**	
FACU species	**70**	x4 =	**280**	
UPL species	**50**	x5 =	**250**	
Column Totals:	250 (A)		**840**	(B)

Prevalence Index = B/A = **3.36**

Hydrophytic Vegetation Indicators:

No Dominance Test is >50%

No Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☐	**No**	☒

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 010

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3						Sandy Clay Loam	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☐ Drift Deposits (B3) **(Riverine)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☐	No	☒	Depth (inches):	>18
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	>18

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Rancho Santa Fe Roundabouts City/County: San Diego Sampling Date: 3/11/08

Applicant/Owner: County of San Diego Department of Public Works State: CA Sampling Point: 011

Investigator(s): J. Appelbaum Section, Township, Range: T13S, R3W, Section Undefined

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): None Slope (%): 1%

Subregion (LRR): Lat: 33N 02' 07.2" Long: 117W 11' 01.8" Datum: NAD 83

Soil Map Unit Name: Huerhuero Loam 2 to 9 percent slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐				
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?**	**Yes**	☒	**No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐				

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. **None**			
2.			
3.			
4.			
	0%	= Total Cover	
Sapling/Shrub Stratum			
1. **Typha latifolia**	**50%**	**Yes**	**Obl**
2. **Iva hayesiana**	**40%**	**Yes**	**FacW**
3. **Scirpus spp.**	**10%**	**No**	**Obl**
4.			
5.			
	100%	= Total Cover	
Herb Stratum			
1. **None**			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0%	= Total Cover	
Woody Vine Stratum			
1. **None**			
2.			
	0%	= Total Cover	

% Bare Ground in Herb Stratum **100%** % Cover of Biotic Crust **None**

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	**2**	(A)
Total Number of Dominant Species Across All Strata:	**2**	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	**100%**	(A/B)

Prevalence Index worksheet:

	Total %Cover of :		Multiply by:	
OBL species	**50**	x1 =	**50**	
FACW species	**40**	x2 =	**80**	
FAC species		x3 =		
FACU species		x4 =		
UPL species		x5 =		
Column Totals:	90	(A)	**130**	(B)

Prevalence Index = B/A = **1.44**

Hydrophytic Vegetation Indicators:

Yes Dominance Test is >50%

Yes Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present?	**Yes**	☒	**No**	☐

Remarks:

Project Site: Rancho Santa Fe Roundabouts

SOIL

Sampling Point: 011

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]		
0-6	10YR 3/2						Clay	
6-18							Boulder/Rock	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) **(LRR C)**
- ☐ 1 cm Muck (A9) **(LRR D)**
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR C)**
- ☐ 2 cm Muck (A10) **(LRR B)**
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (Inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1) **(Nonriverine)**
- ☐ Sediment Deposits (B2) **(Nonriverine)**
- ☐ Drift Deposits (B3) **(Nonriverine)**
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☒ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) **(Riverine)**
- ☐ Sediment Deposits (B2) **(Riverine)**
- ☒ Drift Deposits (B3) **(Riverine)**
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Thin Muck Surface (C7)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	☒	No	☐	Depth (inches):	3
Water Table Present?	Yes	☒	No	☐	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix D
Traffic Impact Analysis

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT ANALYSIS

RANCHO SANTA FE ROUNDABOUTS

San Diego, California
July 26, 2012

Prepared for:

County of San Diego
Department of Public Works
Environmental Services
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San Diego, CA 92123

LLG Ref. 3-11-2046

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EXECUTIVE SUMMARY

Linscott, Law & Greenspan Engineers (LLG) has been retained to evaluate three (3) alternatives proposed for the following three intersections along Paseo Delicias in the San Dieguito Community Plan area within unincorporated San Diego County:

- El Camino Del Norte/Del Dios Highway,
- El Montevideo/La Valle Plateada and
- Via de la Valle/La Fremontia.

The three alternative traffic configurations include:

- Current configurations (stop signs)
- Traffic signals
- Roundabouts

The County of San Diego Department of Public Works (DPW) is proposing the construction of roundabouts at the above listed intersections along Paseo Delicias. Paseo Delicias between Via de la Valle and El Camino del Norte is currently a two-lane light collector road in the rural residential neighborhood of Rancho Santa Fe in northwest San Diego County.

At each intersection, the design will accommodate pedestrian and equestrian uses. The installations of either roundabouts or traffic signals were found to be viable alternatives from a traffic operations standpoint. Based on the County of San Diego significance criteria, no significant capacity related traffic impacts would result from operation of the project. Therefore, mitigation measures are not necessary.

Based on the analysis in this report, providing a roundabout or traffic signal at the proposed locations would have the following advantages:

- Queue Reduction: As indicated in Table 3-3, the queue lengths for critical movements at the two all-way stop sign controlled intersections would reduce.
- Local street traffic Reduction: Since additional capacity would be provided on the Paseo Delicias corridor, a portion of the local street traffic would shift back to the Paseo Delicias Corridor from residential streets, such as Lago Lindo.
- Delay reduction: As indicated in Tables 3-1 and 3-2, the delay at these intersections would reduce. As a result, the travel time delays within the corridor will decrease (especially during the AM and PM peak hours), and the traffic flow and the average speed will improve. The project will be a benefit to traffic circulation within the study area.

This report also assesses the potential traffic impacts resulting during the construction of the three roundabouts. The construction would take place over approximately 18 months, and would require full and partial lane closures as needed to accomplish the proposed work. In addition, a minor elevation increase at the El Montevideo intersection would result in the need to implement a prolonged single-lane closure of this intersection, as considered in Construction Scenario A.

Both of the construction scenarios discussed below would be implemented as needed to control traffic during construction. These scenarios describe the impacts for the worst case traffic impact scenarios during construction. Because these impacts would not be mitigated to a level of less than significant, they would be considered significant and unavoidable. However, because the impacts would only occur during construction, no roadway improvements (such as additional travel lanes) are warranted.

Construction Scenario A – Eastbound Lane Closure-Detour Route

This scenario analyzes the impacts caused due to the temporary closure of the Paseo Delicias eastbound lane at El Montevideo and the implementation of a formal detour plan. This intermittent closure of Paseo Delicias at El Montevideo eastbound is expected to last up to two (2) months. It should be noted that the westbound lane of travel would be kept open at all times for this scenario. During the proposed detour, motorists traveling eastbound along the Del Dios corridor will experience approximately 14.0 minutes of added travel time during the AM peak hour and 14.4 minutes of added travel time during the PM peak hour. No change in travel time is anticipated for westbound traffic.

Construction Scenario B – Flagging Operation

This scenario analyzes the impacts that would result from the temporary flagging operations along Paseo Delicias at all three proposed roundabout intersections while keeping the El Montevideo intersection open. During the morning peak hour, one lane in each direction would remain open. However, during the afternoon peak hour and the balance of the day only one travel lane would be open. Flaggers will be utilized to allow one direction of traffic to proceed for a maximum of 10 minutes. This flagging operation along Paseo Delicias is expected to last up to one (1) year. During the flagging operations, motorists traveling eastbound along the Del Dios corridor will experience approximately 5.0 minutes of added travel time during the AM peak hour and 10.0 minutes of added travel time during the PM peak hour. Motorists traveling westbound along the Del Dios corridor will experience approximately 2.0 minutes of added travel time during the AM peak hour and 11.0 minutes of added travel time during the PM peak hour. It should be noted that this is worst case scenario since, for the majority of the construction, one lane will be open in each direction at the outer two roundabouts.

TRAFFIC IMPACT ANALYSIS

RANCHO SANTA FE ROUNDABOUTS

San Diego, California

July 26, 2012

1.0 INTRODUCTION

1.1 Purpose of the Report

Linscott, Law & Greenspan Engineers (LLG) has been retained to evaluate three (3) alternatives proposed for three intersections along Paseo Delicias in the San Dieguito Community Plan area.

The three alternative traffic configurations include:

1. Current configuration (stop signs) – Paseo Delicias/El Camino Del Norte/Del Dios Highway is a one-way stop controlled intersection. The other two intersections are all-way stop controlled.
2. Traffic signals – The stop sign controls at all three intersections would be replaced by traffic signals. Assumed lane configurations for this alternative differ from that of the current configuration and are included in Figure 3-4.
3. Roundabouts – The stop sign controls at all three intersections would be replaced by roundabouts. Combination pedestrian/equestrian crossings will be provided.

This traffic report includes a specific analysis of each.

This report also assesses the potential traffic impacts resulting during the construction of the three roundabouts. The proposed construction will require full/partial lane closures and therefore the detour route (Construction Scenario A) and the flagging operation (Construction Scenario B) scenarios have been evaluated.

The following items are included in this report:

- Project Description;
- Existing Traffic Volumes;
- Existing With Current Configuration Assessment;
- Existing With Traffic Signals Assessment;
- Existing With Roundabouts Assessment;
- Year 2030 With Current Configuration Assessment;
- Year 2030 With Traffic Signals Assessment;
- Year 2030 With Roundabouts Assessment;
- Equestrian and Driveway Locations Discussion;
- Construction Traffic Analysis
- Conclusions

1.2 Project Description and Location

The County of San Diego Department of Public Works (County DPW) proposes to construct traffic roundabouts at three intersections along Paseo Delicias in the unincorporated community of San

Dieguito in northwest San Diego County. These roundabouts would ease traffic congestion along Paseo Delicias without alterations to the width of the road or number of lanes. No changes to the posted speed limits or segment characteristics of any of the affected roadways are planned as part of the proposed project.

Roundabouts would be constructed to replace the existing stop sign controls at the following Paseo Delicias intersections:

- Via de la Valle/La Fremontia (all-way stop sign controlled)
- El Montevideo/La Valle Plateada (all-way stop sign controlled)
- El Camino del Norte/Del Dios Highway (stop sign controlled only on El Camino del Norte)

Paseo Delicias is a two-lane road between Via de la Valle and El Camino del Norte that provides a link between Interstate 15 (I-15) along Via Rancho Parkway and Del Dios Highway and connects to other westbound local roads for access to Interstate 5 (I-5). Paseo Delicias is classified as a 2.2.A Light Collector in the County of San Diego General Plan Mobility Element. Vehicles traveling along or accessing this roadway corridor must wait in long queues during peak commute periods at the three project intersections. To avoid long waits, some motorists divert onto surrounding residential roadways, which results in potential traffic conflicts and delays to residents accessing their driveways.

The roundabouts would be built based on to FHWA guidelines for design of rural roundabouts. Striping and pavement markings for each roundabout would conform to the California Manual on Uniform Traffic Control Devices (CA MUTCD). Prior to final design and placement of the roundabouts, the comprehensive engineering design plans, prepared by a licensed civil engineer experienced in the design and construction of roundabouts, would undergo a peer review. Roundabout design plans, which include the proposed geometry, lane widths, turning radius, appropriate speed limits and turn pocket lengths, are included in ***Appendix M***. The roundabouts would include adequate signage and illumination to provide for pedestrian, bicyclist, equestrian and motorist safety. The roundabouts' diameters would be 110 feet and, from the center to the edge, would include a 12-15 foot wide truck apron, a 16 foot wide travel lane and a 48-54 foot diameter central island. The center of each roundabout would be landscaped and curbs would be installed around the perimeter of each roundabout to direct the circular flow of traffic. Curbs would also be installed for the raised medians at the approach to each roundabout.

Traffic entering each roundabout would not be stop controlled at any of the intersecting street segments. Yield signs would be installed at each entry to the roundabouts to require vehicles approaching each roundabout to yield the right-of-way to vehicles already within the roundabout. Vehicles will slow at the roundabout yield sign to create gaps in the traffic flow. Drivers must maneuver around the splitter islands and central island, at speeds of 15–27 miles per hour. The entering vehicles would merge into the counter-clockwise flow of a single lane of traffic. Through traffic on Paseo Delicias would complete a one-half circle on the roundabout and continue in a westbound or eastbound direction. Vehicles turning onto intersecting streets would complete a one-quarter or three-quarter circle on the roundabout and would be able to exit onto any of the intersecting street segments.

Combination pedestrian/equestrian crossings would be delineated by crosswalk markings in the pavement. Push-button-activated crossings with in-pavement lighting and flashing warning signs would be located between 400 and 500 feet in advance of the crossings per the CA MUTCD and would simultaneously illuminate each segment of the intersection. The push-button controls would be placed at an appropriate height for equestrians.

Construction of the project would occur over a period of approximately 18 months and would require temporary full and partial lane closures to accomplish the proposed work. During these closures appropriate measures, such as flagging operations and a detour route, would be implemented as needed to minimize impacts to traffic. (Refer to Chapter 4 for a discussion on the project's construction impacts.) Additional intersections and segments as identified in Chapter 4 were analyzed to assess the construction traffic impacts.

Figure 1–1 shows the general vicinity of the project and ***Figure 1–2*** shows a more detailed project area map. The roundabouts are individually described below.

Via de la Valle/La Fremontia Intersection

The Via de la Valle/La Fremontia roundabout would have three intersecting street segments: Paseo Delicias from the west and east, and Via de la Valle from the south. The design for this roundabout includes the closure of the western La Fremontia intersection. The western leg of La Fremontia would be made into a cul-de-sac and access to this road would be east of the roundabout at its eastern intersection with Paseo Delicias. A landscaped berm would be constructed between the new cul-de-sac and the roundabout. The southwest and southeast corners at the intersection of Paseo Delicias/Via de la Valle would be widened to accommodate the roundabout and for the realigned equestrian trail that would follow along the southeast side of the intersection. Existing bus stops on Paseo Delicias would be relocated to match the alignment of the roundabout. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout and cul-de-sac.

South of the proposed roundabout, the intersection of Las Colinas with Via de la Valle would be realigned to the south to intersect Via de la Valle at a right angle. This realignment would allow continuous traffic flow through the three street segments in the roundabout and allow full access to Las Colinas from Via de la Valle. Transition lanes to facilitate right turns into and out of Las Colinas and a left turn pocket into Las Colinas would also be constructed. Two private driveways on Las Colinas would be lengthened to connect with the realigned roadway.

West of the roundabout, the eastern access to a circular driveway at a private residence on the south side of Paseo Delicias would be closed. Ingress and egress to the private residence would be maintained via the western side of the circular driveway. Left-out access from a residential driveway located on the northwest corner of the intersection of Via de la Valle and Paseo Delicias would be prohibited due to the presence of the proposed splitter island on the eastbound approach of Paseo Delicias to the intersection with Via de la Valle.

El Montevideo/La Valle Plateada Intersection

The El Montevideo/La Valle Plateada roundabout would have four intersecting street segments: Paseo Delicias from the west and east, El Montevideo from the north, and La Valle Plateada from the south. To accommodate the roundabout, the intersection would be widened and shifted slightly in a northeasterly direction, and would undergo a minor elevation increase to meet safety requirements for roundabouts design. No widening would be required at the southwest side of the intersection. Existing bus stops on Paseo Delicias would be relocated farther to the east and west of the roundabout.

El Camino del Norte Intersection

The El Camino del Norte roundabout would have three intersecting street segments: Paseo Delicias approaching from the west, Del Dios Highway from the east, and El Camino del Norte from the north. The intersection would be widened on the northwest and northeast corners to accommodate the roundabout. Retaining walls would be constructed on the south side of Paseo Delicias / Del Dios Highway and the east side of El Camino del Norte. Existing drainage system improvements would be extended within the areas of new pavement for the roundabout. The equestrians approaching the roadway from the existing trail would be rerouted along the shoulders of Paseo Delicias to access the proposed crosswalk to be located just west of the roundabout. Two driveways on the west side of El Camino del Norte would be combined and provided access to El Camino del Norte north of the proposed splitter island. Combining these driveways would allow full driveway access for the residences located at the northwest corner of the El Camino del Norte intersection

1.3 Significance Criteria

The following criterion was utilized to evaluate potential significant impacts, based on the *County of San Diego Guidelines for Determining Significance—Transportation and Traffic*, dated June 30, 2009 with a second modification effective August 24, 2011. The County of San Diego's General Plan Mobility Element discusses the County's Level of Service criteria under Goal M-2. It requires that development projects provide associated road improvements necessary to achieve a level of service of "D" or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County. The County maintains a list of such roads.

1.3.1 *Road Segments*

This section provides guidance for evaluating adverse environmental effects a project may have on street segments. The allowable ADT increases on Mobility Element roadways that operate at LOS E/F were obtained from County guidelines and are summarized in ***Table 1–1***. Exceeding the thresholds in Table 1-1 would result in a significant impact on Mobility Element Roads.

For unclassified residential streets, traffic volume increases from projects that would cause such streets to exceed its design capacity would also result in a significant impact. It should be noted that these thresholds only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

TABLE 1–1
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON MOBILITY ELEMENT ROAD SEGMENTS
ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

General Notes:

1. By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

1.3.2 *Intersections*

This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections. ***Table 1–2*** was obtained from County guidelines and summarizes the allowable increases in delay or traffic volumes at signalized and unsignalized intersections. Exceeding the thresholds in Table 1-2 would result in a significant impact.

TABLE 1–2
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON INTERSECTIONS
ALLOWABLE INCREASES ON CONGESTED INTERSECTIONS

Level of service	Signalized	Unsignalized
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
LOS F	Either a Delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement

General Notes:

1. A critical movement is an intersection movement (right-turn, left-turn, through-movement) that experiences excessive queues, which typically operate at LOS F.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay ***and*** the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

Signalized Intersections—Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F,

or will cause a signalized intersection to operate at a LOS E or LOS F as identified in *Table 1–2*.

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

Unsignalized Intersections—The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic impact on an unsignalized intersection as listed in *Table 1–2* and described as text below:

- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

1.3.3 *Two-Lane Highways*

Signalized Intersection Space Over One Mile - Two-Lane Highways with intersection spacing over one mile have minimal side friction and conform to the HCM assumptions for two-lane highways. Level of Service criteria for LOS E and LOS F are provided in ***Table 1–3*** based upon criteria established with the Counties of Riverside and Sacramento and concurred upon by Caltrans–District 11. These criteria are appropriate for use for most projects with the potential to affect two-lane highways, as road conditions for two-lane highways in these Counties are similar to those in the County of San Diego.

TABLE 1–3
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION
ALLOWABLE INCREASES ON TWO-LANE HIGHWAYS
(With Signalized Intersection Spacing Over One Mile)

Level of Service	LOS Criteria	Impact Significance Level
LOS E	> 16,200 ADT	>325 ADT
LOS F	> 22,900 ADT	>225 ADT

General Notes:

1. Where detailed data is available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in Chapter 20 of the Highway Capacity Manual.

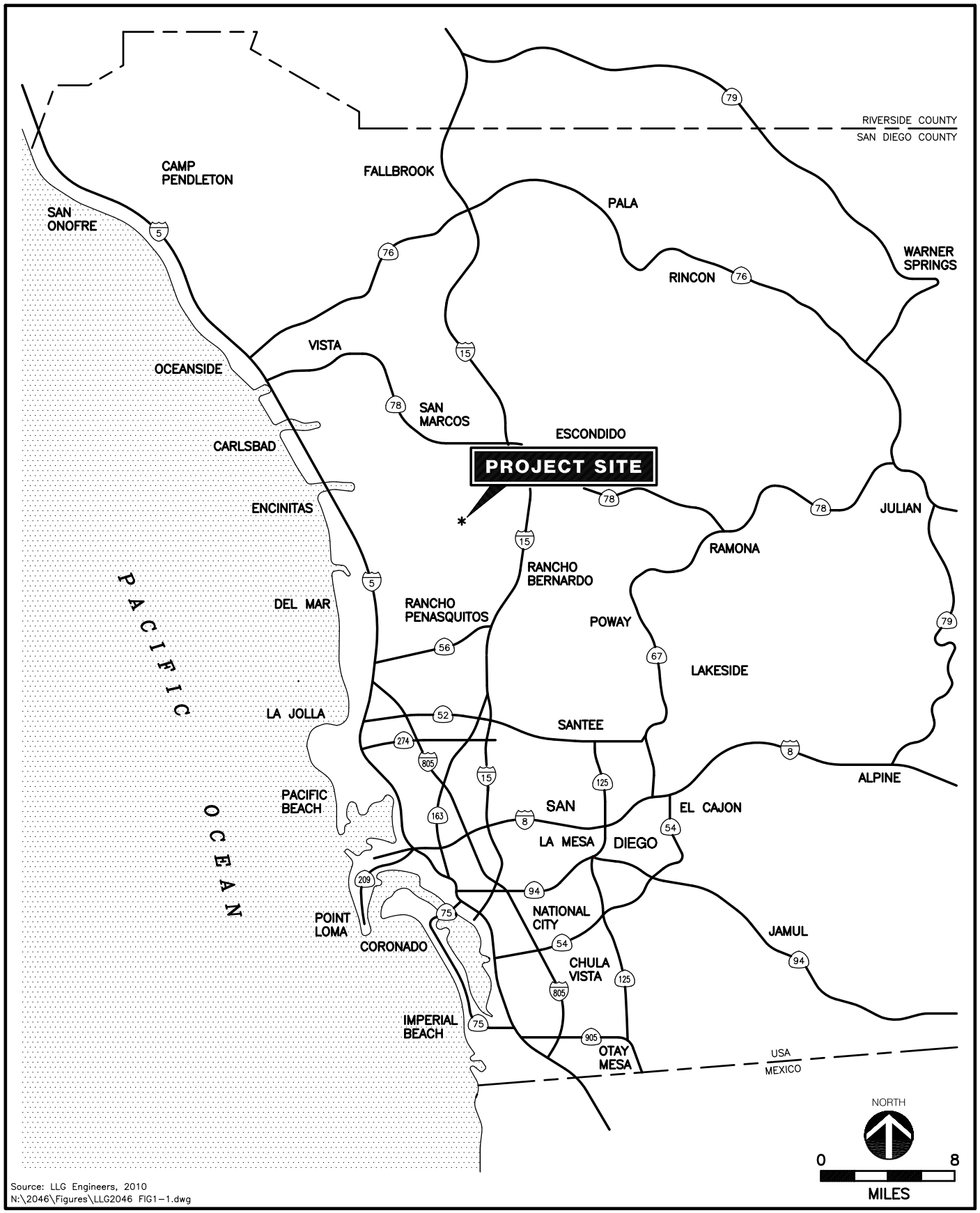
Signalized Intersection Space Under One Mile - Two-Lane Highways with intersection spacing less than one mile have operate similar to urban streets as identified in the HCM. Per the HCM, level Urban Streets have lower speeds with levels of service most characterized by the operation of the intersections along the highway/street. For two-lane highways with intersection spacing less than one mile, the level of service will be determined to be that of the intersections along the highway. Impacts to the highway will be determined by evaluating the intersection impact criteria identified in ***Table 1–4***.

TABLE 1–4
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION
ALLOWABLE INCREASES ON TWO-LANE HIGHWAYS
(With Signalized Intersection Spacing Under One Mile)

Level of Service	Signalized
LOS E	Delay of 2 seconds or less
LOS F	Delay of 1 second, or 5 peak hour trips or less on a critical movements

General Notes:

1. A critical movement is an intersection movement (right-turn, left-turn, through movement) that experiences excessive queues which typically operate at LOS F.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating it share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

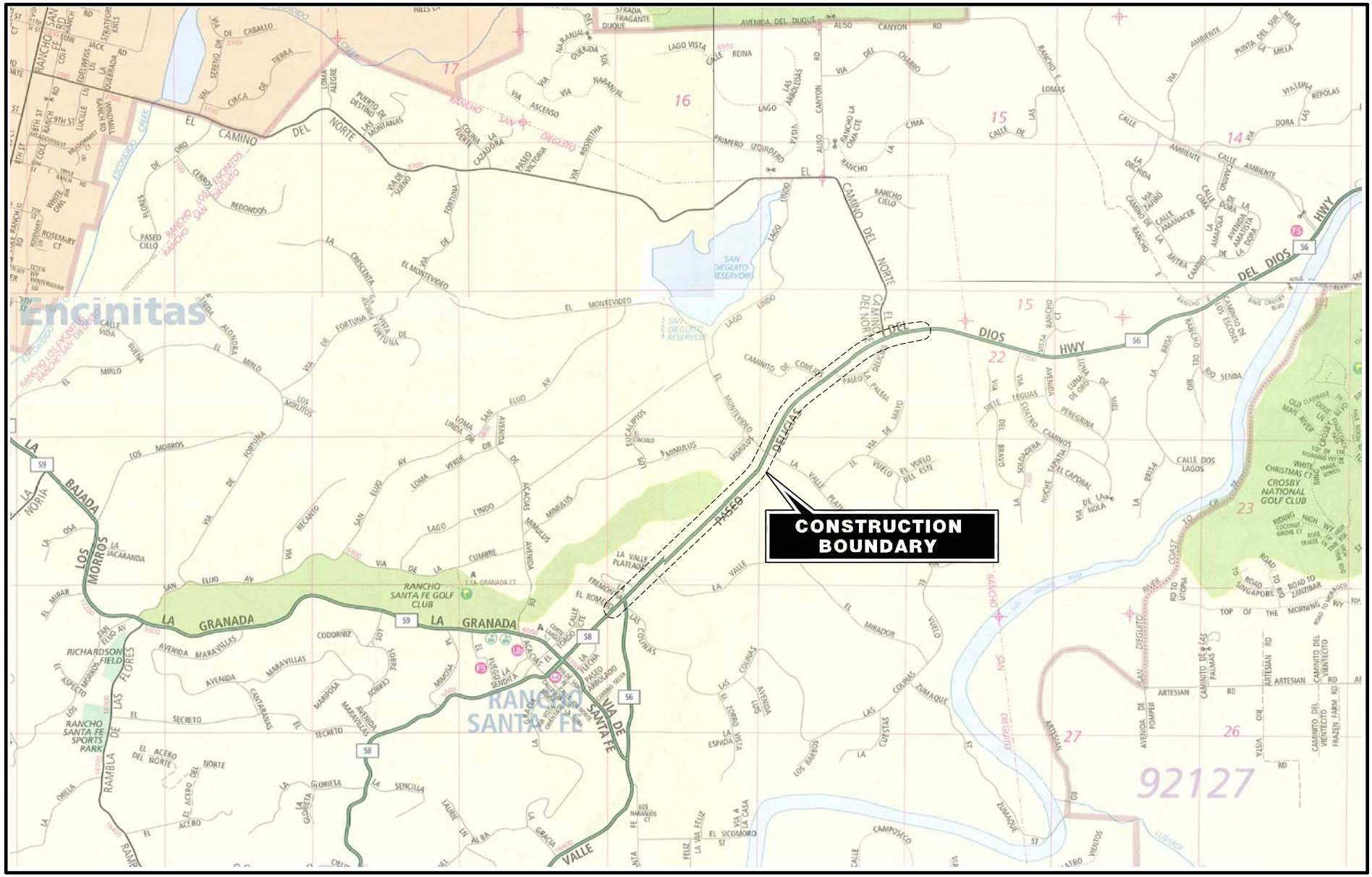


Source: LLG Engineers, 2010
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Figure 1-1

Vicinity Map



Source: Thomas Guide, 2010
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NORTH

NOT TO SCALE

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Figure 1-2

Project Area Map

RANCHO SANTA FE ROUNDABOUTS

2.0 EXISTING CONDITIONS

Effective evaluation of the traffic operations requires an understanding of the existing transportation system in the project study area. Existing transportation conditions in the study area include roadway geometrics, traffic control, and peak hour/daily traffic flow.

2.1 Existing Transportation Conditions

The principal roadways in the project study area are described briefly below. The description includes the physical characteristics, adjacent land uses, and intersection traffic control. ***Figure 2–1*** illustrates existing transportation conditions.

El Camino Del Norte is classified as a 2.2F Light Collector on the County of San Diego Mobility Element. El Camino Del Norte is currently constructed as a two-lane undivided roadway with a posted speed limit of 40 MPH. There are no curbs, gutters or sidewalks in the vicinity of the study area.

Lago Lindo, a non Mobility Element Road, is a two lane roadway extending from El Camino Del Norte to Via de La Cumbre. This road is used as an alternate route to Paseo Delicias at times during peak hours.

Avenida De Acacias is not a Mobility Element Road. It currently provides one lane in each direction. Within the study area the speed limit is not posted and no bike lanes or bus stops are provided.

Paseo Delicias/ Del Dios Highway is classified as a 2.2A Light Collector on the County of San Diego Mobility Element with a raised median from Linea del Cielo to El Camino del Norte. Del Dios Highway is a 2.1D Community Collector from Paseo Delicias to the boundary of the North County Metropolitan Subregional Plan Area. Del Dios Highway is generally a two lane undivided roadway with a posted speed limit of 50 MPH east of El Montevideo and 40 MPH west of El Montevideo. Bike lanes are not provided on this roadway. Bus stops are provided at regular intervals and there are generally no curbs, gutters or sidewalks provided. Long queues are experienced during peak hours at the Stop Controlled intersections along Paseo Delicias / Del Dios Highway.

La Granada is classified as a 2.2F Light Collector road on the County of San Diego Mobility Element. It currently provides one lane in each direction. The posted speed limit is 45 mph. Curbside parking is not permitted and no bike lanes or bus stops are provided.

Via de la Valle is classified in the Mobility Element as a 2.1B Community Collector from the San Diego City limit to Las Planideras, and is a 2.1E Community Collector from Las Planideras to Paseo Delicias. Currently, from San Andreas Drive to Paseo Delicias, Via de la Valle is constructed as a two lane undivided roadway with 31-feet curb-to-curb in some areas and 50-feet curb to curb in others.

El Montevideo is not a Mobility Element road. El Montevideo is currently constructed as a two lane undivided roadway. The posted speed limit is 45 mph. There are no curbs, gutters, or sidewalks in the vicinity of the study area.

La Valle Plateada is not a Mobility Element road. La Valle Plateada is currently constructed as a two lane undivided roadway.

2.2 Existing Traffic Volumes

Existing weekday AM and PM peak hour traffic volumes were collected at the study intersections to capture peak commuter activity. The peak hour manual turning movement counts were conducted in March 2011. Counts were conducted during both the AM (7:00-9:00) and PM (4:00-6:00) peak periods (of which the peak hours are one-hour subsets). ***Appendix A*** contains the manual count sheets. ***Figure 2–2*** depicts the peak hour intersection turning movement and segment ADT's at the study area intersections.

2.3 Existing Operations

Table 2–1 summarizes the existing intersections level of service. As seen in *Table 2–1*, the following study intersections are evaluated to operate at LOS E or F during either the AM or PM peak hours.

- Paseo Delicias/El Montevideo/La Valle Plateada (LOS E during the AM peak hour and LOS F during the PM peak hour); and
- Del Dios Hwy/El Camino Del Norte (LOS F during both the AM and PM peak hours).

The LOS F at the Del Dios Highway / El Camino Del Norte intersection is for the left turn from El Camino Del Norte onto Del Dios Highway where long queues develop. ***Appendix C*** contains the existing intersection analysis worksheets.

TABLE 2–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
1. Paseo Delicias/Via De La Valle	AWSC	AM	18.6	C
		PM	17.9	C
2. Paseo Delicias/El Montevideo/La Valle Plateada	AWSC	AM	43.6	E
		PM	63.9	F
3. Del Dios Hwy/El Camino Del Norte	TWSC (SB)	AM	68.6	F
		PM	>100.0	F

Footnotes:

a. Average delay expressed in seconds per vehicle.

b. Level of Service.

Notes:

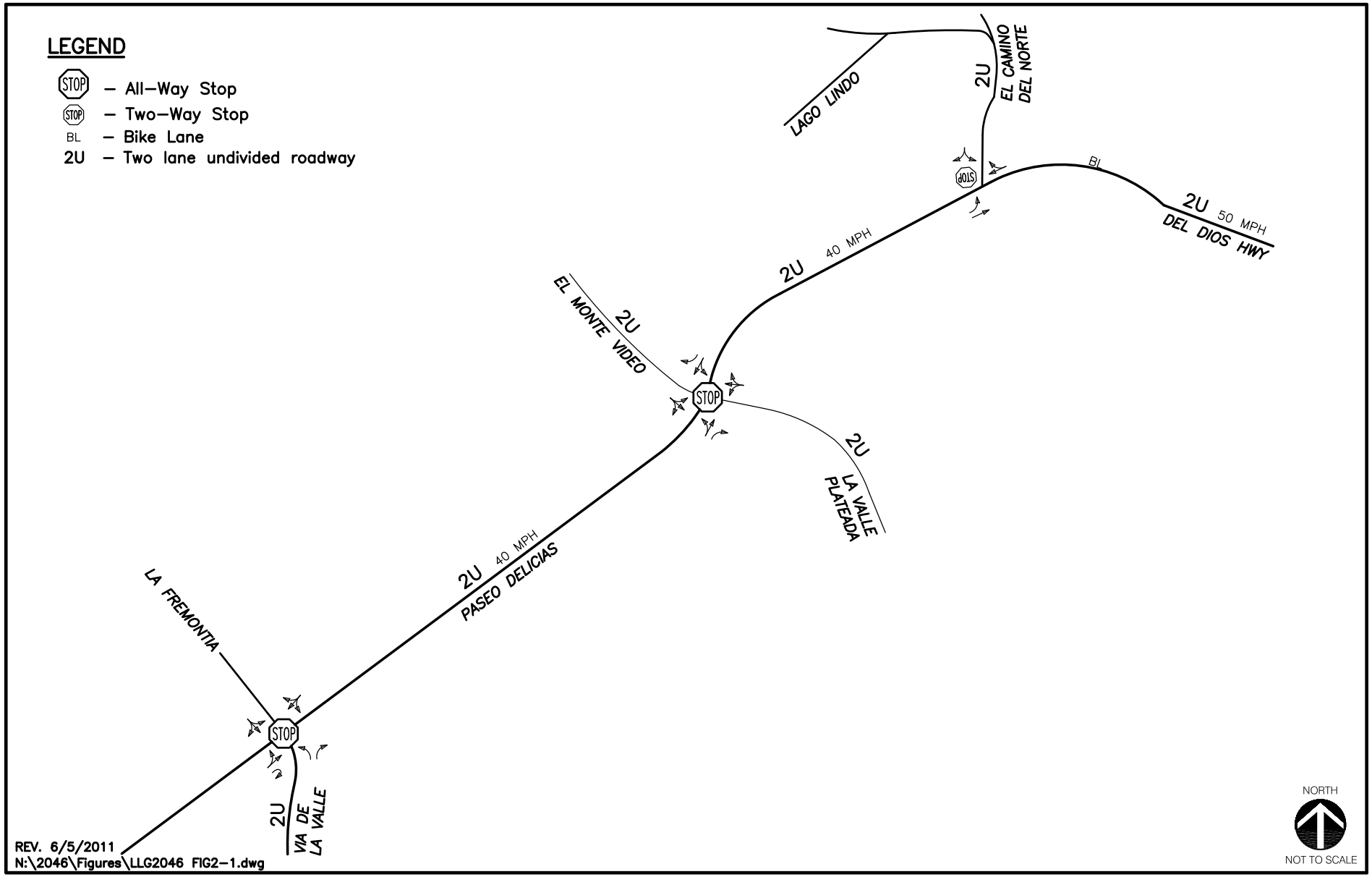
TWSC – Two-Way Stop Controlled intersection. Minor street delay is reported (southbound left turn)

AWSC - All-Way Stop Controlled intersection. Overall delay is reported.

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F



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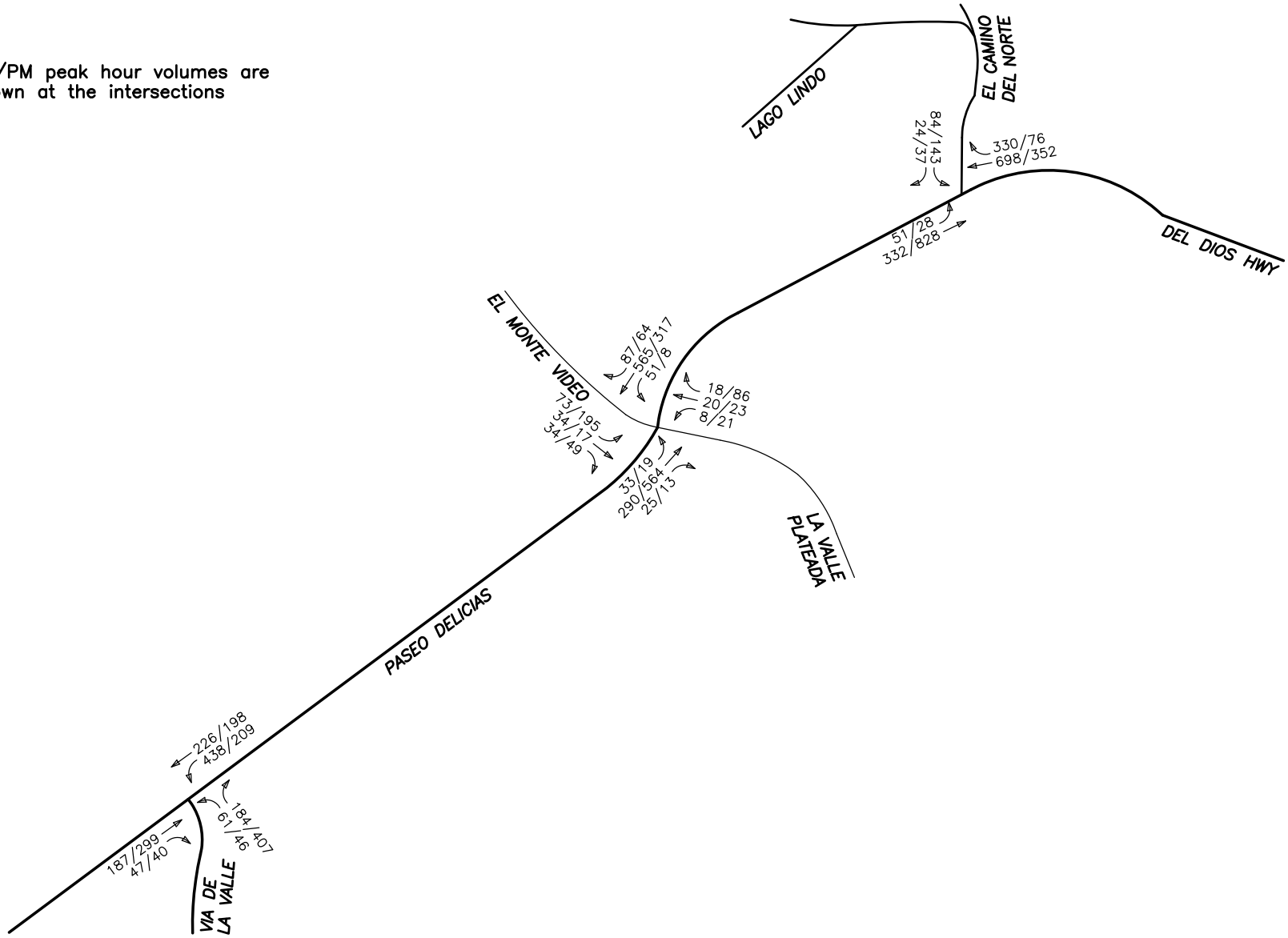
Figure 2-1

Existing Conditions Diagram

Rancho Santa Fe Roundabouts

NOTES:

- AM/PM peak hour volumes are shown at the intersections



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Figure 2-2
Existing Traffic Volumes With Existing Intersection Controls AM/PM Peak Hours
Rancho Santa Fe Roundabouts

3.0 PROJECT IMPACT ANALYSIS

This traffic analysis assesses the key intersections in the project area. The analysis focuses on intersections as opposed to street segments since the project itself consists of intersection improvements. Although some shift in traffic from local roads to Paseo Delicias is expected, this shift will occur due to improved operations on Paseo Delicias. Since the overall operations on Paseo Delicias are expected to improve with the proposed roundabouts, a street segment analysis is not warranted. The study area for this analysis includes the following intersections:

1. Paseo Delicias/Via De La Valle (proposed roundabout)
2. Paseo Delicias/El Montevideo/La Valle Plateada (proposed roundabout)
3. Del Dios Highway/El Camino Del Norte (proposed roundabout)

The study area intersections were analyzed for the following scenarios:

- Existing With Current Configuration (Stops Signs)
- Existing With Traffic Signal
- Existing With Roundabout
- Year 2030 With Current Configuration (Stops Signs)
- Year 2030 With Traffic Signal
- Year 2030 With Roundabout

3.1 Analysis Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment or intersection under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

Intersections

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the *2000 Highway Capacity Manual (HCM),* with the assistance of the *Traffix* computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS).

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 17 of the *2000 Highway Capacity Manual (HCM),* with the assistance of the *Traffix* computer software.

Roundabout intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures of the *2000 Highway*

Capacity Manual (HCM), with the assistance of the *aaSidra* (version 2.1) computer software. The aaSIDRA roundabout capacity model can be calibrated to reflect local road and driver characteristics conditions using an Environment Factor. As indicated in the "*Roundabout Model Calibration Issues and a case study*", this factor represents the general roundabout environment in terms of roundabout design type, visibility, significant grades, operating speeds, size of light and heavy vehicles, driver aggressiveness and alertness (driver response times), pedestrians, heavy vehicles activity (goods vehicles, buses or trams stopping on approach roads), parking turnover and similar factors affecting vehicle movements on approach and exit sides as well as the circulating road as relevant. These are taken into account in terms of their impact on vehicles entering the roundabout. It should be noted that the expectation that drivers would be more experienced in utilizing the roundabouts as time goes on was taken into account in the Year 2030 analysis. Also, since the intersection also has good visibility, negligible pedestrian volumes, insignificant parking and heavy vehicle activity, a lower environment factor of 0.95 was utilized for Year 2030 roundabout analysis as recommended in the aaSidra User Guide.

3.2 Existing With Roundabout / Traffic Signal Forecasted Volumes

In order to forecast future traffic volumes for the Existing with Roundabout/Traffic Signal scenario, a new SANDAG Model was run with the proposed roundabouts assumed at each intersection. Most of the forecast ADT's were utilized as reported by the SANDAG model. However, some volumes were revised to ensure that the volumes were consistent with the traffic engineering principals described below and to account for local cut thru traffic (as discussed below). The forecast ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes. Since both the roundabout and the traffic signal scenarios would result in similar operational improvements, this traffic study assumes the same volumes for both the scenarios.

Several other Traffic Engineering principles and factors such as the K-factor and D-factor were also considered in the forecast analysis (see ***Appendix B*** for definitions). The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and they were compared to existing volumes.

Particular attention was paid to the presence of cut-thru traffic in the neighborhoods; especially on Lago Lindo in the AM peak hour and La Valle Plateada in the PM peak hour. To avoid the traffic congestion on Paseo Delicias in the AM peak hour, traffic was observed to use El Camino del Norte, Lago Lindo, Avenida de Acacias and other residential streets. Similarly, to avoid the traffic congestion on Paseo Delicias in the PM peak hour, traffic was observed to use La Valle Plateada and other residential streets. However, once the traffic congestion on Paseo Delicias is reduced by constructing either roundabouts or traffic signals, a large portion of the traffic currently using other residential streets would use Paseo Delicias and hence increase the traffic volume on this roadway.

Figure 3–1 illustrates the forecasted Existing with roundabout/traffic signal traffic volumes.

3.3 Existing with Roundabout / Traffic Signal Analysis

3.3.1 *Existing With Traffic Signals*

Table 3–1 summarizes the Existing (With Traffic Signal) intersection level of service. As seen in *Table 3–1*, all study intersections are calculated to operate at LOS C or better in both the AM and PM peak hours. ***Figure 3-4*** illustrates the Existing (with Traffic Signal) assumed lane configuration. The striping plan with the proposed geometry, lane widths and turn pocket lengths is included in ***Appendix L***.

Based on Highway Capacity Manual, since the distance between these intersections is more than ½ mile, the analysis assumes the intersections as isolated intersections. Therefore, even if one intersection is signalized and the other two intersections have roundabouts, the delay amounts indicated for the respective analysis will not change.

Appendix D contains the Existing with Traffic Signal intersection analysis worksheets.

3.3.2 *Existing With Roundabouts*

Table 3–1 summarizes the Existing with Roundabout intersection level of service. As seen in *Table 3–1*, all study intersections are calculated to operate at LOS A in both AM and PM peak hours. Roundabout designs with the proposed geometry, lane widths, turning radius, appropriate speed limits and turn pocket lengths are included in ***Appendix M***.

Appendix E contains the Existing with Roundabout intersection analysis worksheets.

3.3.3 *Queuing Analysis*

Intersection queue lengths were obtained from the *Traffix* (version 8.0) software package. The 95th percentile intersection queue length (per lane) and the maximum available storage by movement are reported for each intersection. The 95th percentile queue is defined to be the queue length that has only a 5% probability of being exceeded during the analysis period. It is a useful parameter for determining conservative turn pocket lengths, but may not be typical of what an average driver would experience.

Table 3–3 summarizes the Queuing Analysis with both Roundabouts and Signals with existing traffic volumes. As seen in *Table 3-3*, implementation of either roundabouts or signals would result in reduced critical movements queuing lengths in comparison to the existing configuration with the exception of both the AM and PM eastbound traffic at the Paseo Delicias / Via de la Valle intersection. The queuing lengths are calculated to be lower for the with Roundabouts scenario than for the with Signals scenario.

3.4 Year 2030 Forecasted Volumes

3.4.1 *Year 2030 Analysis with Current Configurations Forecasted Volumes*

In order to forecast future traffic volumes for the Year 2030 Traffic Model prepared by SANDAG was utilized. This model assumes stop signs at the three subject intersections. Most of the forecast ADT's were utilized as reported by the SANDAG model. However, some volumes were revised to ensure that the volumes were consistent with traffic engineering principals and accounted for local

cut thru traffic as discussed in earlier sections. The forecast ADT volumes were then used to calculate peak hour volumes based partially on the existing relationship between ADT and peak hour volumes.

Several other Traffic Engineering principles and factors such as the K-factor and D-factor were also considered in the forecast analysis (see *Appendix B* for definitions). The forecast volumes were also checked for consistency between intersections, where no driveways or roadways exist between intersections, and they were compared to existing volumes.

Figure 3–2 illustrates the forecasted Year 2030 with existing configuration forecasted volumes.

3.4.2 *Year 2030 with Roundabout / Traffic Signal Forecasted Volumes*

In order to forecast future traffic volumes for the Year 2030 With Roundabout/Traffic Signal scenario, a new SANDAG Model was run with the proposed roundabouts assumed at each intersection. All the traffic engineering principles and methodologies discussed above were utilized to forecast volumes for this scenario. Since both the roundabout and the traffic signal scenarios would have similar improvement effects, this traffic study assumes the same volumes for both the scenarios.

Most of the forecast ADT's were utilized as reported by the SANDAG model. However, some volumes were revised to ensure that the volumes were as accurate as possible. As explained in Section 3-2, particular attention was paid to the reduction in the cut-thru traffic in the neighborhoods; especially on Lago Lindo in the AM peak hour and La Valle Plateada in the PM peak hour.

Figure 3–3 illustrates the forecasted Year 2030 with roundabout/traffic signal traffic volumes.

3.5 Year 2030 Analysis

3.5.1 *Year 2030 with Current Configurations*

Table 3–2 summarizes the Year 2030 (with Current Configurations) intersection level of service. As seen in *Table 3–2* all study intersections are evaluated to operate at LOS F during both AM and PM peak hours.

Appendix F contains the Year 2030 With Current Configurations intersection analysis worksheets.

3.5.2 *Year 2030 with Traffic Signals*

Table 3–2 summarizes the Year 2030 (with Traffic Signal) intersection level of service. As seen in *Table 3–2* all study intersections are calculated to operate at LOS C or better during both AM and PM peak hours. *Figure 3–4* illustrates the Year 2030 (with Traffic Signal) assumed lane configuration. The striping plan with the proposed geometry, lane widths and turn pocket lengths is included in *Appendix L*.

Appendix G contains the Year 2030 With Traffic Signal intersection analysis worksheets.

3.5.3 *Year 2030 with Roundabouts*

Table 3–2 summarizes the Year 2030 With Roundabout intersection level of service. As seen in *Table 3–2* all study intersections are calculated to operate at LOS D or better during both AM and PM peak hours.

Appendix H contains the Year 2030 With Roundabout intersection analysis worksheets.

3.6 Nearby Driveway Assessment

The following is a brief assessment of the existing driveways near the three subject locations. An evaluation of the driveways in the immediate vicinity of the roundabouts was conducted since these driveways would be most impacted by the implementation of roundabouts. The nearby driveway assessment discusses the driveways that are within about 150 feet of the subject intersections in terms of the amount of trips utilizing the driveway and the potential affect the driveway would have on a roundabout or traffic signal. The roundabout designs incorporate the driveways into the design and are included in *Appendix M*.

Paseo Delicias/Via De La Valle

Currently, the following driveways are present in the vicinity of the Paseo Delicias/Via de la Valle/La Fremontia Intersection. There are driveways on both the north and south sides of Paseo Delicias approximately 50ft west of the intersection, which could affect the roundabout/signal operations. These driveways currently serve one (1) residential unit each and thus based on the SANDAG trip generation guide are each expected to generate 12 trips per day with one trip each during the AM peak hour and one trip each during the PM peak hour. The driveway on the south side of Paseo Delicias is a circular driveway and the east entrance will be closed to accommodate the roundabout, leaving the west entrance open for access to the residence.

The driveway on the north side would have right in/ right out access at the driveway, left in access by going around the roundabout, and left out access by making a right turn out of their driveway and turning around at El Romero.

In addition, to accommodate the roundabout, Las Colinas will be realigned. Full access from the driveways on Las Colinas would be maintained.

Paseo Delicias/El Montevideo/La Valle Plateada Intersection

Currently, there is a driveway on the eastside on El Montevideo approximately 150 ft from the intersection, which could affect the roundabout/signal operations. This driveway currently serves one (1) residential unit and thus based on the SANDAG trip generation guide it is expected to generate only 12 trips per day and only one trip each in the AM peak hour and the PM peak hour. Therefore it would not impact the intersection in terms of capacity. The driveway is located within 50ft of the proposed splitter island in the roundabout and access to the driveway with roundabout/signal alternative would be similar to the existing situation.

Paseo Delicias/ Del Dios Highway/El Camino Del Norte Intersection

Currently, there are two driveways on the west side of El Camino Del Norte approximately 90 ft from the intersection, which could affect the roundabout/signal operations. These driveways currently serve only two (2) residential units and thus based on the SANDAG trip generation guide would be generating only 24 trips per day and two trips each in the AM peak hour and the PM peak hour. Therefore since the driveways serve only two residential homes, they would not impact the intersection in terms of capacity. To provide full vehicular access to the southernmost driveway the following four options were considered, and ultimately Option 1 was included in the design:

Option 1: Combine both the northern and southern driveways. The frontage road/combined driveways would connect with El Camino del Norte either north of the existing driveway entrances or at the existing north driveway, so that there will be unlimited turn access.

Option 2: Revise the roundabout splitter island design (median break) at this intersection, which would provide similar to existing conditions.

Option 3: Two roundabouts and a traffic signal at El Camino del Norte/Paseo Delicias/Del Dios Highway intersection. With a traffic signal, access to the driveway would be similar to the existing situation.

Option 4: Roundabouts at Via de la Valle and El Montevideo and no improvements to the El Camino del Norte/Paseo Delicias/Del Dios Highway intersection. Without any improvement to this intersection, access to the driveway would be unchanged.

3.7 Equestrian Crossing Assessment

Equestrian riders need to cross Paseo Delicias at times. The following is a brief discussion of the implications of the equestrian crossing for each intersection control type.

Current Configuration: No signalized crossings for equestrian users exist at the project intersections. Also, due to high speed in the off-peak hours at Paseo Delicias/ Del Dios Highway/El Camino Del Norte intersection, crossing this intersection would be relatively risky.

Traffic Signal: Equestrian riders' access at signalized intersections is controlled and thus provides a better alternative as compared to unsignalized intersections (Current Configuration). This is because the traffic will stop at a signalized intersection, when the equestrian riders get a green signal

Roundabouts: A signalized equestrian and pedestrian crossing is planned to be provided to facilitate both equestrian and pedestrian crossings without significantly impacting traffic flow at the roundabout.

The County plans to include push-button-activated crossings with in-pavement lighting and flashing warning signs that would be located between 400 and 500 feet in advance of the crossings per the Manual on Uniform Traffic Control Devices (MUTCD) at all three intersections for the equestrian crossing. They would simultaneously illuminate each segment of the intersection. The push-button controls would be placed at an appropriate height for equestrians to activate the crossings.

3.8 Conclusion

As indicated in this chapter, the installation of either roundabouts or traffic signals at the study intersections will improve the Level of Service to acceptable levels per County standards. In comparison with existing conditions both the roundabout and the signal alternative improve the traffic operations, are more equestrian friendly and would reduce the neighborhood cut through traffic in the vicinity of the study area. Based on the County of San Diego significance criteria, no significant capacity related traffic impacts were calculated due to the project traffic. Therefore, mitigation measures are not necessary.

Based on the analysis in this chapter, providing a roundabout or traffic signal at the proposed locations would have the following advantages:

- Queue Reduction: As indicated in *Table 3–3* the queue lengths for critical movements at the two all-way stop sign controlled intersections would reduce.
- Local street traffic Reduction: Since additional capacity would be provided on the Paseo Delicias corridor, a portion of the local street traffic would shift back to the Paseo Delicias corridor from residential streets, such as Lago Lindo.
- Delay reduction: As indicated in *Tables 3–1 and 3–2* the delay at these intersections would reduce. As a result, the travel time delays within the corridor will decrease (especially during the AM and PM peak hours), and the traffic flow and the average speed will improve along Paseo Delicias.

TABLE 3–1
INTERSECTION OPERATIONS

Intersection	Peak Period	Existing With Current Configuration		Existing With Traffic Signals[c]		Existing With Roundabouts[d]	
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay[a]	LOS[b]
1. Paseo Delicias/Via De La Valle	AM	18.6	C	13.6	B	9.5	A
	PM	17.9	C	22.3	C	9.0	A
2. Paseo Delicias/El Montevideo/La Valle Plateada	AM	43.6	E	10.6	B	7.3	A
	PM	63.9	F	10.5	B	6.9	A
3. Del Dios Hwy/El Camino Del Norte	AM	68.6	F	12.2	B	7.3	A
	PM	>100.0	F	12.7	B	7.8	A

Footnotes:

a. Average delay expressed in seconds per vehicle.

b. Level of Service.

c. Analysis was conducted assuming restriping at some approaches to avoid the need for split phasing on the major street.

d. Analysis was conducted using aaSidra software

e. See Section 2.2 for additional information on AM and PM peak hours

f. EB = eastbound; WB = westbound

UNSIGNALIZED		SIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 15.0	B	10.1 to 20.0	B
15.1 to 25.0	C	20.1 to 35.0	C
25.1 to 35.0	D	35.1 to 55.0	D
35.1 to 50.0	E	55.1 to 80.0	E
> 50.1	F	> 80.1	F

General Notes

Based on the Highway Capacity Manual, since the distance between the three intersections is more than ½ mile, the analysis assumes the intersections as isolated intersections. Therefore, even if one intersection is signalized and the other two intersections have roundabouts, the calculated delay will not change.

TABLE 3–2
YEAR 2030 INTERSECTION OPERATIONS

Intersection	Peak Period	Year 2030 With Current Configuration		Year 2030 With Traffic Signals[c]		Year 2030 With Roundabouts[d]	
		Delay[a]	LOS[b]	Delay[a]	LOS[b]	Delay[a]	LOS[b]
1. Paseo Delicias/Via De La Valle	AM	>100	F	15.5	B	10.7	B
	PM	90.5	F	27.6	C	12.2	B
2. Paseo Delicias/El Montevideo/La Valle Plateada	AM	>100	F	19.9	B	11.8	B
	PM	>100	F	16.6	B	8.9	A
3. Del Dios Hwy/El Camino Del Norte	AM	>100	F	25.1	C	21.7	C
	PM	>100	F	25.0	C	51.1	D

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Analysis was conducted assuming restriping at some approaches to avoid the need for split phasing on the major street.
d. Analysis was conducted using aaSidra software. As indicated in Section 3.1, a lower environment factor of 0.95 was utilized for the analysis.
e. See Section 2.2 for additional information on AM and PM peak hours
f. EB = eastbound; WB = westbound

UNSIGNALIZED		SIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 15.0	B	10.1 to 20.0	B
15.1 to 25.0	C	20.1 to 35.0	C
25.1 to 35.0	D	35.1 to 55.0	D
35.1 to 50.0	E	55.1 to 80.0	E
> 50.1	F	> 80.1	F

General Notes

Based on the Highway Capacity Manual, since the distance between the three intersections is more than ½ mile, the analysis assumes the intersections as isolated intersections. Therefore, even if one intersection is signalized and the other two intersections have roundabouts, the calculated delay amount for respective analysis will not change.

TABLE 3–3
EXISTING QUEUING ANALYSIS

Intersection	Direction	Peak Hour	Existing Configuration[b]	With Roundabout[c]	With Signal[b]
1. Paseo Delicias / Via de la Valle	EB	AM	10	50	150
		PM	20	70	250
	WB	AM	630	150	50
		PM	160	50	100
2. Paseo Delicias / El Montevideo	EB	AM	60	50	100
		PM	550	150	380
	WB	AM	410	150	580
		PM	110	50	130
3. Del Dios Hwy / El Camino del Norte	EB	AM	N/A [a]	50	100
		PM	N/A [a]	260	530
	WB	AM	N/A [a]	210	580
		PM	N/A [a]	50	100

Footnotes:

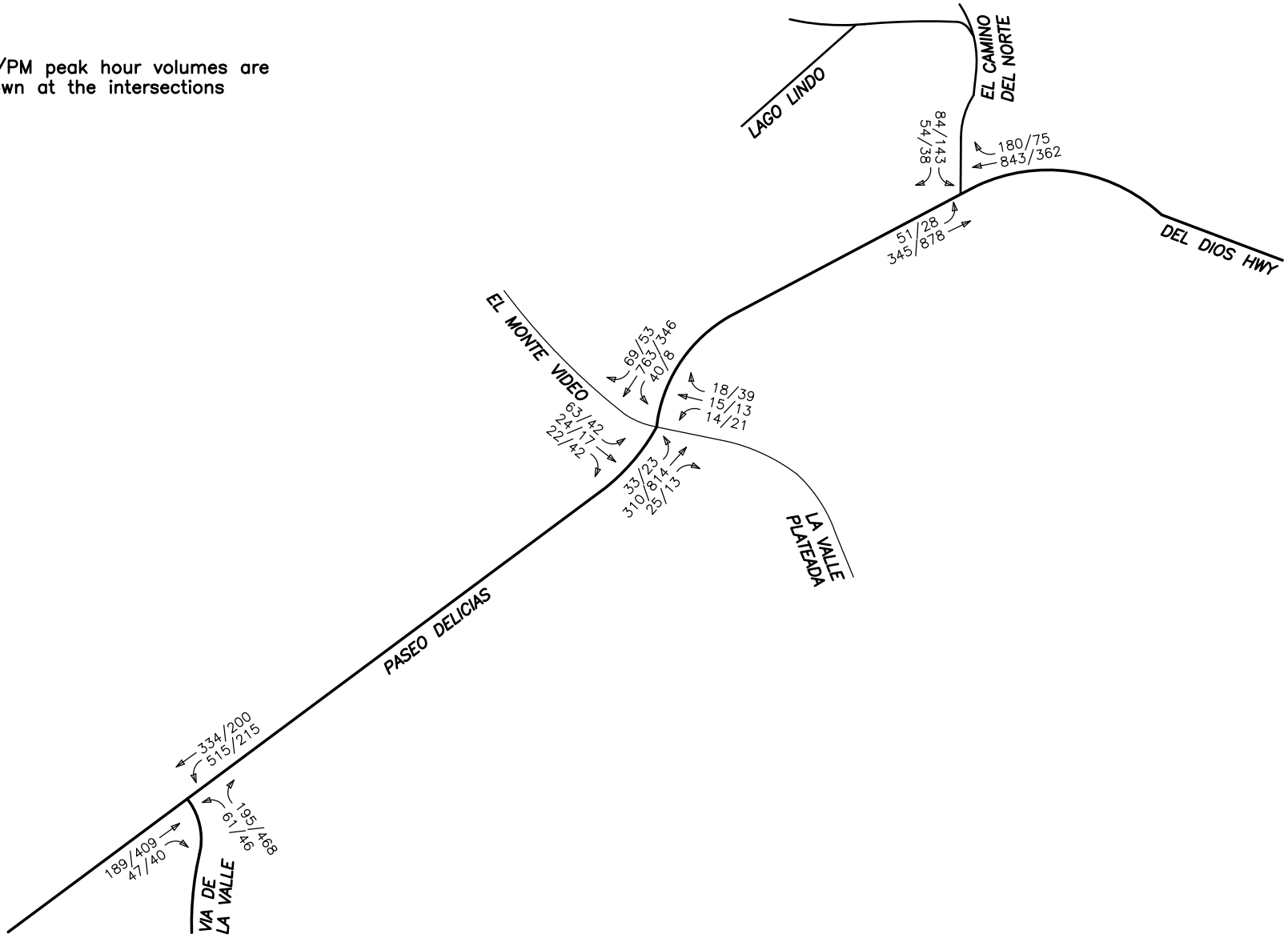
a. N/A: Not Applicable because the traffic in this direction does not stop at the intersection
b. Results based on Traffix analysis sheets
c. Results based on aaSIDRA analysis sheets.
d. See Section 2.2 for additional information on AM and PM peak hours
e. EB = eastbound; WB = westbound

General Note:

Queue lengths rounded to nearest 10 feet.

NOTES:

- AM/PM peak hour volumes are shown at the intersections



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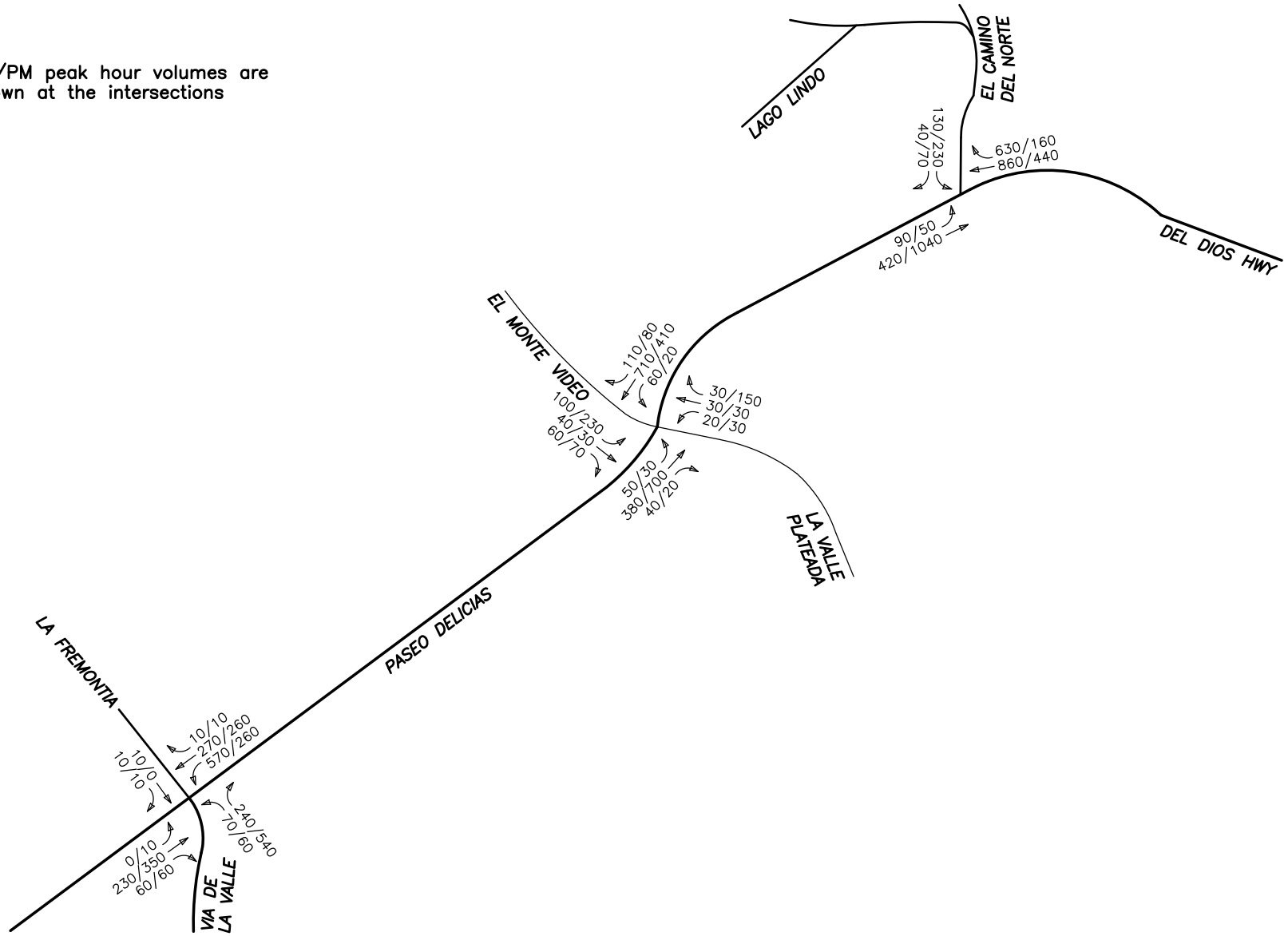
Figure 3-1

Existing Traffic Volumes With Roundabout/ Traffic Signals AM/PM Peak Hours

Rancho Santa Fe Roundabouts

NOTES:

- AM/PM peak hour volumes are shown at the intersections



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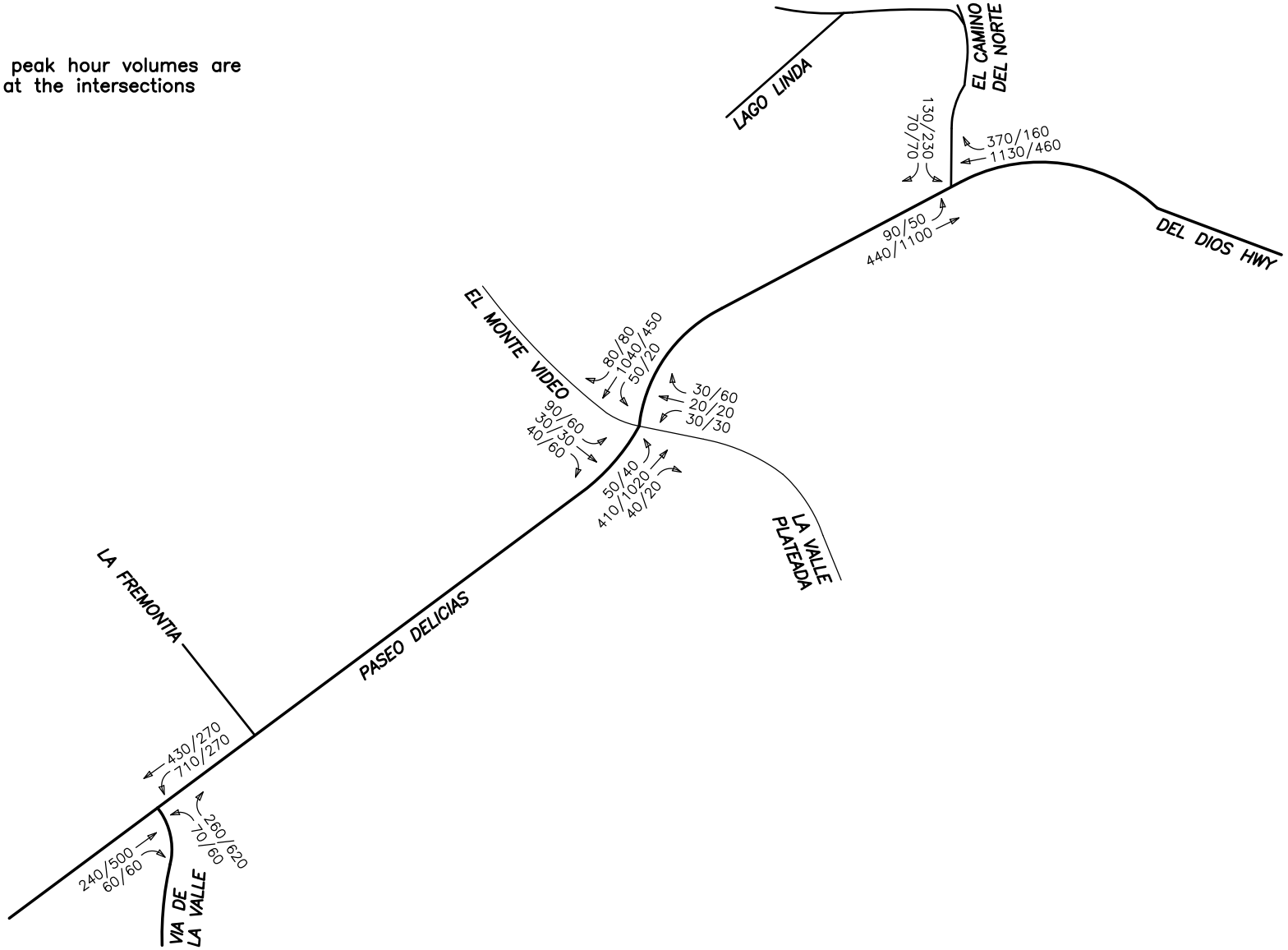
Figure 3-2

2030 Traffic Volumes with Existing Intersection Controls AM/PM Peak Hours

Rancho Santa Fe Roundabouts

NOTES:

- AM/PM peak hour volumes are shown at the intersections



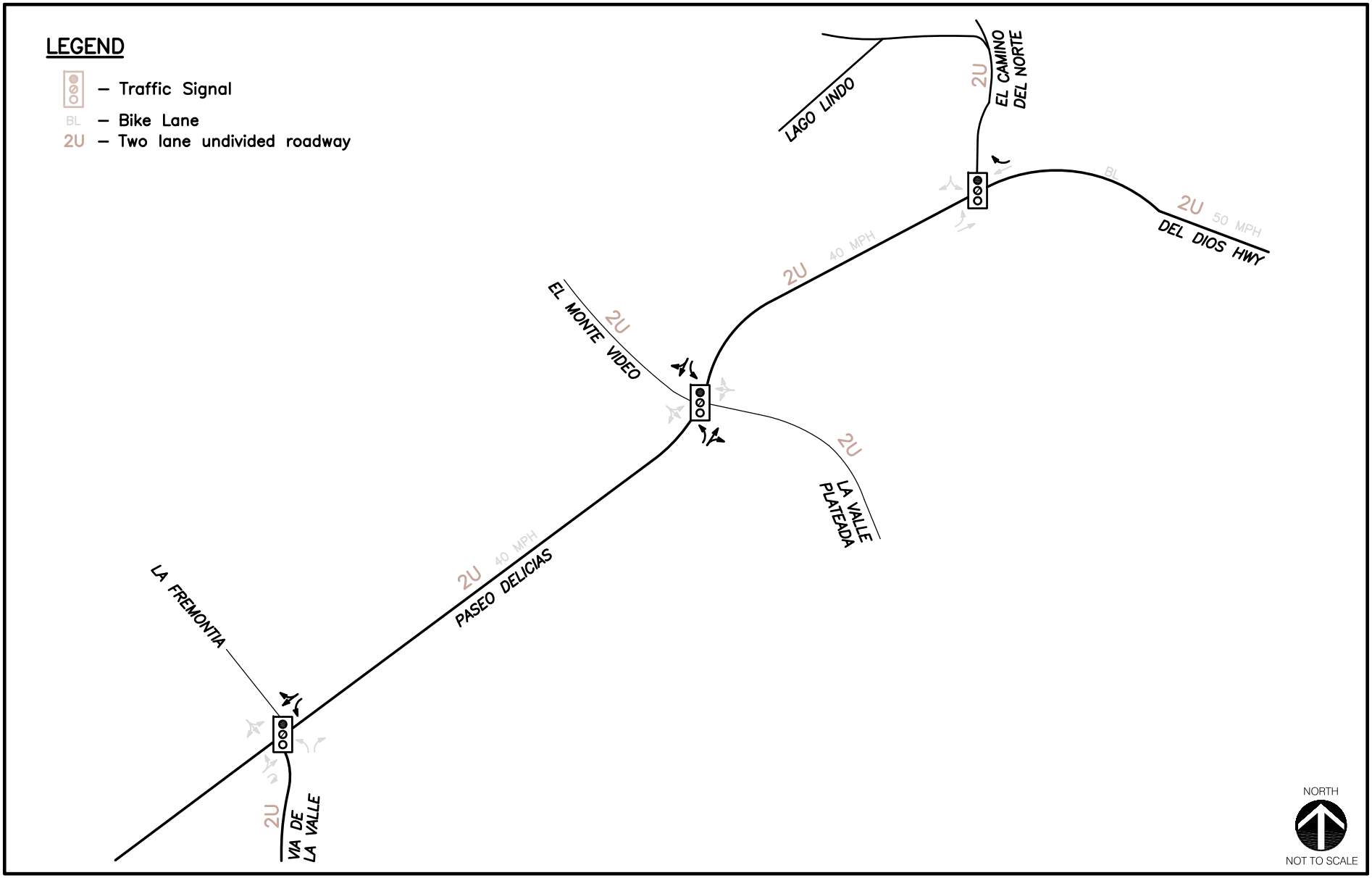
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Figure 3-3

2030 Traffic Volumes with Roundabouts/Traffic Signals AM/PM Peak Hours

Rancho Santa Fe Roundabouts



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Figure 3-4

Existing & Year 2030 (With Traffic Signals) Assumed Lane Configurations

4.0 CONSTRUCTION IMPACT ANALYSIS

This chapter assesses the potential traffic impacts that would result during the construction of the three roundabouts. The proposed construction would require both full and partial lane closures. Because of this, traffic would be diverted from a County Mobility Element roadway onto nearby non-Mobility Element roadways. In addition, the design calls for a minor elevation increase at the El Montevideo intersection, which would require a prolonged single-lane closure of this intersection, as considered in Construction Scenario A. Therefore the following two construction scenarios have been evaluated as worst case scenarios. Both scenarios would occur during construction.

Construction Scenario A — Eastbound Lane Closure-Detour Route

This scenario analyzes the impacts caused due to the temporary closure of the Paseo Delicias eastbound lane at El Montevideo and the implementation of a formal detour plan. ***Figure 4–3*** depicts the proposed detour route for the Construction Scenario A — Eastbound Lane Closure. This intermittent closure of Paseo Delicias at El Montevideo eastbound is expected to last up to two (2) months. One westbound lane of travel will be open at all times for this scenario.

Construction Scenario B — Flagging Operation

This scenario analyzes the impacts that will result from the temporary flagging operations along Paseo Delicias at all three proposed roundabout intersections while keeping the El Montevideo intersection open. During the morning peak hour, one travel lane would remain open in each direction. During the remainder of daily construction hours (including the afternoon peak hour), only one travel lane would be open, and flaggers will be utilized to allow one direction of traffic to proceed for a maximum of 10 minutes. This flagging operation along Paseo Delicias is expected to last up to one (1) year. It should be noted that this is a worst case scenario, since for the majority of the construction one lane will be open in each direction at the outer two roundabouts.

The study area for this construction impact analysis includes the following intersections and roadway segments:

Intersections:

1. Via De Fortuna/El Camino Del Norte,
2. El Camino Del Norte/Lago Lindo (proposed detour route),
3. Lago Lindo/El Montevideo (proposed detour route),
4. Lago Lindo/Avenida De Acacias (proposed detour route),
5. Avenida De Acacias/La Granada (proposed detour route),
6. Paseo Delicias/La Granada (proposed detour route), and
7. Via De La Valle/Via De Santa Fe.

Roadway Segments:

1. El Camino Del Norte from Paseo Delicias/Del Dios Highway to Lago Lindo (proposed detour route),
2. Lago Lindo from El Camino Del Norte to El Montevideo (proposed detour route),

3. Lago Lindo from El Montevideo to Avenida De Acacias (proposed detour route),
4. Avenida De Acacias from Lago Lindo to La Granada (proposed detour route),
5. Avenida De Acacias from La Granada to Paseo Delicias,
6. La Granada from Avenida De Acacias to Paseo Delicias (proposed detour route),
7. Paseo Delicias/Del Dios Highway from Avenida De Acacias to La Granada,
8. Paseo Delicias/Del Dios Highway east of El Camino Del Norte, and
9. Via De Santa Fe from Via De La Valle to Paseo Delicias/Del Dios Highway.

4.1 Methodology / Analysis Approach

The methodology and analysis approach identified in Section 3.1 was also utilized for the construction impact analysis. In addition, since non-Mobility Element roads were analyzed in the construction analysis, a different analysis methodology was utilized to assess these roads. Levels of service are not applied to non-Mobility Element residential street segments since their primary purpose is to serve abutting lots and not to carry through traffic. For that reason, the recommended design capacities for residential non-Mobility Element streets provided in the San Diego County Public and Private Road Standards were utilized for the analysis.

4.2 Existing Traffic Volumes for the Construction Analysis Study Area

Weekday AM/PM peak hour intersection turning movement and bi-directional daily traffic counts were conducted for the construction analysis study area in March 2010 when schools were in session for all construction impact analysis study locations except for the Via De Fortuna / El Camino Del Norte intersection. Based on historical data on El Camino Del Norte, traffic volumes have not increased in the last several years at this location and this intersection operates at an acceptable level of service, LOS B. Therefore the older count is adequate. The peak hour counts were conducted between the hours of 7:00-9:00 AM and 4:00-6:00 PM. *Appendix A* contains the manual count sheets. ***Figure 4–1*** illustrates the existing transportation conditions. ***Figure 4–2*** depicts the existing peak hour intersection turning movements and segment ADT's at the study area intersections and segments.

4.3 Analysis of Existing Conditions

Table 4–1 summarizes the existing intersections level of service. As seen in *Table 4–1*, all intersections are calculated to currently operate at LOS C or better. ***Appendix I*** contains the existing intersection analysis worksheets.

Table 4–2 summarizes the existing roadway segment operations. As seen in *Table 4–2*, the study area segments are calculated to currently operate at LOS D or better (for Mobility Element roads) and within the design capacity (for non-Mobility Element roads) except:

- Del Dios Highway [Paseo Delicias]: east of El Camino Del Norte (LOS F). It should be noted that this section of Del Dios Highway is accepted at LOS F in the Mobility Element.

The County of San Diego's Roadway Classification, Level of Service, and ADT Table is attached in *Appendix B.*

4.3.1 *Queues for Existing Conditions*

Intersection queue lengths were obtained from the *Traffix* (version 8.0) software package. The 95th percentile intersection queue length (per lane) and the maximum available storage by movement are reported for each intersection. The 95th percentile queue is defined to be the queue length that has only a 5% probability of being exceeded during the analysis period. It is a useful parameter for determining conservative turn pocket lengths, but may not be typical of what an average driver would experience.

The estimated queues at the Paseo Delicias / El Montevideo and Paseo Delicias / Via De La Valle intersections are shown in ***Table 4–4.***

4.4 Analysis of Construction Scenario A – Eastbound Lane Closure-Detour Route

The closure of Paseo Delicias at El Montevideo eastbound will result in traffic being diverted to La Granada, Avenida De Acacias, Lago Lindo and El Camino Del Norte. The existing traffic volumes/patterns and the proposed detour plan were utilized to reassign the detoured traffic. In this scenario, all of the traffic using Paseo Delicias was rerouted to El Camino Del Norte. ***Figure 4–4*** depicts the Construction Scenario A – Eastbound Lane Closure-Detour Route – Rerouted Existing Traffic Volumes. It should be noted that while the detour plan directs motorists to turn left at La Granada where there are existing stop controls, motorists may turn left from Paseo Delicias directly onto Avenida de Acacias and this potential was accounted in the redistribution.

4.4.1 *Peak Hour Intersection Levels of Service*

Table 4–1 summarizes the *Construction Scenario A* intersections level of service. As seen in *Table 4–1*, with the rerouting due to the Eastbound Lane Closure-Detour Route, the following intersections are calculated to operate at LOS E or F and are significantly impacted by the project. It should be noted that this impact is temporary and will last only during the period of closure.

- ***El Camino Del Norte / Lago Lindo (LOS F during the PM peak hour)***
- ***Lago Lindo / El Montevideo (LOS F during the PM peak hour)***
- ***Avenida De Acacias / La Granada (LOS F during both the AM and PM peak hours)***
- ***Paseo Delicias / La Granada (LOS E during the PM peak hour)***

Appendix J contains the Construction Scenario A: Eastbound Lane Closure Detour Route Intersection Analysis Worksheets.

4.4.2 *Segment Operations*

Table 4–2 summarizes the *Construction Scenario A* roadway segment level of service. As seen in *Table 4–2*, with the rerouting due to the Eastbound lane Closure-Detour Route, all segments are calculated to operate at an acceptable LOS for Mobility Element roads and or within the design capacity for non-

Mobility Element roads, except the following. Based on the established significance criteria, the segments listed below that are bolded and italicized would be significantly impacted by the rerouting. It should be noted that these impacts are temporary and will last only during the period of closure.

- ***El Camino Del Norte: Lago Lindo to Paseo Delicias (LOS E)***
- ***Lago Lindo: Avenida De Acacias to El Montevideo (over capacity)***
- ***Lago Lindo: El Montevideo to El Camino Del Norte (over capacity)***
- ***Avenida De Acacias: Lago Lindo to La Granada (over capacity)***
- ***La Granada: Avenida De Acacias to Paseo Delicias (LOS F)***
- Paseo Delicias: East of El Camino Del Norte (LOS F)

4.4.3 *Emergency Access Impact Analysis*

Emergency access to all homes and businesses should be maintained at all times. Even though the eastbound lane would be closed for traffic, if feasible, access to emergency vehicles should be kept open at all times. If not feasible, a formal detour map should be created and submitted to all appropriate agencies.

4.4.4 *Travel Time*

Based on the existing roadway speeds, traffic controls, detour plan, projected traffic and intersection vehicular delay, the travel time from the Paseo Delicias/El Camino Del Norte intersection to the La Granada intersection is estimated and is included in ***Table 4–5.***

During the proposed detour, motorists traveling eastbound along the Del Dios corridor will experience approximately 14.0 minutes of added travel time during the AM peak hour and 14.4 minutes of added travel time during the PM peak hour. No change in travel time is anticipated for westbound traffic.

4.4.5 *Travel Distance*

Under this scenario, motorists using the proposed detour route, as seen in *Figure 4-3*, will travel approximately an additional 1.4 miles to reach the intersection of Del Dios Highway and El Camino Del Norte from the intersection of Paseo Delicias and La Granada.

4.5 Analysis of Construction Scenario B – Flagging Operation

In this Scenario, Paseo Delicias is partially open and controlled by flaggers. During the morning peak hour one lane in each direction will remain open. However, during the afternoon peak hour and the remaining portion of the day only one travel lane will be open. Flaggers will be utilized to allow one direction of traffic to proceed for a maximum of 10 minutes. This Flagging Operation of Paseo Delicias will result in traffic choosing to divert to other area roads such as to El Camino Del Norte, Lago Lindo, Avenida De Acacias and Via De Fortuna. Even though one lane of travel in each direction will be open for traffic during the AM peak hour, due to the construction activity on Paseo Delicias, it is estimated that about 10 % of the AM peak hour traffic would detour. This was

determined based on the travel times on alternative routes. Since only one lane will be open in the PM peak hour, it is estimated that about 40% of the PM traffic would detour. This was determined based on the travel times on alternative routes.

Based on the above and the estimated travel times on alternative travel routes, the detoured traffic assignment was determined. ***Figure 4–5*** depicts the Construction Scenario B – Flagging Operation rerouted traffic volumes.

4.5.1 *Peak Hour Intersection Levels of Service*

Table 4–1 summarizes the *Construction Scenario B* intersections level of service. As seen in *Table 4–1*, with the rerouting due to the Flagging Operation, the following intersection is calculated to operate at LOS F and is significantly impacted by the project. However, is should be noted that this impact is temporary and will last only during the period of construction activity.

- ***Avenida De Acacias / La Granada (LOS F during the PM peak hour)***

Appendix K contains the Construction Scenario B: Flagging Operation Intersection Analysis Worksheets.

4.5.2 *Segment Operations*

Table 4–3 summarizes the *Construction Scenario B* roadway segment level of service. As seen in *Table 4–3*, with the rerouting due to the Flagging Operation on the Paseo Delicias, the study area segments are calculated to operate at LOS C (for Mobility Element roads) or within their design capacity (for non-Mobility Element roads) except the following. Based on the established significance criteria, the bolded and italicized segments listed below would be significantly impacted by the rerouting. Del Dios Highway east of El Camino Del Norte is calculated to operate at LOS F even under existing conditions. It should be noted that this section of Del Dios Highway is accepted at LOS F in the Mobility Element. The proposed rerouting does not result in an increase in the ADT on this segment therefore significant impacts are therefore calculated on this study area segment.

- ***Avenida De Acacias: Lago Lindo to La Granada (over capacity)***
- Paseo Delicias: East of El Camino Del Norte (LOS F)

4.5.3 *Queues on Paseo Delicias & Via De La Valle due to the flagger operations*

Flagger control on Paseo Delicias is proposed under Construction Scenario B. The traffic in each direction will be stopped for a maximum of 10 minutes while the traffic in the other direction is allowed to flow. This operation will require the traffic in each direction to wait for a maximum of 10 minutes while the other direction clears the intersection. The estimated queues at the Paseo Delicias / El Montevideo, Paseo Delicias/El Camino Del Norte, and Paseo Delicias / Via De La Valle intersections are shown in ***Table 4–4.***

4.5.4 *Emergency Access Impact Analysis*

Emergency access to all homes and businesses should be maintained at all times. Since one travel lane will open at all time for this scenario, access to emergency vehicles should be prioritized and maintained at all times.

4.5.5 *Travel Time*

Based on the existing roadway speeds, traffic controls, projected traffic and intersection vehicular delay, the travel time between the Paseo Delicias/La Granada intersection and the Paseo Delicias /Del Dios Highway / El Camino del Norte intersection for this scenario is estimated and is included in *Table 4–5.*

During the flagging operations, motorists traveling eastbound along the Del Dios corridor will experience approximately 5.0 minutes of added travel time during the AM peak hour and 10.0 minutes of added travel time during the PM peak hour. Motorists traveling westbound along the Del Dios corridor will experience approximately 2.0 minutes of added travel time during the AM peak hour and 11.0 minutes of added travel time during the PM peak hour.

4.5.6 *Travel Distance*

Under this scenario, motorists will not need to travel additional distance since traffic flow in both directions is permitted.

TABLE 4–1
INTERSECTION OPERATIONS – CONSTRUCTION SCENARIOS A &B

Intersection	Control Type	Peak Hour	Existing		*Construction Scenario A* – Eastbound Lane Closure			*Significant Impact?*	*Construction Scenario B* – Flagging Operation			*Significant Impact?*
			Delay[a]	LOS[b]	Delay	LOS	Δ[e]		Delay	LOS	Δ	
1. Via De Fortuna / El Camino Del Norte	TWSC[c]	AM	13.0	B	12.5	B		No	13.3	B		No
		PM	11.9	B	11.6	B		No	13.5	B		No
2. El Camino Del Norte / Lago Lindo	TWSC	AM	12.4	B	18.0	C		No	12.6	B		No
		PM	9.9	A	>100.0	F	967	Yes	14.9	B		No
3. Lago Lindo / Avenida De Acacias	TWSC	AM	11.0	B	15.4	C		No	12.1	B		No
		PM	9.5	A	14.8	B		No	13.8	B		No
4. Lago Lindo / El Montevideo	AWSC[d]	AM	11.1	B	14.3	B		No	10.4	B		No
		PM	8.1	A	>100.0	F	131	Yes	10.8	B		No
5. Avenida De Acacias / La Granada	AWSC	AM	20.7	C	65.5	F	353	Yes	28.2	D		No
		PM	15.8	C	>100.0	F	725	Yes	71.4	F	144	Yes
6. Paseo Delicias / La Granada	AWSC	AM	13.9	B	16.2	C		No	14.2	B		No
		PM	11.9	B	41.4	E	259	Yes	13.3	B		No
7. Via De La Valle / Via De Santa Fe	TWSC	AM	18.4	C	18.5	C		No	17.9	C		No
		PM	10.7	B	10.8	B		No	10.5	B		No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. TWSC: Two-Way Stop Controlled. Minor street delay is reported.
d. AWSC: All-Way Stop Controlled.
e. "Δ" denotes Project Traffic added to the Critical Movement for unsignalized intersections operating at LOS E or F only.
f. Paseo Delicias/El Camino Del Norte intersection was not analyzed because this is the proposed roundabout location and therefore will be controlled by flaggers & construction traffic control.
g. See Section 2.2 for additional information on AM and PM peak hours

UNSIGNALIZED

DELAY/LOS THRESHOLDS

Delay	LOS
0.0 < 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
> 50.1	F

TABLE 4–2
SEGMENT OPERATIONS – CONSTRUCTION SCENARIO A

Segment	Roadway Class [a]	LOS E Capacity/Design Capacity [b]	Existing [c]		*Construction Scenario A* - Eastbound Lane Closure-Detour Route[d]		Δ[e]	Significant Impact?
			Volume	LOS	Volume	LOS		
El Camino Del Norte								
Paseo Delicias / Del Dios Highway to Lago Lindo	Light Collector	16,200	5,390	C	15,740	E	10,350	Yes
Lago Lindo								
Avenida De Acacias to El Montevideo[f]	Unclassified	4,500	1,700	Under Capacity[f]	9,163	Over Capacity[f]	7,463	Yes
El Montevideo to El Camino Del Norte[f]	Unclassified	4,500	1,940	Under Capacity[f]	8,668	Over Capacity[f]	6,728	Yes
Avenida De Acacias								
Lago Lindo to La Granada[f]	Unclassified	4,500	4,140	Under Capacity[f]	11,085	Over Capacity[f]	6,945	Yes
La Granada to Paseo Delicias[f]	Unclassified	4,500	4,120	Under Capacity[f]	4,350	Under Capacity[f]	230	No
La Granada								
Avenida De Acacias to Paseo Delicias	Light Collector	9,700	6,730	B	11,410	F	4,680	Yes
Paseo Delicias / Del Dios Highway								
Avenida De Acacias to La Granada	Light Collector	16,200	4,750	C	3,250	B	(1,500)	No
East of El Camino Del Norte	Light Collector	16,200	20,700	F	20,700	F	-	No
Via De Santa Fe								
Via De La Valle to Paseo Delicias / Del Dios Highway[f]	Unclassified	16,200	7,440	Under Capacity[f]	9,925	Under Capacity[f]	2,485	No

Footnotes:

a. Roadway Classification based on the County of San Diego's General Plan Mobility Element's Roadway Classification Table
b. Capacities based on the County of San Diego's Public Road Standard's Roadway Classification Table.
c. Counts commissioned by LLG Engineers in March 2010
d. Rerouted ADT due to the Eastbound Lane Closure of the intersection of El Monte Video / Paseo Delicias
e. "Δ" denotes Project Traffic added to the Segments
f. For non-Mobility Element road segments, roadway design capacity (maximum amount of traffic obtainable on a given roadway) is used for analysis.
"Over capacity" means that the traffic volume is greater than the design capacity for this residential road segment.
"Under capacity" means that the traffic volume is less than the design capacity for the segment.

TABLE 4–3
SEGMENT OPERATIONS – CONSTRUCTION SCENARIO B

Segment	Roadway Class [a]	LOS E Capacity/Design Capacity [b]	Existing [c]		*Construction Scenario B* - Flagging Operation [d]		Δ[e]	Significant Impact?
			Volume	LOS	Volume	LOS		
El Camino Del Norte								
Paseo Delicias / Del Dios Highway to Lago Lindo	Light Collector	16,200	5,390	C	6,940	C	1,550	No
Lago Lindo								
Avenida De Acacias to El Montevideo[f]	Unclassified	4,500	1,700	Under Capacity[f]	2,820	Under Capacity[f]	1,120	No
El Montevideo to El Camino Del Norte[f]	Unclassified	4,500	1,940	Under Capacity[f]	2,950	Under Capacity[f]	1,010	No
Avenida De Acacias								
Lago Lindo to La Granada[f]	Unclassified	4,500	4,140	Under Capacity[f]	5,180	Over Capacity[f]	1,040	Yes
La Granada to Paseo Delicias[f]	Unclassified	4,500	4,120	Under Capacity[f]	4,150	Under Capacity[f]	30	No
La Granada								
Avenida De Acacias to Paseo Delicias	Light Collector	9,700	6,730	B	7,970	D	1,240	No
Paseo Delicias / Del Dios Highway								
Avenida De Acacias to La Granada	Light Collector	16,200	4,750	C	4,520	C	(230)	No
East of El Camino Del Norte	Light Collector	16,200	20,700	F	20,700	F	-	No
Via De Santa Fe								
Via De La Valle to Paseo Delicias / Del Dios Highway[f]	Unclassified	16,200	7,440	Under Capacity[f]	7,810	Under Capacity[f]	370	No

Footnotes:

a. Roadway Classification based on the County of San Diego's General Plan Mobility Element's Roadway Classification Table
b. Capacities based on the County of San Diego's Public Road Standard's Roadway Classification Table
c. Counts commissioned by LLG Engineers in March 2010
d. Rerouted ADT due to the Flagging Operation of Paseo Delicias & El Montevideo being open.
e. "Δ" denotes Project Traffic added to the Segments
f. For non-Mobility Element road segments, roadway design capacity (maximum amount of traffic obtainable on a given roadway) is used for analysis.
"Over capacity" means that the traffic volume is greater than the design capacity for this residential road segment.
"Under capacity" means that the traffic volume is less than the design capacity for the segment.

TABLE 4–4
MAXIMUM ESTIMATED QUEUES ON PASEO DELICIAS & VIA DE LA VALLE – CONSTRUCTION SCENARIO B FLAGGING OPERATION

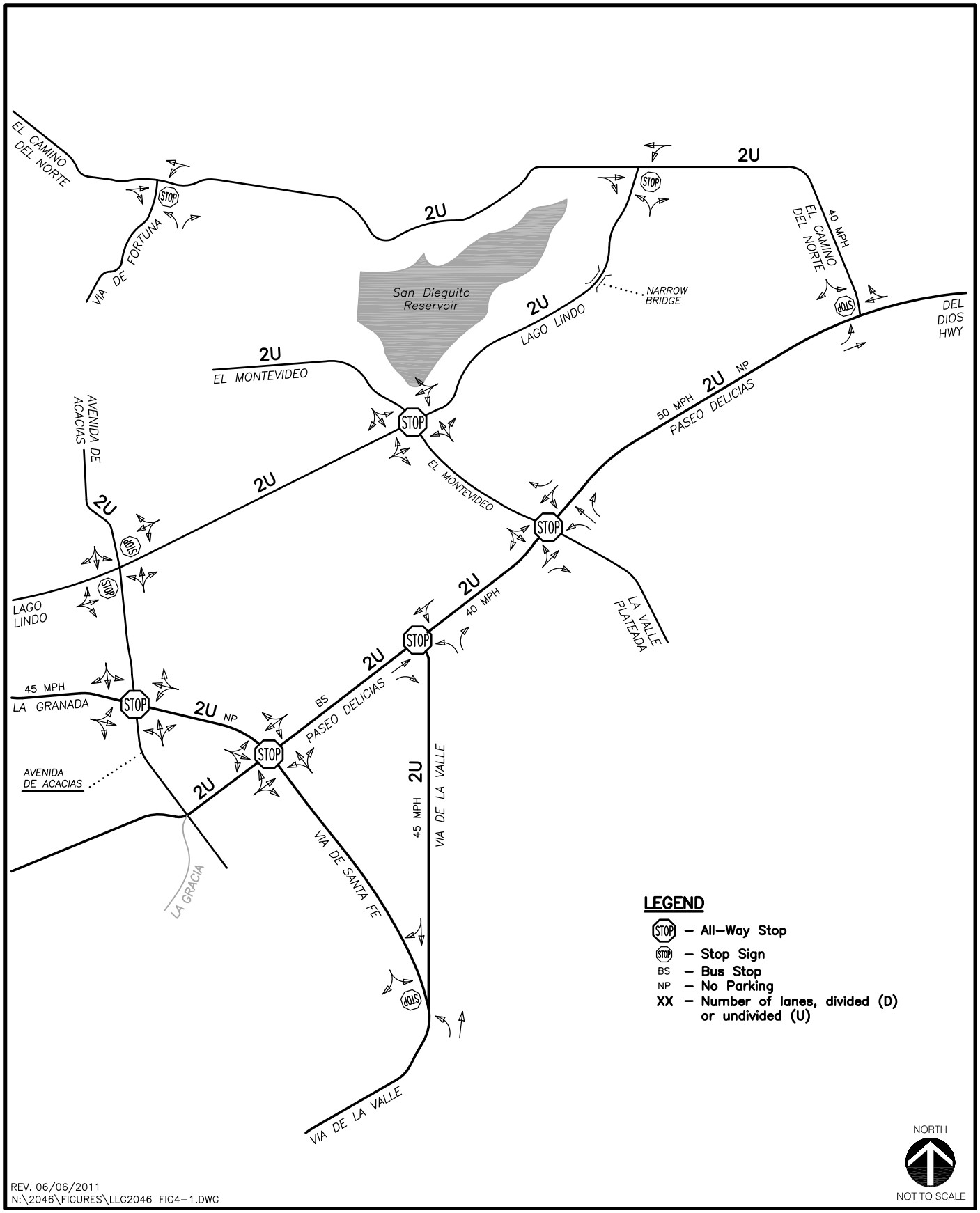
Intersection	Movement	Existing Queue (Feet/ Lane)	Construction Scenario B –Flagging Operation Queue (Feet/ Lane)	Δ (Feet / Lane)
		PM	PM	PM
Paseo Delicias / Via De La Valle	EB	17	525	508
	NBR	410	1,720	1,310
Paseo Delicias / El Montevideo	SB	50	50	0
Paseo Delicias / El Camino Del Norte	WB	N/A[a]	2,340	2,340

Footnotes:

a. No queue exists for this uncontrolled movement.

TABLE 4–5
ESTIMATED TRAVEL TIME
(FROM PASEO DELICIAS / EL CAMINO DEL NORTE TO PASEO DELICIAS / LA GRANADA)

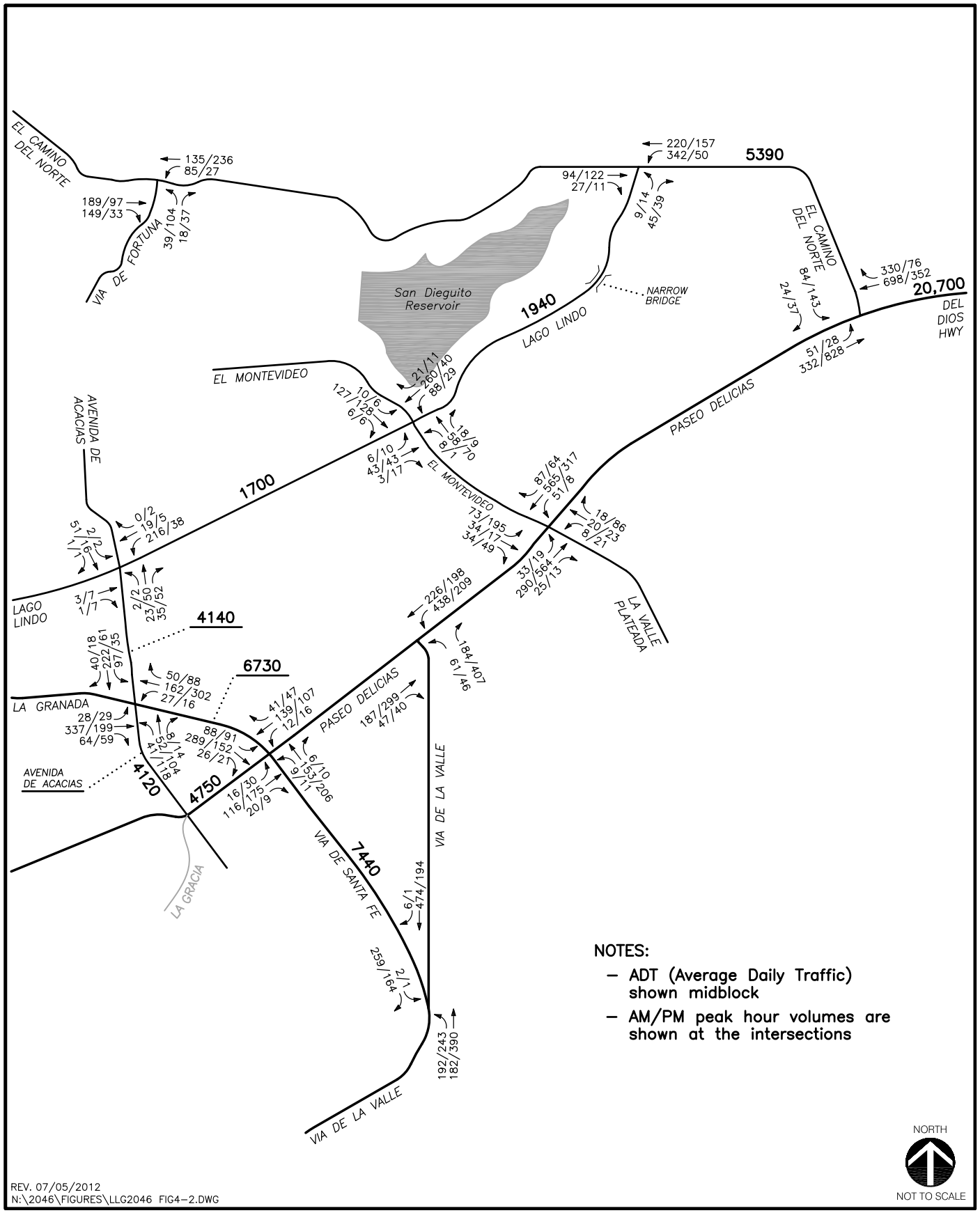
Direction - Peak Hour	Existing	Construction Scenario A	Construction Scenario B
Eastbound - AM Peak Hour	3.0 minutes	17.0 minutes	8.0minutes
Eastbound - PM Peak Hour	6.0 minutes	20.4 minutes	16.0 minutes
Westbound - AM Peak Hour	7.0 minutes	7.0 minutes	9.0 minutes
Westbound - PM Peak Hour	4.0 minutes	4.0 minutes	15.0 minutes



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Figure 4-1

Existing Conditions Diagram

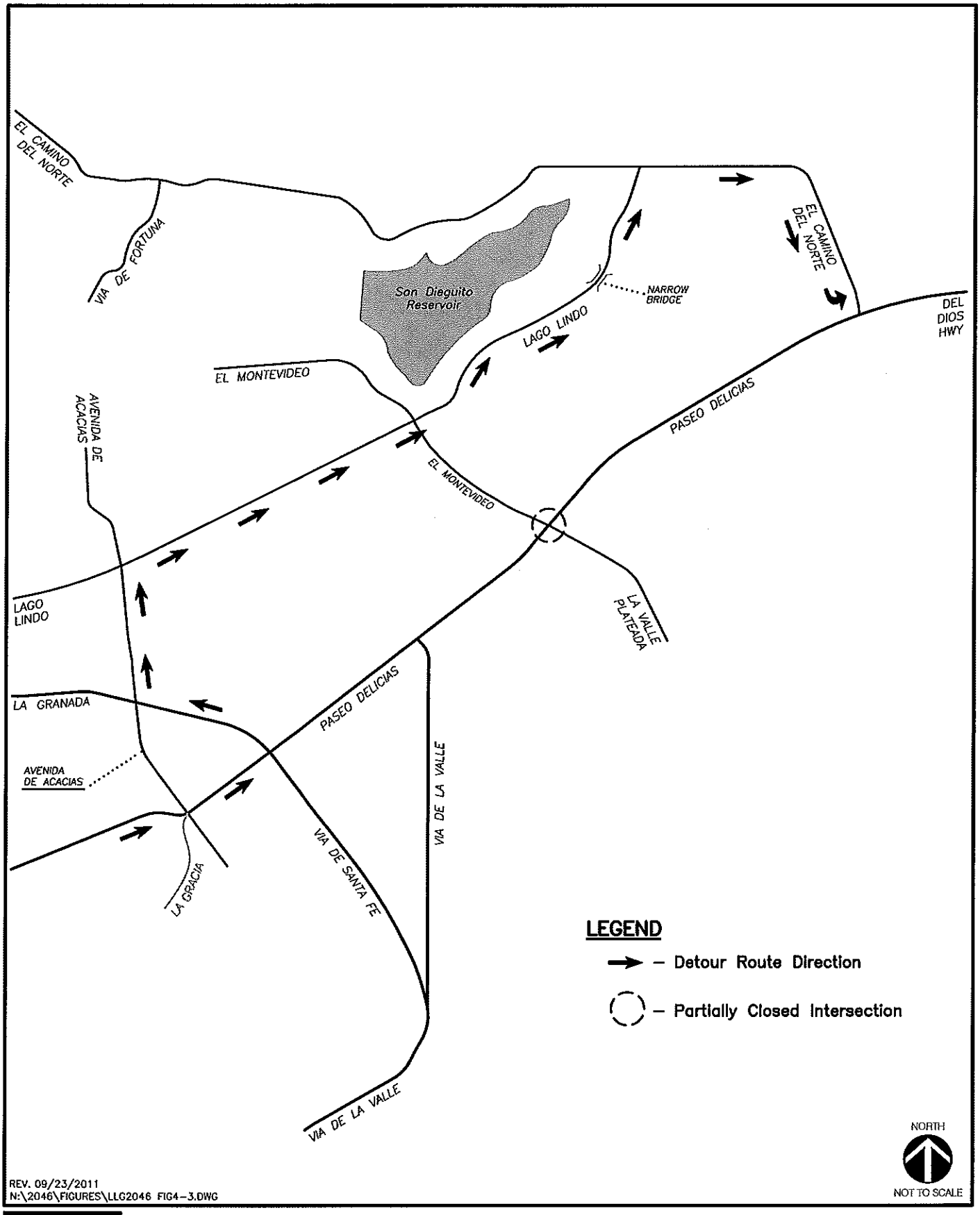


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Figure 4-2

Existing Traffic Volumes
AM/PM Peak Hours & ADT

RANCHO SANTA FE ROUNDABOUTS



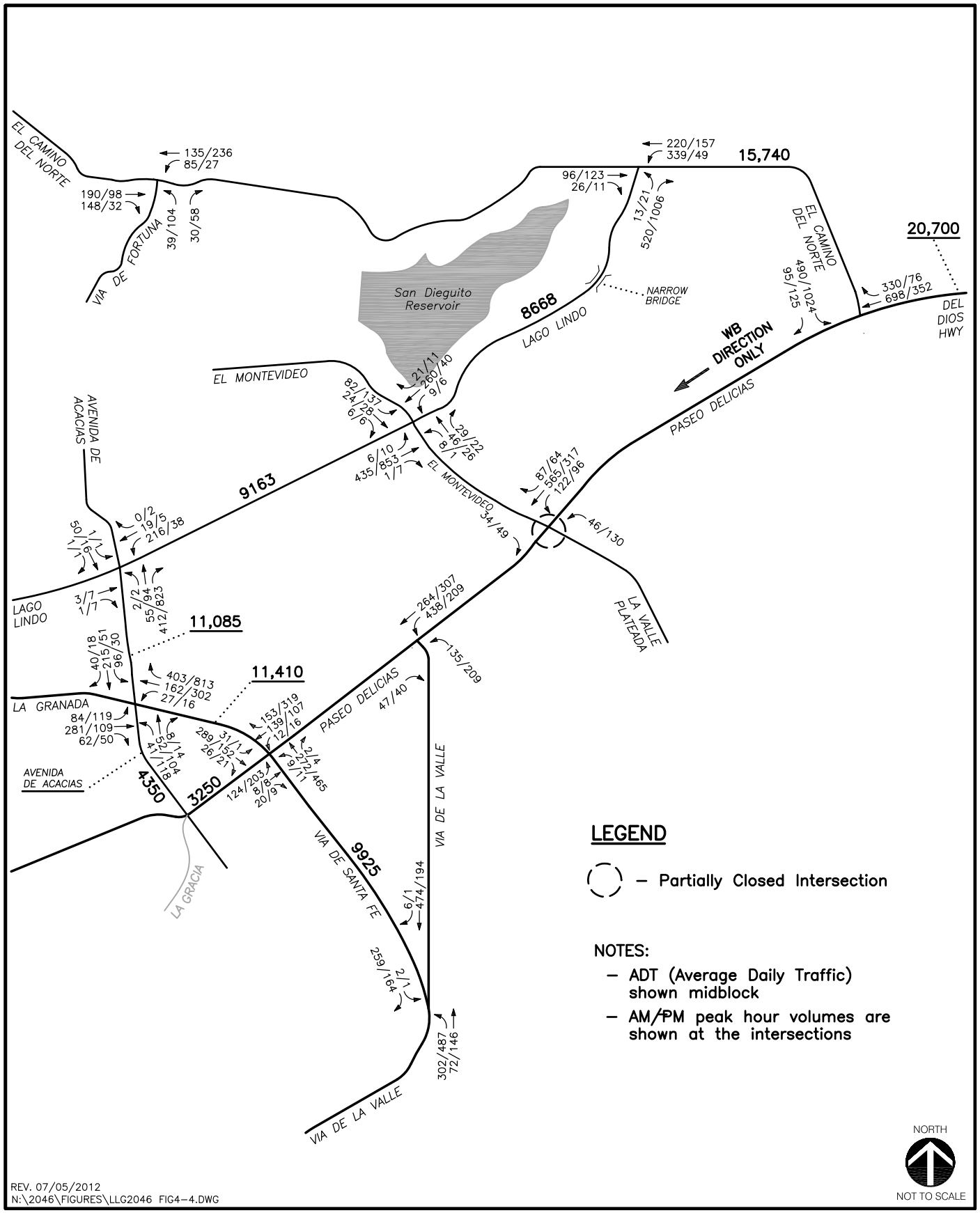
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Figure 4-3

Proposed Detour Plan

Construction Scenario A - Full Intersection Closure

RANCO SANTA FE ROUNDABOUTS

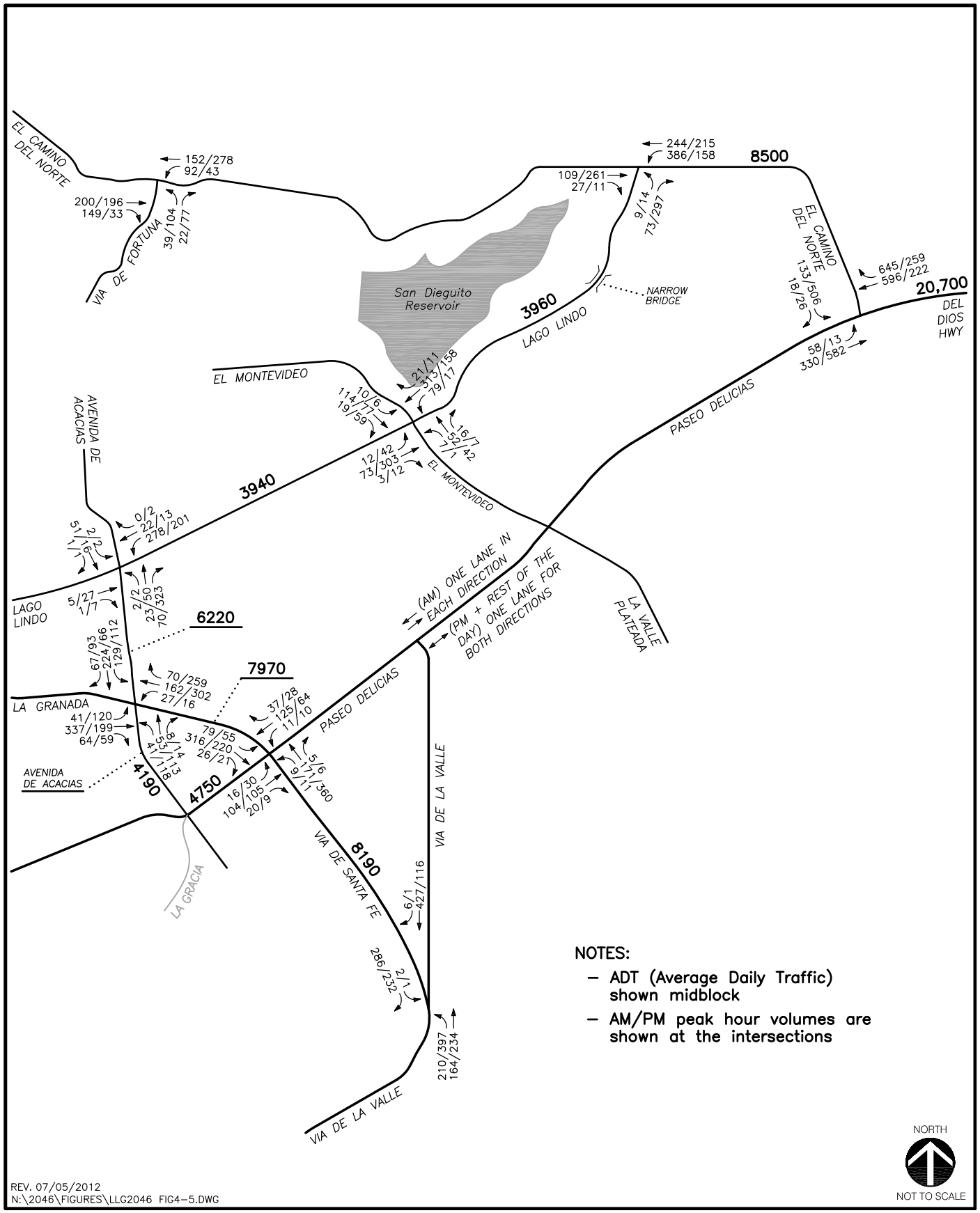


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Figure 4-4

Construction Scenario A
Eastbound Lane Closure - Detour Route
Rerouted Existing Traffic Volumes & ADT

RANCHO SANTA FE ROUNDABOUTS



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Figure 4-5

Construction Scenario B
Flagging Operation Rerouted
Existing Traffic Volumes & ADT

RANCHO SANTA FE ROUNDABOUTS

5.0 CONCLUSION

5.1 Post-Construction Impact Summary

As indicated previously, the installation of either roundabouts or traffic signals at the study intersections will improve the Level of Service to acceptable levels per County thresholds. Based on the County of San Diego significance criteria, no significant capacity related traffic impacts were calculated due to the project traffic. Therefore, mitigation measures are not necessary.

Based on the analysis in this report, providing a roundabout or traffic signal at the proposed locations would have the following advantages:

- Queue Reduction: As indicated in *Table 3–3* the critical movement queue lengths at the two all-way stop sign controlled intersections would reduce.
- Local street traffic Reduction: Since additional capacity would be provided on the Paseo Delicias corridor, a portion of the local street traffic would shift back to the Paseo Delicias corridor from residential streets, such as Lago Lindo.
- Delay reduction: As indicated in *Tables 3–1 and 3–2* the delay at these intersections would reduce. As a result, the travel time delays within the corridor will decrease (especially during the AM and PM peak hours), and the traffic flow and the average speed will improve along Paseo Delicias.

5.2 During Construction Impact Summary

5.2.1 *Construction Scenario A – Eastbound Lane Closure*

Per the County's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant impacts during the construction period at the following locations for Construction Scenario A.

Segments

a1) **El Camino Del Norte:** Paseo Delicias to Lago Lindo
a2) **Lago Lindo:** Avenida De Acacias to El Montevideo
a3) **Lago Lindo:** El Montevideo to El Camino Del Norte
a4) **Avenida De Acacias:** Lago Lindo to La Granada
a5) **La Granada:** Avenida De Acacias to Paseo Delicias

Intersections

b1) El Camino Del Norte / Lago Lindo (LOF F during the PM peak hour)
b2) Lago Lindo / El Montevideo (LOS F during the PM peak hour)
b3) Avenida De Acacias / La Granada (LOF F during the AM and PM peak hours)
b4) Paseo Delicias / La Granada (LOS E during the PM peak hour)

No improvements such as additional lanes are recommended as mitigation, since it is not considered practical given that these significant traffic impacts from the proposed construction would only occur ***temporarily*** during the construction period only, and the project would not have any impacts to these segments or intersections after completion of construction. Therefore, the construction-related traffic impacts at these segments and intersections would be significant and not fully mitigated. However the mitigation measures indicated in Section 5.2.3 should be implemented to reduce the transportation and traffic impacts to the extent feasible.

5.2.2 *Construction Scenario B – Flagging Operation*

Per the County's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant impacts for Construction Scenario B during the construction period.

Segments

a4) **Avenida De Acacias**: Lago Lindo to La Granada

Intersections

b3) Avenida De Acacias / La Granada (LOS F during the PM peak hour)

No improvements such as additional lanes are recommended as mitigation, since it is not considered practical given that these significant traffic impacts from the proposed construction would only occur ***temporarily*** during the construction period only, and the project would not have any impacts to these segments or intersections after completion of construction. Therefore, the construction-related traffic impacts at these intersections and segments would be significant and not fully mitigated. However the mitigation measures indicated in Section 5.2.3 should be implemented to reduce the transportation and traffic impacts to the extent feasible.

5.2.3 *Mitigation Measures*

Due to the temporary nature of the construction impacts, and the historic, community character, and private property constraints in the project area, no physical road improvements are recommended as mitigation measures. However, the following traffic-related mitigation measures shall be considered for implementation to help facilitate traffic flow through the project area during construction:

- Traffic control/detour plans should be prepared for the construction project per the Manual of Uniform Traffic Control Devices (MUTCD) and County standards.
- Signage and flagging operations should be provided per the Manual of Uniform Traffic Control Devices (MUTCD) and County standards.
- Flagger stations should be located far enough in advance of the work space so that approaching road users will have sufficient distance to stop before entering the work space.

- Access to local residences should be maintained at all times during construction.

- Property owners and residents should be given ample warning as to when construction will occur. A public noticing campaign regarding the traffic control detours and anticipated delays should be conducted.

- Emergency access to all homes and businesses should be maintained at all times. Since one travel lane will remain open at all times, access to emergency vehicles should be prioritized and maintained at all times.

5.2.4 *Alternative Project Scenario – Signalizing Study Intersections*

Alternatively, if the intersections are equipped with signals instead of roundabouts, the estimated construction duration is expected to be 6-8 months. Since the construction impacts for this scenario are anticipated to be less severe than the implementation of roundabouts, no traffic-related recommendations in addition to those listed above would be necessary.

6.0 REFERENCES AND LIST OF PREPARERS AND ORGANIZATIONS CONTACTED

6.1 References

The following references were utilized in preparing this Traffic Impact Study.

- Highway Capacity Manual (HCM) 2000.
- County of San Diego Guidelines for Determining Significance—Transportation and Traffic, dated August 24, 2011.
- County of San Diego Traffic Report Format & Content Requirements, dated August 24, 2011.
- County of San Diego Mobility Element.
- aaSidra

6.2 List of Preparers

- John Boarman, P.E., Principal—Linscott, Law & Greenspan, Engineers
- KC Yellapu, P.E., Senior Transportation Engineer—Linscott, Law & Greenspan, Engineers
- Amelia Giacalone, Transportation Planner II—Linscott, Law & Greenspan, Engineers
- Charlene Sadiarin, Engineering Aide I - Linscott, Law & Greenspan, Engineers

6.3 Organizations Contacted

- County of San Diego, Department of Public Works Transportation Division

LINSCOTT LAW & GREENSPAN
engineers

TECHNICAL APPENDICES

RANCHO SANTA FE ROUNDABOUTS

San Diego, California
September 23, 2011

LLG Ref. 3-11-2046

Prepared by:
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APPENDIX A

EXISTING TRAFFIC COUNTS – AM/PM PEAK HOUR AND SEGMENT ADT

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.09.DEL DIOS HWY.EL CAMINO DEL NORTE
Site Code : 00000000
Start Date : 4/27/2011
Page No : 1

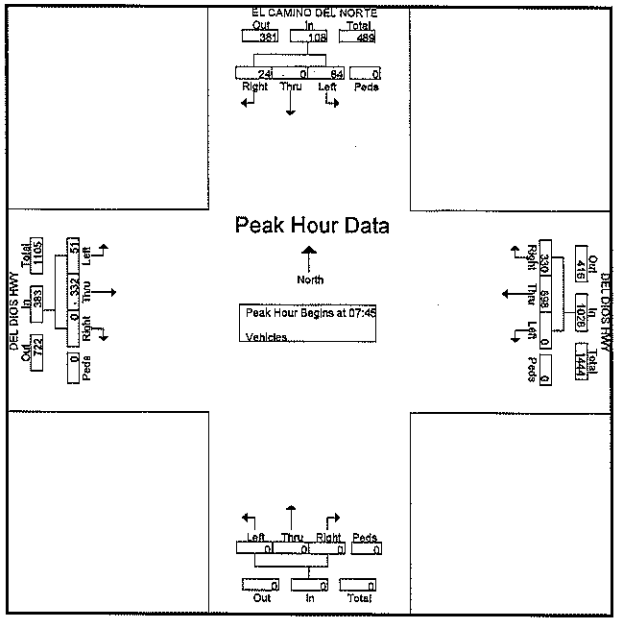
Groups Printed- Vehicles

	EL CAMINO DEL NORTE Southbound				DEL DIOS HWY Westbound				Northbound				DEL DIOS HWY Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	6	0	1	0	0	186	113	0	0	0	0	0	10	57	0	0	373
07:15	20	0	2	0	0	164	127	0	0	0	0	0	7	65	0	0	385
07:30	14	0	5	0	0	159	114	0	0	0	0	0	8	60	0	0	360
07:45	24	0	6	0	0	164	109	0	0	0	0	0	11	83	0	0	397
Total	64	0	14	0	0	673	463	0	0	0	0	0	36	265	0	0	1515
08:00	17	0	4	0	0	155	89	0	0	0	0	0	13	84	0	0	362
08:15	25	0	10	0	0	172	67	0	0	0	0	0	14	88	0	0	376
08:30	18	0	4	0	0	207	65	0	0	0	0	0	13	77	0	0	384
08:45	23	0	13	0	0	163	71	0	0	0	0	0	16	77	0	0	363
Total	83	0	31	0	0	697	292	0	0	0	0	0	56	326	0	0	1485
*** BREAK ***																	
16:00	29	0	15	0	0	85	17	0	0	0	0	0	7	221	0	0	374
16:15	39	0	6	0	0	75	19	0	0	0	0	0	4	208	0	0	351
16:30	37	0	10	0	0	103	23	0	0	0	0	0	11	197	0	0	381
16:45	38	0	6	0	0	89	17	0	0	0	0	0	6	202	0	0	358
Total	143	0	37	0	0	352	76	0	0	0	0	0	28	828	0	0	1464
17:00	26	0	7	0	0	89	24	0	0	0	0	0	9	191	0	0	346
17:15	39	0	3	0	0	92	18	0	0	0	0	0	5	196	0	0	353
17:30	30	0	8	0	0	97	17	0	0	0	0	0	8	184	0	0	344
17:45	30	0	6	0	0	74	17	0	0	0	0	0	15	179	0	0	321
Total	125	0	24	0	0	352	76	0	0	0	0	0	37	750	0	0	1364
Grand Total	415	0	106	0	0	2074	907	0	0	0	0	0	157	2169	0	0	5828
Apprch %	79.7	0	20.3	0	0	69.6	30.4	0	0	0	0	0	6.7	93.3	0	0	
Total %	7.1	0	1.8	0	0	35.6	15.6	0	0	0	0	0	2.7	37.2	0	0	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.09.DEL DIOS HWY.EL CAMINO DEL NORTE
Site Code : 00000000
Start Date : 4/27/2011
Page No : 2

	EL CAMINO DEL NORTE Southbound					DEL DIOS HWY Westbound					Northbound					DEL DIOS HWY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	24	0	6	0	30	0	164	109	0	273	0	0	0	0	0	11	83	0	0	94	397
08:00	17	0	4	0	21	0	155	89	0	244	0	0	0	0	0	13	84	0	0	97	362
08:15	25	0	10	0	35	0	172	67	0	239	0	0	0	0	0	14	88	0	0	102	376
08:30	18	0	4	0	22	0	207	65	0	272	0	0	0	0	0	13	77	0	0	90	384
Total Volume	84	0	24	0	108	0	698	330	0	1028	0	0	0	0	0	51	332	0	0	383	1519
% App. Total	77.8	0	22.2	0		0	67.9	32.1	0		0	0	0	0		13.3	86.7	0	0		
PHF	.840	.000	.600	.000	.771	.000	.843	.757	.000	.941	.000	.000	.000	.000	.000	.911	.943	.000	.000	.939	.957

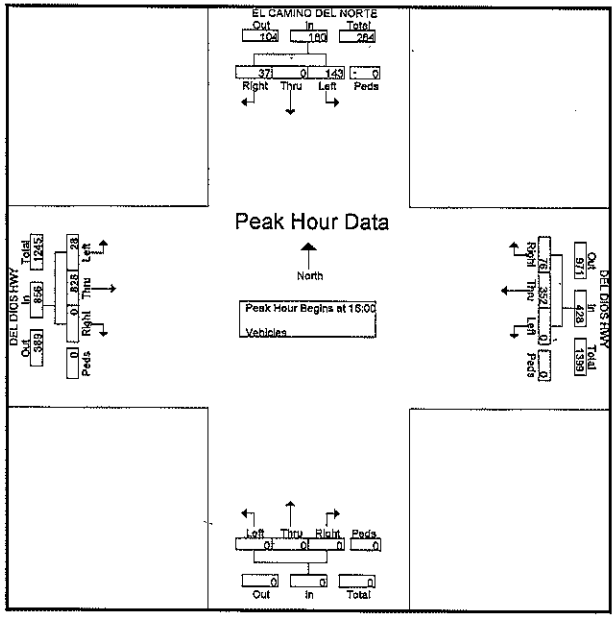


True Count

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San Diego, CA 92120

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Start Date : 4/27/2011
Page No : 3

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Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	29	0	15	0	44	0	85	17	0	102	0	0	0	0	0	7	221	0	0	228	374
16:15	39	0	6	0	45	0	75	19	0	94	0	0	0	0	0	4	208	0	0	212	351
16:30	37	0	10	0	47	0	103	23	0	126	0	0	0	0	0	11	197	0	0	208	381
16:45	38	0	6	0	44	0	89	17	0	106	0	0	0	0	0	6	202	0	0	208	358
Total Volume	143	0	37	0	180	0	352	76	0	428	0	0	0	0	0	28	828	0	0	856	1464
% App. Total	79.4	0	20.6	0		0	82.2	17.8	0		0	0	0	0		3.3	96.7	0	0		
PHF	.917	.000	.617	.000	.957	.000	.854	.826	.000	.849	.000	.000	.000	.000	.000	.636	.937	.000	.000	.939	.961



True Count
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San Diego, CA 92120

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Page No : 1

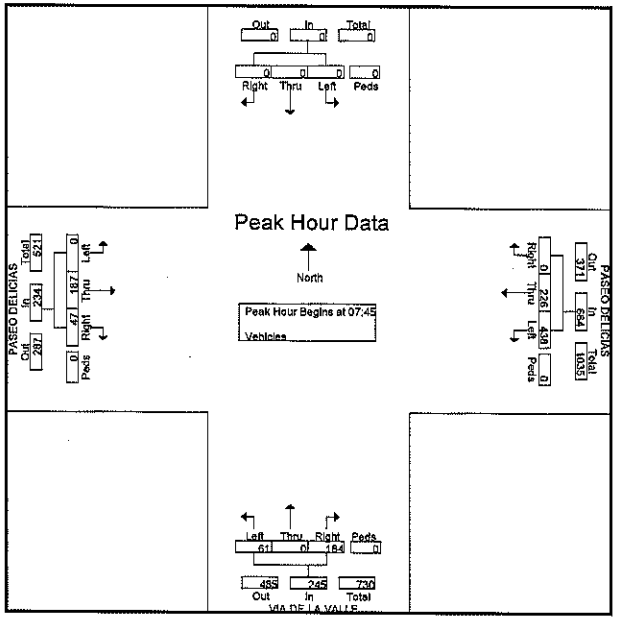
Groups Printed- Vehicles

	Southbound				PASEO DELICIAS Westbound				VIA DE LA VALLE Northbound				PASEO DELICIAS Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	0	0	0	0	114	46	0	0	6	0	39	0	0	32	9	0	246
07:15	0	0	0	0	135	42	0	0	5	0	36	0	0	38	7	0	263
07:30	0	0	0	0	125	46	0	0	4	0	42	0	0	40	10	0	267
07:45	0	0	0	0	97	57	0	0	24	0	41	0	0	53	10	0	282
Total	0	0	0	0	471	191	0	0	39	0	158	0	0	163	36	0	1058
08:00	0	0	0	0	112	47	0	0	14	0	36	0	0	54	18	0	281
08:15	0	0	0	0	117	61	0	0	8	0	61	0	0	29	10	0	286
08:30	0	0	0	0	112	61	0	0	15	0	46	0	0	51	9	0	294
08:45	0	0	0	0	100	63	0	0	7	0	56	0	0	44	8	0	278
Total	0	0	0	0	441	232	0	0	44	0	199	0	0	178	45	0	1139
*** BREAK ***																	
16:00	0	0	0	0	46	46	0	0	12	0	101	0	0	72	13	0	290
16:15	0	0	0	0	54	48	0	0	16	0	105	0	0	74	7	0	304
16:30	0	0	0	0	37	60	0	0	8	0	97	0	0	54	7	0	263
16:45	0	0	0	0	44	59	0	0	8	0	106	0	0	75	9	0	301
Total	0	0	0	0	181	213	0	0	44	0	409	0	0	275	36	0	1158
17:00	0	0	0	0	54	52	0	0	11	0	94	0	0	90	16	0	317
17:15	0	0	0	0	53	46	0	0	12	0	99	0	0	79	9	0	298
17:30	0	0	0	0	58	41	0	0	15	0	108	0	0	55	6	0	283
17:45	0	0	0	0	27	26	0	0	7	0	67	0	0	35	8	0	170
Total	0	0	0	0	192	165	0	0	45	0	368	0	0	259	39	0	1068
Grand Total	0	0	0	0	1285	801	0	0	172	0	1134	0	0	875	156	0	4423
Apprch %	0	0	0	0	61.6	38.4	0	0	13.2	0	86.8	0	0	84.9	15.1	0	
Total %	0	0	0	0	29.1	18.1	0	0	3.9	0	25.6	0	0	19.8	3.5	0	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.07.VIA DE LA VALLE.PASEO DELCIAS
Site Code : 00000000
Start Date : 4/27/2011
Page No : 2

	Southbound					PASEO DELICIAS Westbound					VIA DE LA VALLE Northbound					PASEO DELICIAS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	0	0	0	0	0	97	57	0	0	154	24	0	41	0	65	0	53	10	0	63	282
08:00	0	0	0	0	0	112	47	0	0	159	14	0	36	0	50	0	54	18	0	72	281
08:15	0	0	0	0	0	117	61	0	0	178	8	0	61	0	69	0	29	10	0	39	286
08:30	0	0	0	0	0	112	61	0	0	173	15	0	46	0	61	0	51	9	0	60	294
Total Volume	0	0	0	0	0	438	226	0	0	664	61	0	184	0	245	0	187	47	0	234	1143
% App. Total	0	0	0	0		66	34	0	0		24.9	0	75.1	0		0	79.9	20.1	0		
PHF	.000	.000	.000	.000	.000	.936	.926	.000	.000	.933	.635	.000	.754	.000	.888	.000	.866	.653	.000	.813	.972

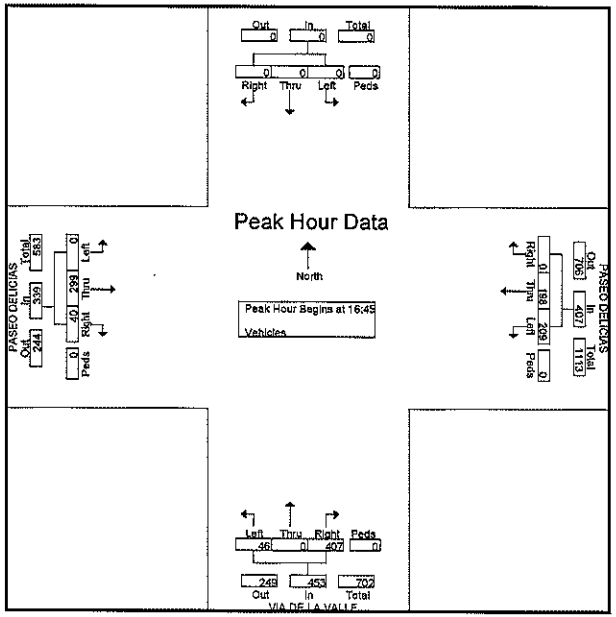


True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.07.VIA DE LA VALLE.PASEO DELCIAS
Site Code : 00000000
Start Date : 4/27/2011
Page No : 3

	Southbound					PASEO DELICIAS Westbound					VIA DE LA VALLE Northbound					PASEO DELICIAS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	0	0	0	0	44	59	0	0	103	8	0	106	0	114	0	75	9	0	84	301
17:00	0	0	0	0	0	54	52	0	0	106	11	0	94	0	105	0	90	16	0	106	317
17:15	0	0	0	0	0	53	46	0	0	99	12	0	99	0	111	0	79	9	0	88	298
17:30	0	0	0	0	0	58	41	0	0	99	15	0	108	0	123	0	55	6	0	61	283
Total Volume	0	0	0	0	0	209	198	0	0	407	46	0	407	0	453	0	299	40	0	339	1199
% App. Total	0	0	0	0		51.4	48.6	0	0		10.2	0	89.8	0		0	88.2	11.8	0		
PHF	.000	.000	.000	.000	.000	.901	.839	.000	.000	.960	.767	.000	.942	.000	.921	.000	.831	.625	.000	.800	.946



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.08.PASEO DELICIAS.EL MONTEVIDEO
Site Code : 00000000
Start Date : 4/27/2011
Page No : 1

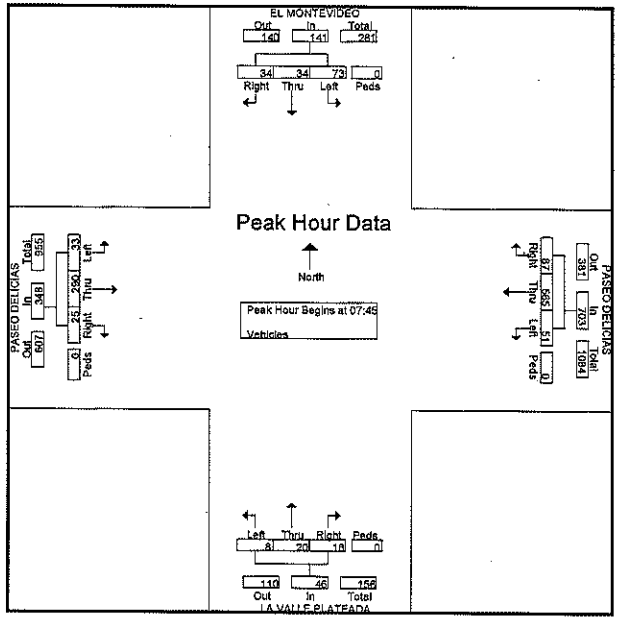
Groups Printed- Vehicles

	EL MONTEVIDEO Southbound				PASEO DELICIAS Westbound				LA VALLE PLATEADA Northbound				PASEO DELICIAS Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	15	8	22	0	9	145	11	0	4	3	3	0	6	54	7	0	287
07:15	11	9	19	0	3	156	16	0	2	4	4	0	9	49	1	0	283
07:30	17	5	12	0	6	149	8	0	1	7	2	0	13	56	6	0	282
07:45	13	12	10	0	12	138	24	0	2	5	5	0	6	68	7	0	302
Total	56	34	63	0	30	588	59	0	9	19	14	0	34	227	21	0	1154
08:00	23	9	13	0	15	137	17	0	1	3	1	0	9	75	7	0	310
08:15	22	6	4	0	13	140	23	0	3	7	7	0	9	71	7	0	312
08:30	15	7	7	0	11	150	23	0	2	5	5	0	9	76	4	0	314
08:45	16	8	6	0	7	149	18	0	3	4	1	0	4	73	8	0	297
Total	76	30	30	0	46	576	81	0	9	19	14	0	31	295	26	0	1233
*** BREAK ***																	
16:00	54	9	11	0	1	80	10	0	5	6	28	0	1	144	2	0	351
16:15	53	1	18	0	4	74	14	0	8	6	19	0	6	137	3	0	343
16:30	47	5	9	0	3	86	22	0	5	6	22	0	8	131	7	0	351
16:45	41	2	11	0	0	77	18	0	3	5	17	0	4	152	1	0	331
Total	195	17	49	0	8	317	64	0	21	23	86	0	19	564	13	0	1376
17:00	48	5	8	0	1	80	14	0	7	4	11	0	6	146	4	0	334
17:15	38	3	12	0	2	72	17	0	1	4	13	0	4	147	3	0	316
17:30	32	4	12	0	3	87	21	0	6	8	9	0	7	145	0	0	334
17:45	34	4	4	0	0	71	13	0	6	4	8	0	6	153	4	0	307
Total	152	16	36	0	6	310	65	0	20	20	41	0	23	591	11	0	1291
Grand Total	479	97	178	0	90	1791	269	0	59	81	155	0	107	1677	71	0	5054
Approch %	63.5	12.9	23.6	0	4.2	83.3	12.5	0	20	27.5	52.5	0	5.8	90.4	3.8	0	
Total %	9.5	1.9	3.5	0	1.8	35.4	5.3	0	1.2	1.6	3.1	0	2.1	33.2	1.4	0	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1050.08.PASEO DELICIAS.EL MONTEVIDEO
Site Code : 00000000
Start Date : 4/27/2011
Page No : 2

	EL MONTEVIDEO Southbound					PASEO DELICIAS Westbound					LA VALLE PLATEADA Northbound					PASEO DELICIAS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	13	12	10	0	35	12	138	24	0	174	2	5	5	0	12	6	68	7	0	81	302
08:00	23	9	13	0	45	15	137	17	0	169	1	3	1	0	5	9	75	7	0	91	310
08:15	22	6	4	0	32	13	140	23	0	176	3	7	7	0	17	9	71	7	0	87	312
08:30	15	7	7	0	29	11	150	23	0	184	2	5	5	0	12	9	76	4	0	89	314
Total Volume	73	34	34	0	141	51	565	87	0	703	8	20	18	0	46	33	290	25	0	348	1238
% App. Total	51.8	24.1	24.1	0		7.3	80.4	12.4	0		17.4	43.5	39.1	0		9.5	83.3	7.2	0		
PHF	.793	.708	.654	.000	.783	.850	.942	.906	.000	.955	.667	.714	.643	.000	.676	.917	.954	.893	.000	.956	.986

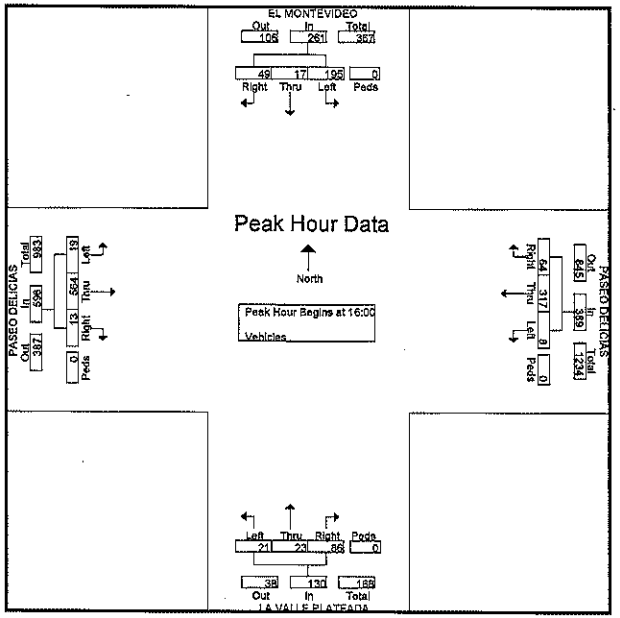


True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

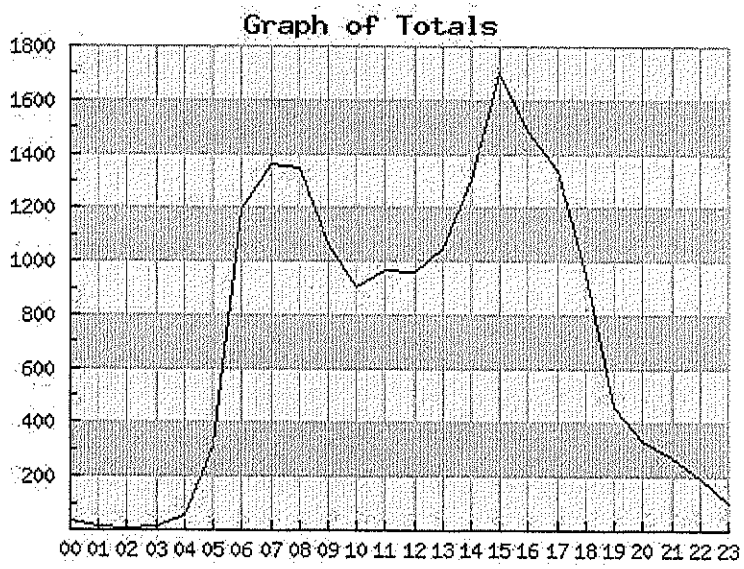
File Name : 1050.08.PASEO DELICIAS.EL MONTEVIDEO
Site Code : 00000000
Start Date : 4/27/2011
Page No : 3

	EL MONTEVIDEO Southbound					PASEO DELICIAS Westbound					LA VALLE PLATEADA Northbound					PASEO DELICIAS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	54	9	11	0	74	1	80	10	0	91	5	6	28	0	39	1	144	2	0	147	351
16:15	53	1	18	0	72	4	74	14	0	92	8	6	19	0	33	6	137	3	0	146	343
16:30	47	5	9	0	61	3	86	22	0	111	5	6	22	0	33	8	131	7	0	146	351
16:45	41	2	11	0	54	0	77	18	0	95	3	5	17	0	25	4	152	1	0	157	331
Total Volume	195	17	49	0	261	8	317	64	0	389	21	23	86	0	130	19	564	13	0	596	1376
% App. Total	74.7	6.5	18.8	0		2.1	81.5	16.5	0		16.2	17.7	66.2	0		3.2	94.6	2.2	0		
PHF	.903	.472	.681	.000	.882	.500	.922	.727	.000	.876	.656	.958	.768	.000	.833	.594	.928	.464	.000	.949	.980



Daily Vehicle Volume Report

Location:
Paseo Delicias btwn El Camino Del Norte & La Valle Plateada
File Number: 68804
Counter ID: 91159
Report Duration:
Wednesday Feb 14, 2007 - 00:00 to
Wednesday Feb 14, 2007 - 23:59
Other Notes:
None at this time.



Time	East Bound Volume	West Bound Volume	Total Volume
00:00 - 00:59	17	15	32
01:00 - 01:59	6	8	14
02:00 - 02:59	1	9	10
03:00 - 03:59	5	10	15
04:00 - 04:59	14	39	53
05:00 - 05:59	54	259	313
06:00 - 06:59	588	608	1196
07:00 - 07:59	813	549	1362
08:00 - 08:59	759	587	1346
09:00 - 09:59	424	640	1064
10:00 - 10:59	431	472	903
11:00 - 11:59	487	482	969
12:00 - 12:59	498	462	960
13:00 - 13:59	632	414	1046
14:00 - 14:59	807	497	1304
15:00 - 15:59	1265	436	1701
16:00 - 16:59	1033	456	1489
17:00 - 17:59	923	418	1341
18:00 - 18:59	676	276	952
19:00 - 19:59	302	158	460
20:00 - 20:59	187	148	335
21:00 - 21:59	169	101	270
22:00 - 22:59	130	68	198
23:00 - 23:59	73	34	107
Total	**10294**	**7146**	**17440**
AM Peak	6:45	8:45	7:00
Hour	7:44	9:44	7:59
Volume	835	670	1362
PM Peak	15:00	14:30	15:00
Hour	15:59	15:29	15:59
Volume	1265	511	1701

Report Generated by "Turning Point Traffic Service" all rights reserved

MetroCount Traffic Executive
Vehicle Counts
Westbound
VehicleCount-166

DATASETS:
Site: [07702] Del Dios Highway Btw El Camino del Norte and Via Cuatro
Direction: 6 - West bound A>B, East bound B>A., Lane: 0
Survey Duration: 16:46 Mon 07 Mar 2005 to 17:17 Fri 11 Mar 2005
File: Z:\mcdata\LLG\2005\077\0770212MAR2005.EC0 (Base)
Identifier: A56374S4 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm: Factory default

PROFILE:
Filter time: 00:00 Tue 08 Mar 2005 to 00:00 Fri 11 Mar 2005
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/hr.
Direction: West (bound)
Headway: All
Scheme: ARX
Name: Factory default profile
Method: Vehicle classification
Units: Metric (m, km, m/s, km/hr, kg, tonne)
In profile: 30157 Vehicles

* Tue 08 Mar 2005 - Total=9794, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
15	5	8	9	43	319	1182	1217	1182	781	582	539	468	438	548	542	483	513	352	210	138	124	58	38	
4	0	2	2	8	30	204	316	306	249	153	125	85	105	141	140	120	152	89	67	33	48	20	9	5
4	0	0	2	8	57	324	295	316	191	169	135	121	107	140	110	114	135	99	59	47	26	20	8	4
4	0	2	2	8	90	334	306	268	170	120	146	122	126	141	152	129	121	79	46	29	27	9	15	2
3	5	4	3	19	142	320	300	292	171	140	133	140	100	126	140	120	105	85	38	29	23	9	6	4

AM PkHr 06:15 to 07:15 (n=1294), AM PHF=0.97 PM PkHr 14:00 to 15:00 (n=548), PM PHF=0.97

* Wed 09 Mar 2005 - Total=10000, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
15	12	6	9	39	289	1117	1265	1076	913	587	534	468	533	506	587	541	538	406	229	124	110	61	35	
5	6	1	2	5	32	211	307	285	293	150	137	90	115	118	127	169	135	115	68	33	30	17	13	4
4	3	1	0	6	51	273	334	231	260	138	117	137	116	150	149	142	128	123	67	28	27	17	8	7
2	1	3	1	14	74	313	296	277	183	154	142	128	151	109	162	94	158	100	52	31	21	10	7	6
4	2	1	6	14	132	320	328	283	177	145	138	113	151	129	149	136	117	68	42	32	32	17	7	5

AM PkHr 06:30 to 07:30 (n=1274), AM PHF=0.95 PM PkHr 15:15 to 16:15 (n=629), PM PHF=0.93

* Thu 10 Mar 2005 - Total=10363, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
22	3	4	11	43	290	1214	1270	1120	805	725	587	543	525	534	594	559	513	403	244	130	130	60	34	
4	1	1	1	7	20	227	333	316	236	180	153	162	120	99	166	143	148	115	87	32	37	17	16	-
7	1	0	3	9	50	336	338	311	209	181	166	149	128	132	113	142	131	93	69	40	32	18	10	-
6	1	2	2	11	82	297	298	288	203	172	134	118	122	155	157	146	118	101	46	28	33	10	4	-
5	0	1	5	16	138	354	301	205	157	192	134	114	155	148	158	128	116	94	42	30	28	15	4	-

AM PkHr 06:45 to 07:45 (n=1323), AM PHF=0.93

MetroCount Traffic Executive
Vehicle Counts
Eastbound
VehicleCount-166

DATASETS:
Site: [07702] Del Dios Highway Btw El Camino del Norte and Via Cuatro
Direction: 6 - West bound A>B, East bound B>A., Lane: 0
Survey Duration: 16:46 Mon 07 Mar 2005 to 17:17 Fri 11 Mar 2005
File: Z:\mcdata\LLG\2005\077\0770212MAR2005.EC0 (Base)
Identifier: A56374S4 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm: Factory default

PROFILE:
Filter time: 00:00 Tue 08 Mar 2005 to 00:00 Fri 11 Mar 2005
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/hr.
Direction: East (bound)
Headway: All
Scheme: ARX
Name: Factory default profile
Method: Vehicle classification
Units: Metric (m, km, m/s, km/hr, kg, tonne)
In profile: 29239 Vehicles

* Tue 08 Mar 2005 - Total=9615, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
25	6	3	3	15	72	252	408	458	465	457	468	527	623	772	1219	1166	1019	782	357	195	165	104	54	
7	0	0	0	2	3	40	87	103	120	113	117	110	152	181	261	314	257	223	127	60	42	32	15	13
9	0	0	1	1	15	54	116	113	110	105	108	138	155	202	295	307	268	235	88	44	50	32	17	6
4	4	2	1	8	19	49	79	129	118	105	133	143	145	179	328	275	259	191	79	43	35	18	12	3
5	2	1	1	4	35	109	126	113	117	134	110	136	171	210	335	270	235	133	63	48	38	22	10	3

AM PkHr 11:45 to 12:45 (n=501), AM PHF=0.88 PM PkHr 15:30 to 16:30 (n=1284), PM PHF=0.96

* Wed 09 Mar 2005 - Total=9721, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
25	19	6	8	17	82	248	423	430	441	450	465	530	644	824	1223	1196	1031	756	361	206	173	118	45	
13	11	1	2	7	12	48	110	110	118	115	101	137	160	187	249	300	270	219	105	61	48	32	12	9
6	6	2	3	3	11	50	108	100	111	99	114	133	149	191	322	308	266	215	103	56	35	38	16	12
3	1	1	1	3	25	62	91	109	101	114	108	129	161	219	331	291	261	167	86	51	47	28	12	4
3	1	2	2	4	34	88	114	111	111	122	142	131	174	227	321	297	234	155	67	38	43	20	5	2

AM PkHr 11:45 to 12:45 (n=541), AM PHF=0.95 PM PkHr 15:15 to 16:15 (n=1274), PM PHF=0.96

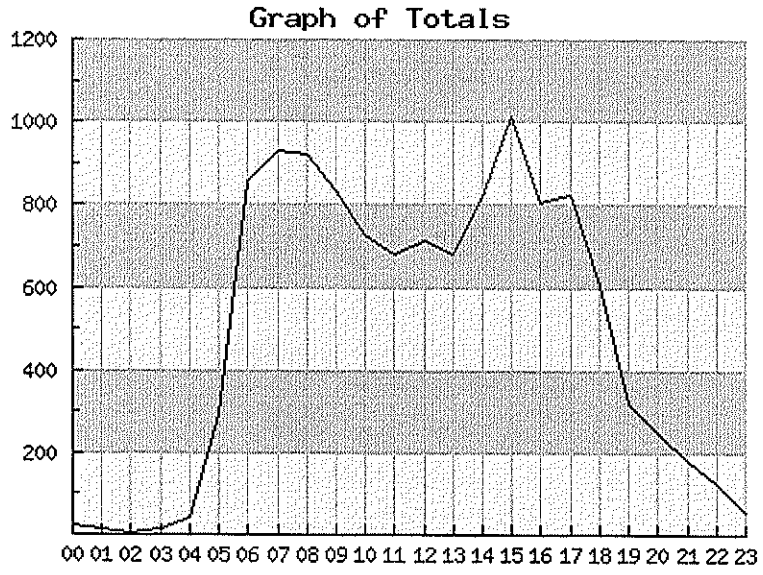
* Thu 10 Mar 2005 - Total=9903, 15 minute drops,

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
27	16	6	5	14	79	254	370	465	502	462	452	512	631	813	1254	1191	1025	778	416	227	195	134	75	
9	5	4	1	4	9	41	102	109	123	132	100	123	156	171	262	316	261	216	133	68	39	47	27	-
12	8	1	1	3	17	42	86	116	138	115	116	124	143	195	327	303	279	227	116	49	61	29	18	-
4	2	1	1	3	30	79	87	131	128	102	122	138	143	215	305	285	266	197	85	55	50	28	13	-
2	1	0	2	4	23	92	95	109	113	113	114	127	189	232	360	287	219	138	82	55	45	30	17	-

AM PkHr 09:15 to 10:15 (n=511), AM PHF=0.93

Daily Vehicle Volume Report

Location:
Via de la Valle s/o Paseo Delicias
File Number: 71703
Counter ID: 86370
Report Duration:
Tuesday May 08, 2007 - 00:00 to
Tuesday May 08, 2007 - 23:59
Other Notes:
None at this time.

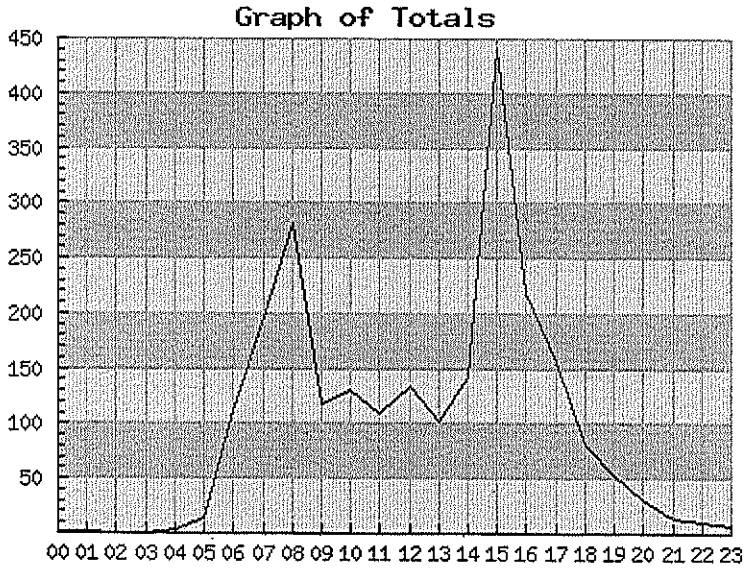


Time	North Bound Volume	South Bound Volume	Total Volume
00:00 - 00:59	8	14	22
01:00 - 01:59	7	7	14
02:00 - 02:59	3	3	6
03:00 - 03:59	8	6	14
04:00 - 04:59	0	42	42
05:00 - 05:59	0	292	292
06:00 - 06:59	20	838	858
07:00 - 07:59	13	916	929
08:00 - 08:59	37	885	922
09:00 - 09:59	100	732	832
10:00 - 10:59	237	489	726
11:00 - 11:59	275	407	682
12:00 - 12:59	313	401	714
13:00 - 13:59	358	322	680
14:00 - 14:59	442	379	821
15:00 - 15:59	548	466	1014
16:00 - 16:59	474	330	804
17:00 - 17:59	505	318	823
18:00 - 18:59	384	224	608
19:00 - 19:59	175	147	322
20:00 - 20:59	131	119	250
21:00 - 21:59	90	92	182
22:00 - 22:59	53	72	125
23:00 - 23:59	33	24	57
Total	**4214**	**7525**	**11739**
AM Peak	11:00	6:15	6:15
Hour	11:59	7:14	7:14
Volume	275	933	957
PM Peak	14:45	15:00	15:00
Hour	15:44	15:59	15:59
Volume	563	466	1014

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Daily Vehicle Volume Report

Location:
La Valle Plateada btwn Paseo Delicias & El Vuelo
File Number: 71704
Counter ID: 91162
Report Duration:
Tuesday May 08, 2007 - 00:00 to
Tuesday May 08, 2007 - 23:59
Other Notes:
None at this time.

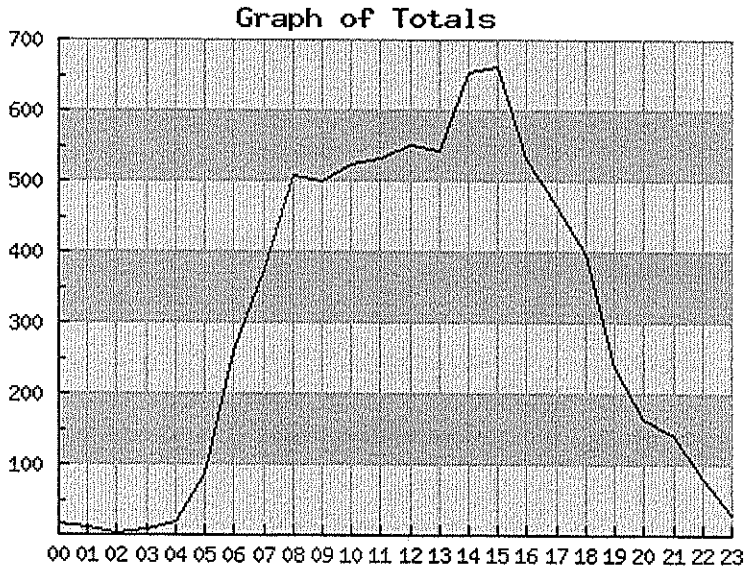


Time	South Bound Volume	North Bound Volume	Total Volume
00:00 - 00:59	2	0	2
01:00 - 01:59	1	0	1
02:00 - 02:59	0	0	0
03:00 - 03:59	0	0	0
04:00 - 04:59	2	1	3
05:00 - 05:59	10	4	14
06:00 - 06:59	104	7	111
07:00 - 07:59	161	36	197
08:00 - 08:59	237	45	282
09:00 - 09:59	68	51	119
10:00 - 10:59	79	52	131
11:00 - 11:59	62	48	110
12:00 - 12:59	66	68	134
13:00 - 13:59	47	56	103
14:00 - 14:59	40	102	142
15:00 - 15:59	24	418	442
16:00 - 16:59	38	181	219
17:00 - 17:59	56	101	157
18:00 - 18:59	44	38	82
19:00 - 19:59	24	29	53
20:00 - 20:59	22	10	32
21:00 - 21:59	10	4	14
22:00 - 22:59	4	7	11
23:00 - 23:59	5	2	7
Total	**1106**	**1260**	**2366**
AM Peak	7:45	9:45	7:45
Hour	8:44	10:44	8:44
Volume	257	59	300
PM Peak	12:00	15:00	15:00
Hour	12:59	15:59	15:59
Volume	66	418	442

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Daily Vehicle Volume Report

Location:
Paseo Delicias btwn Via de la Valle & La Granda
File Number: 71702
Counter ID: 91159
Report Duration:
Tuesday May 08, 2007 - 00:00 to
Tuesday May 08, 2007 - 23:59
Other Notes:
None at this time.

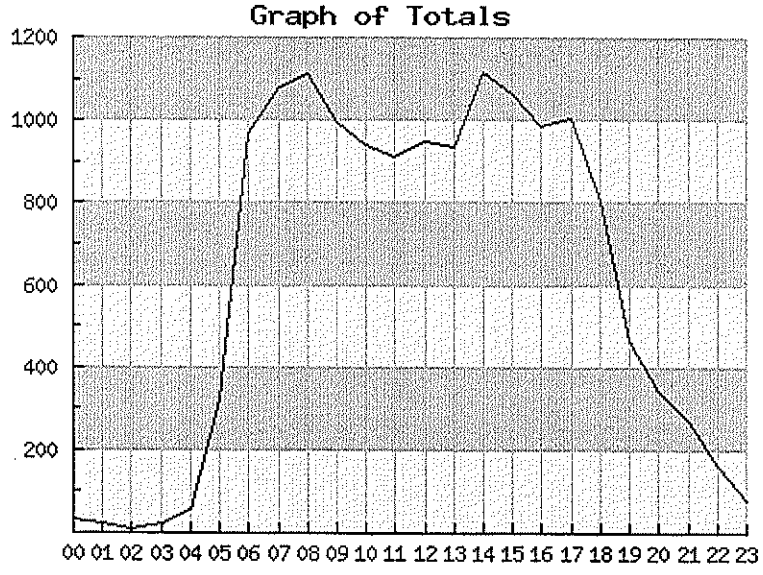


Time	West Bound Volume	East Bound Volume	Total Volume
00:00 - 00:59	8	8	16
01:00 - 01:59	7	3	10
02:00 - 02:59	1	1	2
03:00 - 03:59	5	4	9
04:00 - 04:59	11	8	19
05:00 - 05:59	56	31	87
06:00 - 06:59	162	98	260
07:00 - 07:59	205	170	375
08:00 - 08:59	238	269	507
09:00 - 09:59	295	204	499
10:00 - 10:59	279	246	525
11:00 - 11:59	310	223	533
12:00 - 12:59	294	258	552
13:00 - 13:59	301	243	544
14:00 - 14:59	338	315	653
15:00 - 15:59	385	278	663
16:00 - 16:59	376	156	532
17:00 - 17:59	221	245	466
18:00 - 18:59	176	221	397
19:00 - 19:59	102	137	239
20:00 - 20:59	67	98	165
21:00 - 21:59	44	97	141
22:00 - 22:59	35	46	81
23:00 - 23:59	12	18	30
Total	**3928**	**3377**	**7305**
AM Peak Hour	11:00	8:15	10:30
	11:59	9:14	11:29
Volume	310	270	547
PM Peak Hour	15:30	14:30	14:30
	16:29	15:29	15:29
Volume	425	338	726

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Daily Vehicle Volume Report

Location:
Paseo Delicias btwn Via de la Valle & La Valle Plateada
File Number: 71701
Counter ID: 86411
Report Duration:
Tuesday May 08, 2007 - 00:00 to
Tuesday May 08, 2007 - 23:59
Other Notes:
None at this time.



Time	East Bound Volume	West Bound Volume	Total Volume
00:00 - 00:59	13	19	32
01:00 - 01:59	7	16	23
02:00 - 02:59	4	3	7
03:00 - 03:59	9	13	22
04:00 - 04:59	4	50	54
05:00 - 05:59	8	310	318
06:00 - 06:59	48	921	969
07:00 - 07:59	171	907	1078
08:00 - 08:59	395	718	1113
09:00 - 09:59	286	710	996
10:00 - 10:59	390	550	940
11:00 - 11:59	413	499	912
12:00 - 12:59	434	515	949
13:00 - 13:59	438	496	934
14:00 - 14:59	536	579	1115
15:00 - 15:59	472	593	1065
16:00 - 16:59	516	473	989
17:00 - 17:59	589	416	1005
18:00 - 18:59	498	310	808
19:00 - 19:59	268	197	465
20:00 - 20:59	195	146	341
21:00 - 21:59	173	98	271
22:00 - 22:59	78	83	161
23:00 - 23:59	50	31	81
Total	**5995**	**8653**	**14648**
AM Peak	11:00	6:30	8:15
Hour	11:59	7:29	9:14
Volume	413	959	1143
PM Peak	17:00	14:45	14:15
Hour	17:59	15:44	15:14
Volume	589	609	1120

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APPENDIX B

COUNTY OF SAN DIEGO
PROPOSED LEVEL OF SERVICE STANDARDS,
LOS METHODOLOGIES & DEFINITIONS

County of San Diego
DRAFT

August 11, 1998

TABLE 1

AVERAGE DAILY VEHICLE TRIPS

CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	**X-SECTION**	**A**	**B**	**C**	**D**	**E**
Expressway	126/146	<36,000	<54,000	<70,000	<86,000	<108,000
Prime Arterial	102/122	<22,200	<37,000	<44,600	<50,000	<57,000
Major Road	78/98	<14,800	<24,700	<29,600	<33,400	<37,000
Collector	64/84	<13,700	<22,800	<27,400	<30,800	<34,200
Town Collector	54/74	<3,000	<6,000	<9,500	<13,500	<19,000
Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Collector	40/84	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Recreational Parkway	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Mountain	40/100	<1,900	<4,100	<7,100	<10,900	<16,200

NON-CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	**X-SECTION**	**A**	**B**	**C**	**D**	**E**
Residential Collector	40/60	*	*	<4,500	*	*
Residential Road	36/56	*	*	<1,500	*	*
Residential Cul-de-sac or Loop Road	32/52	*	*	< 200	*	*

* Levels of service are not applicable to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

DEFINITIONS

Design-hour Factor (K-factor): The proportion of the 24-hour volume that occurs during the design hour.

Directional Distribution (D-factor): A characteristic of traffic, that volume may be greater in one direction than in the other during any particular hour on a highway.

High-occupancy vehicle (HOV): A vehicle with a defined minimum number of occupants (>1); HOV's often include buses, taxis and carpools, when a lane is reserved for their use.

Source: *Highway Capacity Manual, Transportation Research Board*

APPENDIX C

EXISTING (WITH STOP SIGNS)
PEAK HOUR ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Ex-AM
Command:	Ex-AM
Volume:	Ex-AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Escondido Del Dios/El Camino D	F	68.6	0.000	F	68.6	0.000	+ 0.000	D/V
# 2 Paseo Delicias/El Montevideo/L	E	43.6	1.083	E	43.6	1.083	+ 0.000	V/C
# 3 Paseo Delicias/Via De La Valle	C	18.6	1.190	C	18.6	1.190	+ 0.000	V/C

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: F[68.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	84	0	24	51	332	0	0	698	330
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	84	0	24	51	332	0	0	698	330
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	91	0	26	55	361	0	0	759	359
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	91	0	26	55	361	0	0	759	359
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1410	1410	938	1117	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	154	140	323	633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	144	128	323	633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.63	0.00	0.08	0.09	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	164	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	4.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	68.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			68.6			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.054
Loss Time (sec):	0	Average Delay (sec/veh):	43.6
Optimal Cycle:	0	Level Of Service:	E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	8	20	18	73	34	34	33	290	25	51	565	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	20	18	73	34	34	33	290	25	51	565	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	9	22	20	79	37	37	36	315	27	55	614	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	22	20	79	37	37	36	315	27	55	614	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	22	20	79	37	37	36	315	27	55	614	95
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Lanes:	0.17	0.44	0.39	0.52	0.24	0.24	0.10	0.90	1.00	0.08	0.92	1.00
Final Sat.:	93	233	210	285	133	133	61	1069	1359	53	583	731
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.28	0.28	0.28	0.59	0.29	0.02	1.05	1.05	0.13
Crit Moves:			****	****			****				****	
Delay/Veh:	10.4	10.4	10.4	12.1	12.1	12.1	17.1	17.1	8.2	73.7	73.7	8.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	10.4	10.4	12.1	12.1	12.1	17.1	17.1	8.2	73.7	73.7	8.4
LOS by Move:	B	B	B	B	B	B	C	C	A	F	F	A
ApproachDel:	10.4			12.1			16.4			65.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.4			12.1			16.4			65.6		
LOS by Appr:	B			B			C			F		
AllWayAvgQ:	0.1	0.1	0.1	0.4	0.4	0.4	1.4	1.4	0.0	11.5	11.5	0.1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.810	
Loss Time (sec):	0	Average Delay (sec/veh):	18.6	
Optimal Cycle:	0	Level Of Service:	C	

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 0 1			1 0 1 0 0		
Volume Module:												
Base Vol:	61	0	184	0	0	0	0	187	47	438	226	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	184	0	0	0	0	187	47	438	226	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	66	0	200	0	0	0	0	203	51	476	246	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	0	200	0	0	0	0	203	51	476	246	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	66	0	200	0	0	0	0	203	51	476	246	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	499	0	597	0	0	0	0	1160	654	588	640	0
Capacity Analysis Module:												
Vol/Sat:	0.13	xxxx	0.34	xxxx	xxxx	xxxx	xxxx	0.18	0.08	0.81	0.38	xxxx
Crit Moves:			****					****		****		
Delay/Veh:	11.0	0.0	11.7	0.0	0.0	0.0	0.0	12.2	8.7	29.8	11.8	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	0.0	11.7	0.0	0.0	0.0	0.0	12.2	8.7	29.8	11.8	0.0
LOS by Move:	B	*	B	*	*	*	*	B	A	D	B	*
ApproachDel:	11.6			xxxxxx			11.5			23.7		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	11.6			xxxxxx			11.5			23.7		
LOS by Appr:	B			*			B			C		
AllWayAvgQ:	0.2	0.0	0.5	0.0	0.0	0.0	0.0	0.5	0.1	3.4	0.6	0.0

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Ex-PM
Command:	Ex-PM
Volume:	Ex-PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Escondido Del Dios/El Camino D	F	134.7	0.000	F	134.7	0.000	+ 0.000	D/V
# 2 Paseo Delicias/El Montevideo/L	F	63.9	1.227	F	63.9	1.227	+ 0.000	V/C
# 3 Paseo Delicias/Via De La Valle	C	17.9	0.859	C	17.9	0.859	+ 0.000	V/C

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Average Delay (sec/veh): 16.7 Worst Case Level Of Service: F[134.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 1 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	143	0	37	28	828	0	0	352	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	143	0	37	28	828	0	0	352	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	155	0	40	30	900	0	0	383	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	155	0	40	30	900	0	0	383	83
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	1385	1385	424	465	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	160	145	634	1107	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	156	141	634	1107	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.99	0.00	0.06	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	185	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	9.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	135	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			134.7			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.188
Loss Time (sec):	0	Average Delay (sec/veh):	63.9
Optimal Cycle:	0	Level Of Service:	F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:												
Base Vol:	21	23	86	195	17	49	19	564	13	8	317	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	23	86	195	17	49	19	564	13	8	317	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	23	25	93	212	18	53	21	613	14	9	345	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	25	93	212	18	53	21	613	14	9	345	70
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	25	93	212	18	53	21	613	14	9	345	70
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Lanes:	0.16	0.18	0.66	0.75	0.06	0.19	0.03	0.97	1.00	0.02	0.98	1.00
Final Sat.:	80	88	327	377	33	95	17	1032	1194	13	502	573
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.56	0.56	0.56	1.19	0.59	0.01	0.69	0.69	0.12
Crit Moves:	****			****			****				****	
Delay/Veh:	13.2	13.2	13.2	18.9	18.9	18.9	125.0	125	8.9	23.6	23.6	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.2	13.2	13.2	18.9	18.9	18.9	125.0	125	8.9	23.6	23.6	9.9
LOS by Move:	B	B	B	C	C	C	F	F	A	C	C	A
ApproachDel:	13.2			18.9			122.5			21.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.2			18.9			122.5			21.4		
LOS by Appr:	B			C			F			C		
AllWayAvgQ:	0.4	0.4	0.4	1.2	1.2	1.2	17.1	17.1	0.0	2.0	2.0	0.1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.725
Loss Time (sec):	0	Average Delay (sec/veh):	17.9
Optimal Cycle:	0	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 0 1			1 0 1 0 0		
Volume Module:												
Base Vol:	46	0	407	0	0	0	0	299	40	209	198	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	0	407	0	0	0	0	299	40	209	198	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	50	0	442	0	0	0	0	325	43	227	215	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	0	442	0	0	0	0	325	43	227	215	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	0	442	0	0	0	0	325	43	227	215	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	508	0	610	0	0	0	0	1086	607	512	551	0
Capacity Analysis Module:												
Vol/Sat:	0.10	xxxx	0.73	xxxx	xxxx	xxxx	xxxx	0.30	0.07	0.44	0.39	xxxx
Crit Moves:			****					****		****		
Delay/Veh:	10.6	0.0	22.6	0.0	0.0	0.0	0.0	18.7	9.1	15.2	13.4	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	0.0	22.6	0.0	0.0	0.0	0.0	18.7	9.1	15.2	13.4	0.0
LOS by Move:	B	*	C	*	*	*	*	C	A	C	B	*
ApproachDel:	21.4			xxxxxx			17.6			14.3		
Delay Adj:	1.00			xxxxx			1.00			1.00		
ApprAdjDel:	21.4			xxxxxx			17.6			14.3		
LOS by Appr:	C			*			C			B		
AllWayAvgQ:	0.1	0.0	2.4	0.0	0.0	0.0	0.0	1.4	0.1	0.8	0.6	0.0

Note: Queue reported is the number of cars per lane.

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APPENDIX D

EXISTING (WITH TRAFFIC SIGNALS) PEAK HOUR ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Exist W Signals AM
Command:	Exist W Signals AM
Volume:	Exist W Signals AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Escondido Del Dios/El Camino D	B	12.2	0.673	B	12.2	0.673	+ 0.000 D/V
# 2 Paseo Delicias/El Montevideo/L	B	10.6	0.655	B	10.6	0.655	+ 0.000 D/V
# 3 Paseo Delicias/Via De La Valle	B	13.6	0.511	B	13.6	0.511	+ 0.000 D/V

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Cycle (sec):	100	Critical Vol./Cap.(X):	0.673
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.2
Optimal Cycle:	48	Level Of Service:	B

Street Name:	El Camino Del Norte									Escondido Del Dios								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	1	0	1
Volume Module:E+P AM																				
Base Vol:	0	0	0			84	0	54			51	345	0			0	843	180		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			84	0	54			51	345	0			0	843	180		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.90	0.90	0.90			0.90	0.90	0.90			0.90	0.90	0.90			0.90	0.90	0.90		
PHF Volume:	0	0	0			93	0	60			57	383	0			0	937	200		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	0	0	0			93	0	60			57	383	0			0	937	200		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	0	0	0			93	0	60			57	383	0			0	937	200		
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	1.00	1.00	1.00			0.92	1.00	0.92			0.95	1.00	1.00			1.00	1.00	0.85		
Lanes:	0.00	0.00	0.00			0.61	0.00	0.39			1.00	1.00	0.00			0.00	1.00	1.00		
Final Sat.:	0	0	0			1062	0	683			1805	1900	0			0	1900	1615		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.00	0.00			0.09	0.00	0.09			0.03	0.20	0.00			0.00	0.49	0.12		
Crit Moves:						****					****						****			
Green/Cycle:	0.00	0.00	0.00			0.13	0.00	0.13			0.05	0.78	0.00			0.00	0.73	0.73		
Volume/Cap:	0.00	0.00	0.00			0.67	0.00	0.67			0.67	0.26	0.00			0.00	0.67	0.17		
Uniform Del:	0.0	0.0	0.0			41.4	0.0	41.4			46.9	3.0	0.0			0.0	7.0	4.1		
IncremntDel:	0.0	0.0	0.0			7.7	0.0	7.7			19.3	0.1	0.0			0.0	1.3	0.1		
InitQueuDel:	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0	0.0		
Delay Adj:	0.00	0.00	0.00			1.00	0.00	1.00			1.00	1.00	0.00			0.00	1.00	1.00		
Delay/Veh:	0.0	0.0	0.0			49.1	0.0	49.1			66.2	3.1	0.0			0.0	8.4	4.1		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0			49.1	0.0	49.1			66.2	3.1	0.0			0.0	8.4	4.1		
LOS by Move:	A	A	A			D	A	D			E	A	A			A	A	A		
HCM2kAvgQ:	0	0	0			6	0	6			3	3	0			0	16	2		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.6
Optimal Cycle:	54	Level Of Service:	B

Street Name:	El Montevideo/La Valle Plateada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module:	E+P AM											
Base Vol:	14	15	18	63	24	22	33	310	25	40	763	69
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	15	18	63	24	22	33	310	25	40	763	69
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	16	17	20	70	27	24	37	344	28	44	848	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	17	20	70	27	24	37	344	28	44	848	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	16	17	20	70	27	24	37	344	28	44	848	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.86	0.86	0.76	0.76	0.76	0.24	0.99	0.99	0.54	0.99	0.99
Lanes:	0.30	0.32	0.38	0.58	0.22	0.20	1.00	0.93	0.07	1.00	0.92	0.08
Final Sat.:	487	521	626	838	319	293	448	1739	140	1017	1722	156
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.03	0.08	0.08	0.08	0.08	0.20	0.20	0.04	0.49	0.49
Crit Moves:					****						****	
Green/Cycle:	0.13	0.13	0.13	0.13	0.13	0.13	0.75	0.75	0.75	0.75	0.75	0.75
Volume/Cap:	0.25	0.25	0.25	0.65	0.65	0.65	0.11	0.26	0.26	0.06	0.65	0.65
Uniform Del:	39.3	39.3	39.3	41.5	41.5	41.5	3.3	3.8	3.8	3.2	6.0	6.0
IncremntDel:	0.6	0.6	0.6	8.2	8.2	8.2	0.1	0.1	0.1	0.0	1.1	1.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	39.9	39.9	39.9	49.7	49.7	49.7	3.5	3.9	3.9	3.2	7.2	7.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.9	39.9	39.9	49.7	49.7	49.7	3.5	3.9	3.9	3.2	7.2	7.2
LOS by Move:	D	D	D	D	D	D	A	A	A	A	A	A
HCM2kAvgQ:	2	2	2	5	5	5	0	4	4	0	14	14

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.511
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.6
Optimal Cycle:	35	Level Of Service:	B

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 1 0 1			1 0 1 0 0		
Volume Module:E+P AM												
Base Vol:	61	0	195	0	0	0	0	189	47	515	334	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	0	195	0	0	0	0	189	47	515	334	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	68	0	217	0	0	0	0	210	52	572	371	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	0	217	0	0	0	0	210	52	572	371	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	68	0	217	0	0	0	0	210	52	572	371	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	1900	1615	1805	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.13	0.00	0.00	0.00	0.00	0.11	0.03	0.32	0.20	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.07	0.00	0.69	0.00	0.00	0.00	0.00	0.22	0.29	0.62	0.84	0.00
Volume/Cap:	0.51	0.00	0.19	0.00	0.00	0.00	0.00	0.51	0.11	0.51	0.23	0.00
Uniform Del:	44.6	0.0	5.4	0.0	0.0	0.0	0.0	34.5	26.1	10.6	1.7	0.0
IncremntDel:	3.3	0.0	0.1	0.0	0.0	0.0	0.0	1.1	0.1	0.4	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	47.9	0.0	5.5	0.0	0.0	0.0	0.0	35.6	26.2	11.0	1.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.9	0.0	5.5	0.0	0.0	0.0	0.0	35.6	26.2	11.0	1.7	0.0
LOS by Move:	D	A	A	A	A	A	A	D	C	B	A	A
HCM2kAvgQ:	3	0	2	0	0	0	0	6	1	10	2	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	Exist W Signals PM
Command:	Exist W Signals PM
Volume:	Exist W Signals PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Escondido Del Dios/El Camino D	B	12.7	0.689	B	12.7	0.689	+ 0.000 D/V
# 2 Paseo Delicias/El Montevideo/L	B	10.5	0.634	B	10.5	0.634	+ 0.000 D/V
# 3 Paseo Delicias/Via De La Valle	C	22.3	0.617	C	22.3	0.617	+ 0.000 D/V

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Cycle (sec):	100	Critical Vol./Cap.(X):	0.689
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	12.7
Optimal Cycle:	50	Level Of Service:	B

Street Name:	El Camino Del Norte						Escondido Del Dios					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	0 0	1!	0 0	1 0	1	0 0	0 0	1	0 1
Volume Module: E+P PM												
Base Vol:	0	0	0	143	0	38	28	878	0	0	362	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	143	0	38	28	878	0	0	362	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	159	0	42	31	976	0	0	402	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	159	0	42	31	976	0	0	402	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	159	0	42	31	976	0	0	402	83
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.94	1.00	0.94	0.95	1.00	1.00	1.00	1.00	0.85
Lanes:	0.00	0.00	0.00	0.79	0.00	0.21	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1404	0	373	1805	1900	0	0	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.11	0.02	0.51	0.00	0.00	0.21	0.05
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.16	0.00	0.16	0.06	0.75	0.00	0.00	0.69	0.69
Volume/Cap:	0.00	0.00	0.00	0.69	0.00	0.69	0.31	0.69	0.00	0.00	0.31	0.07
Uniform Del:	0.0	0.0	0.0	39.4	0.0	39.4	45.3	6.6	0.0	0.0	6.1	5.1
IncremntDel:	0.0	0.0	0.0	6.8	0.0	6.8	1.7	1.5	0.0	0.0	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	46.2	0.0	46.2	47.0	8.1	0.0	0.0	6.2	5.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	46.2	0.0	46.2	47.0	8.1	0.0	0.0	6.2	5.1
LOS by Move:	A	A	A	D	A	D	D	A	A	A	A	A
HCM2kAvgQ:	0	0	0	7	0	7	1	16	0	0	5	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.634
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.5
Optimal Cycle:	52	Level Of Service:	B

Street Name: El Montevideo/La Valle Plateada / Paseo Delicias

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module:E+P PM												
Base Vol:	21	13	39	42	17	42	23	814	13	8	346	53
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	13	39	42	17	42	23	814	13	8	346	53
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	23	14	43	47	19	47	26	904	14	9	384	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	14	43	47	19	47	26	904	14	9	384	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	23	14	43	47	19	47	26	904	14	9	384	59
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	0.82	0.80	0.80	0.80	0.49	1.00	1.00	0.24	0.98	0.98
Lanes:	0.29	0.18	0.53	0.41	0.17	0.42	1.00	0.98	0.02	1.00	0.87	0.13
Final Sat.:	448	277	832	635	257	635	935	1866	30	464	1615	247
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.07	0.07	0.07	0.03	0.48	0.48	0.02	0.24	0.24
Crit Moves:					****			****				
Green/Cycle:	0.12	0.12	0.12	0.12	0.12	0.12	0.76	0.76	0.76	0.76	0.76	0.76
Volume/Cap:	0.45	0.45	0.45	0.63	0.63	0.63	0.04	0.63	0.63	0.03	0.31	0.31
Uniform Del:	41.2	41.2	41.2	42.2	42.2	42.2	2.9	5.4	5.4	2.8	3.6	3.6
IncremntDel:	1.8	1.8	1.8	7.3	7.3	7.3	0.0	0.9	0.9	0.0	0.1	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.0	43.0	43.0	49.5	49.5	49.5	2.9	6.3	6.3	2.9	3.8	3.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.0	43.0	43.0	49.5	49.5	49.5	2.9	6.3	6.3	2.9	3.8	3.8
LOS by Move:	D	D	D	D	D	D	A	A	A	A	A	A
HCM2kAvgQ:	3	3	3	4	4	4	0	13	13	0	4	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	22.3
Optimal Cycle:	42	Level Of Service:	C

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 0	1	0	0 0	0 0	0	0 0	1 0	1	0 1	0 0
Volume Module:E+P PM												
Base Vol:	46	0	468	0	0	0	0	409	40	215	200	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	0	468	0	0	0	0	409	40	215	200	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	51	0	520	0	0	0	0	454	44	239	222	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	0	520	0	0	0	0	454	44	239	222	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	0	520	0	0	0	0	454	44	239	222	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	1900	1615	1805	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.00	0.32	0.00	0.00	0.00	0.00	0.24	0.03	0.13	0.12	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.31	0.00	0.52	0.00	0.00	0.00	0.00	0.39	0.70	0.21	0.60	0.00
Volume/Cap:	0.09	0.00	0.62	0.00	0.00	0.00	0.00	0.62	0.04	0.62	0.19	0.00
Uniform Del:	24.7	0.0	16.8	0.0	0.0	0.0	0.0	24.6	4.8	35.5	8.9	0.0
IncremntDel:	0.1	0.0	1.4	0.0	0.0	0.0	0.0	1.6	0.0	3.0	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	24.7	0.0	18.2	0.0	0.0	0.0	0.0	26.2	4.8	38.5	9.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	0.0	18.2	0.0	0.0	0.0	0.0	26.2	4.8	38.5	9.0	0.0
LOS by Move:	C	A	B	A	A	A	A	C	A	D	A	A
HCM2kAvgQ:	1	0	12	0	0	0	0	12	0	7	3	0

Note: Queue reported is the number of cars per lane.

APPENDIX E

EXISTING (WITH ROUNDABOUTS) PEAK HOUR ANALYSIS WORKSHEETS

SIDRA INTERSECTION

Movement Summary

El Camino del Norte * AMREVI~1

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Del Dios Hwy										
6T	T	916	2.0	0.775	6.2	LOS A	207	0.29	0.47	32.8
6R	R	196	2.0	0.775	7.2	LOS A	207	0.29	0.52	32.1
Approach		**1112**	**2.0**	**0.775**	**6.4**	**LOS A**	**207**	**0.29**	**0.48**	**32.6**
El Camino del Norte										
7L	L	91	2.2	0.237	17.4	LOS B	39	0.71	0.90	27.1
4R	R	59	1.7	0.237	12.0	LOS B	39	0.71	0.85	29.6
Approach		**150**	**2.0**	**0.237**	**15.3**	**LOS B**	**39**	**0.71**	**0.88**	**28.0**
Paseo Delicias										
5L	L	55	1.8	0.342	12.4	LOS B	49	0.22	0.68	29.4
2T	T	375	1.9	0.342	6.1	LOS A	49	0.22	0.48	33.1
Approach		**430**	**1.9**	**0.342**	**6.9**	**LOS A**	**49**	**0.22**	**0.51**	**32.6**
All Vehicles		**1692**	**2.0**	**0.775**	**7.3**	**LOS A**	**207**	**0.31**	**0.52**	**32.1**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: AM Revised

Processed Jun 08, 2011 04:24:48PM

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SIDRA INTERSECTION

Movement Summary

El Camino del Norte * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Del Dios Hwy										
6T	T	393	2.0	0.342	5.8	LOS A	47	0.11	0.46	33.7
6R	R	82	2.4	0.342	7.0	LOS A	47	0.11	0.53	32.8
Approach		**476**	**2.1**	**0.342**	**6.0**	**LOS A**	**47**	**0.11**	**0.47**	**33.6**
El Camino del Norte										
7L	L	155	1.9	0.204	13.5	LOS B	22	0.36	0.75	29.0
4R	R	41	2.4	0.204	8.3	LOS A	22	0.36	0.65	31.7
Approach		**196**	**2.0**	**0.204**	**12.4**	**LOS B**	**22**	**0.36**	**0.73**	**29.5**
Paseo Delicias										
5L	L	30	3.2	0.816	13.9	LOS B	252	0.59	0.71	28.4
2T	T	954	2.0	0.811	7.5	LOS A	252	0.59	0.60	31.4
Approach		**985**	**2.0**	**0.811**	**7.7**	**LOS A**	**252**	**0.59**	**0.61**	**31.3**
All Vehicles		**1657**	**2.1**	**0.816**	**7.8**	**LOS A**	**252**	**0.42**	**0.58**	**31.7**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: PM

Processed Jun 08, 2011 04:30:02PM

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SIDRA INTERSECTION

Movement Summary

El Montevideo * AM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
La Valle Plateada										
3L	L	15	0.0	0.055	13.4	LOS B	6	0.36	0.73	29.0
8T	T	16	0.0	0.055	7.0	LOS A	6	0.36	0.57	32.5
8R	R	20	0.0	0.055	8.2	LOS A	6	0.36	0.60	31.7
Approach		**51**	**0.0**	**0.055**	**9.3**	**LOS A**	**6**	**0.36**	**0.63**	**31.1**
Paseo Delicias										
1L	L	43	0.0	0.694	12.4	LOS B	145	0.26	0.66	29.3
6T	T	829	1.0	0.696	6.1	LOS A	145	0.26	0.48	32.9
6R	R	75	0.0	0.694	7.3	LOS A	145	0.26	0.53	32.1
Approach		**947**	**0.8**	**0.696**	**6.5**	**LOS A**	**145**	**0.26**	**0.49**	**32.7**
El Montevideo										
7L	L	68	0.0	0.187	17.0	LOS B	29	0.67	0.88	27.2
4T	T	26	0.0	0.187	10.6	LOS B	29	0.67	0.80	30.5
4R	R	24	0.0	0.188	11.8	LOS B	29	0.67	0.76	29.7
Approach		**118**	**0.0**	**0.187**	**14.5**	**LOS B**	**29**	**0.67**	**0.84**	**28.3**
Paseo Delicias										
5L	L	36	0.0	0.346	12.5	LOS B	45	0.25	0.69	29.3
2T	T	337	2.1	0.347	6.2	LOS A	45	0.25	0.51	33.0
2R	R	27	0.0	0.346	7.4	LOS A	45	0.25	0.56	32.2
Approach		**400**	**1.8**	**0.347**	**6.9**	**LOS A**	**45**	**0.25**	**0.53**	**32.5**
All Vehicles		**1516**	**1.0**	**0.696**	**7.3**	**LOS A**	**145**	**0.30**	**0.53**	**32.2**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

SIDRA INTERSECTION

Movement Summary

El Montevideo * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
La Valle Plateada										
3L	L	23	0.0	0.135	17.6	LOS B	21	0.69	0.87	26.9
8T	T	14	0.0	0.136	11.2	LOS B	21	0.69	0.79	30.1
8R	R	42	0.0	0.135	12.5	LOS B	21	0.69	0.75	29.3
Approach		**79**	**0.0**	**0.135**	**13.7**	**LOS B**	**21**	**0.69**	**0.79**	**28.6**
Paseo Delicias										
1L	L	9	0.0	0.346	12.2	LOS B	44	0.16	0.68	29.5
6T	T	376	2.1	0.344	5.9	LOS A	44	0.16	0.47	33.5
6R	R	58	0.0	0.345	7.1	LOS A	44	0.16	0.54	32.6
Approach		**444**	**1.8**	**0.344**	**6.2**	**LOS A**	**44**	**0.16**	**0.48**	**33.3**
El Montevideo										
7L	L	46	0.0	0.116	13.3	LOS B	12	0.35	0.74	29.0
4T	T	18	0.0	0.115	6.9	LOS A	12	0.35	0.58	32.5
4R	R	46	0.0	0.116	8.2	LOS A	12	0.35	0.61	31.8
Approach		**110**	**0.0**	**0.116**	**10.1**	**LOS B**	**12**	**0.35**	**0.66**	**30.6**
Paseo Delicias										
5L	L	25	0.0	0.694	12.5	LOS B	149	0.29	0.66	29.2
2T	T	885	2.0	0.688	6.1	LOS A	149	0.29	0.48	32.8
2R	R	14	0.0	0.700	7.3	LOS A	149	0.29	0.53	32.0
Approach		**924**	**1.9**	**0.688**	**6.3**	**LOS A**	**149**	**0.29**	**0.49**	**32.7**
All Vehicles		**1557**	**1.7**	**0.700**	**6.9**	**LOS A**	**149**	**0.27**	**0.51**	**32.5**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

SIDRA INTERSECTION

Movement Summary

Via de la Valle * AM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Via de la Valle										
3L	L	66	1.5	0.266	12.8	LOS B	32	0.30	0.71	29.2
8R	R	212	1.9	0.266	7.7	LOS A	32	0.30	0.60	32.0
Approach		**278**	**1.8**	**0.266**	**8.9**	**LOS A**	**32**	**0.30**	**0.62**	**31.2**
Paseo Delicias										
1L	L	560	2.0	0.680	12.5	LOS B	145	0.27	0.66	29.2
6T	T	363	1.9	0.680	6.1	LOS A	145	0.27	0.48	32.9
Approach		**923**	**2.0**	**0.680**	**10.0**	**LOS A**	**145**	**0.27**	**0.59**	**30.5**
Paseo Delicias										
2T	T	205	2.0	0.302	8.1	LOS A	42	0.52	0.68	31.7
2R	R	51	2.0	0.302	9.4	LOS A	42	0.52	0.74	31.1
Approach		**256**	**2.0**	**0.302**	**8.4**	**LOS A**	**42**	**0.52**	**0.69**	**31.6**
All Vehicles		**1457**	**1.9**	**0.680**	**9.5**	**LOS A**	**145**	**0.32**	**0.61**	**30.8**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

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Site: AM

Processed Jun 08, 2011 04:37:06PM

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SIDRA INTERSECTION

Movement Summary

Via de la Valle * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Via de la Valle										
3L	L	50	2.0	0.610	15.4	LOS B	127	0.61	0.89	28.1
8R	R	509	2.0	0.610	10.3	LOS B	127	0.61	0.83	30.7
Approach		**559**	**2.0**	**0.610**	**10.7**	**LOS B**	**127**	**0.61**	**0.83**	**30.5**
Paseo Delicias										
1L	L	234	2.1	0.342	12.3	LOS B	47	0.15	0.68	29.6
6T	T	217	1.8	0.342	5.9	LOS A	47	0.15	0.46	33.5
Approach		**451**	**2.0**	**0.342**	**9.2**	**LOS A**	**47**	**0.15**	**0.57**	**31.3**
Paseo Delicias										
2T	T	445	2.0	0.451	6.7	LOS A	61	0.35	0.56	32.5
2R	R	43	2.3	0.449	7.9	LOS A	61	0.35	0.62	31.8
Approach		**489**	**2.0**	**0.451**	**6.8**	**LOS A**	**61**	**0.35**	**0.56**	**32.5**
All Vehicles		**1499**	**2.0**	**0.610**	**9.0**	**LOS A**	**127**	**0.39**	**0.67**	**31.3**

Symbols which may appear in this table:

Following Degree of Saturation
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* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: PM

Processed Jun 08, 2011 04:39:08PM

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APPENDIX F

YEAR 2030 WITH CURRENT CONFIGURATIONS
PEAK HOUR ANALYSIS WORKSHEETS

Scenario Report

Scenario:	2030 W Exist AM
Command:	2030 W Exist AM
Volume:	2030 W Exist AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Escondido Del Dios/El Camino D	F	878.5	0.000	F	878.5	0.000	+ 0.000	D/V
# 2 Paseo Delicias/El Montevideo/L	F	139.7	1.532	F	139.7	1.532	+ 0.000	V/C
# 3 Paseo Delicias/Via De La Valle	F	185.0	1.635	F	185.0	1.635	+ 0.000	V/C

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Average Delay (sec/veh): 69.5 Worst Case Level Of Service: F[878.5]

Street Name:	El Camino Del Norte									Escondido Del Dios									
Approach:	North Bound					South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module:E+P AM																				
Base Vol:	0	0	0	130	0	40	90	420	0	0	860	630								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	0	0	0	130	0	40	90	420	0	0	860	630								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90								
PHF Volume:	0	0	0	144	0	44	100	467	0	0	956	700								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	0	0	0	144	0	44	100	467	0	0	956	700								
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	1972	1972	1306	1656	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	69	63	197	395	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	56	47	197	395	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	2.59	0.00	0.23	0.25	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	C	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	71	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	18.6	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	879	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	F	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			878.5			xxxxxx				xxxxxx									
ApproachLOS:	*			F			*				*									

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.532
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	139.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	El Montevideo/La Valle Plateada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:E+P AM												
Base Vol:	20	30	30	100	40	60	50	380	40	60	710	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	30	30	100	40	60	50	380	40	60	710	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	22	33	33	111	44	67	56	422	44	67	789	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	33	33	111	44	67	56	422	44	67	789	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	22	33	33	111	44	67	56	422	44	67	789	122
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.38	0.37	0.50	0.20	0.30	0.12	0.88	1.00	0.08	0.92	1.00
Final Sat.:	113	170	170	248	99	149	63	476	607	44	515	622
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.45	0.45	0.45	0.89	0.89	0.07	1.53	1.53	0.20
Crit Moves:	****					****	****				****	
Delay/Veh:	12.2	12.2	12.2	15.4	15.4	15.4	40.6	40.6	9.0	265.9	266	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.2	12.2	12.2	15.4	15.4	15.4	40.6	40.6	9.0	265.9	266	9.8
LOS by Move:	B	B	B	C	C	C	E	E	A	F	F	A
ApproachDel:	12.2			15.4			37.9			233.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.2			15.4			37.9			233.9		
LOS by Appr:	B			C			E			F		
AllWayAvgQ:	0.2	0.2	0.2	0.7	0.7	0.7	4.7	4.7	0.1	39.8	39.8	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	1.635
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	185.0
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 0	1	0 0	0 1	0	0 0	1 0	1	0 0	1! 0	0
Volume Module:E+P AM												
Base Vol:	70	0	240	0	10	10	0	230	60	570	270	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	0	240	0	10	10	0	230	60	570	270	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	78	0	267	0	11	11	0	256	67	633	300	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	0	267	0	11	11	0	256	67	633	300	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	0	267	0	11	11	0	256	67	633	300	11
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.50	0.50	0.00	1.00	1.00	0.67	0.32	0.01
Final Sat.:	474	0	563	0	224	224	0	548	612	387	184	7
Capacity Analysis Module:												
Vol/Sat:	0.16	xxxx	0.47	xxxx	0.05	0.05	xxxx	0.47	0.11	1.63	1.63	1.63
Crit Moves:			****		****			****		****		
Delay/Veh:	11.6	0.0	14.3	0.0	10.9	10.9	0.0	14.5	9.1	310.0	310	310.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	0.0	14.3	0.0	10.9	10.9	0.0	14.5	9.1	310.0	310	310.0
LOS by Move:	B	*	B	*	B	B	*	B	A	F	F	F
ApproachDel:	13.7			10.9			13.4			310.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.7			10.9			13.4			310.0		
LOS by Appr:	B			B			B			F		
AllWayAvgQ:	0.2	0.0	0.8	0.0	0.0	0.0	0.0	0.8	0.1	48.3	48.3	48.3

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	2030 W Exist PM
Command:	2030 W Exist PM
Volume:	2030 W Exist PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Escondido Del Dios/El Camino D	F	OVRFL	0.000	F	OVRFL	0.000	+ 0.000	D/V
# 2 Paseo Delicias/El Montevideo/L	F	194.7	1.828	F	194.7	1.828	+ 0.000	V/C
# 3 Paseo Delicias/Via De La Valle	F	90.5	1.216	F	90.5	1.216	+ 0.000	V/C

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Average Delay (sec/veh): 168.4 Worst Case Level Of Service: F[1115.8]

Street Name:	El Camino Del Norte									Escondido Del Dios									
Approach:	North Bound					South Bound				East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	0	1	0
Volume Module:E+P PM																				
Base Vol:	0	0	0	230	0	70	50	1040	0	0	440	160								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	0	0	0	230	0	70	50	1040	0	0	440	160								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90								
PHF Volume:	0	0	0	256	0	78	56	1156	0	0	489	178								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
FinalVolume:	0	0	0	256	0	78	56	1156	0	0	489	178								
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	1844	1844	578	667	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx	83	76	519	932	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx	80	71	519	932	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx	3.21	0.00	0.15	0.06	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*								
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	102	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	32.8	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	1116	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	F	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			1115.8			xxxxxx				xxxxxx									
ApproachLOS:	*			F			*				*									

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.828
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	194.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	El Montevideo/La Valle Plateada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 1	0 0	1	0 1	0 0	1
Volume Module:E+P PM												
Base Vol:	30	30	150	230	30	70	30	700	20	20	410	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	30	150	230	30	70	30	700	20	20	410	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	33	33	167	256	33	78	33	778	22	22	456	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	33	167	256	33	78	33	778	22	22	456	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	33	167	256	33	78	33	778	22	22	456	89
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.14	0.72	0.70	0.09	0.21	0.04	0.96	1.00	0.05	0.95	1.00
Final Sat.:	60	60	300	308	40	94	18	425	487	21	424	489
Capacity Analysis Module:												
Vol/Sat:	0.56	0.56	0.56	0.83	0.83	0.83	1.83	1.83	0.05	1.07	1.07	0.18
Crit Moves:		****			****			****			****	
Delay/Veh:	20.6	20.6	20.6	39.0	39.0	39.0	400.7	401	10.4	92.1	92.1	11.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.6	20.6	20.6	39.0	39.0	39.0	400.7	401	10.4	92.1	92.1	11.7
LOS by Move:	C	C	C	E	E	E	F	F	B	F	F	B
ApproachDel:	20.6			39.0			390.3			79.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	20.6			39.0			390.3			79.5		
LOS by Appr:	C			E			F			F		
AllWayAvgQ:	1.1	1.1	1.1	3.4	3.4	3.4	48.0	48.0	0.0	10.0	10.0	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	1.216
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	90.5
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0	0 1	0 0	0	0 1	0 1	0	0 1	0 0	1! 0	0
Volume Module:E+P PM												
Base Vol:	60	0	540	0	0	10	10	350	60	260	260	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	0	540	0	0	10	10	350	60	260	260	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	67	0	600	0	0	11	11	389	67	289	289	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	0	600	0	0	11	11	389	67	289	289	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	0	600	0	0	11	11	389	67	289	289	11
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	1.00	0.03	0.97	1.00	0.49	0.49	0.02
Final Sat.:	457	0	541	0	0	394	13	465	528	237	237	9
Capacity Analysis Module:												
Vol/Sat:	0.15	xxxx	1.11	xxxx	xxxx	0.03	0.84	0.84	0.13	1.22	1.22	1.22
Crit Moves:			****			****		****		****		
Delay/Veh:	11.9	0.0	96.4	0.0	0.0	12.0	38.2	38.2	10.5	139.4	139	139.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.9	0.0	96.4	0.0	0.0	12.0	38.2	38.2	10.5	139.4	139	139.4
LOS by Move:	B	*	F	*	*	B	E	E	B	F	F	F
ApproachDel:	88.0			12.0			34.3			139.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	88.0			12.0			34.3			139.4		
LOS by Appr:	F			B			D			F		
AllWayAvgQ:	0.2	0.0	13.1	0.0	0.0	0.0	3.7	3.7	0.1	17.3	17.3	17.3

Note: Queue reported is the number of cars per lane.

APPENDIX G

YEAR 2030 WITH TRAFFIC SIGNALS
PEAK HOUR ANALYSIS WORKSHEETS

Scenario Report

Scenario:	2030 W Signals AM
Command:	2030 W Signals AM
Volume:	2030 W Signals AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Escondido Del Dios/El Camino D	C	25.1	0.926	C	25.1	0.926	+ 0.000 D/V
# 2 Paseo Delicias/El Montevideo/L	B	19.9	0.891	B	19.9	0.891	+ 0.000 D/V
# 3 Paseo Delicias/Via De La Valle	B	15.5	0.682	B	15.5	0.682	+ 0.000 D/V

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Cycle (sec):	100	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.1
Optimal Cycle:	118	Level Of Service:	C

Street Name:	El Camino Del Norte									Escondido Del Dios								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	1	0	0	0	0	1	0	1
Volume Module:AM Peak Hour																				
Base Vol:	0	0	0			130	0	70			90	440	0			0	1130	370		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	0	0			130	0	70			90	440	0			0	1130	370		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.90	0.90	0.90			0.90	0.90	0.90			0.90	0.90	0.90			0.90	0.90	0.90		
PHF Volume:	0	0	0			144	0	78			100	489	0			0	1256	411		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	0	0	0			144	0	78			100	489	0			0	1256	411		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	0	0	0			144	0	78			100	489	0			0	1256	411		
Saturation Flow Module:																				
Sat/Lane:	1900	1900	1900			1900	1900	1900			1900	1900	1900			1900	1900	1900		
Adjustment:	1.00	1.00	1.00			0.92	1.00	0.92			0.95	1.00	1.00			1.00	1.00	0.85		
Lanes:	0.00	0.00	0.00			0.65	0.00	0.35			1.00	1.00	0.00			0.00	1.00	1.00		
Final Sat.:	0	0	0			1140	0	614			1805	1900	0			0	1900	1615		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.00	0.00			0.13	0.00	0.13			0.06	0.26	0.00			0.00	0.66	0.25		
Crit Moves:						****					****						****			
Green/Cycle:	0.00	0.00	0.00			0.14	0.00	0.14			0.06	0.77	0.00			0.00	0.71	0.71		
Volume/Cap:	0.00	0.00	0.00			0.93	0.00	0.93			0.93	0.33	0.00			0.00	0.93	0.36		
Uniform Del:	0.0	0.0	0.0			42.7	0.0	42.7			46.8	3.5	0.0			0.0	12.1	5.5		
IncremntDel:	0.0	0.0	0.0			38.5	0.0	38.5			63.4	0.1	0.0			0.0	11.0	0.2		
InitQueuDel:	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0	0.0		
Delay Adj:	0.00	0.00	0.00			1.00	0.00	1.00			1.00	1.00	0.00			0.00	1.00	1.00		
Delay/Veh:	0.0	0.0	0.0			81.1	0.0	81.1			110.2	3.6	0.0			0.0	23.1	5.7		
User DelAdj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0			81.1	0.0	81.1			110.2	3.6	0.0			0.0	23.1	5.7		
LOS by Move:	A		A		A	F		A		F	F		A		A	A		C		A
HCM2kAvgQ:	0		0		0	10		0		10	6		5		0	0		37		5

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	19.9
Optimal Cycle:	106	Level Of Service:	B

Street Name: El Montevideo/La Valle Plateada — Paseo Delicias

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module: AM Peak Hour												
Base Vol:	30	20	30	90	30	40	50	410	40	50	1040	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	20	30	90	30	40	50	410	40	50	1040	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	33	22	33	100	33	44	56	456	44	56	1156	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	22	33	100	33	44	56	456	44	56	1156	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	22	33	100	33	44	56	456	44	56	1156	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	0.77	0.77	0.77	0.77	0.07	0.99	0.99	0.45	0.99	0.99
Lanes:	0.37	0.25	0.38	0.56	0.19	0.25	1.00	0.91	0.09	1.00	0.93	0.07
Final Sat.:	548	365	548	821	274	365	141	1709	167	857	1745	134
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.06	0.12	0.12	0.12	0.40	0.27	0.27	0.06	0.66	0.66
Crit Moves:					****						****	
Green/Cycle:	0.14	0.14	0.14	0.14	0.14	0.14	0.74	0.74	0.74	0.74	0.74	0.74
Volume/Cap:	0.45	0.45	0.45	0.89	0.89	0.89	0.53	0.36	0.36	0.09	0.89	0.89
Uniform Del:	39.7	39.7	39.7	42.4	42.4	42.4	5.4	4.5	4.5	3.5	9.8	9.8
IncremntDel:	1.6	1.6	1.6	35.4	35.4	35.4	5.2	0.2	0.2	0.1	7.5	7.5
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	41.3	41.3	41.3	77.8	77.8	77.8	10.6	4.7	4.7	3.6	17.3	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	41.3	41.3	77.8	77.8	77.8	10.6	4.7	4.7	3.6	17.3	17.3
LOS by Move:	D	D	D	E	E	E	B	A	A	A	B	B
HCM2kAvgQ:	3	3	3	8	8	8	2	5	5	1	32	32

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.5
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0 0	1	0	0 0	0 0	0	0 0	1 0	1	0 1	0 0
Volume Module:AM Peak Hour												
Base Vol:	70	0	260	0	0	0	0	240	60	710	430	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	0	260	0	0	0	0	240	60	710	430	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	78	0	289	0	0	0	0	267	67	789	478	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	78	0	289	0	0	0	0	267	67	789	478	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	78	0	289	0	0	0	0	267	67	789	478	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	1900	1615	1805	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.18	0.00	0.00	0.00	0.00	0.14	0.04	0.44	0.25	0.00
Crit Moves:	****							****		****		
Green/Cycle:	0.06	0.00	0.70	0.00	0.00	0.00	0.00	0.21	0.27	0.64	0.85	0.00
Volume/Cap:	0.68	0.00	0.25	0.00	0.00	0.00	0.00	0.68	0.15	0.68	0.30	0.00
Uniform Del:	45.9	0.0	5.3	0.0	0.0	0.0	0.0	36.7	27.9	11.4	1.6	0.0
IncremntDel:	15.6	0.0	0.1	0.0	0.0	0.0	0.0	4.9	0.2	1.7	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	61.4	0.0	5.4	0.0	0.0	0.0	0.0	41.6	28.0	13.1	1.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.4	0.0	5.4	0.0	0.0	0.0	0.0	41.6	28.0	13.1	1.7	0.0
LOS by Move:	E	A	A	A	A	A	A	D	C	B	A	A
HCM2kAvgQ:	4	0	3	0	0	0	0	9	2	16	3	0

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	2030 W Signals PM
Command:	2030 W Signals PM
Volume:	2030 W Signals PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Escondido Del Dios/El Camino D	C	25.0	0.913	C	25.0	0.913	+ 0.000 D/V
# 2 Paseo Delicias/El Montevideo/L	B	16.6	0.827	B	16.6	0.827	+ 0.000 D/V
# 3 Paseo Delicias/Via De La Valle	C	27.6	0.790	C	27.6	0.790	+ 0.000 D/V

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Escondido Del Dios/El Camino Del Norte

Cycle (sec):	100	Critical Vol./Cap.(X):	0.913
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	25.0
Optimal Cycle:	110	Level Of Service:	C

Street Name:	El Camino Del Norte						Escondido Del Dios					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	0	0 0	0	0	1! 0	0	1 0	1 0	0	0	1 0 1
Volume Module: PM Peak Hour												
Base Vol:	0	0	0	230	0	70	50	1100	0	0	460	160
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	230	0	70	50	1100	0	0	460	160
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	256	0	78	56	1222	0	0	511	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	256	0	78	56	1222	0	0	511	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	256	0	78	56	1222	0	0	511	178
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.93	1.00	0.93	0.95	1.00	1.00	1.00	1.00	0.85
Lanes:	0.00	0.00	0.00	0.77	0.00	0.23	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1359	0	414	1805	1900	0	0	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.19	0.03	0.64	0.00	0.00	0.27	0.11
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.21	0.00	0.21	0.07	0.70	0.00	0.00	0.63	0.63
Volume/Cap:	0.00	0.00	0.00	0.91	0.00	0.91	0.43	0.91	0.00	0.00	0.43	0.17
Uniform Del:	0.0	0.0	0.0	38.8	0.0	38.8	44.4	12.3	0.0	0.0	9.3	7.6
IncremntDel:	0.0	0.0	0.0	26.6	0.0	26.6	2.2	9.8	0.0	0.0	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	65.5	0.0	65.5	46.6	22.0	0.0	0.0	9.5	7.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	65.5	0.0	65.5	46.6	22.0	0.0	0.0	9.5	7.7
LOS by Move:	A	A	A	E	A	E	D	C	A	A	A	A
HCM2kAvgQ:	0	0	0	14	0	14	2	35	0	0	8	2

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Paseo Delicias/El Montevideo/La Valle Plateada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	12 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.6
Optimal Cycle:	84	Level Of Service:	B

Street Name: El Montevideo/La Valle Plateada — Paseo Delicias

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0	1 0	0 1	0
Volume Module:PM Peak Hour												
Base Vol:	30	20	60	60	30	60	40	1020	20	20	450	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	20	60	60	30	60	40	1020	20	20	450	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	33	22	67	67	33	67	44	1133	22	22	500	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	22	67	67	33	67	44	1133	22	22	500	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	22	67	67	33	67	44	1133	22	22	500	89
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	0.77	0.74	0.74	0.74	0.40	1.00	1.00	0.12	0.98	0.98
Lanes:	0.27	0.18	0.55	0.40	0.20	0.40	1.00	0.98	0.02	1.00	0.85	0.15
Final Sat.:	400	266	799	564	282	564	758	1858	36	219	1576	280
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.12	0.12	0.12	0.06	0.61	0.61	0.10	0.32	0.32
Crit Moves:					****			****				
Green/Cycle:	0.14	0.14	0.14	0.14	0.14	0.14	0.74	0.74	0.74	0.74	0.74	0.74
Volume/Cap:	0.58	0.58	0.58	0.83	0.83	0.83	0.08	0.83	0.83	0.14	0.43	0.43
Uniform Del:	40.1	40.1	40.1	41.7	41.7	41.7	3.7	8.9	8.9	3.8	5.1	5.1
IncremntDel:	4.2	4.2	4.2	23.8	23.8	23.8	0.1	4.2	4.2	0.4	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	44.3	44.3	44.3	65.4	65.4	65.4	3.7	13.1	13.1	4.2	5.3	5.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.3	44.3	44.3	65.4	65.4	65.4	3.7	13.1	13.1	4.2	5.3	5.3
LOS by Move:	D	D	D	E	E	E	A	B	B	A	A	A
HCM2kAvgQ:	4	4	4	7	7	7	0	26	26	0	7	7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Paseo Delicias/Via De La Valle

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	9 (Y+R=4.0 sec)	Average Delay (sec/veh):	27.6
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Via De La Valle						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	0	0 1	0	0	0 0	0	0	1 0 1	1	0	1 0 0
Volume Module:PM Peak Hour												
Base Vol:	60	0	620	0	0	0	0	500	60	270	270	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	60	0	620	0	0	0	0	500	60	270	270	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	67	0	689	0	0	0	0	556	67	300	300	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	0	689	0	0	0	0	556	67	300	300	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	67	0	689	0	0	0	0	556	67	300	300	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	1900	1615	1805	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.43	0.00	0.00	0.00	0.00	0.29	0.04	0.17	0.16	0.00
Crit Moves:			****					****		****		
Green/Cycle:	0.33	0.00	0.54	0.00	0.00	0.00	0.00	0.37	0.70	0.21	0.58	0.00
Volume/Cap:	0.11	0.00	0.79	0.00	0.00	0.00	0.00	0.79	0.06	0.79	0.27	0.00
Uniform Del:	23.3	0.0	18.5	0.0	0.0	0.0	0.0	28.0	4.7	37.4	10.5	0.0
IncremntDel:	0.1	0.0	4.9	0.0	0.0	0.0	0.0	6.0	0.0	10.7	0.1	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	23.4	0.0	23.4	0.0	0.0	0.0	0.0	34.1	4.7	48.1	10.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.4	0.0	23.4	0.0	0.0	0.0	0.0	34.1	4.7	48.1	10.6	0.0
LOS by Move:	C	A	C	A	A	A	A	C	A	D	B	A
HCM2kAvgQ:	1	0	19	0	0	0	0	17	1	11	5	0

Note: Queue reported is the number of cars per lane.

APPENDIX H

YEAR 2030 WITH ROUNDABOUTS
PEAK HOUR ANALYSIS WORKSHEETS

SIDRA INTERSECTION

Movement Summary

El Camino del Norte * AM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Del Dios Hwy										
6T	T	1228	1.0	1.002	14.6	LOS B	1536	1.00	0.64	28.1
6R	R	402	0.0	1.002	15.3	LOS B	1536	1.00	0.64	27.6
Approach		**1630**	**0.7**	**1.003**	**14.7**	**LOS B**	**1536**	**1.00**	**0.64**	**28.0**
El Camino del Norte										
7L	L	141	0.0	1.022	113.9	LOS F	468	1.00	1.55	9.8
4R	R	76	0.0	1.013	107.8	LOS F	468	1.00	1.55	9.6
Approach		**217**	**0.0**	**1.018**	**111.8**	**LOS F**	**468**	**1.00**	**1.55**	**9.7**
Paseo Delicias										
5L	L	98	0.0	0.500	13.4	LOS B	137	0.53	0.66	28.6
2T	T	478	1.0	0.500	6.3	LOS A	137	0.53	0.53	32.0
Approach		**576**	**0.9**	**0.500**	**7.5**	**LOS A**	**137**	**0.53**	**0.55**	**31.3**
All Vehicles		**2423**	**0.7**	**1.022**	**21.7**	**LOS C**	**1536**	**0.89**	**0.70**	**24.4**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: AM
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SIDRA INTERSECTION

Movement Summary

El Camino del Norte * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Del Dios Hwy										
6T	T	500	1.0	0.472	5.6	LOS A	139	0.30	0.42	33.1
6R	R	174	0.0	0.472	6.3	LOS A	139	0.30	0.46	32.6
Approach		**674**	**0.7**	**0.472**	**5.7**	**LOS A**	**139**	**0.30**	**0.43**	**33.0**
El Camino del Norte										
7L	L	250	0.0	0.417	16.3	LOS B	84	0.72	0.85	27.8
4R	R	76	0.0	0.418	10.2	LOS B	84	0.72	0.79	30.6
Approach		**326**	**0.0**	**0.417**	**14.9**	**LOS B**	**84**	**0.72**	**0.83**	**28.3**
Paseo Delicias										
5L	L	54	0.0	1.149	92.7	LOS F	2047	1.00	2.25	11.4
2T	T	1158	1.0	1.152	85.7	LOS F	2047	1.00	2.25	11.4
Approach		**1212**	**1.0**	**1.152**	**86.0**	**LOS F**	**2047**	**1.00**	**2.25**	**11.4**
All Vehicles		**2212**	**0.8**	**1.152**	**51.1**	**LOS D**	**2047**	**0.74**	**1.49**	**16.1**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: PM
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SIDRA INTERSECTION

Movement Summary

El Montevideo * AM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
La Valle Plateada										
3L	L	33	0.0	0.108	14.3	LOS B	14	0.48	0.78	28.7
8T	T	22	0.0	0.108	7.9	LOS A	14	0.48	0.65	31.9
8R	R	33	0.0	0.108	9.1	LOS A	14	0.48	0.66	31.2
Approach		**88**	**0.0**	**0.108**	**10.7**	**LOS B**	**14**	**0.48**	**0.70**	**30.3**
Paseo Delicias										
1L	L	54	0.0	0.964	16.3	LOS B	742	1.00	0.64	27.4
6T	T	1130	1.0	0.970	10.0	LOS B	742	1.00	0.64	29.6
6R	R	87	0.0	0.967	11.2	LOS B	742	1.00	0.61	29.3
Approach		**1271**	**0.9**	**0.970**	**10.4**	**LOS B**	**742**	**1.00**	**0.63**	**29.5**
El Montevideo										
7L	L	98	0.0	0.671	39.0	LOS D	175	1.00	1.15	19.2
4T	T	33	0.0	0.673	32.7	LOS C	175	1.00	1.15	20.4
4R	R	43	0.0	0.672	33.9	LOS C	175	1.00	1.08	20.0
Approach		**174**	**0.0**	**0.673**	**36.6**	**LOS D**	**175**	**1.00**	**1.13**	**19.6**
Paseo Delicias										
5L	L	54	0.0	0.486	12.8	LOS B	81	0.38	0.71	28.9
2T	T	446	2.0	0.488	6.5	LOS A	81	0.38	0.54	32.4
2R	R	43	0.0	0.489	7.7	LOS A	81	0.38	0.59	31.7
Approach		**543**	**1.7**	**0.488**	**7.2**	**LOS A**	**81**	**0.38**	**0.56**	**31.9**
All Vehicles		**2076**	**1.0**	**0.970**	**11.8**	**LOS B**	**742**	**0.82**	**0.66**	**28.9**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

SIDRA INTERSECTION

Movement Summary

El Montevideo * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
La Valle Plateada										
3L	L	33	0.0	0.398	25.9	LOS C	85	0.96	1.03	23.3
8T	T	22	0.0	0.400	19.5	LOS B	85	0.96	1.02	25.5
8R	R	65	0.0	0.399	20.7	LOS C	85	0.96	0.92	24.8
Approach		**120**	**0.0**	**0.399**	**21.9**	**LOS C**	**85**	**0.96**	**0.97**	**24.5**
Paseo Delicias										
1L	L	22	0.0	0.478	12.4	LOS B	76	0.25	0.68	29.3
6T	T	489	2.0	0.480	6.1	LOS A	76	0.25	0.49	33.0
6R	R	87	0.0	0.481	7.3	LOS A	76	0.25	0.55	32.2
Approach		**598**	**1.7**	**0.480**	**6.5**	**LOS A**	**76**	**0.25**	**0.51**	**32.7**
El Montevideo										
7L	L	65	0.0	0.190	14.1	LOS B	23	0.46	0.79	28.7
4T	T	33	0.0	0.190	7.7	LOS A	23	0.46	0.65	32.0
4R	R	65	0.0	0.190	8.9	LOS A	23	0.46	0.67	31.3
Approach		**163**	**0.0**	**0.189**	**10.8**	**LOS B**	**23**	**0.46**	**0.71**	**30.3**
Paseo Delicias										
5L	L	43	0.0	0.915	14.5	LOS B	459	0.82	0.65	27.8
2T	T	1109	2.0	0.917	8.2	LOS A	459	0.82	0.61	30.4
2R	R	22	0.0	0.917	9.3	LOS A	459	0.82	0.60	30.0
Approach		**1174**	**1.9**	**0.917**	**8.4**	**LOS A**	**459**	**0.82**	**0.61**	**30.2**
All Vehicles		**2055**	**1.6**	**0.917**	**8.9**	**LOS A**	**459**	**0.64**	**0.61**	**30.5**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

SIDRA INTERSECTION

Movement Summary

Via de la Valle * AM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Via de la Valle										
3L	L	76	2.6	0.362	13.1	LOS B	53	0.40	0.74	28.9
8R	R	283	2.1	0.362	8.0	LOS A	53	0.40	0.64	31.6
Approach		**360**	**2.2**	**0.362**	**9.1**	**LOS A**	**53**	**0.40**	**0.66**	**30.9**
Paseo Delicias										
1L	L	772	1.9	0.909	13.2	LOS B	460	0.69	0.58	28.2
6T	T	467	1.9	0.909	6.8	LOS A	460	0.69	0.50	31.0
Approach		**1238**	**1.9**	**0.909**	**10.8**	**LOS B**	**460**	**0.69**	**0.55**	**29.1**
Paseo Delicias										
2T	T	261	1.9	0.522	11.7	LOS B	114	0.81	0.95	29.8
2R	R	65	1.5	0.524	13.0	LOS B	114	0.81	0.97	29.0
Approach		**326**	**1.8**	**0.522**	**12.0**	**LOS B**	**114**	**0.81**	**0.96**	**29.6**
All Vehicles		**1924**	**2.0**	**0.909**	**10.7**	**LOS B**	**460**	**0.65**	**0.64**	**29.5**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

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SIDRA INTERSECTION

Movement Summary

Via de la Valle * PM *

Subtitle

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
Via de la Valle										
3L	L	65	1.5	0.878	23.1	LOS C	366	0.95	1.22	24.4
8R	R	674	1.9	0.881	17.9	LOS B	366	0.95	1.22	26.2
Approach		**738**	**1.9**	**0.881**	**18.4**	**LOS B**	**366**	**0.95**	**1.22**	**26.0**
Paseo Delicias										
1L	L	293	2.0	0.453	12.3	LOS B	81	0.22	0.67	29.4
6T	T	293	2.0	0.453	6.0	LOS A	81	0.22	0.47	33.1
Approach		**588**	**2.0**	**0.453**	**9.2**	**LOS A**	**81**	**0.22**	**0.57**	**31.1**
Paseo Delicias										
2T	T	543	2.0	0.582	7.5	LOS A	103	0.47	0.63	31.9
2R	R	65	1.5	0.580	8.7	LOS A	103	0.47	0.69	31.3
Approach		**609**	**2.0**	**0.582**	**7.6**	**LOS A**	**103**	**0.47**	**0.64**	**31.9**
All Vehicles		**1935**	**2.0**	**0.881**	**12.2**	**LOS B**	**366**	**0.58**	**0.84**	**29.2**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

Site: PM

Processed Jun 08, 2011 04:49:21PM

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APPENDIX I

INTERSECTION LEVEL OF SERVICE ANALYSIS SHEETS - EXISTING CONDITIONS

RSF Roundabouts Construction Traffic 3-11-2046

Scenario Report

Scenario:	Ex AM
Command:	Ex AM
Volume:	Ex AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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RSF Roundabouts Construction Traffic 3-11-2046

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	13.0	0.000	B	13.0	0.000	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	B	12.4	0.000	B	12.4	0.000	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	B	11.1	0.532	B	11.1	0.532	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	B	11.0	0.000	B	11.0	0.000	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	C	20.7	0.789	C	20.7	0.789	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	B	13.9	0.663	B	13.9	0.663	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	C	18.4	0.000	C	18.4	0.000	+ 0.000	D/V

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: B[13.0]

Street Name:	Via De Fortuna								El Camino Del Norte							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	0	1 0	0	1	0	0 0
Volume Module:																
Base Vol:	39	0	18		0	0	0		0	189	149		85	135	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	39	0	18		0	0	0		0	189	149		85	135	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	42	0	20		0	0	0		0	205	162		92	147	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	42	0	20		0	0	0		0	205	162		92	147	0	
Critical Gap Module:																
Critical Gp:	6.4	xxxx	6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	618	xxxx	286		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		367	xxxx	xxxxx	
Potent Cap.:	453	xxxx	753		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1191	xxxx	xxxxx	
Move Cap.:	425	xxxx	753		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1191	xxxx	xxxxx	
Volume/Cap:	0.10	xxxx	0.03		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.08	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.3	xxxx	0.1		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.3	xxxx	xxxxx	
Control Del:	14.4	xxxx	9.9		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	
LOS by Move:	B	*	A		*	*	*		*	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.3	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		A	*	*	
ApproachDel:	13.0				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	B				*				*				*			

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[12.4]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	9	0	45	0	0	0	0	94	27	342	220	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	0	45	0	0	0	0	94	27	342	220	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	0	49	0	0	0	0	102	29	372	239	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	0	49	0	0	0	0	102	29	372	239	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1099	1099	117	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	132	xxxx	xxxxx
Potent Cap.:	235	212	935	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1454	xxxx	xxxxx
Move Cap.:	176	144	935	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1454	xxxx	xxxxx
Volume/Cap:	0.06	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.26	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	545	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	12.4			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.532
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	8	58	18	10	127	6	6	43	3	88	260	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	58	18	10	127	6	6	43	3	88	260	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	9	63	20	11	138	7	7	47	3	96	283	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	63	20	11	138	7	7	47	3	96	283	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	63	20	11	138	7	7	47	3	96	283	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.69	0.21	0.07	0.89	0.04	0.11	0.83	0.06	0.24	0.70	0.06
Final Sat.:	62	447	139	46	581	27	77	554	39	180	531	43
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.24	0.24	0.24	0.08	0.08	0.08	0.53	0.53	0.53
Crit Moves:	****			****			****			****		
Delay/Veh:	8.9	8.9	8.9	9.6	9.6	9.6	8.5	8.5	8.5	12.5	12.5	12.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.9	9.6	9.6	9.6	8.5	8.5	8.5	12.5	12.5	12.5
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	8.9			9.6			8.5			12.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			9.6			8.5			12.5		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.1	1.0	1.0	1.0

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 7.5 Worst Case Level Of Service: B[11.0]

Street Name:	Avenida de Acacias						Lago Lindo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	2	23	35	2	51	1	0	3	1	216	19	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	23	35	2	51	1	0	3	1	216	19	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	25	38	2	55	1	0	3	1	235	21	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	25	38	2	55	1	0	3	1	235	21	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx
Capacity Module:												
Cnflict Vol:	57	xxxx	xxxxx	63	xxxx	xxxxx	xxxx	128	56	111	109	xxxxx
Potent Cap.:	1548	xxxx	xxxxx	1540	xxxx	xxxxx	xxxx	763	1011	867	781	xxxxx
Move Cap.:	1548	xxxx	xxxxx	1540	xxxx	xxxxx	xxxx	761	1011	862	779	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.00	0.00	0.27	0.03	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	811	854	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	1.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.5	11.0	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	B	*	*
ApproachDel:	xxxxxx			xxxxxx			9.5			11.0		
ApproachLOS:	*			*			A			B		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.789
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	20.7
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	41	52	8	97	222	40	28	337	64	27	162	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	52	8	97	222	40	28	337	64	27	162	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	45	57	9	105	241	43	30	366	70	29	176	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	57	9	105	241	43	30	366	70	29	176	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	57	9	105	241	43	30	366	70	29	176	54
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.51	0.08	0.27	0.62	0.11	0.06	0.79	0.15	0.11	0.68	0.21
Final Sat.:	178	226	35	149	342	62	39	464	88	60	360	111
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.25	0.71	0.71	0.71	0.79	0.79	0.79	0.49	0.49	0.49
Crit Moves:			****		****			****			****	
Delay/Veh:	11.8	11.8	11.8	21.2	21.2	21.2	25.8	25.8	25.8	14.4	14.4	14.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.8	21.2	21.2	21.2	25.8	25.8	25.8	14.4	14.4	14.4
LOS by Move:	B	B	B	C	C	C	D	D	D	B	B	B
ApproachDel:	11.8			21.2			25.8			14.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.8			21.2			25.8			14.4		
LOS by Appr:	B			C			D			B		
AllWayAvgQ:	0.2	0.2	0.2	1.8	1.8	1.8	2.8	2.8	2.8	0.7	0.7	0.7

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	153	6	88	289	26	16	116	20	12	139	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	153	6	88	289	26	16	116	20	12	139	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	166	7	96	314	28	17	126	22	13	151	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	166	7	96	314	28	17	126	22	13	151	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	166	7	96	314	28	17	126	22	13	151	45
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.91	0.04	0.22	0.72	0.06	0.11	0.76	0.13	0.06	0.73	0.21
Final Sat.:	32	537	21	144	473	43	58	423	73	36	416	123
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.66	0.66	0.66	0.30	0.30	0.30	0.36	0.36	0.36
Crit Moves:		****			****			****			****	
Delay/Veh:	10.9	10.9	10.9	17.3	17.3	17.3	11.0	11.0	11.0	11.6	11.6	11.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.9	10.9	10.9	17.3	17.3	17.3	11.0	11.0	11.0	11.6	11.6	11.6
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:	10.9			17.3			11.0			11.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.9			17.3			11.0			11.6		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.4	0.4	0.4	1.7	1.7	1.7	0.3	0.3	0.3	0.5	0.5	0.5

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: C[18.4]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1 0	1	0	0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	192	182	0	0	474	6	2	0	259	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	192	182	0	0	474	6	2	0	259	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
PHF Volume:	209	198	0	0	515	7	2	0	282	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	209	198	0	0	515	7	2	0	282	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	522	xxxx	xxxxx	xxxx	xxxx	xxxxx	1134	1134	518	xxxx	xxxx	xxxxx				
Potent Cap.:	1045	xxxx	xxxxx	xxxx	xxxx	xxxxx	224	203	557	xxxx	xxxx	xxxxx				
Move Cap.:	1045	xxxx	xxxxx	xxxx	xxxx	xxxxx	190	162	557	xxxx	xxxx	xxxxx				
Volume/Cap:	0.20	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.51	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT				
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	549	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.9	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	18.4	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*	*	*	*	C	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			18.4			xxxxxx						
ApproachLOS:	*			*			C			*						

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Scenario Report

Scenario:	Ex PM
Command:	Ex PM
Volume:	Ex PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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RSF Roundabouts Construction Traffic 3-11-2046

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	11.9	0.000	B	11.9	0.000	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	A	9.9	0.000	A	9.9	0.000	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	A	8.1	0.191	A	8.1	0.191	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	A	9.5	0.000	A	9.5	0.000	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	C	15.8	0.698	C	15.8	0.698	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	B	11.9	0.464	B	11.9	0.464	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	B	10.7	0.000	B	10.7	0.000	+ 0.000	D/V

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RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[11.9]

Street Name:	Via De Fortuna								El Camino Del Norte							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	0	1 0	0	1	0	0 0
Volume Module:																
Base Vol:	104	0	37		0	0	0		0	97	33		27	236	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	104	0	37		0	0	0		0	97	33		27	236	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	113	0	40		0	0	0		0	105	36		29	257	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	113	0	40		0	0	0		0	105	36		29	257	0	
Critical Gap Module:																
Critical Gp:	6.4	xxxx	6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	439	xxxx	123		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		141	xxxx	xxxxx	
Potent Cap.:	576	xxxx	927		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1442	xxxx	xxxxx	
Move Cap.:	566	xxxx	927		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1442	xxxx	xxxxx	
Volume/Cap:	0.20	xxxx	0.04		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.7	xxxx	0.1		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	12.9	xxxx	9.1		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx	
LOS by Move:	B	*	A		*	*	*		*	*	*		A	*	*	
Movement:	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		A	*	*	
ApproachDel:	11.9				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	B				*				*				*			

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: A[9.9]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 0	1	0	0 1 0	0	0
Volume Module:												
Base Vol:	14	0	39	0	0	0	0	122	11	50	157	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	0	39	0	0	0	0	122	11	50	157	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	15	0	42	0	0	0	0	133	12	54	171	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	0	42	0	0	0	0	133	12	54	171	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	418	418	139	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	145	xxxx	xxxxx
Potent Cap.:	592	526	910	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1438	xxxx	xxxxx
Move Cap.:	574	505	910	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1438	xxxx	xxxxx
Volume/Cap:	0.03	0.00	0.05	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	788	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:		9.9		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		A		*			*			*		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.191
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.1
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	1	70	9	6	128	6	10	43	17	29	40	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	70	9	6	128	6	10	43	17	29	40	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	1	76	10	7	139	7	11	47	18	32	43	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	76	10	7	139	7	11	47	18	32	43	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	76	10	7	139	7	11	47	18	32	43	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.88	0.11	0.04	0.92	0.04	0.14	0.62	0.24	0.36	0.50	0.14
Final Sat.:	10	689	89	34	728	34	110	473	187	274	379	104
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.19	0.19	0.19	0.10	0.10	0.10	0.11	0.11	0.11
Crit Moves:			****		****				****		****	
Delay/Veh:	7.9	7.9	7.9	8.4	8.4	8.4	7.9	7.9	7.9	8.1	8.1	8.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.9	7.9	7.9	8.4	8.4	8.4	7.9	7.9	7.9	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	7.9			8.4			7.9			8.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.9			8.4			7.9			8.1		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 3.2 Worst Case Level Of Service: A[9.5]

Street Name:	Avenida de Acacias						Lago Lindo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	2	50	52	2	16	1	0	7	7	38	5	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	50	52	2	16	1	0	7	7	38	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	54	57	2	17	1	0	8	8	41	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	54	57	2	17	1	0	8	8	41	5	2
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	18	xxxx	xxxxx	111	xxxx	xxxxx	xxxx	138	18	117	110	83
Potent Cap.:	1598	xxxx	xxxxx	1479	xxxx	xxxxx	xxxx	753	1061	859	780	977
Move Cap.:	1598	xxxx	xxxxx	1479	xxxx	xxxxx	xxxx	751	1061	845	778	977
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	0.01	0.05	0.01	0.00
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	880	xxxx	842	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	0.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.2	xxxxx	9.5	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	A	*
ApproachDel:	xxxxxx			xxxxxx			9.2			9.5		
ApproachLOS:	*			*			A			A		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	15.8
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	118	104	14	35	61	18	29	199	59	16	302	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	104	14	35	61	18	29	199	59	16	302	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	128	113	15	38	66	20	32	216	64	17	328	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	113	15	38	66	20	32	216	64	17	328	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	113	15	38	66	20	32	216	64	17	328	96
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.44	0.06	0.31	0.53	0.16	0.10	0.69	0.21	0.04	0.74	0.22
Final Sat.:	266	235	32	147	257	76	60	412	122	25	470	137
Capacity Analysis Module:												
Vol/Sat:	0.48	0.48	0.48	0.26	0.26	0.26	0.52	0.52	0.52	0.70	0.70	0.70
Crit Moves:	****			****			****			****		
Delay/Veh:	14.1	14.1	14.1	11.3	11.3	11.3	14.2	14.2	14.2	19.2	19.2	19.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.1	14.1	14.1	11.3	11.3	11.3	14.2	14.2	14.2	19.2	19.2	19.2
LOS by Move:	B	B	B	B	B	B	B	B	B	C	C	C
ApproachDel:	14.1			11.3			14.2			19.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.1			11.3			14.2			19.2		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.7	0.7	0.7	0.2	0.2	0.2	0.9	0.9	0.9	1.9	1.9	1.9

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.464
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	206	10	91	152	21	30	175	9	16	107	47
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	206	10	91	152	21	30	175	9	16	107	47
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	224	11	99	165	23	33	190	10	17	116	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	224	11	99	165	23	33	190	10	17	116	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	224	11	99	165	23	33	190	10	17	116	51
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.91	0.04	0.34	0.58	0.08	0.14	0.82	0.04	0.09	0.63	0.28
Final Sat.:	30	554	27	213	356	49	83	482	25	55	368	162
Capacity Analysis Module:												
Vol/Sat:	0.40	0.40	0.40	0.46	0.46	0.46	0.39	0.39	0.39	0.32	0.32	0.32
Crit Moves:	****					****		****			****	
Delay/Veh:	11.8	11.8	11.8	12.7	12.7	12.7	11.9	11.9	11.9	10.9	10.9	10.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.8	11.8	12.7	12.7	12.7	11.9	11.9	11.9	10.9	10.9	10.9
LOS by Move:	B	B	B	B	B	B	B	B	B	B	B	B
ApproachDel:	11.8			12.7			11.9			10.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.8			12.7			11.9			10.9		
LOS by Appr:	B			B			B			B		
AllWayAvgQ:	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.7]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	243	390		0	0	194		1			1		0	164		0		0		0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00		1.00		1.00
Initial Bse:	243	390		0	0	194		1			1		0	164		0		0		0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00		1.00		1.00
PHF Adj:	0.92	0.92		0.92	0.92	0.92		0.92			0.92		0.92	0.92		0.92		0.92		0.92
PHF Volume:	264	424		0	0	211		1			1		0	178		0		0		0
Reduct Vol:	0	0		0	0	0		0			0		0	0		0		0		0
FinalVolume:	264	424		0	0	211		1			1		0	178		0		0		0
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4			6.5			6.2	xxxxx	xxxx	xxxxx			
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5			4.0			3.3	xxxxx	xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	212	xxxx	xxxxx	xxxx	xxxx	xxxxx		1164			1164			211	xxxx	xxxx	xxxxx			
Potent Cap.:	1358	xxxx	xxxxx	xxxx	xxxx	xxxxx		215			195			829	xxxx	xxxx	xxxxx			
Move Cap.:	1358	xxxx	xxxxx	xxxx	xxxx	xxxxx		183			157			829	xxxx	xxxx	xxxxx			
Volume/Cap:	0.19	xxxx	xxxx	xxxx	xxxx	xxxx		0.01			0.00			0.22	xxxx	xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx			xxxx			xxxxx	xxxx	xxxx	xxxxx			
Control Del:	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			xxxx			xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*		*	*	*		*			*			*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx			811			xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			0.8			xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			10.7			xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*		*	*	*		*			B			*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx							10.7				xxxxxx					
ApproachLOS:	*			*							B				*					

Note: Queue reported is the number of cars per lane.

APPENDIX J

INTERSECTION ANALYSIS WORKSHEETS- CONSTRUCTION SCENARIO A

RSF Roundabouts Construction Traffic 3-11-2046

Scenario Report

Scenario:	Scenario A- AM
Command:	Scenario A - AM
Volume:	Scenario A- AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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RSF Roundabouts Construction Traffic 3-11-2046

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	12.5	0.000	B	12.5	0.000	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	C	18.0	0.000	C	18.0	0.000	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	B	14.3	0.678	B	14.3	0.678	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	C	15.4	0.000	C	15.4	0.000	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	F	65.5	1.151	F	65.5	1.151	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	C	16.2	0.656	C	16.2	0.656	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	C	18.5	0.000	C	18.5	0.000	+ 0.000	D/V

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RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[12.5]

Street Name:	Via De Fortuna								El Camino Del Norte							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	0	1 0	0	1	0	0 0
Volume Module:																
Base Vol:	39	0	30		0	0	0		0	190	148		85	135	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	39	0	30		0	0	0		0	190	148		85	135	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	42	0	33		0	0	0		0	207	161		92	147	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	42	0	33		0	0	0		0	207	161		92	147	0	
Critical Gap Module:																
Critical Gp:	6.4	xxxx	6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	618	xxxx	287		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		367	xxxx	xxxxx	
Potent Cap.:	453	xxxx	752		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1191	xxxx	xxxxx	
Move Cap.:	424	xxxx	752		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1191	xxxx	xxxxx	
Volume/Cap:	0.10	xxxx	0.04		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.08	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.3	xxxx	0.1		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.3	xxxx	xxxxx	
Control Del:	14.4	xxxx	10.0		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	
LOS by Move:	B	*	B		*	*	*		*	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.3	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		8.3	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		A	*	*	
ApproachDel:	12.5				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	B				*				*				*			

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 10.2 Worst Case Level Of Service: C[18.0]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	13	0	520	0	0	0	0	96	26	339	220	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	520	0	0	0	0	96	26	339	220	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	14	0	565	0	0	0	0	104	28	368	239	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	14	0	565	0	0	0	0	104	28	368	239	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1095	1095	118	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	133	xxxx	xxxxx
Potent Cap.:	237	214	933	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1452	xxxx	xxxxx
Move Cap.:	178	146	933	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1452	xxxx	xxxxx
Volume/Cap:	0.08	0.00	0.61	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.25	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	846	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	5.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:	18.0			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.678
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	8	46	29	82	24	6	6	435	1	9	260	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	46	29	82	24	6	6	435	1	9	260	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	9	50	32	89	26	7	7	473	1	10	283	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	50	32	89	26	7	7	473	1	10	283	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	50	32	89	26	7	7	473	1	10	283	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.55	0.35	0.74	0.21	0.05	0.01	0.98	0.01	0.03	0.90	0.07
Final Sat.:	52	297	187	386	113	28	10	697	2	21	605	49
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.23	0.23	0.23	0.68	0.68	0.68	0.47	0.47	0.47
Crit Moves:	****			****			****			****		
Delay/Veh:	9.9	9.9	9.9	10.7	10.7	10.7	17.3	17.3	17.3	12.3	12.3	12.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.9	9.9	9.9	10.7	10.7	10.7	17.3	17.3	17.3	12.3	12.3	12.3
LOS by Move:	A	A	A	B	B	B	C	C	C	B	B	B
ApproachDel:	9.9			10.7			17.3			12.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.9			10.7			17.3			12.3		
LOS by Appr:	A			B			C			B		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	1.8	1.8	1.8	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: C[15.4]

Street Name:	Avenida de Acacias						Lago Lindo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	2	55	412	1	50	1	0	3	1	216	19	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	55	412	1	50	1	0	3	1	216	19	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	60	448	1	54	1	0	3	1	235	21	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	60	448	1	54	1	0	3	1	235	21	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx
Capacity Module:												
Cnflict Vol:	55	xxxx	xxxxx	508	xxxx	xxxxx	xxxx	569	55	347	346	xxxxx
Potent Cap.:	1549	xxxx	xxxxx	1057	xxxx	xxxxx	xxxx	432	1012	607	577	xxxxx
Move Cap.:	1549	xxxx	xxxxx	1057	xxxx	xxxxx	xxxx	431	1012	602	576	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	0.00	0.39	0.04	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	503	600	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	2.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.2	15.4	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	C	*	*
ApproachDel:	xxxxxx			xxxxxx			12.2			15.4		
ApproachLOS:	*			*			B			C		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.151
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	65.5
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	41	52	8	96	215	40	84	281	62	27	162	403
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	52	8	96	215	40	84	281	62	27	162	403
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	45	57	9	104	234	43	91	305	67	29	176	438
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	57	9	104	234	43	91	305	67	29	176	438
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	57	9	104	234	43	91	305	67	29	176	438
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.51	0.08	0.27	0.62	0.11	0.20	0.66	0.14	0.05	0.27	0.68
Final Sat.:	160	203	31	132	296	55	101	339	75	26	153	381
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.28	0.79	0.79	0.79	0.90	0.90	0.90	1.15	1.15	1.15
Crit Moves:	****			****					****		****	
Delay/Veh:	14.4	14.4	14.4	31.1	31.1	31.1	43.8	43.8	43.8	110.3	110	110.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.4	14.4	14.4	31.1	31.1	31.1	43.8	43.8	43.8	110.3	110	110.3
LOS by Move:	B	B	B	D	D	D	E	E	E	F	F	F
ApproachDel:	14.4			31.1			43.8			110.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.4			31.1			43.8			110.3		
LOS by Appr:	B			D			E			F		
AllWayAvgQ:	0.3	0.3	0.3	2.8	2.8	2.8	4.9	4.9	4.9	15.7	15.7	15.7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	16.2
Optimal Cycle:	0	Level Of Service:	C

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	272	2	31	289	26	124	8	20	12	139	153
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	272	2	31	289	26	124	8	20	12	139	153
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	296	2	34	314	28	135	9	22	13	151	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	296	2	34	314	28	135	9	22	13	151	166
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	296	2	34	314	28	135	9	22	13	151	166
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.96	0.01	0.09	0.84	0.07	0.82	0.05	0.13	0.04	0.46	0.50
Final Sat.:	17	528	4	51	479	43	384	25	62	22	257	283
Capacity Analysis Module:												
Vol/Sat:	0.56	0.56	0.56	0.66	0.66	0.66	0.35	0.35	0.35	0.59	0.59	0.59
Crit Moves:	****					****		****				****
Delay/Veh:	15.7	15.7	15.7	18.4	18.4	18.4	12.6	12.6	12.6	15.9	15.9	15.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.7	15.7	15.7	18.4	18.4	18.4	12.6	12.6	12.6	15.9	15.9	15.9
LOS by Move:	C	C	C	C	C	C	B	B	B	C	C	C
ApproachDel:	15.7			18.4			12.6			15.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.7			18.4			12.6			15.9		
LOS by Appr:	C			C			B			C		
AllWayAvgQ:	1.0	1.0	1.0	1.5	1.5	1.5	0.4	0.4	0.4	1.1	1.1	1.1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: C[18.5]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	1	0 0	0	0	0	1 0	0	0	1!	0 0	0	0	0	0 0
Volume Module:																
Base Vol:	302	72	0	0	474	6	2	0	259	0	0	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	302	72	0	0	474	6	2	0	259	0	0	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92				
PHF Volume:	328	78	0	0	515	7	2	0	282	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
FinalVolume:	328	78	0	0	515	7	2	0	282	0	0	0				
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx				
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx				
Capacity Module:																
Cnflict Vol:	522	xxxx	xxxxx	xxxx	xxxx	xxxxx	1253	1253	518	xxxx	xxxx	xxxxx				
Potent Cap.:	1045	xxxx	xxxxx	xxxx	xxxx	xxxxx	190	172	557	xxxx	xxxx	xxxxx				
Move Cap.:	1045	xxxx	xxxxx	xxxx	xxxx	xxxxx	144	118	557	xxxx	xxxx	xxxxx				
Volume/Cap:	0.31	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.51	xxxx	xxxx	xxxx				
Level Of Service Module:																
2Way95thQ:	1.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	B	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT						
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	545	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.0	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	18.5	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*	*	*	*	C	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			18.5			xxxxxx						
ApproachLOS:	*			*			C			*						

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Scenario Report

Scenario:	Scenario A- PM
Command:	Scenario A - PM
Volume:	Scenario A- PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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RSF Roundabouts Construction Traffic 3-11-2046

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	11.6	0.000	B	11.6	0.000	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	F	136.2	0.000	F	136.2	0.000	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	F	108.4	1.248	F	108.4	1.248	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	B	14.8	0.000	B	14.8	0.000	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	F	253.3	1.806	F	253.3	1.806	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	E	41.4	0.991	E	41.4	0.991	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	B	10.8	0.000	B	10.8	0.000	+ 0.000	D/V

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RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[11.6]

Street Name:	Via De Fortuna								El Camino Del Norte							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	1	0	0	0 1	0	0	0	0 0	0	0	0	1 0	0	1	0	0 0
Volume Module:																
Base Vol:	104	0	58		0	0	0		0	98	32		27	236	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	104	0	58		0	0	0		0	98	32		27	236	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92		0.92	0.92	0.92	
PHF Volume:	113	0	63		0	0	0		0	107	35		29	257	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	113	0	63		0	0	0		0	107	35		29	257	0	
Critical Gap Module:																
Critical Gp:	6.4	xxxx	6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx	
FollowUpTim:	3.5	xxxx	3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	439	xxxx	124		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		141	xxxx	xxxxx	
Potent Cap.:	575	xxxx	927		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1442	xxxx	xxxxx	
Move Cap.:	566	xxxx	927		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		1442	xxxx	xxxxx	
Volume/Cap:	0.20	xxxx	0.07		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx		0.02	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.7	xxxx	0.2		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Control Del:	12.9	xxxx	9.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx	
LOS by Move:	B	*	A		*	*	*		*	*	*		A	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		7.5	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		A	*	*	
ApproachDel:	11.6				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	B				*				*				*			

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 102.6 Worst Case Level Of Service: F[136.2]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 0	0	0	0 0 0	1	0	0 1 0	0	0
Volume Module:												
Base Vol:	21	0	1006	0	0	0	0	123	11	49	157	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	0	1006	0	0	0	0	123	11	49	157	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	23	0	1093	0	0	0	0	134	12	53	171	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	23	0	1093	0	0	0	0	134	12	53	171	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	417	417	140	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	146	xxxx	xxxxx
Potent Cap.:	592	527	908	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1436	xxxx	xxxxx
Move Cap.:	575	507	908	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1436	xxxx	xxxxx
Volume/Cap:	0.04	0.00	1.20	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	898	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	38.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	136	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
Shared LOS:	*	F	*	*	*	*	*	*	*	A	*	*
ApproachDel:	136.2			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.248
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	108.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	1	26	22	137	28	6	10	853	7	6	40	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	26	22	137	28	6	10	853	7	6	40	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	1	28	24	149	30	7	11	927	8	7	43	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	28	24	149	30	7	11	927	8	7	43	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	28	24	149	30	7	11	927	8	7	43	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.53	0.45	0.80	0.16	0.04	0.01	0.98	0.01	0.11	0.70	0.19
Final Sat.:	12	311	263	466	95	20	9	743	6	67	445	122
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.32	0.32	0.32	1.25	1.25	1.25	0.10	0.10	0.10
Crit Moves:		****			****			****			****	
Delay/Veh:	9.6	9.6	9.6	12.0	12.0	12.0	139.5	139	139.5	9.1	9.1	9.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	9.6	9.6	12.0	12.0	12.0	139.5	139	139.5	9.1	9.1	9.1
LOS by Move:	A	A	A	B	B	B	F	F	F	A	A	A
ApproachDel:		9.6			12.0			139.5			9.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.6			12.0			139.5			9.1	
LOS by Appr:		A			B			F			A	
AllWayAvgQ:	0.1	0.1	0.1	0.5	0.5	0.5	27.7	27.7	27.7	0.1	0.1	0.1

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: B[14.8]

Street Name:	Avenida de Acacias						Lago Lindo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	2	94	823	1	16	1	0	7	7	38	5	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	94	823	1	16	1	0	7	7	38	5	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	102	895	1	17	1	0	8	8	41	5	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	102	895	1	17	1	0	8	8	41	5	2
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	18	xxxx	xxxxx	997	xxxx	xxxxx	xxxx	1021	18	582	574	549
Potent Cap.:	1598	xxxx	xxxxx	694	xxxx	xxxxx	xxxx	236	1061	425	429	535
Move Cap.:	1598	xxxx	xxxxx	694	xxxx	xxxxx	xxxx	236	1061	410	428	535
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.03	0.01	0.10	0.01	0.00
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	10.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	385	xxxx	417	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	14.7	xxxxx	14.8	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	B	*	B	*
ApproachDel:	xxxxxx			xxxxxx			14.7			14.8		
ApproachLOS:	*			*			B			B		

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.806
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	253.3
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	118	104	14	30	51	18	119	109	50	16	302	813
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	104	14	30	51	18	119	109	50	16	302	813
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	128	113	15	33	55	20	129	118	54	17	328	884
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	113	15	33	55	20	129	118	54	17	328	884
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	113	15	33	55	20	129	118	54	17	328	884
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.50	0.44	0.06	0.30	0.52	0.18	0.43	0.39	0.18	0.01	0.27	0.72
Final Sat.:	258	227	31	143	242	86	241	221	101	10	182	489
Capacity Analysis Module:												
Vol/Sat:	0.50	0.50	0.50	0.23	0.23	0.23	0.54	0.54	0.54	1.81	1.81	1.81
Crit Moves:	****			****				****			****	
Delay/Veh:	16.0	16.0	16.0	12.1	12.1	12.1	15.8	15.8	15.8	382.4	382	382.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.0	16.0	16.0	12.1	12.1	12.1	15.8	15.8	15.8	382.4	382	382.4
LOS by Move:	C	C	C	B	B	B	C	C	C	F	F	F
ApproachDel:	16.0			12.1			15.8			382.4		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	16.0			12.1			15.8			382.4		
LOS by Appr:	C			B			C			F		
AllWayAvgQ:	0.9	0.9	0.9	0.3	0.3	0.3	1.0	1.0	1.0	70.7	70.7	70.7

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.991
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	41.4
Optimal Cycle:	0	Level Of Service:	E

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	465	4	1	152	21	203	8	9	16	107	319
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	465	4	1	152	21	203	8	9	16	107	319
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	505	4	1	165	23	221	9	10	17	116	347
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	505	4	1	165	23	221	9	10	17	116	347
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	505	4	1	165	23	221	9	10	17	116	347
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.97	0.01	0.01	0.87	0.12	0.92	0.04	0.04	0.04	0.24	0.72
Final Sat.:	12	510	4	3	382	53	409	16	18	20	131	390
Capacity Analysis Module:												
Vol/Sat:	0.99	0.99	0.99	0.43	0.43	0.43	0.54	0.54	0.54	0.89	0.89	0.89
Crit Moves:			****	****				****		****		
Delay/Veh:	62.3	62.3	62.3	15.8	15.8	15.8	18.7	18.7	18.7	40.2	40.2	40.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.3	62.3	62.3	15.8	15.8	15.8	18.7	18.7	18.7	40.2	40.2	40.2
LOS by Move:	F	F	F	C	C	C	C	C	C	E	E	E
ApproachDel:	62.3			15.8			18.7			40.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	62.3			15.8			18.7			40.2		
LOS by Appr:	F			C			C			E		
AllWayAvgQ:	7.7	7.7	7.7	0.6	0.6	0.6	1.0	1.0	1.0	4.6	4.6	4.6

Note: Queue reported is the number of cars per lane.

RSF Roundabouts Construction Traffic 3-11-2046

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 6.4 Worst Case Level Of Service: B[10.8]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	487	146		0	0	194		1			1		0	164		0	0		0	
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00	1.00		1.00	
Initial Bse:	487	146		0	0	194		1			1		0	164		0	0		0	
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00	1.00		1.00	
PHF Adj:	0.92	0.92		0.92	0.92	0.92		0.92			0.92		0.92	0.92		0.92	0.92		0.92	
PHF Volume:	529	159		0	0	211		1			1		0	178		0	0		0	
Reduct Vol:	0	0		0	0	0		0			0		0	0		0	0		0	
FinalVolume:	529	159		0	0	211		1			1		0	178		0	0		0	
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4			6.5			6.2	xxxxx	xxxx	xxxxx			
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5			4.0			3.3	xxxxx	xxxx	xxxxx			
Capacity Module:																				
Cnflict Vol:	212	xxxx	xxxxx	xxxx	xxxx	xxxxx		1429			1429			211	xxxx	xxxx	xxxxx			
Potent Cap.:	1358	xxxx	xxxxx	xxxx	xxxx	xxxxx		149			135			829	xxxx	xxxx	xxxxx			
Move Cap.:	1358	xxxx	xxxxx	xxxx	xxxx	xxxxx		103			82			829	xxxx	xxxx	xxxxx			
Volume/Cap:	0.39	xxxx	xxxx	xxxx	xxxx	xxxx		0.01			0.00			0.22	xxxx	xxxx	xxxx			
Level Of Service Module:																				
2Way95thQ:	1.9	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx			xxxx			xxxxx	xxxx	xxxx	xxxxx			
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			xxxx			xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*		*	*	*		*			*			*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx			795			xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			0.9			xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			10.8			xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*		*	*	*		*			B			*	*	*	*			
ApproachDel:	xxxxxx			xxxxxx							10.8				xxxxxx					
ApproachLOS:	*			*							B				*					

Note: Queue reported is the number of cars per lane.

APPENDIX K

INTERSECTION ANALYSIS WORKSHEETS- CONSTRUCTION SCENARIO B

Scenario Report

Scenario:	Scenario B- AM
Command:	Scenario B - AM
Volume:	Scenario B- AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	13.3	0.107	B	13.3	0.107	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	B	12.6	0.293	B	12.6	0.293	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	B	12.1	0.599	B	12.1	0.599	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	B	12.1	0.362	B	12.1	0.362	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	D	28.2	0.863	D	28.2	0.863	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	B	14.2	0.681	B	14.2	0.681	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	C	17.9	0.522	C	17.9	0.522	+ 0.000	D/V

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: B[13.3]

Street Name:	Via De Fortuna						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	39	0	22	0	0	0	0	200	149	92	152	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	39	0	22	0	0	0	0	200	149	92	152	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	42	0	24	0	0	0	0	217	162	100	165	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	42	0	24	0	0	0	0	217	162	100	165	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	664	xxxx	298	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	379	xxxx	xxxxx
Potent Cap.:	426	xxxx	741	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1179	xxxx	xxxxx
Move Cap.:	397	xxxx	741	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1179	xxxx	xxxxx
Volume/Cap:	0.11	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.08	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	0.1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	15.2	xxxx	10.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	C	*	B	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	13.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: B[12.6]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	9	0	73	0	0	0	0	109	27	386	244	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	0	73	0	0	0	0	109	27	386	244	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	0	79	0	0	0	0	118	29	420	265	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	0	79	0	0	0	0	118	29	420	265	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1238	1238	133	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	148	xxxx	xxxxx
Potent Cap.:	194	176	916	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1434	xxxx	xxxxx
Move Cap.:	136	109	916	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1434	xxxx	xxxxx
Volume/Cap:	0.07	0.00	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.29	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	563	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	1.2	xxxx	xxxxx
Shrd ConDel:	xxxxx	12.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		12.6		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.599
Loss Time (sec):	0	Average Delay (sec/veh):	12.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	7	52	16	10	114	19	12	73	3	79	313	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	52	16	10	114	19	12	73	3	79	313	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	8	57	17	11	124	21	13	79	3	86	340	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	57	17	11	124	21	13	79	3	86	340	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	57	17	11	124	21	13	79	3	86	340	23
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.70	0.21	0.07	0.80	0.13	0.14	0.83	0.03	0.19	0.76	0.05
Final Sat.:	57	423	130	44	502	84	90	550	23	143	568	38
Capacity Analysis Module:												
Vol/Sat:	0.13	0.13	0.13	0.25	0.25	0.25	0.14	0.14	0.14	0.60	0.60	0.60
Crit Moves:			****	****				****				****
Delay/Veh:	9.1	9.1	9.1	9.8	9.8	9.8	8.9	8.9	8.9	14.1	14.1	14.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	9.1	9.8	9.8	9.8	8.9	8.9	8.9	14.1	14.1	14.1
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	9.1			9.8			8.9			14.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.1			9.8			8.9			14.1		
LOS by Appr:	A			A			A			B		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.1	1.3	1.3	1.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: B[12.1]

Street Name:	Avenida de Acacias						Lago Lindo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	2	23	70	2	51	1	0	5	1	278	22	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	23	70	2	51	1	0	5	1	278	22	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	25	76	2	55	1	0	5	1	302	24	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	2	25	76	2	55	1	0	5	1	302	24	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx
Capacity Module:												
Cnflict Vol:	57	xxxx	xxxxx	101	xxxx	xxxxx	xxxx	166	56	131	128	xxxxx
Potent Cap.:	1548	xxxx	xxxxx	1491	xxxx	xxxxx	xxxx	727	1011	841	762	xxxxx
Move Cap.:	1548	xxxx	xxxxx	1491	xxxx	xxxxx	xxxx	725	1011	834	760	xxxxx
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	0.00	0.36	0.03	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.3	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	761	828	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.0	1.9	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.8	12.1	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	B	*	*
ApproachDel:	xxxxxx			xxxxxx			9.8			12.1		
ApproachLOS:	*			*			A			B		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	0.863
Loss Time (sec):	0	Average Delay (sec/veh):	28.2
Optimal Cycle:	0	Level Of Service:	D

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	41	53	8	129	224	67	41	337	64	27	162	70
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	53	8	129	224	67	41	337	64	27	162	70
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	45	58	9	140	243	73	45	366	70	29	176	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	58	9	140	243	73	45	366	70	29	176	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	58	9	140	243	73	45	366	70	29	176	76
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.40	0.52	0.08	0.31	0.53	0.16	0.09	0.77	0.14	0.10	0.63	0.27
Final Sat.:	170	220	33	167	289	86	52	425	81	52	312	135
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.84	0.84	0.84	0.86	0.86	0.86	0.56	0.56	0.56
Crit Moves:	****			****			****				****	
Delay/Veh:	12.7	12.7	12.7	32.3	32.3	32.3	34.6	34.6	34.6	16.7	16.7	16.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	12.7	12.7	32.3	32.3	32.3	34.6	34.6	34.6	16.7	16.7	16.7
LOS by Move:	B	B	B	D	D	D	D	D	D	C	C	C
ApproachDel:	12.7			32.3			34.6			16.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			32.3			34.6			16.7		
LOS by Appr:	B			D			D			C		
AllWayAvgQ:	0.3	0.3	0.3	3.4	3.4	3.4	3.9	3.9	3.9	1.0	1.0	1.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.681
Loss Time (sec):	0	Average Delay (sec/veh):	14.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	171	5	79	316	26	16	104	20	11	125	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	171	5	79	316	26	16	104	20	11	125	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	10	186	5	86	343	28	17	113	22	12	136	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	186	5	86	343	28	17	113	22	12	136	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	186	5	86	343	28	17	113	22	12	136	40
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.92	0.03	0.19	0.75	0.06	0.11	0.75	0.14	0.06	0.73	0.21
Final Sat.:	29	557	16	126	504	41	63	407	78	36	409	121
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.68	0.68	0.68	0.28	0.28	0.28	0.33	0.33	0.33
Crit Moves:		****		****				****		****		
Delay/Veh:	11.1	11.1	11.1	17.9	17.9	17.9	10.9	10.9	10.9	11.3	11.3	11.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.1	11.1	11.1	17.9	17.9	17.9	10.9	10.9	10.9	11.3	11.3	11.3
LOS by Move:	B	B	B	C	C	C	B	B	B	B	B	B
ApproachDel:	11.1			17.9			10.9			11.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.1			17.9			10.9			11.3		
LOS by Appr:	B			C			B			B		
AllWayAvgQ:	0.4	0.4	0.4	1.8	1.8	1.8	0.3	0.3	0.3	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 6.5 Worst Case Level Of Service: C[17.9]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	210	164		0	0	427		6			2		0	286		0		0		0
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00		1.00		1.00
Initial Bse:	210	164		0	0	427		6			2		0	286		0		0		0
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00			1.00		1.00	1.00		1.00		1.00		1.00
PHF Adj:	0.92	0.92		0.92	0.92	0.92		0.92			0.92		0.92	0.92		0.92		0.92		0.92
PHF Volume:	228	178		0	0	464		7			2		0	311		0		0		0
Reduct Vol:	0	0		0	0	0		0			0		0	0		0		0		0
FinalVolume:	228	178		0	0	464		7			2		0	311		0		0		0
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4			6.5			6.2		xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5			4.0			3.3		xxxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	471	xxxx	xxxxx	xxxx	xxxx	xxxxx		1102			1102			467		xxxx	xxxx	xxxxx		
Potent Cap.:	1091	xxxx	xxxxx	xxxx	xxxx	xxxxx		234			212			596		xxxx	xxxx	xxxxx		
Move Cap.:	1091	xxxx	xxxxx	xxxx	xxxx	xxxxx		196			167			596		xxxx	xxxx	xxxxx		
Volume/Cap:	0.21	xxxx	xxxx	xxxx	xxxx	xxxx		0.01			0.00			0.52		xxxx	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	0.8	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx			xxxx			xxxxx		xxxx	xxxx	xxxxx		
Control Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx			xxxx			xxxxx		xxxxx	xxxx	xxxxx		
LOS by Move:	A	*		*	*	*		*			*			*		*	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx		587	xxxxx		xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		3.1	xxxxx		xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx		17.9	xxxxx		xxxxx	xxxx	xxxxx		
Shared LOS:	*	*		*	*	*		*			*		C	*		*	*	*		
ApproachDel:	xxxxxx					xxxxxx					17.9			xxxxxx						
ApproachLOS:	*					*					C			*						

Note: Queue reported is the number of cars per lane.

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Scenario Report

Scenario:	Scenario B- PM
Command:	Scenario B - PM
Volume:	Scenario B- PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in	
# 1 Via De Fortuna / El Camino Del	B	13.5	0.260	B	13.5	0.260	+ 0.000	D/V
# 2 Lago Lindo / El Camino Del Nor	B	14.9	0.431	B	14.9	0.431	+ 0.000	D/V
# 3 El Montevideo / Lago Lindo	B	11.0	0.524	B	11.0	0.524	+ 0.000	V/C
# 4 Avenida de Acacias / Lago Lind	B	13.8	0.340	B	13.8	0.340	+ 0.000	D/V
# 5 Avenida de Acacias / La Granad	F	71.4	1.212	F	71.4	1.212	+ 0.000	V/C
# 6 La Granada / Paseo Delicias	B	13.3	0.606	B	13.3	0.606	+ 0.000	V/C
# 7 Via De La Valle / Via De Santa	B	10.5	0.296	B	10.5	0.296	+ 0.000	D/V

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Via De Fortuna / El Camino Del Norte

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[13.5]

Street Name:	Via De Fortuna						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	104	0	77	0	0	0	0	196	33	43	278	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	104	0	77	0	0	0	0	196	33	43	278	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	113	0	84	0	0	0	0	213	36	47	302	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	113	0	84	0	0	0	0	213	36	47	302	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	627	xxxx	231	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	249	xxxx	xxxxx
Potent Cap.:	448	xxxx	808	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1317	xxxx	xxxxx
Move Cap.:	435	xxxx	808	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1317	xxxx	xxxxx
Volume/Cap:	0.26	xxxx	0.10	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.0	xxxx	0.3	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	16.2	xxxx	10.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	C	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	13.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lago Lindo / El Camino Del Norte

Average Delay (sec/veh): 6.2 Worst Case Level Of Service: B[14.9]

Street Name:	Lago Lindo						El Camino Del Norte					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	14	0	297	0	0	0	0	261	11	158	215	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	0	297	0	0	0	0	261	11	158	215	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	15	0	323	0	0	0	0	284	12	172	234	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	15	0	323	0	0	0	0	284	12	172	234	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	867	867	290	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	296	xxxx	xxxxx
Potent Cap.:	323	291	749	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1266	xxxx	xxxxx
Move Cap.:	286	247	749	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1266	xxxx	xxxxx
Volume/Cap:	0.05	0.00	0.43	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.14	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	699	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	2.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.5	xxxx	xxxxx
Shrd ConDel:	xxxxx	14.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:		14.9		xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:		B		*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 El Montevideo / Lago Lindo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.524
Loss Time (sec):	0	Average Delay (sec/veh):	11.0
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Lago Lindo						El Montevideo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	1	42	7	6	77	59	42	303	12	17	158	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	42	7	6	77	59	42	303	12	17	158	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	1	46	8	7	84	64	46	329	13	18	172	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	46	8	7	84	64	46	329	13	18	172	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	46	8	7	84	64	46	329	13	18	172	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.84	0.14	0.04	0.54	0.42	0.12	0.85	0.03	0.09	0.85	0.06
Final Sat.:	12	494	82	27	348	267	87	628	25	64	594	41
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.24	0.24	0.24	0.52	0.52	0.52	0.29	0.29	0.29
Crit Moves:		****			****			****			****	
Delay/Veh:	8.9	8.9	8.9	9.6	9.6	9.6	12.6	12.6	12.6	9.8	9.8	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.9	9.6	9.6	9.6	12.6	12.6	12.6	9.8	9.8	9.8
LOS by Move:	A	A	A	A	A	A	B	B	B	A	A	A
ApproachDel:	8.9			9.6			12.6			9.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			9.6			12.6			9.8		
LOS by Appr:	A			A			B			A		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	1.0	1.0	1.0	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Avenida de Acacias / Lago Lindo

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: B[13.8]

Street Name:	Avenida de Acacias									Lago Lindo								
Approach:	North Bound				South Bound					East Bound					West Bound			
Movement:	L	-	T	- R	L	-	T	- R		L	-	T	- R		L	-	T	- R
Control:	Uncontrolled				Uncontrolled					Stop Sign					Stop Sign			
Rights:	Include				Include					Include					Include			
Lanes:	0	0	1!	0 0	0	0	1!	0 0		0	0	0	1	0	0	0	1!	0 0
Volume Module:																		
Base Vol:	2	50	323		2	16	1			0	27	7			201	13	2	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00	
Initial Bse:	2	50	323		2	16	1			0	27	7			201	13	2	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92		0.92	0.92	0.92			0.92	0.92	0.92			0.92	0.92	0.92	
PHF Volume:	2	54	351		2	17	1			0	29	8			218	14	2	
Reduct Vol:	0	0	0		0	0	0			0	0	0			0	0	0	
FinalVolume:	2	54	351		2	17	1			0	29	8			218	14	2	
Critical Gap Module:																		
Critical Gp:	4.1	xxxx	xxxxx		4.1	xxxx	xxxxx	xxxxx		6.5	6.2	7.1			6.5	6.2		
FollowUpTim:	2.2	xxxx	xxxxx		2.2	xxxx	xxxxx	xxxxx		4.0	3.3	3.5			4.0	3.3		
Capacity Module:																		
Cnflict Vol:	18	xxxx	xxxxx		405	xxxx	xxxxx	xxxx		432	18	275			257	230		
Potent Cap.:	1598	xxxx	xxxxx		1153	xxxx	xxxxx	xxxx		516	1061	677			647	809		
Move Cap.:	1598	xxxx	xxxxx		1153	xxxx	xxxxx	xxxx		515	1061	642			645	809		
Volume/Cap:	0.00	xxxx	xxxx		0.00	xxxx	xxxx	xxxx		0.06	0.01	0.34			0.02	0.00		
Level Of Service Module:																		
2Way95thQ:	0.0	xxxx	xxxxx		0.0	xxxx	xxxxx	xxxx		xxxx	xxxxx	xxxx			xxxx	xxxxx		
Control Del:	7.3	xxxx	xxxxx		8.1	xxxx	xxxxx	xxxxx		xxxx	xxxxx	xxxxx			xxxx	xxxxx		
LOS by Move:	A	*	*		A	*	*	*		*	*	*			*	*		
Movement:	LT	-	LTR	- RT	LT	-	LTR	- RT		LT	-	LTR	- RT		LT	-	LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx			xxxx	xxxx	576			xxxx	643	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	0.2			xxxxx	1.7	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			xxxxx	xxxx	11.7			xxxxx	13.8	xxxxx	
Shared LOS:	*	*	*		*	*	*			*	*	B			*	B	*	
ApproachDel:	xxxxxx				xxxxxx					11.7					13.8			
ApproachLOS:	*				*					B					B			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 Avenida de Acacias / La Granada

Cycle (sec):	100	Critical Vol./Cap.(X):	1.212
Loss Time (sec):	0	Average Delay (sec/veh):	71.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Avenida de Acacias						La Granada					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	118	113	14	112	66	93	120	199	59	16	302	259
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	113	14	112	66	93	120	199	59	16	302	259
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	128	123	15	122	72	101	130	216	64	17	328	282
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	128	123	15	122	72	101	130	216	64	17	328	282
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	128	123	15	122	72	101	130	216	64	17	328	282
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.48	0.46	0.06	0.42	0.24	0.34	0.32	0.53	0.15	0.03	0.52	0.45
Final Sat.:	203	194	24	181	107	150	152	251	75	14	271	232
Capacity Analysis Module:												
Vol/Sat:	0.63	0.63	0.63	0.67	0.67	0.67	0.86	0.86	0.86	1.21	1.21	1.21
Crit Moves:	****					****			****		****	
Delay/Veh:	22.6	22.6	22.6	23.9	23.9	23.9	39.3	39.3	39.3	135.5	135	135.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.6	22.6	22.6	23.9	23.9	23.9	39.3	39.3	39.3	135.5	135	135.5
LOS by Move:	C	C	C	C	C	C	E	E	E	F	F	F
ApproachDel:	22.6			23.9			39.3			135.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	22.6			23.9			39.3			135.5		
LOS by Appr:	C			C			E			F		
AllWayAvgQ:	1.3	1.3	1.3	1.6	1.6	1.6	3.8	3.8	3.8	18.0	18.0	18.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 La Granada / Paseo Delicias

Cycle (sec):	100	Critical Vol./Cap.(X):	0.606
Loss Time (sec):	0	Average Delay (sec/veh):	13.3
Optimal Cycle:	0	Level Of Service:	B

Street Name:	La Granada						Paseo Delicias					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	7	20	7	7	20	7	7	20	7	7	20	7
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	11	360	6	55	220	21	30	105	9	10	64	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	360	6	55	220	21	30	105	9	10	64	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	391	7	60	239	23	33	114	10	11	70	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	391	7	60	239	23	33	114	10	11	70	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	391	7	60	239	23	33	114	10	11	70	30
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.03	0.95	0.02	0.19	0.74	0.07	0.21	0.73	0.06	0.10	0.63	0.27
Final Sat.:	20	645	11	122	486	46	114	398	34	53	337	147
Capacity Analysis Module:												
Vol/Sat:	0.61	0.61	0.61	0.49	0.49	0.49	0.29	0.29	0.29	0.21	0.21	0.21
Crit Moves:	****				****			****			****	
Delay/Veh:	15.3	15.3	15.3	12.9	12.9	12.9	11.0	11.0	11.0	10.2	10.2	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.3	15.3	15.3	12.9	12.9	12.9	11.0	11.0	11.0	10.2	10.2	10.2
LOS by Move:	C	C	C	B	B	B	B	B	B	B	B	B
ApproachDel:	15.3			12.9			11.0			10.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.3			12.9			11.0			10.2		
LOS by Appr:	C			B			B			B		
AllWayAvgQ:	1.3	1.3	1.3	0.8	0.8	0.8	0.3	0.3	0.3	0.2	0.2	0.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Via De La Valle / Via De Santa Fe

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[10.5]

Street Name:	Via De La Valle								Via De Santa Fe							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	0	0	0
Volume Module:																				
Base Vol:	397	234		0		0	116		1		1		0	232		0	0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00	
Initial Bse:	397	234		0		0	116		1		1		0	232		0	0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00		1.00		1.00	1.00		1.00	1.00		1.00	
PHF Adj:	0.92	0.92		0.92		0.92	0.92		0.92		0.92		0.92	0.92		0.92	0.92		0.92	
PHF Volume:	432	254		0		0	126		1		1		0	252		0	0		0	
Reduct Vol:	0	0		0		0	0		0		0		0	0		0	0		0	
FinalVolume:	432	254		0		0	126		1		1		0	252		0	0		0	
Critical Gap Module:																				
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5		6.2	xxxxx	xxxx	xxxxx							
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0		3.3	xxxxx	xxxx	xxxxx							
Capacity Module:																				
Cnflict Vol:	127	xxxx	xxxxx	xxxx	xxxx	xxxxx	1244	1244		127	xxxx	xxxx	xxxxx							
Potent Cap.:	1459	xxxx	xxxxx	xxxx	xxxx	xxxxx	192	174		924	xxxx	xxxx	xxxxx							
Move Cap.:	1459	xxxx	xxxxx	xxxx	xxxx	xxxxx	148	123		924	xxxx	xxxx	xxxxx							
Volume/Cap:	0.30	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00		0.27	xxxx	xxxx	xxxx							
Level Of Service Module:																				
2Way95thQ:	1.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Control Del:	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
LOS by Move:	A	*		*		*	*		*		*		*							
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	903	xxxxx	xxxx	xxxx	xxxxx								
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.2	xxxxx	xxxxx	xxxx	xxxxx								
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.5	xxxxx	xxxxx	xxxx	xxxxx								
Shared LOS:	*	*		*		*	*		B		*		*							
ApproachDel:	xxxxxx			xxxxxx			10.5			xxxxxx										
ApproachLOS:	*			*			B			*										

Note: Queue reported is the number of cars per lane.

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to LLG, SAN DIEGO, CA

APPENDIX L

STRIPING PLAN FOR TRAFFIC SIGNAL ALTERNATIVE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

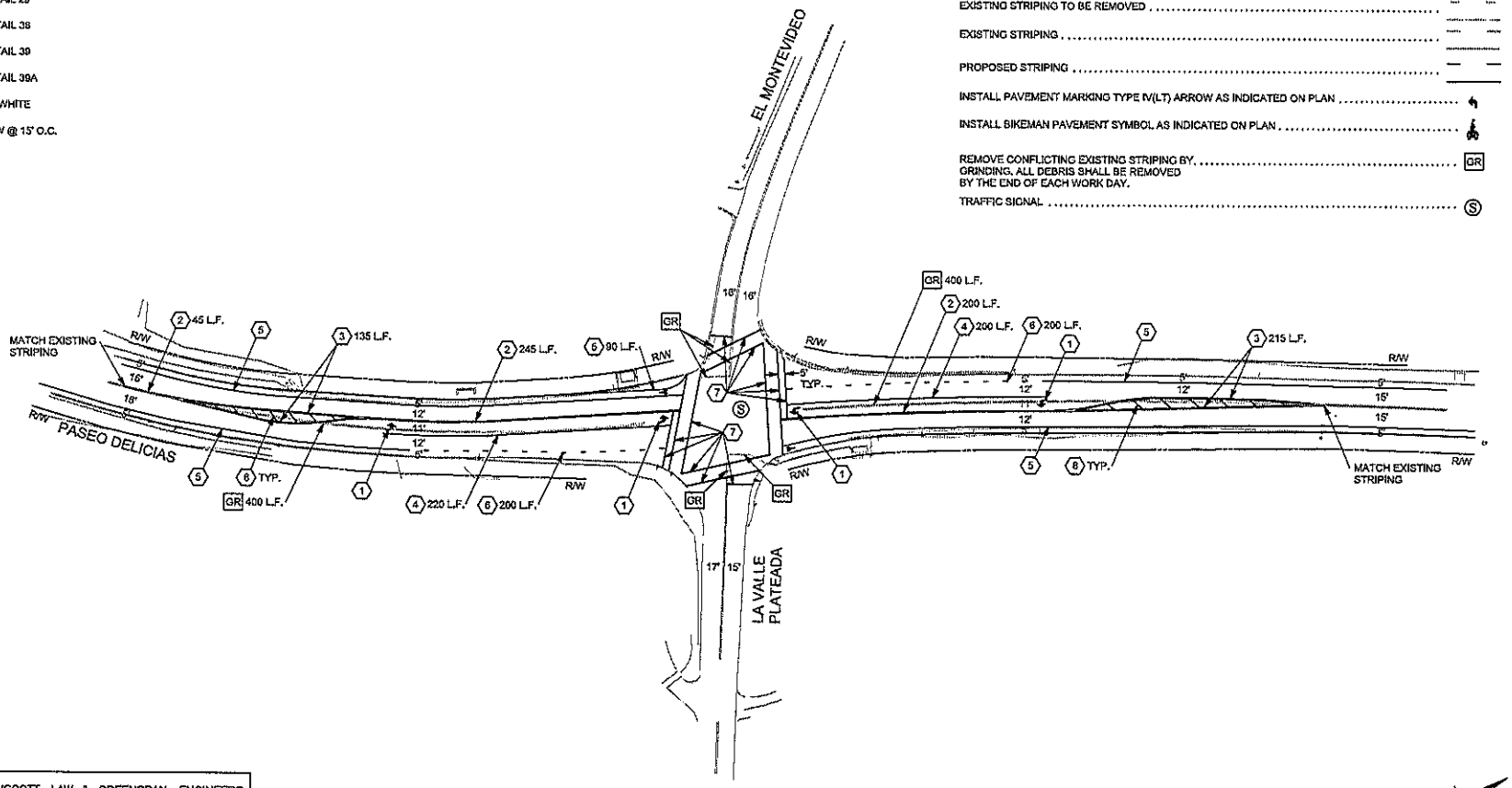
PLANS	BY	DATE
DESIGNED		
CHECKED		
DELINEATED		

CALTRANS STANDARD PLANS

1. A24A, TYPE IV(LT)
2. A20A, DETAIL 22
3. A20B, DETAIL 29
4. A20D, DETAIL 38
5. A20D, DETAIL 39
6. A20D, DETAIL 39A
7. A24E, 12" WHITE
8. 8" YELLOW @ 15' O.C.

LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
INSTALL PAVEMENT MARKING TYPE IV(LT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		Ⓢ



LINSCOTT, LAW & GREENSPAN, ENGINEERS
4542 Ruffner Street, Suite 100
San Diego, Ca 92111
(858)300-8800 (858)300-8810 (FX)

LOS #-671707.1	C-SHT1-51.DWG	11/26/07
Designed By: Date	Drawn By: DVS	Checked By: JPK

NORTH
SCALE: 1"=40'
40 0 40 80 100

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
N.I. E.I.
CONST. COMPL.
FIELD REVISIONS

PASEO DELICIAS/EL MONTEVIDEO/
LA VALLE PLATEADA SIGNAL

CONCEPTUAL STRIPING PLAN

SCALE: HOR. VERT.
W.A. K.B.
FILE NO.
SHEET OF SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

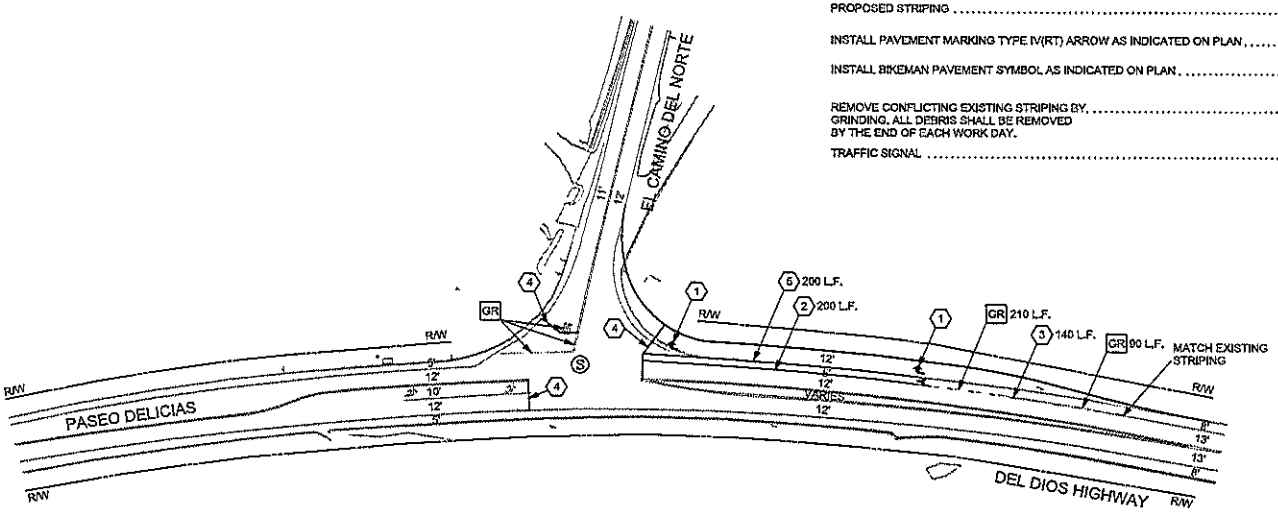
PLANS	BY	DATE
DESIGNED		
CHECKED		
DEDICATED		

CALTRANS STANDARD PLANS

1. A24A, TYPE IV(RT)
2. A20D, DETAIL 39
3. A20D, DETAIL 39A
4. A24E, 12" WHITE
5. A20D, DETAIL 38A

LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
INSTALL PAVEMENT MARKING TYPE IV(RT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		Ⓢ



LINSCOTT, LAW & GREENSPAN, ENGINEERS
4542 Ruffner Street, Suite 100
San Diego, Ca 92111
(858)300-8800 (858)300-8810 (FX)

LD 3-071767.1	C-SHOT-11.DWG	11/26/03
Designed By: SJH	Drawn By: DKS	Checked By: JPH

NORTH
SCALE 1"=40'

40 0 40 80 80 100

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
N. E.
CONST. COMPL.
FIELD REVISIONS

PASEO DELICIAS/
EL CAMINO DEL NORTE SIGNAL

CONCEPTUAL STRIPING PLAN

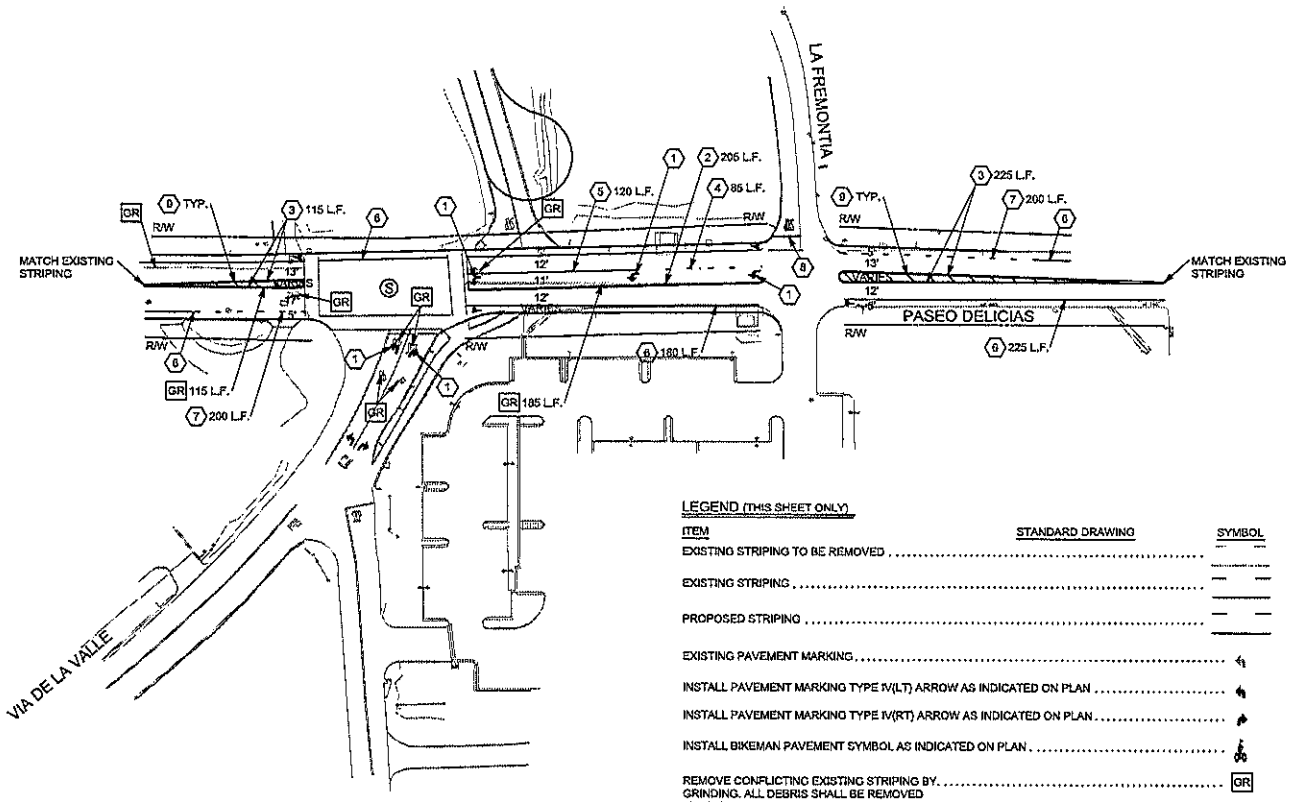
SCALE: HOR. VERT.
W.A. R.S.
FILE NO.
SHEET OF SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED		
CHECKED		
DELINEATED		

CALTRANS STANDARD PLANS

1. A24A, TYPE IV(LT) OR (RT)
2. A20A, DETAIL 22
3. A20B, DETAIL 29
4. A20C, DETAIL 37B
5. A20D, DETAIL 38
6. A20D, DETAIL 39
7. A20D, DETAIL 39A
8. A24E, 12" WHITE
9. 8" YELLOW @ 15' O.C.



LEGEND (THIS SHEET ONLY)

ITEM	STANDARD DRAWING	SYMBOL
EXISTING STRIPING TO BE REMOVED		
EXISTING STRIPING		
PROPOSED STRIPING		
EXISTING PAVEMENT MARKING		
INSTALL PAVEMENT MARKING TYPE IV(LT) ARROW AS INDICATED ON PLAN		
INSTALL PAVEMENT MARKING TYPE IV(RT) ARROW AS INDICATED ON PLAN		
INSTALL BIKEMAN PAVEMENT SYMBOL AS INDICATED ON PLAN		
REMOVE CONFLICTING EXISTING STRIPING BY GRINDING. ALL DEBRIS SHALL BE REMOVED BY THE END OF EACH WORK DAY.		GR
TRAFFIC SIGNAL		Ⓢ

LINSCOTT, LAW & GREENSPAN, ENGINEERS
4542 Ruffner Street, Suite 100
San Diego, Ca 92111
(858)300-8800 (858)300-8810 (FX)

LLG 3-07170/1	G-SH01-S1.DWG	11/28/07
Designed by: SLK	Drawn by: lhm	Checked by: JPK

NORTH
SCALE: 1"=40'

40 0 40 60 80 100

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
N _____ E _____
CONST. COMPL. _____
FIELD REVISIONS _____

PASEO DELICIAS/VIA DE LA VALLE
SIGNAL
CONCEPTUAL STRIPING PLAN

SCALE: HOR. _____ VERT. _____
W.A. _____ M.S. _____
FILE NO. _____
SHEET ____ OF ____ SHEETS

APPENDIX M

ROUNDABOUTS DESIGN

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

INDEX OF SHEETS

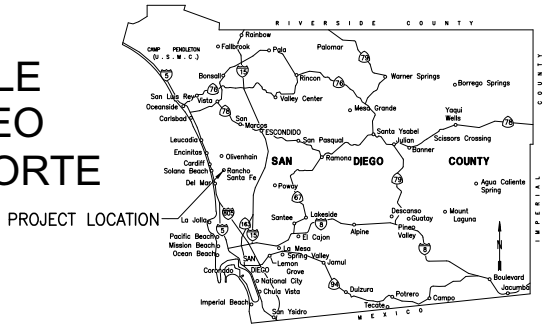
SHT NO	CAT. NO	Description
1	T1	TITLE SHEET
2-4	PO1-PO3	PLAN OVERVIEW
5	AB	GENERAL NOTES, ABBREVIATIONS & LEGEND
6-8	HCONT1-HCONT3	HORIZONTAL CONTROL PLAN
9-14	X1-X6	TYPICAL SECTIONS
15-25	SP1-SP11	SITE PREP PLAN
26-36	PPR1-PPR11	PAVING PLAN
37-65	PF1-PF29	PROFILE
66	PDT1	PAVING DETAILS
67-77	G1-G11	GRADING PLAN
78-80	GT1-GT3	GRADING POINT TABLES
81-86	SIP1-SIP6	SPLITTER ISLAND PLAN
87-97	SD1-SD11	STORM DRAINAGE PLAN
98-102	SDP1-SDP5	STORM DRAINAGE PROFILE
103-113	ST1-ST11	STRIPING PLAN
114	STDET1	STRIPING DETAILS
115-125	SN1-SN11	SIGNING PLAN
126-130	SN12-SN16	SIGN SCHEDULE
131-134	SNDET1-SNDET4	SIGNING DETAILS
135-137	WP1-WP3	WATER POLLUTION CONTROL PLAN
138	WP4	WATER POLLUTION CONTROL DETAILS
139	RT1	RETAINING WALL PLAN & PROFILE
140	RT2	RETAINING WALL DETAILS
141-153	S1-S13	STAGE CONSTRUCTION PLAN

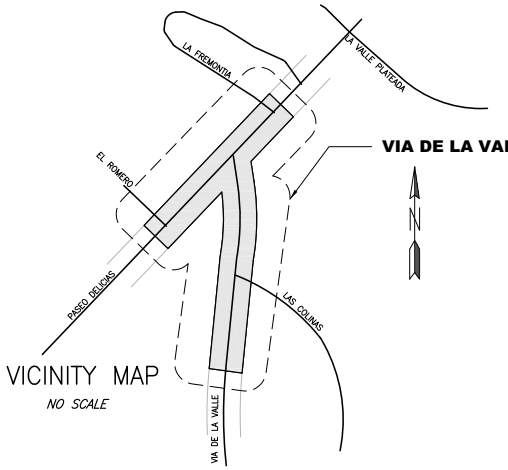
COUNTY OF SAN DIEGO, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

PLANS FOR CONSTRUCTION OF ROUNDABOUTS AT PASEO DELICIAS & VIA DE LA VALLE AT PASEO DELICIAS & EL MONTEVIDEO AT PASEO DELICIAS & EL CAMINO DEL NORTE RS 476

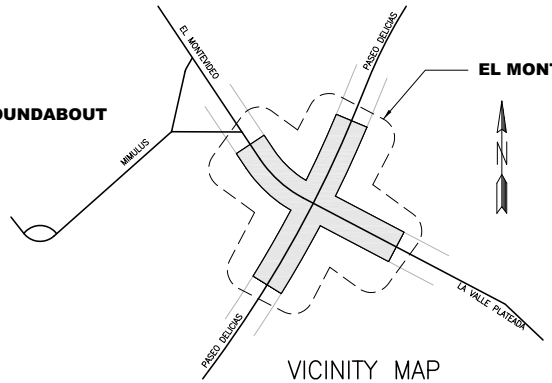
In The Vicinity of Rancho Santa Fe

TOTAL LENGTH = 0.6 MILES

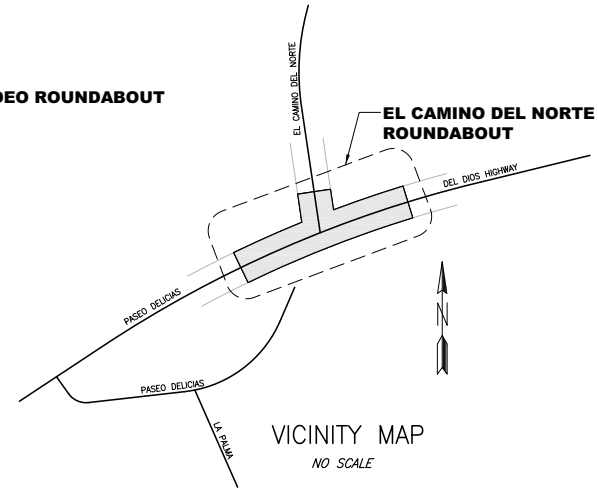




VICINITY MAP
NO SCALE



VICINITY MAP
NO SCALE



VICINITY MAP
NO SCALE

GENERAL NOTES:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FORTY-EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1-800-422-4133.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

osa 09/02/09 3:27pm – P:\x\SDC00000007\050APP\UA174\c-ab01-1.dwg

COUNTY OF SAN DIEGO DPW DESIGN SECTION

DATE

REVIEWED BY:

T1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

RECOMMENDED BY: _____ DATE: _____
_____ DATE: _____
RECOMMENDED BY: _____
MOHAMED FAKHRRDDINE, COUNTY ENGINEER DATE: _____

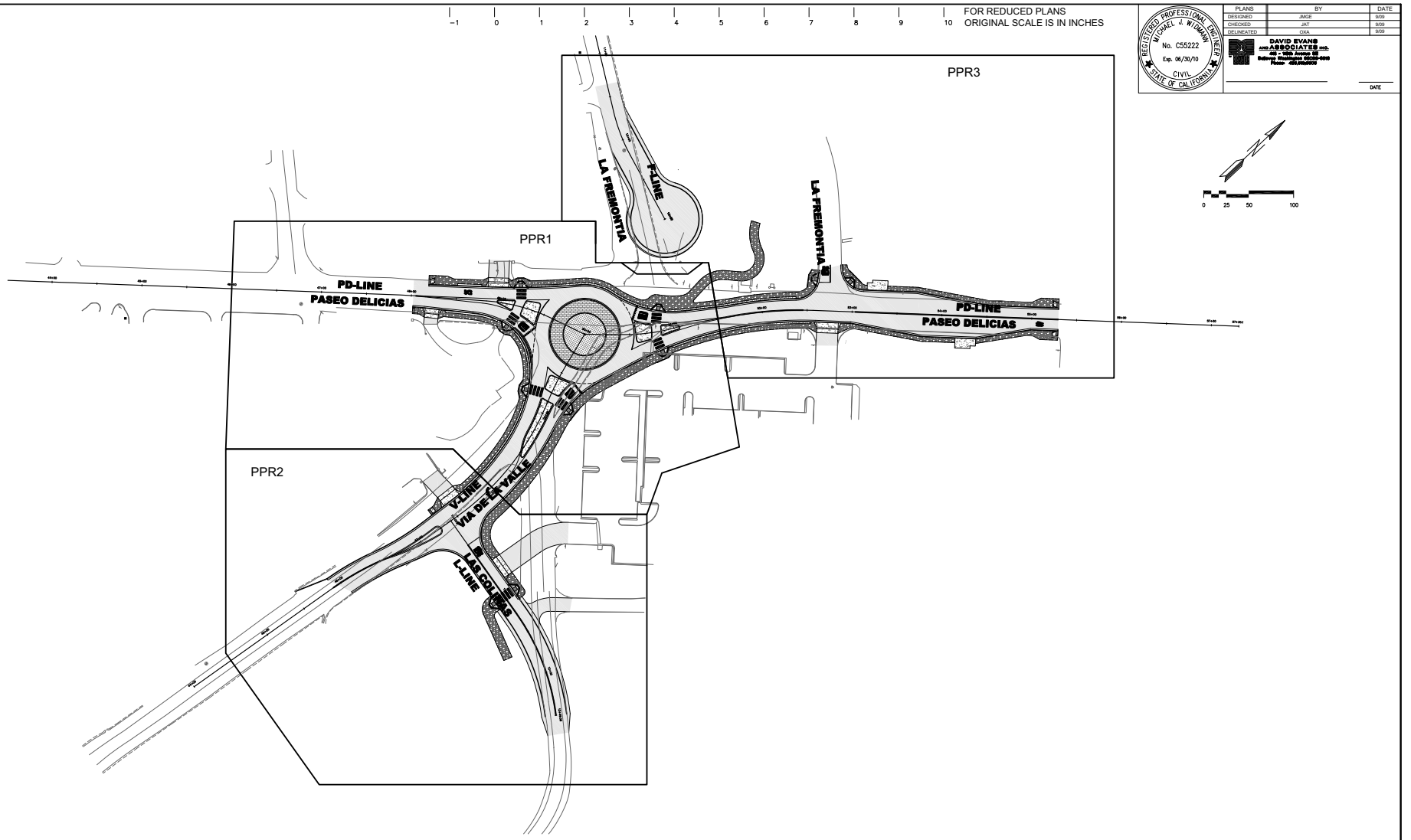
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL. _____
FIELD REVISIONS _____

RANCHO SANTA FE ROUNDABOUTS

TITLE SHEET

SCALE: HOR. NONE VERT. NONE
W.A. UJ4174 R.S. 476
SHEET 1 OF 153 SHEETS



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

PO1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

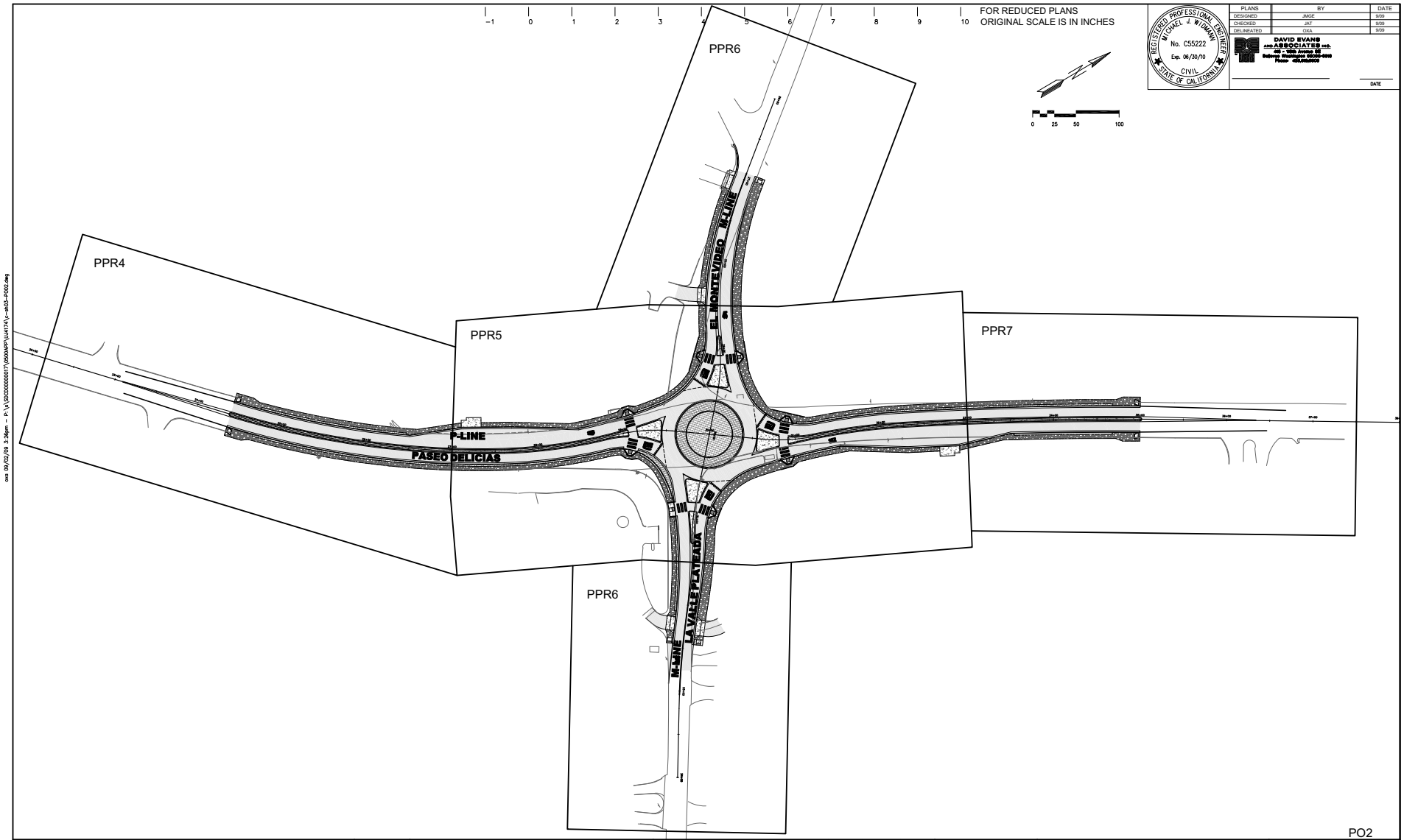
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 2 OF 153 SHEETS

oxa 09/02/09 3:26pm — P:\a\SIO0000007\1050\APP\UJ4174\c-ar02--PO01.dwg



REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 • 16th Avenue SW
Bellevue, Washington 98004-5040
Phone: 425.519.6500

DATE

PO2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

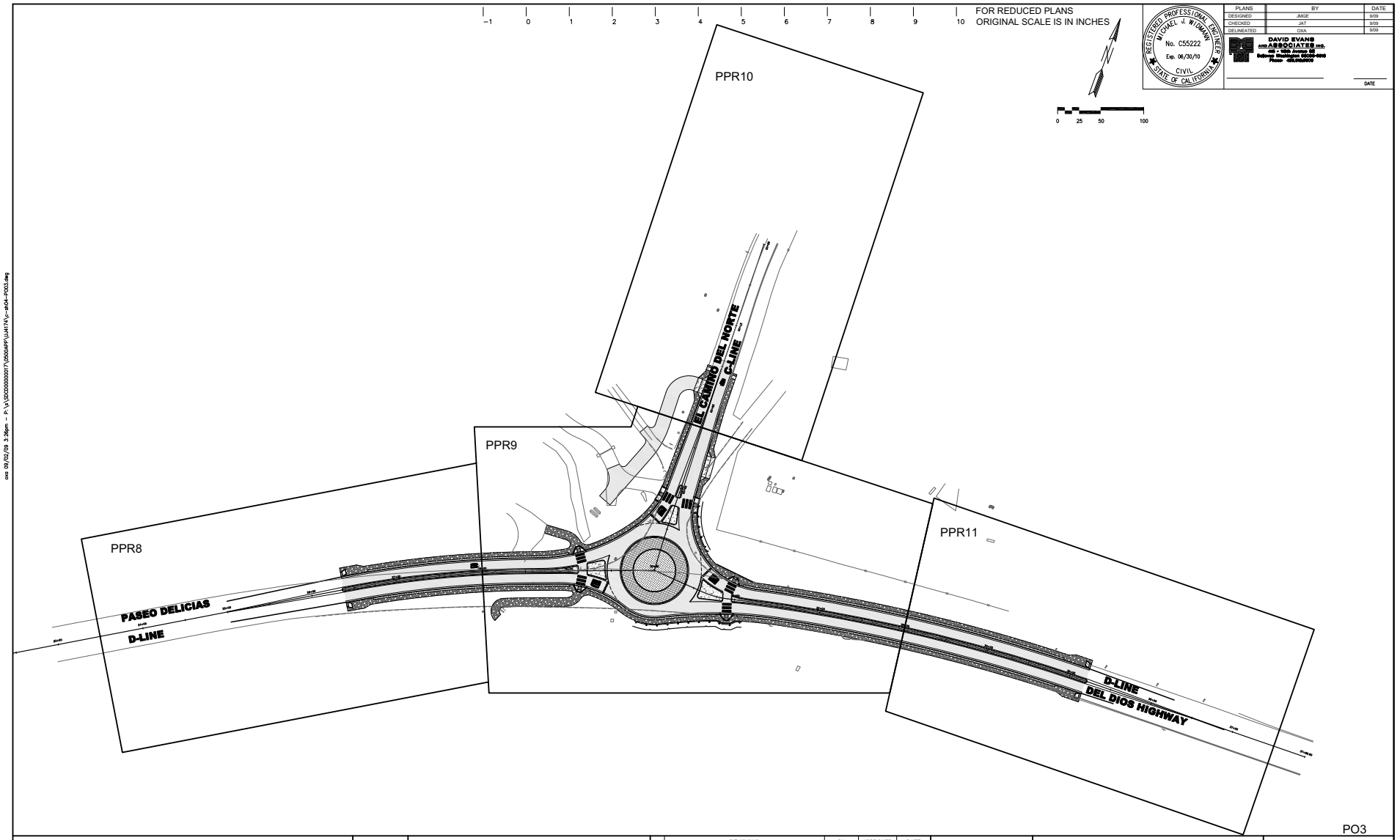
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 3 OF 153 SHEETS

oxa 09/02/09 3:26pm — P:\a\SIO0000007\1050\APP\UJ4174\c-ah03-PO02.dwg



REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92025-4000
Phone: (760)839-4900

DATE

oxo 09/02/09 3:26pm — P:\a\SIO00000007\1050\APP\UJ4174\c-ai04-PO03.dwg

PO3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 4 OF 153 SHEETS

-1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

PROJECT STANDARD SPECIFICATIONS

STATE OF CALIFORNIA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS, July 2006

PROJECT STANDARD PLANS

CALTRANS STANDARD PLANS, July 2006 — CALTRANS STANDARD PLAN SHEET NUMBER; DETAIL NUMBER

STD
STD
STD
STD
STD
STD

SAN DIEGO REGIONAL STANDARD DRAWINGS, April 2006 — REGIONAL STANDARD DRAWING SHEET NUMBER; DETAIL NUMBER

RSD
RSD
RSD
RSD
RSD
RSD

DETAIL DRAWING (X / X X) — DETAIL NUMBER; SHEET DRAWN; SHEET TAKEN

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AC	ASPHALT CONCRETE
BC	BEGIN CURVE
BGN	BEGIN
BVC	BEGIN VERTICAL CURVE
BTM FTG	BOTTOM OF FOOTING
CATV	CABLE TELEVISION
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
DG	DECOMPOSED GRANITE
EC	END CURVE
EL OR ELEV	ELEVATION
EVC	END VERTICAL CURVE
EX OR EXIST	EXISTING
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FT	FOOT/FEET
FP	FOUND POINT
H	HEIGHT
INT	INTERSECTION
INV	INVERT
IRR	IRRIGATION
L	LENGTH
LT OR L	LEFT
NTS	NOT TO SCALE
OG	ORIGINAL GRADE
PC	POINT ON CONTINUING CURVE
PCR	
PT	POINT TANGENT
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RSD	REGIONAL SAN DIEGO STANDARD DRAWING
RT OR R	RIGHT
R/W	RIGHT OF WAY
SMH	SEWER MAN HOLE
T	TANGENT
TMH	TELEPHONE MAN HOLE
WM	WATER METER
WV	WATER VALVE

SURVEY NOTES

HORIZONTAL CONTROL

HORIZONTAL CONTROL IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 6, NAD83(1991.35) DATUM, AS DEFINED BY SECTIONS 8801 TO 8819 OF THE CALIFORNIA PUBLIC RESOURCES CODE. CONTROL POINTS 'PT 122' AND 'PT195' PER ROS 14492 AND PROJECT CONTROL POINTS '402+18.54 BC O/S' PER R476 PAGE 1086 AND CALCULATIONS DATED 3-19-1997 AND 'VDLG1' PER THE "VIA DE SANTA FE/LA GRANADA INTERSECTION PROJECT" WA#UJ2079 WERE USED TO CONTROL THE PROJECT HORIZONTALLY.

BENCH MARK

DESIGNATION: ES 12

DESCRIPTION: TOP OF 1" PIPE "LS 2318"

LOCATION: ON EAST SIDE OF EL MONTEVIDEO, 1000' NORTHERLY FROM INTERSECTION WITH PASEO DELICIAS JUST BEYOND FIRST CURVE IN EL MONTEVIDEO

ELEVATION: 270.85'

VERTICAL DATUM: NGVD 29

AB

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

DAVID EVANS AND ASSOCIATES INC.
800 North Haven Avenue, Suite 300
Ontario California 91764
Phone: 909.481.5750

REVISIONS	BY	APPROVED	DATE

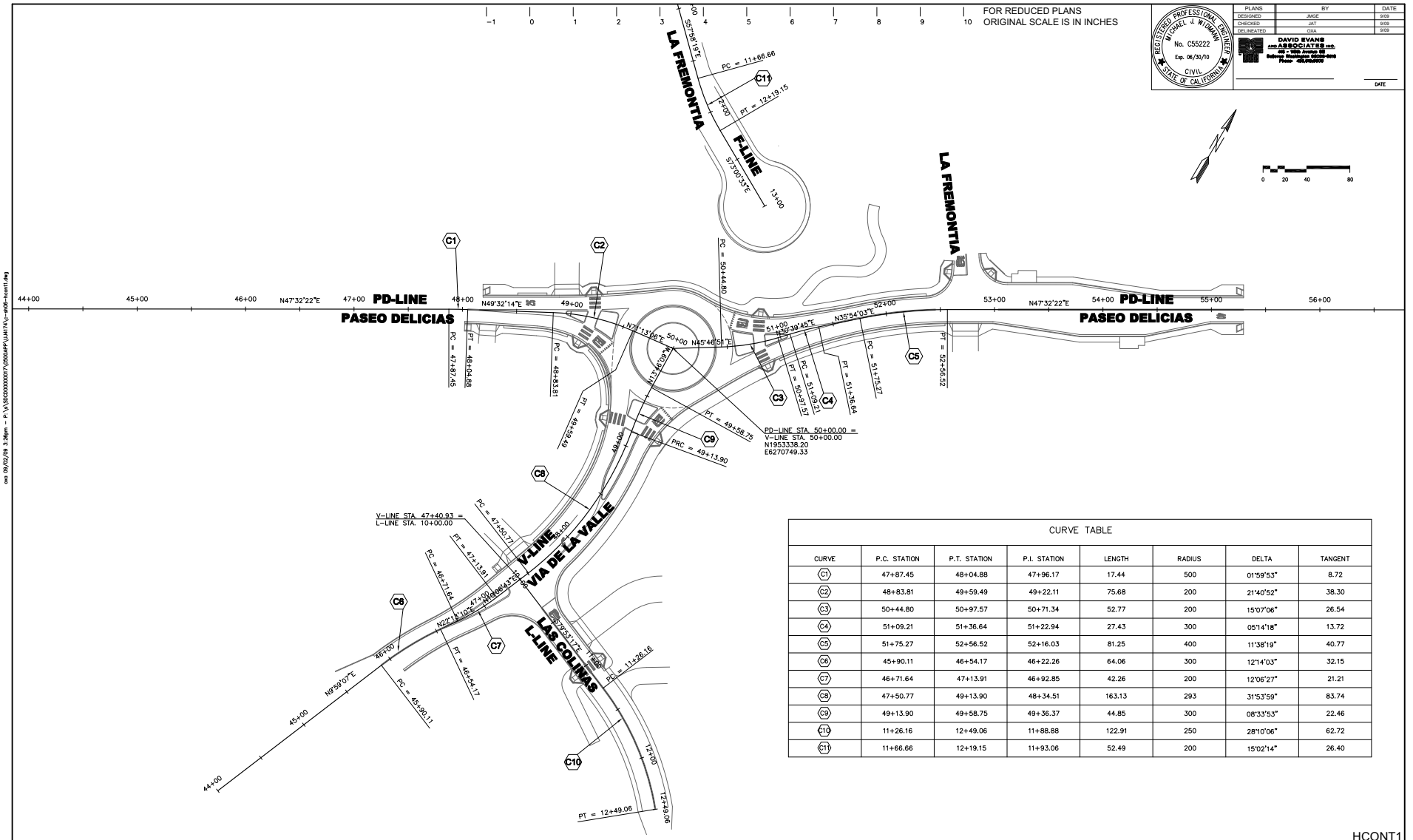
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

GENERAL NOTES, ABBREVIATIONS & LEGEND

SCALE: HOR. NONE VERT. NONE
W.A. UJ4174 R.S. 476
SHEET 5 OF 153 SHEETS

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CURVE TABLE							
CURVE	P.C. STATION	P.T. STATION	P.I. STATION	LENGTH	RADIUS	DELTA	TANGENT
C1	47+87.45	48+04.88	47+96.17	17.44	500	01°59'53"	8.72
C2	48+83.81	49+59.49	49+22.11	75.68	200	21°40'52"	38.30
C3	50+44.80	50+97.57	50+71.34	52.77	200	15°07'06"	26.54
C4	51+09.21	51+36.64	51+22.94	27.43	300	05°14'18"	13.72
C5	51+75.27	52+56.52	52+16.03	81.25	400	11°38'19"	40.77
C6	45+90.11	46+54.17	46+22.26	64.06	300	12°14'03"	32.15
C7	46+71.64	47+13.91	46+92.85	42.26	200	12°06'27"	21.21
C8	47+50.77	49+13.90	48+34.51	163.13	293	31°53'59"	83.74
C9	49+13.90	49+58.75	49+36.37	44.85	300	08°33'53"	22.46
C10	11+26.16	12+49.06	11+88.88	122.91	250	28°10'06"	62.72
C11	11+66.66	12+19.15	11+93.06	52.49	200	15°02'14"	26.40

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

HCONT1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
HORIZONTAL CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 6 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

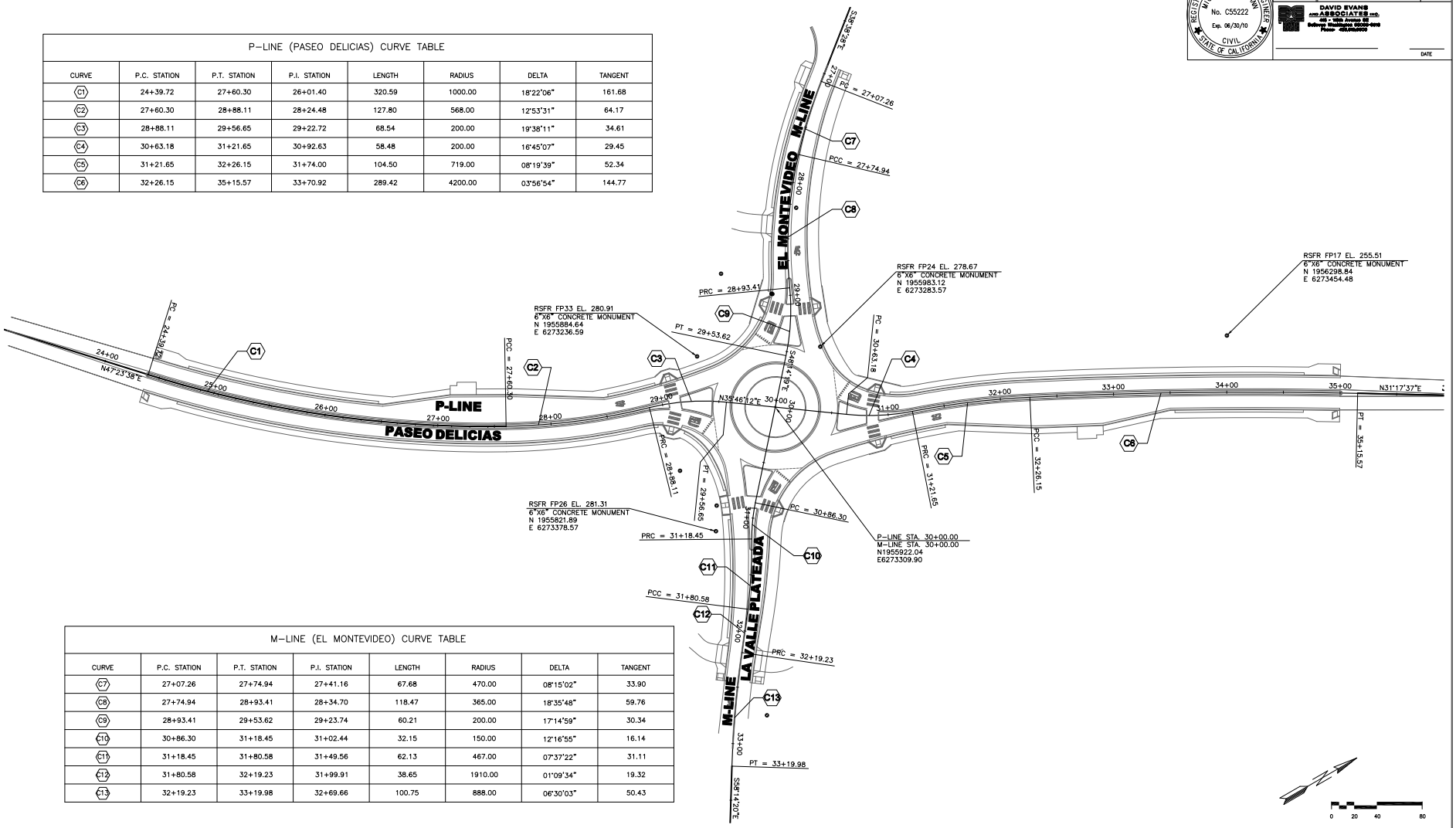
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
[illegible]

DATE

P–LINE (PASEO DELICIAS) CURVE TABLE

CURVE	P.C. STATION	P.T. STATION	P.I. STATION	LENGTH	RADIUS	DELTA	TANGENT
C1	24+39.72	27+60.30	26+01.40	320.59	1000.00	18°22'06"	161.68
C2	27+60.30	28+88.11	28+24.48	127.80	568.00	12°53'31"	64.17
C3	28+88.11	29+56.65	29+22.72	68.54	200.00	19°38'11"	34.61
C4	30+63.18	31+21.65	30+92.63	58.48	200.00	16°45'07"	29.45
C5	31+21.65	32+26.15	31+74.00	104.50	719.00	08°19'39"	52.34
C6	32+26.15	35+15.57	33+70.92	289.42	4200.00	03°56'54"	144.77



M–LINE (EL MONTEVIDEO) CURVE TABLE

CURVE	P.C. STATION	P.T. STATION	P.I. STATION	LENGTH	RADIUS	DELTA	TANGENT
C7	27+07.26	27+74.94	27+41.16	67.68	470.00	08°15'02"	33.90
C8	27+74.94	28+93.41	28+34.70	118.47	365.00	18°35'48"	59.76
C9	28+93.41	29+53.62	29+23.74	60.21	200.00	17°14'59"	30.34
C10	30+86.30	31+18.45	31+02.44	32.15	150.00	12°16'55"	16.14
C11	31+18.45	31+80.58	31+49.56	62.13	467.00	07°37'22"	31.11
C12	31+80.58	32+19.23	31+99.91	38.65	1910.00	01°09'34"	19.32
C13	32+19.23	33+19.98	32+69.66	100.75	888.00	06°30'03"	50.43

HCONT2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
HORIZONTAL CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 7 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

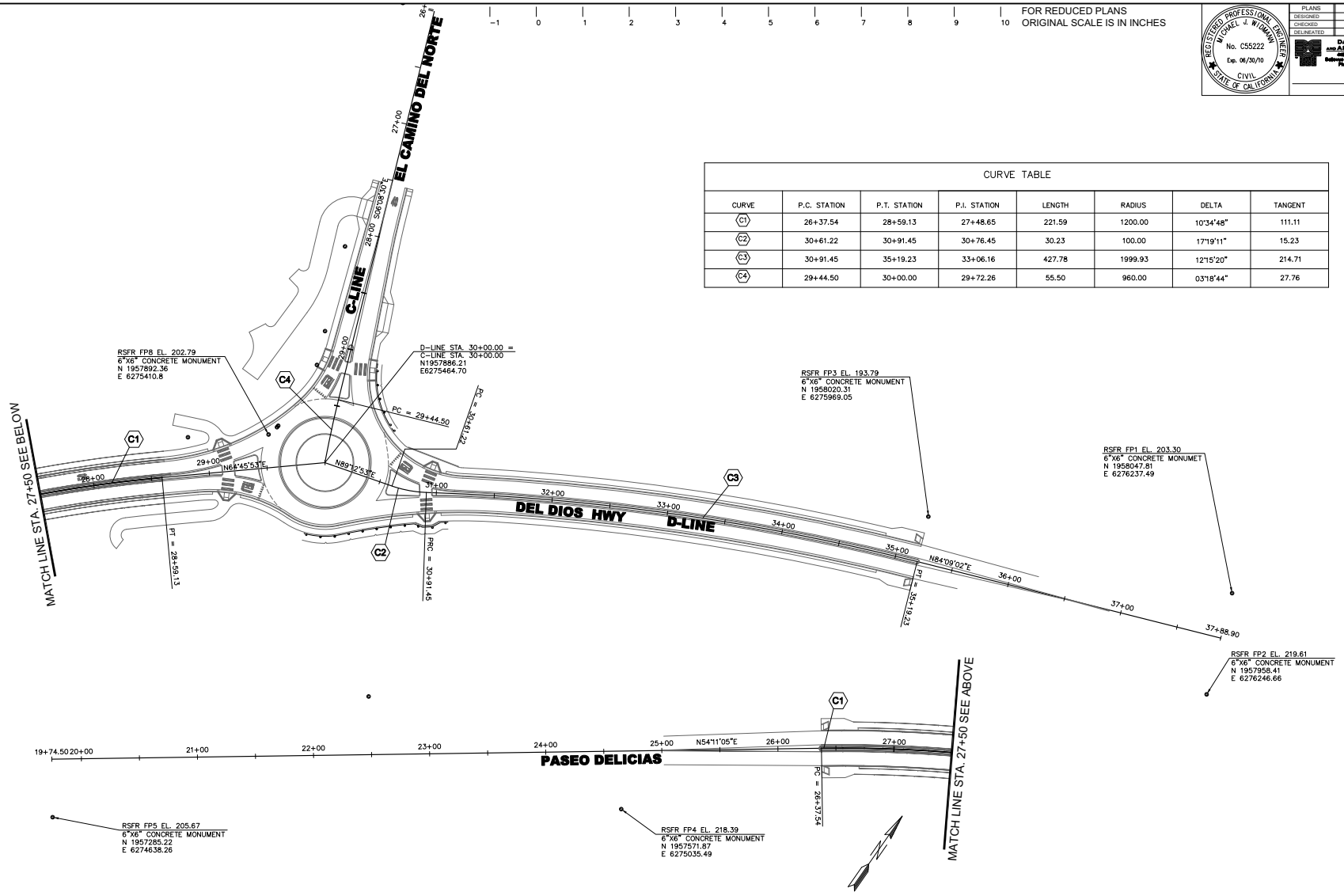
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
San Diego, California 92101-4240
Phone (619)235-0900

DATE

CURVE TABLE							
CURVE	P.C. STATION	P.T. STATION	P.I. STATION	LENGTH	RADIUS	DELTA	TANGENT
C1	26+37.54	28+59.13	27+48.65	221.59	1200.00	10°34'48"	111.11
C2	30+61.22	30+91.45	30+76.45	30.23	100.00	17°19'11"	15.23
C3	30+91.45	35+19.23	33+06.16	427.78	1999.93	12°15'20"	214.71
C4	29+44.50	30+00.00	29+72.26	55.50	960.00	03°18'44"	27.76



HCONT3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
HORIZONTAL CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 8 OF 153 SHEETS

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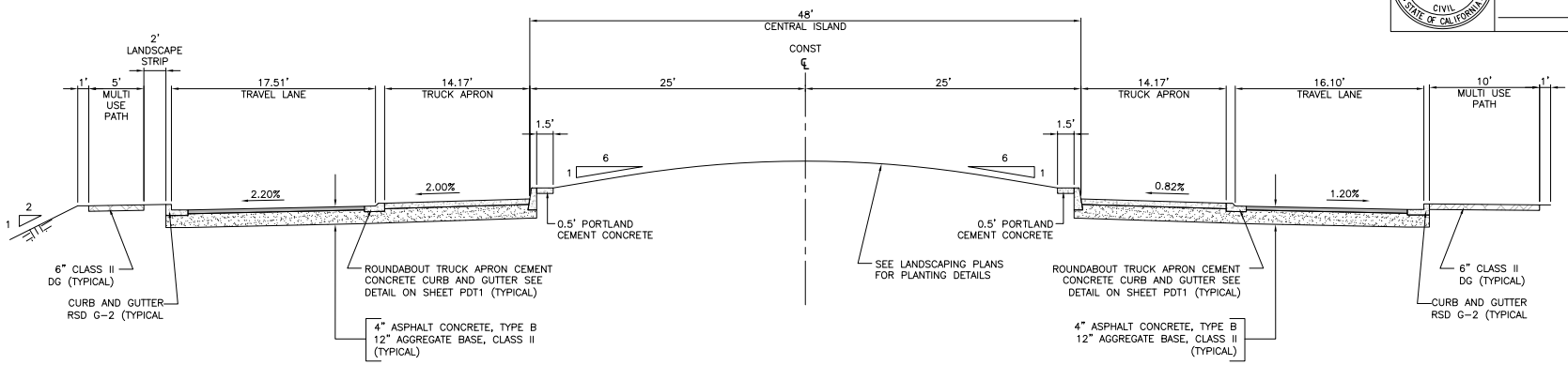
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

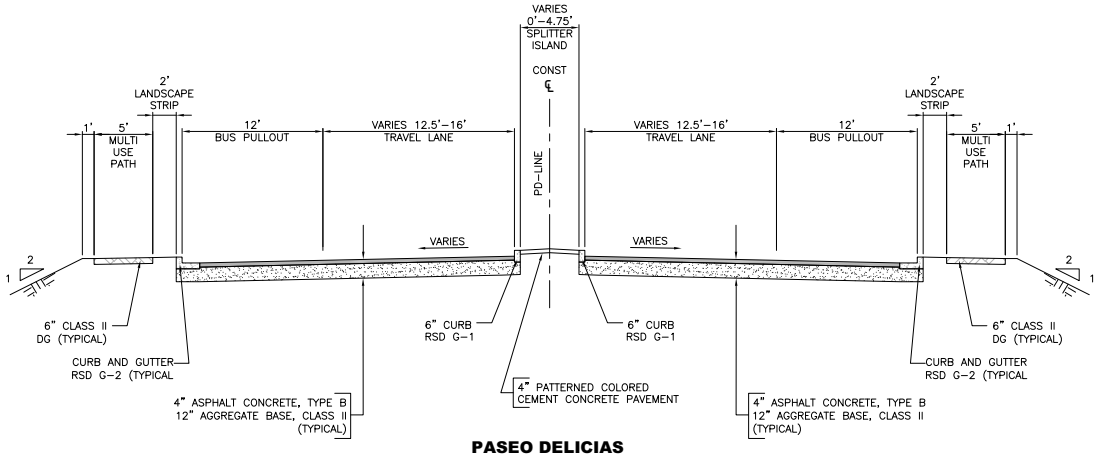
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE



VIA DE LA VALLE ROUNDABOUT SECTION A-A

NOT TO SCALE



PASEO DELICIAS

PD STA. 48+25 TO PD STA. 49+00
PD STA. 51+00 TO PD STA. 55+25
NOT TO SCALE

GENERAL NOTES:

1. SCARIFICATION AND RECOMPACTION OF UPPER 12 INCHES OF SUBGRADE IS REQUIRED. SEE CALTRANS SPECIFICATION 19-6.01.

X1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 9 OF 153 SHEETS

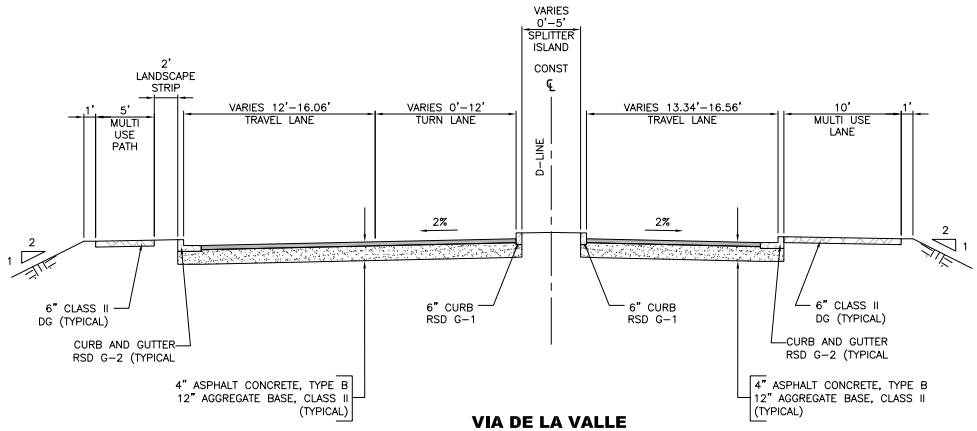
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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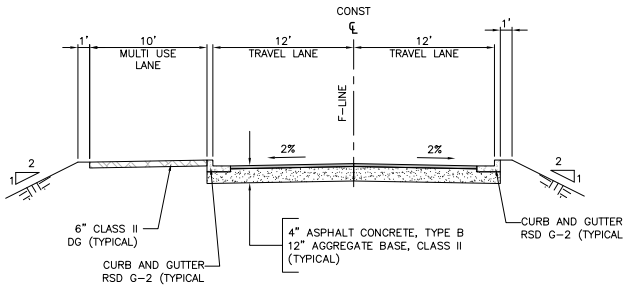
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5905
Phone: 425.519.6500

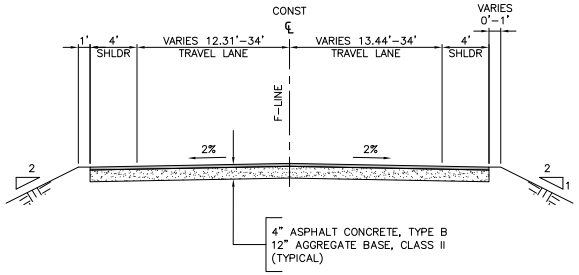
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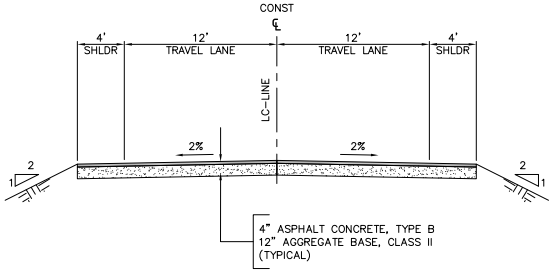
VIA DE LA VALLE
V STA. 46+25 TO V STA. 49+00
NOT TO SCALE



LAS COLINAS
LC STA. 10+50 TO LC STA. 11+25
NOT TO SCALE



LA FREMONTIA
F STA. 11+50 TO F STA. 13+00
NOT TO SCALE



LAS COLINAS
LC STA. 11+25 TO LC STA. 12+49.06
NOT TO SCALE

GENERAL NOTES:

1. SCARIFICATION AND RECOMPACTION OF UPPER 12 INCHES OF SUBGRADE IS REQUIRED. SEE CALTRANS SPECIFICATION 19–6.01.

X2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 10 OF 153 SHEETS

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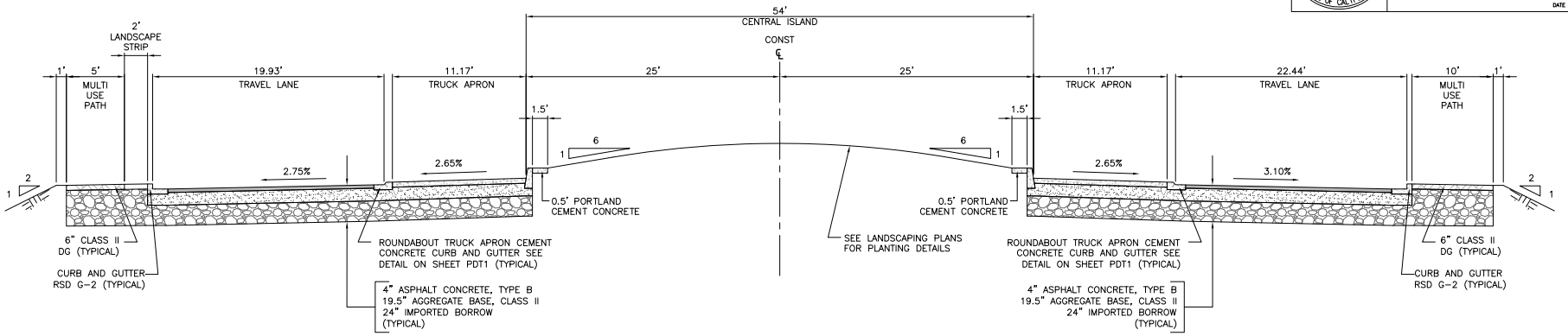
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

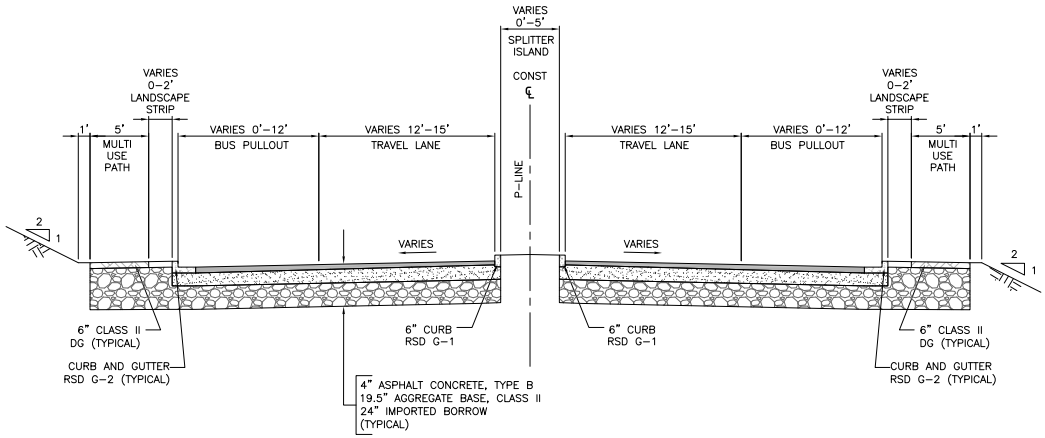
DAVID EVANS AND ASSOCIATES INC.

DATE



EL MONTEVIDEO ROUNDABOUT SECTION B-B

NOT TO SCALE



PASEO DELICIAS

P STA. 26+40 TO P STA. 29+00
P STA. 31+00 TO P STA. 35+00
NOT TO SCALE

GENERAL NOTES:

1. 24" OVER EXCAVATION OF SUBGRADE IS REQUIRED.
2. WHEN FILL EXCEEDS 24" OVER EXISTING PAVEMENT, EXISTING PAVEMENT SHALL REMAIN. SEE SP5 FOR REMOVAL LIMITS.

X3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 11 OF 153 SHEETS

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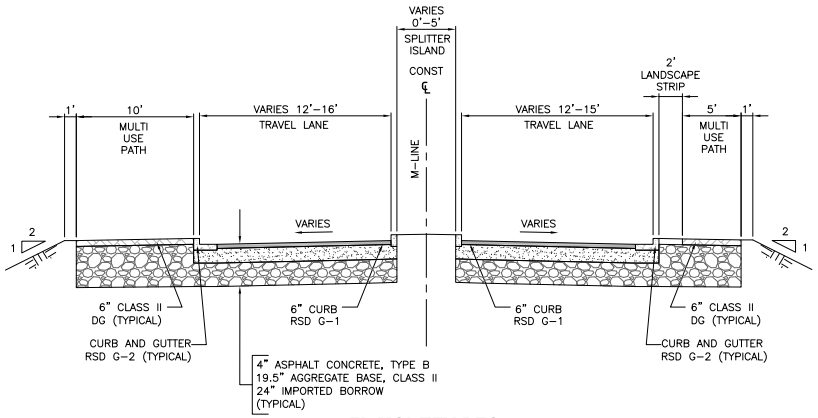
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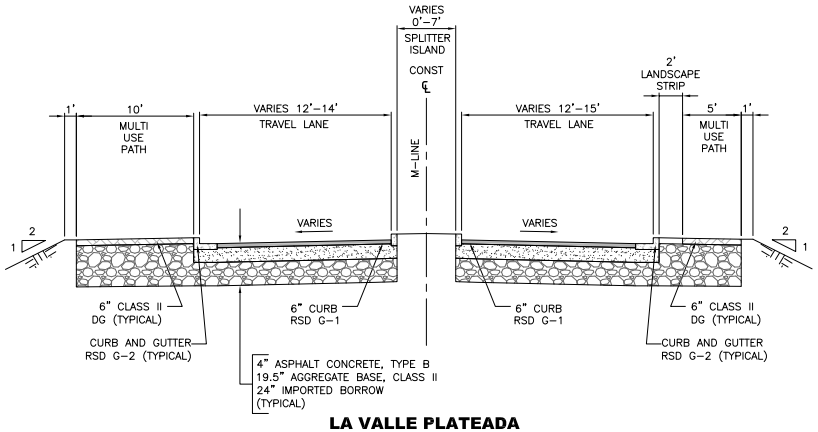
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

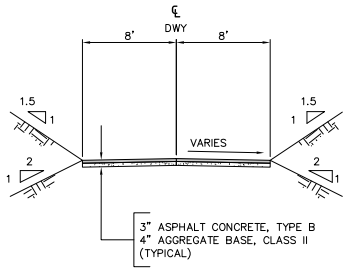
DAVID EVANS AND ASSOCIATES INC.
DATE



EL MONTEVIDEO
M STA. 27+00 TO M STA. 29+00
NOT TO SCALE



LA VALLE PLATEADA
M STA. 31+00 TO M STA. 32+40
NOT TO SCALE



RESIDENTIAL DRIVEWAY (TYPICAL)
NOT TO SCALE

GENERAL NOTES:

1. 24" OVER EXCAVATION OF SUBGRADE IS REQUIRED.

X4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
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CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 12 OF 153 SHEETS

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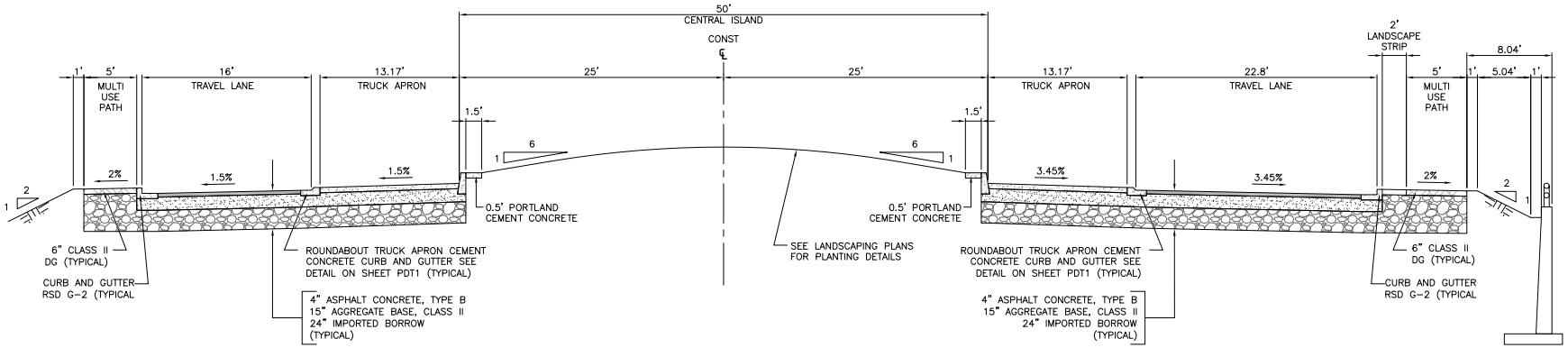
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE



EL CAMINO DEL NORTE ROUNDABOUT SECTION C-C

NOT TO SCALE

GENERAL NOTES:

1. 24" OVER EXCAVATION OF SUBGRADE IS REQUIRED.

X5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 13 OF 153 SHEETS

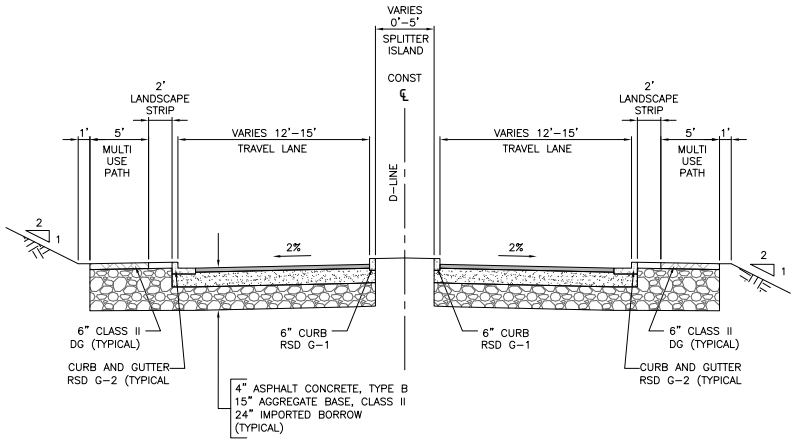
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

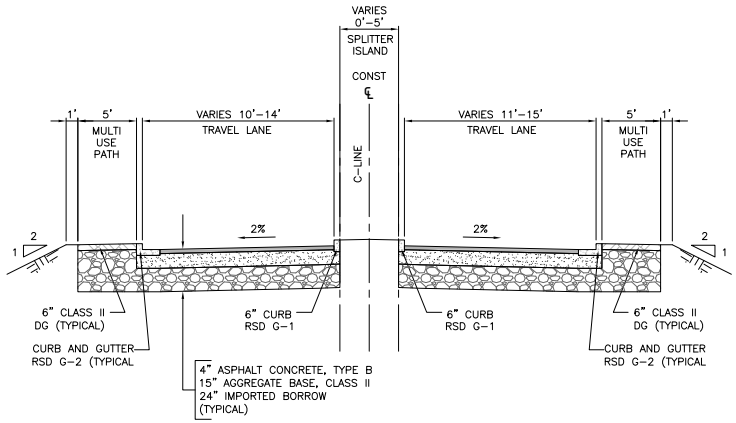
DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE



PASEO DELICIAS / DEL DIOS HIGHWAY

D STA. 26+40 TO D STA. 29+00
D STA. 31+00 TO D STA. 35+20
NOT TO SCALE



EL CAMINO DEL NORTE

C STA. 27+50 TO C STA. 29+00
NOT TO SCALE

GENERAL NOTES:

1. 24" OVER EXCAVATION OF SUBGRADE IS REQUIRED.

X6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

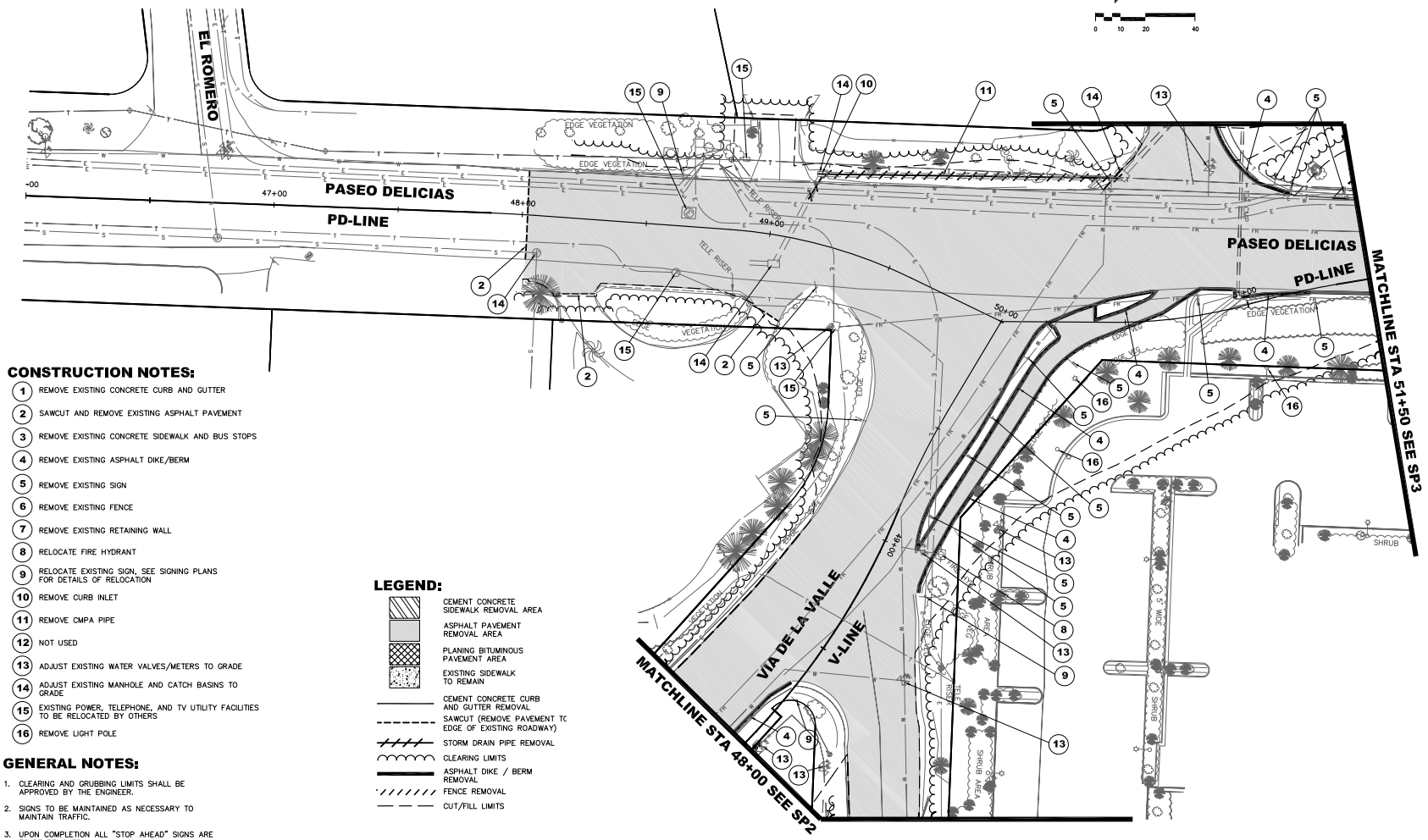
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
TYPICAL SECTIONS

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 14 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

-1 0 1 2 3 4 5 6 7 8 9 10

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

CONSTRUCTION NOTES:

1. REMOVE EXISTING CONCRETE CURB AND GUTTER
2. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
3. REMOVE EXISTING CONCRETE SIDEWALK AND BUS STOPS
4. REMOVE EXISTING ASPHALT DIKE/BERM
5. REMOVE EXISTING SIGN
6. REMOVE EXISTING FENCE
7. REMOVE EXISTING RETAINING WALL
8. RELOCATE FIRE HYDRANT
9. RELOCATE EXISTING SIGN, SEE SIGNING PLANS FOR DETAILS OF RELOCATION
10. REMOVE CURB INLET
11. REMOVE CMPA PIPE
12. NOT USED
13. ADJUST EXISTING WATER VALVES/METERS TO GRADE
14. ADJUST EXISTING MANHOLE AND CATCH BASINS TO GRADE
15. EXISTING POWER, TELEPHONE, AND TV UTILITY FACILITIES TO BE RELOCATED BY OTHERS
16. REMOVE LIGHT POLE

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
- CEMENT CONCRETE CURB AND GUTTER REMOVAL
- SAWCUT (REMOVE PAVEMENT TO EDGE OF EXISTING ROADWAY)
- STORM DRAIN PIPE REMOVAL
- CLEARING LIMITS
- ASPHALT DIKE / BERM REMOVAL
- FENCE REMOVAL
- CUT/FILL LIMITS

GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
2. SIGNS TO BE MAINTAINED AS NECESSARY TO MAINTAIN TRAFFIC.
3. UPON COMPLETION ALL "STOP AHEAD" SIGNS ARE TO BE REMOVED.

SP1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

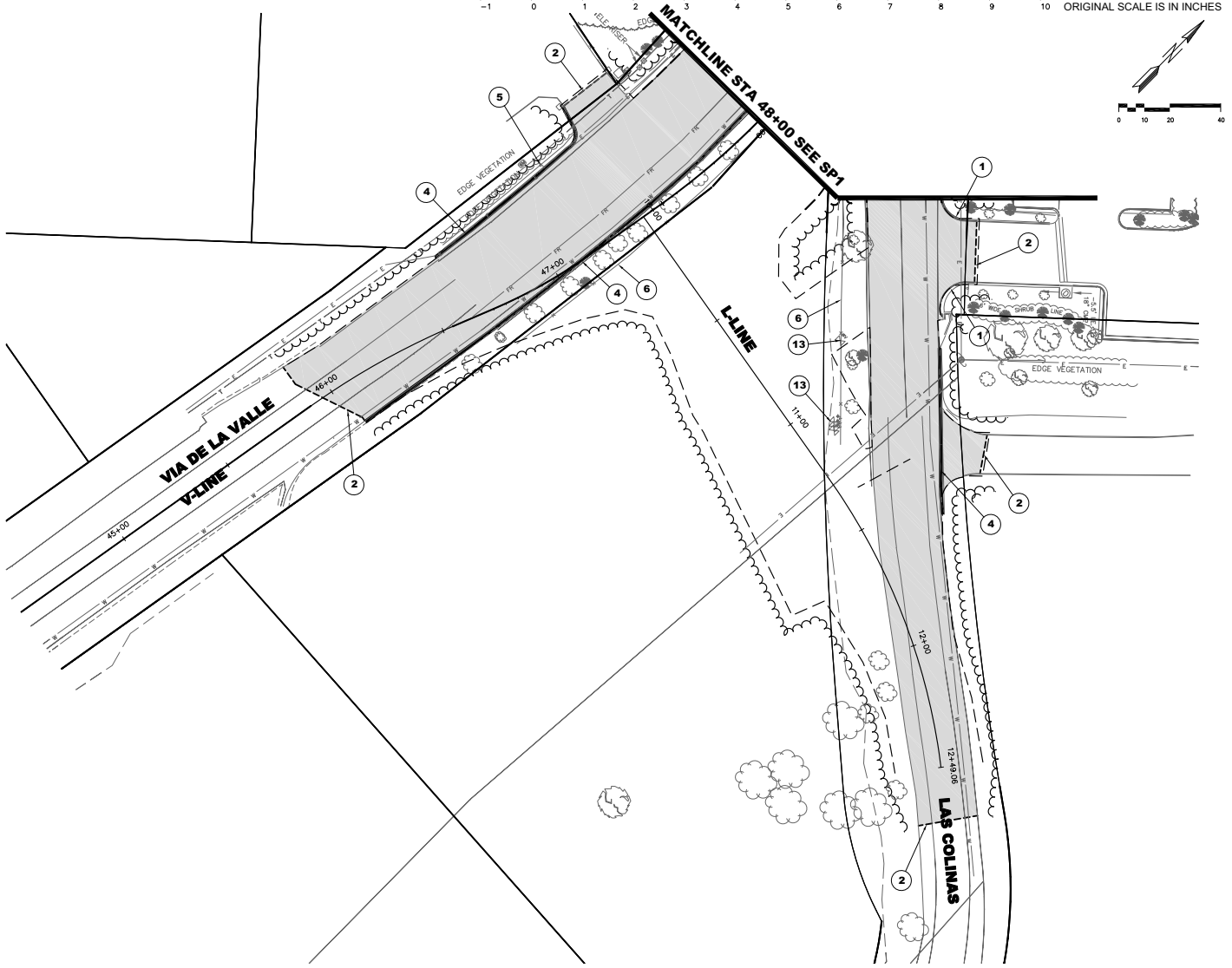
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 15 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 10th Avenue SW
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

CONSTRUCTION NOTES:

1. REMOVE EXISTING CONCRETE CURB AND GUTTER
2. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
3. REMOVE EXISTING CONCRETE SIDEWALK AND BUS STOPS
4. REMOVE EXISTING ASPHALT DIKE/BERM
5. REMOVE EXISTING SIGN
6. REMOVE EXISTING FENCE
7. REMOVE EXISTING RETAINING WALL
8. RELOCATE FIRE HYDRANT
9. RELOCATE EXISTING SIGN, SEE SIGNING PLANS FOR DETAILS OF RELOCATION
10. REMOVE CURB INLET
11. REMOVE CMPA PIPE
12. NOT USED
13. ADJUST EXISTING WATER VALVES/METERS TO GRADE
14. ADJUST EXISTING MANHOLE AND CATCH BASINS TO GRADE
15. EXISTING POWER, TELEPHONE, AND TV UTILITY FACILITIES TO BE RELOCATED BY OTHERS
16. REMOVE LIGHT POLE

GENERAL NOTES:

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LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
- CEMENT CONCRETE CURB AND GUTTER REMOVAL
- SAWCUT (REMOVE PAVEMENT TO EDGE OF EXISTING ROADWAY)
- STORM DRAIN PIPE REMOVAL
- CLEARING LIMITS
- ASPHALT DIKE / BERM REMOVAL
- FENCE REMOVAL
- CUT/FILL LIMITS

SP2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

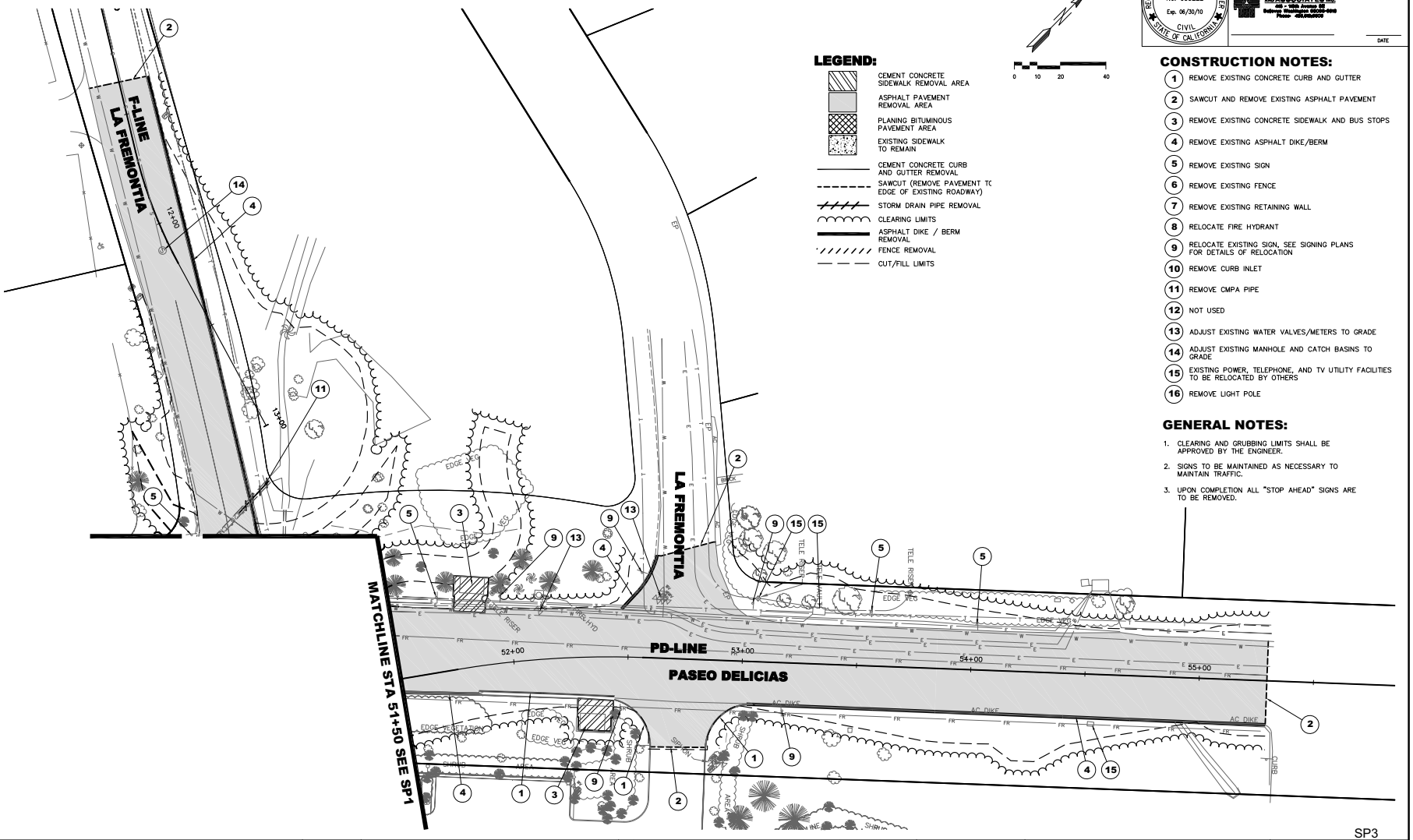
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 16 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
- CEMENT CONCRETE CURB AND GUTTER REMOVAL
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GENERAL NOTES:

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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone 619.235.6000

DATE

SP3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 17 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
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- STORM DRAIN PIPE REMOVAL
- CLEARING LIMITS
- ASPHALT DIKE / BERM REMOVAL
- FENCE REMOVAL
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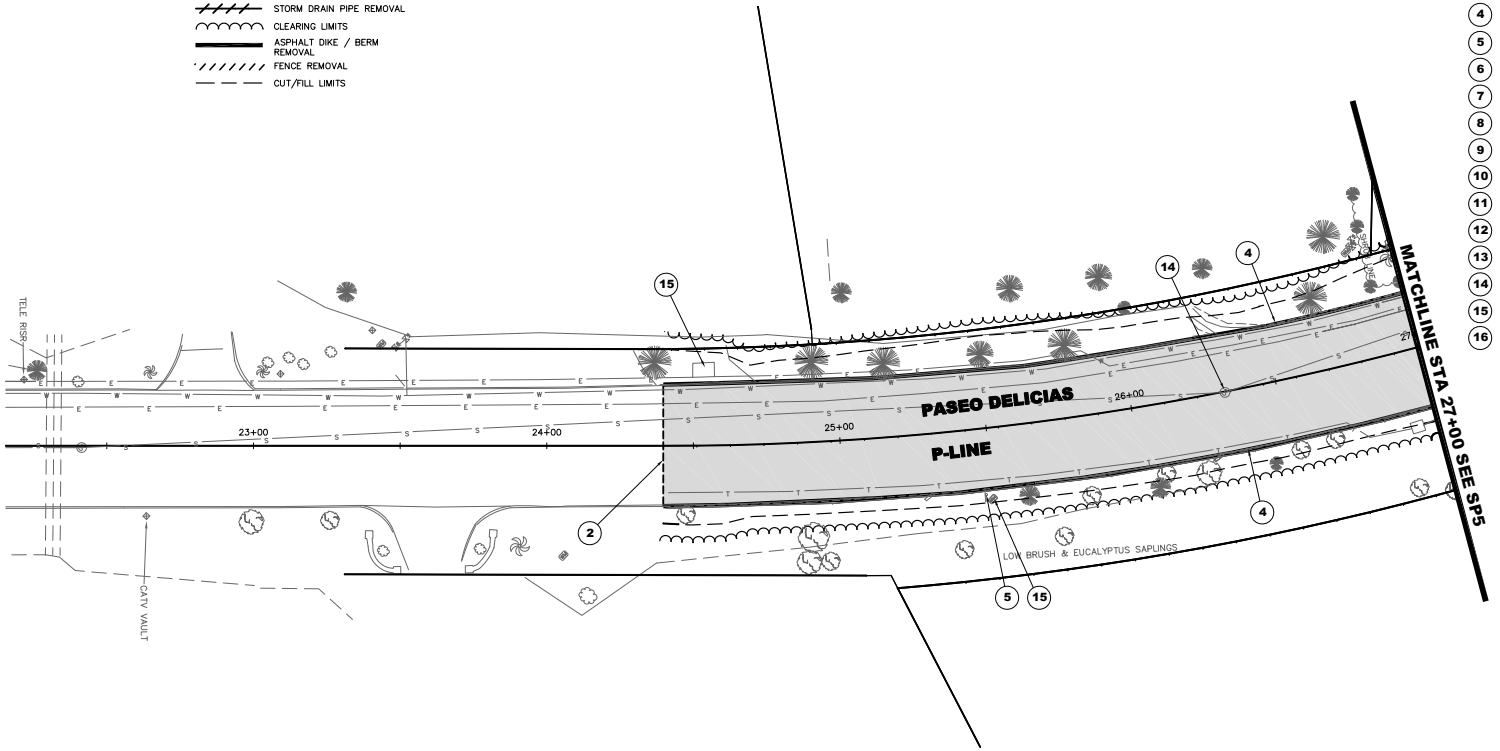
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CONSTRUCTION NOTES:

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SP4

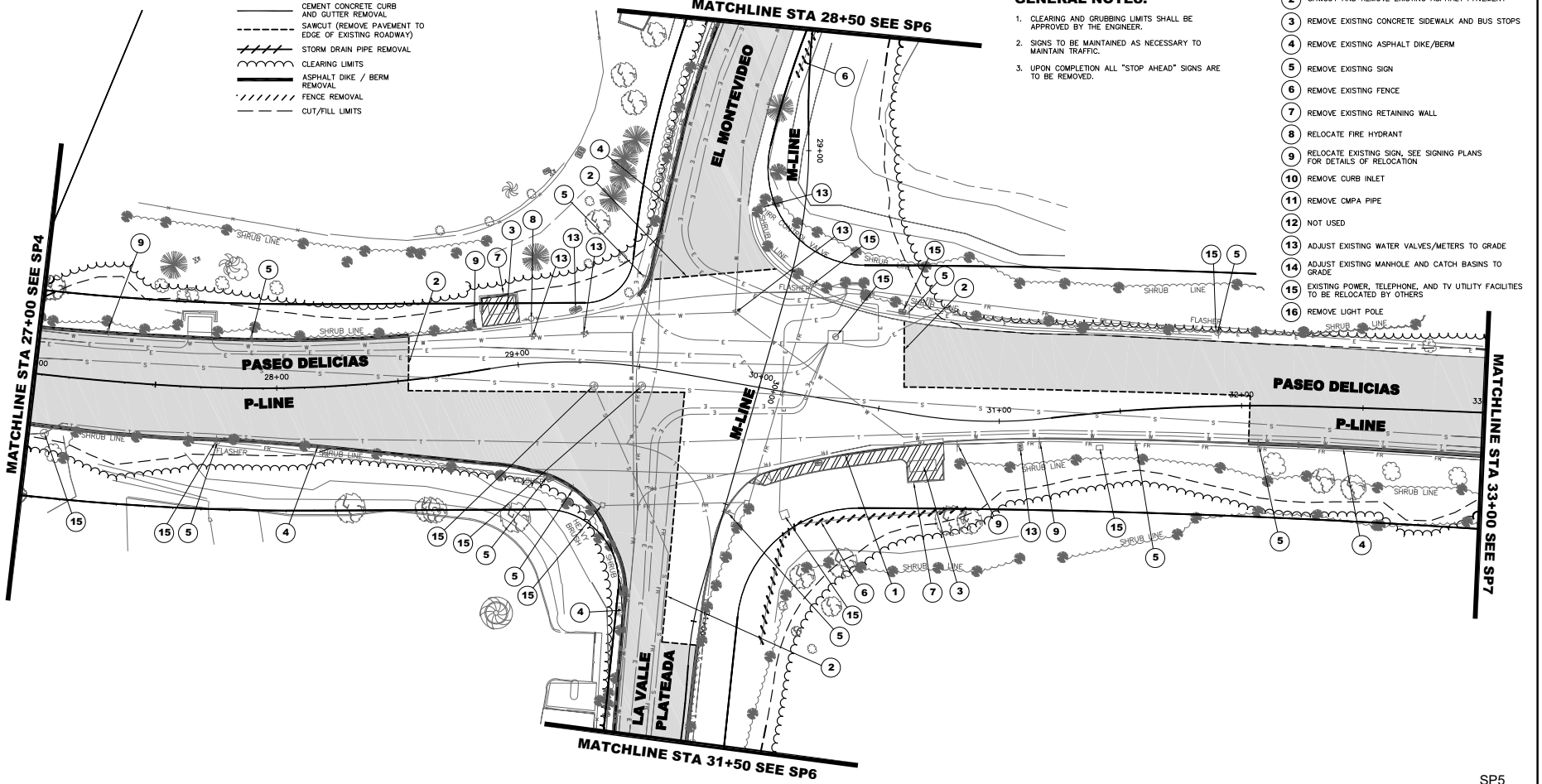
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 18 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

−1 0 1 2 3 4 5 6 7 8 9 10

0 10 20 40

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
Bellevue, Washington 98004-5840
Phone: 425.519.6500

DATE

SP5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

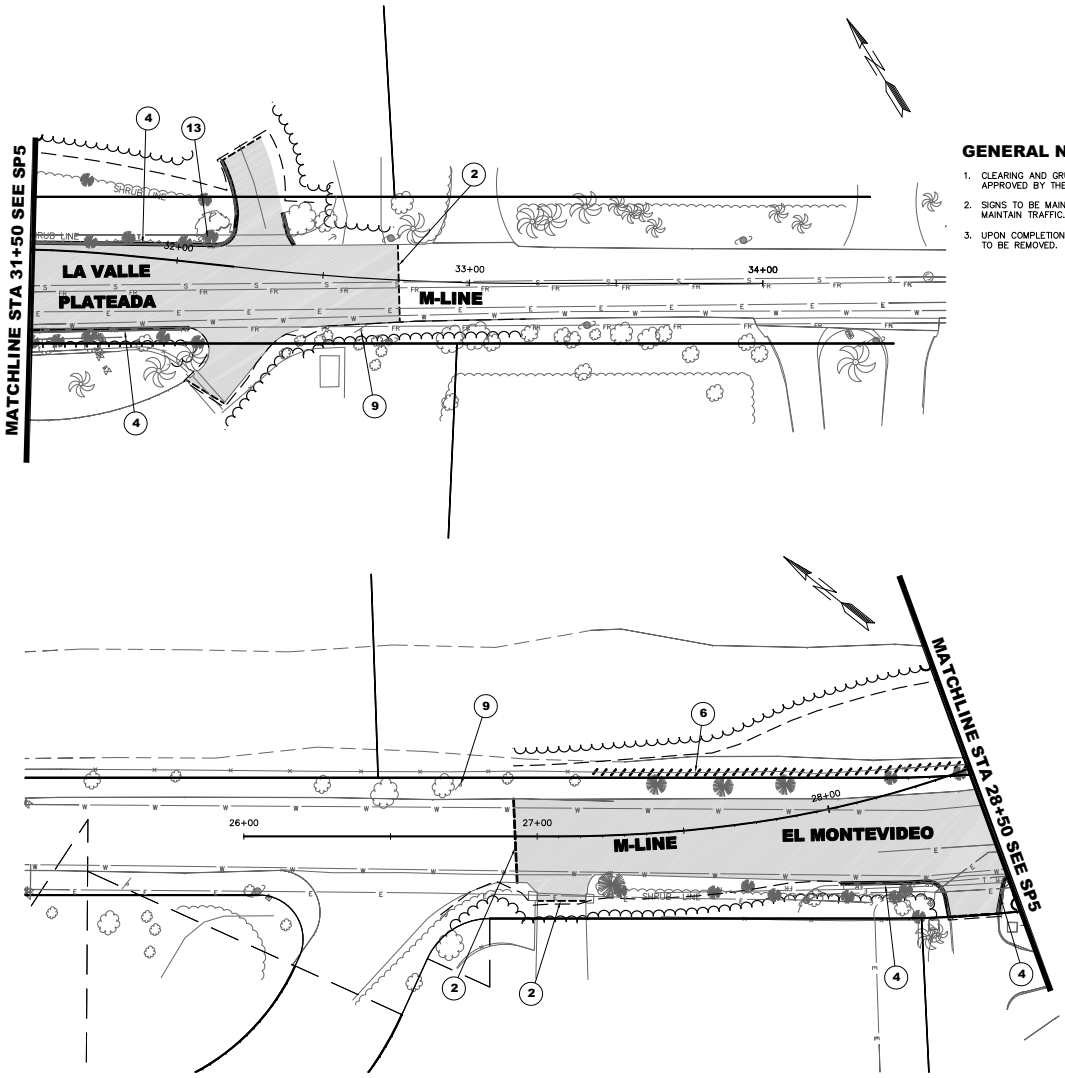
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 19 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
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LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
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- FENCE REMOVAL
- CUT/FILL LIMITS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400, San Diego, California 92101-4240
Phone 619.235.0900

DATE

SP6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

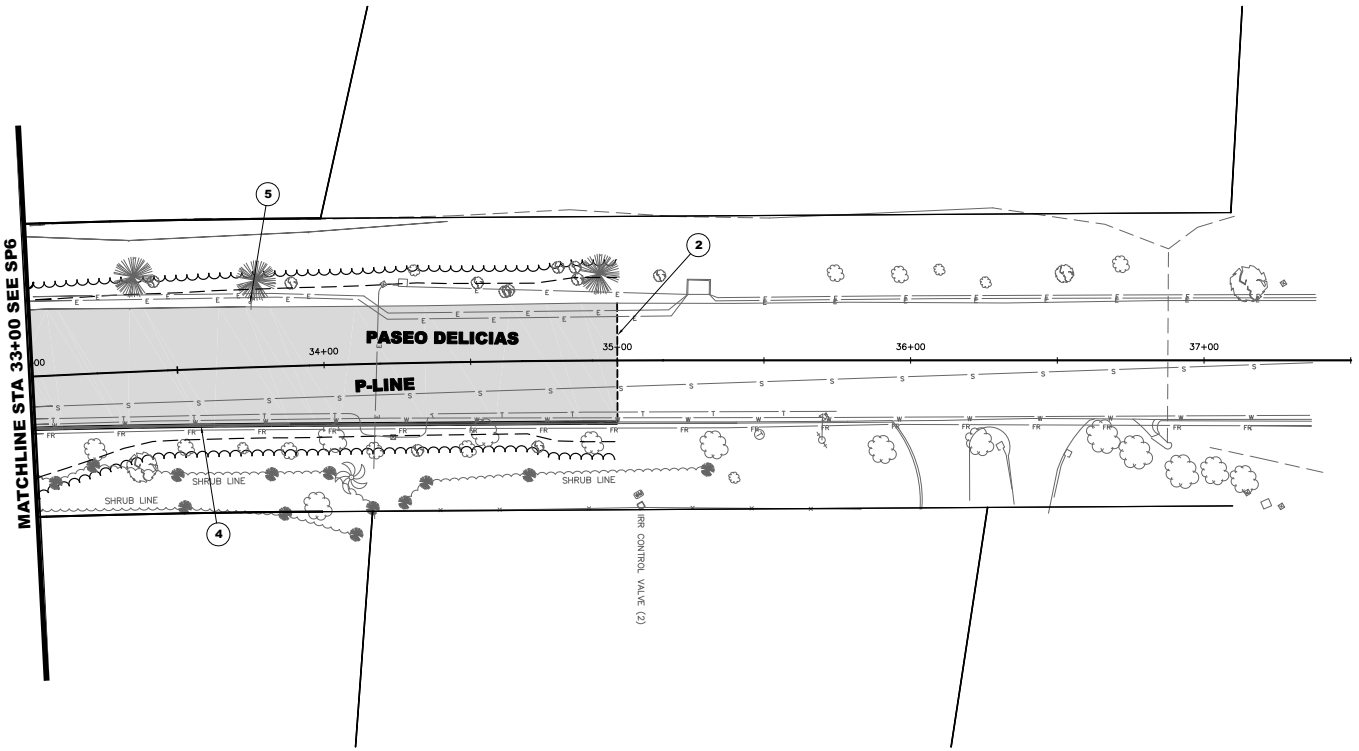
RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 20 OF 153 SHEETS

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oss 09/02/09 2:56pm – P:\a\SDC00000007\Y\050\APP\UJ4174\c-dtox-sp07.dwg

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
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3. UPON COMPLETION ALL "STOP AHEAD" SIGNS ARE TO BE REMOVED.

0 10 20 40

CONSTRUCTION NOTES:

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LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone 425.519.6500

DATE

SP7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 21 OF 153 SHEETS

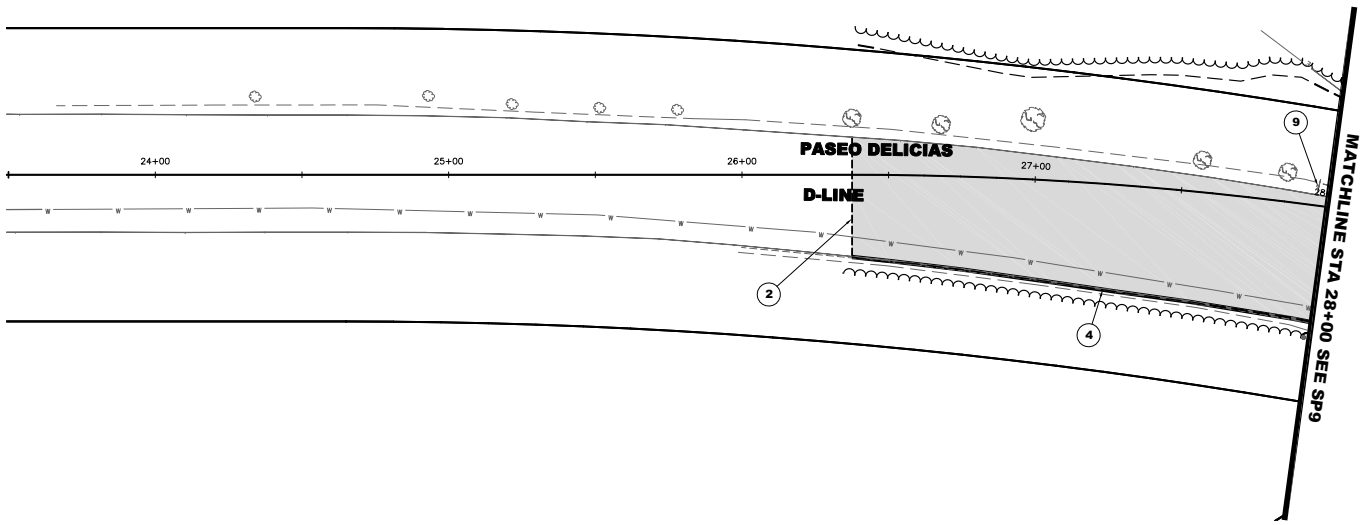
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−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 10 20 40

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

CONSTRUCTION NOTES:

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SP8

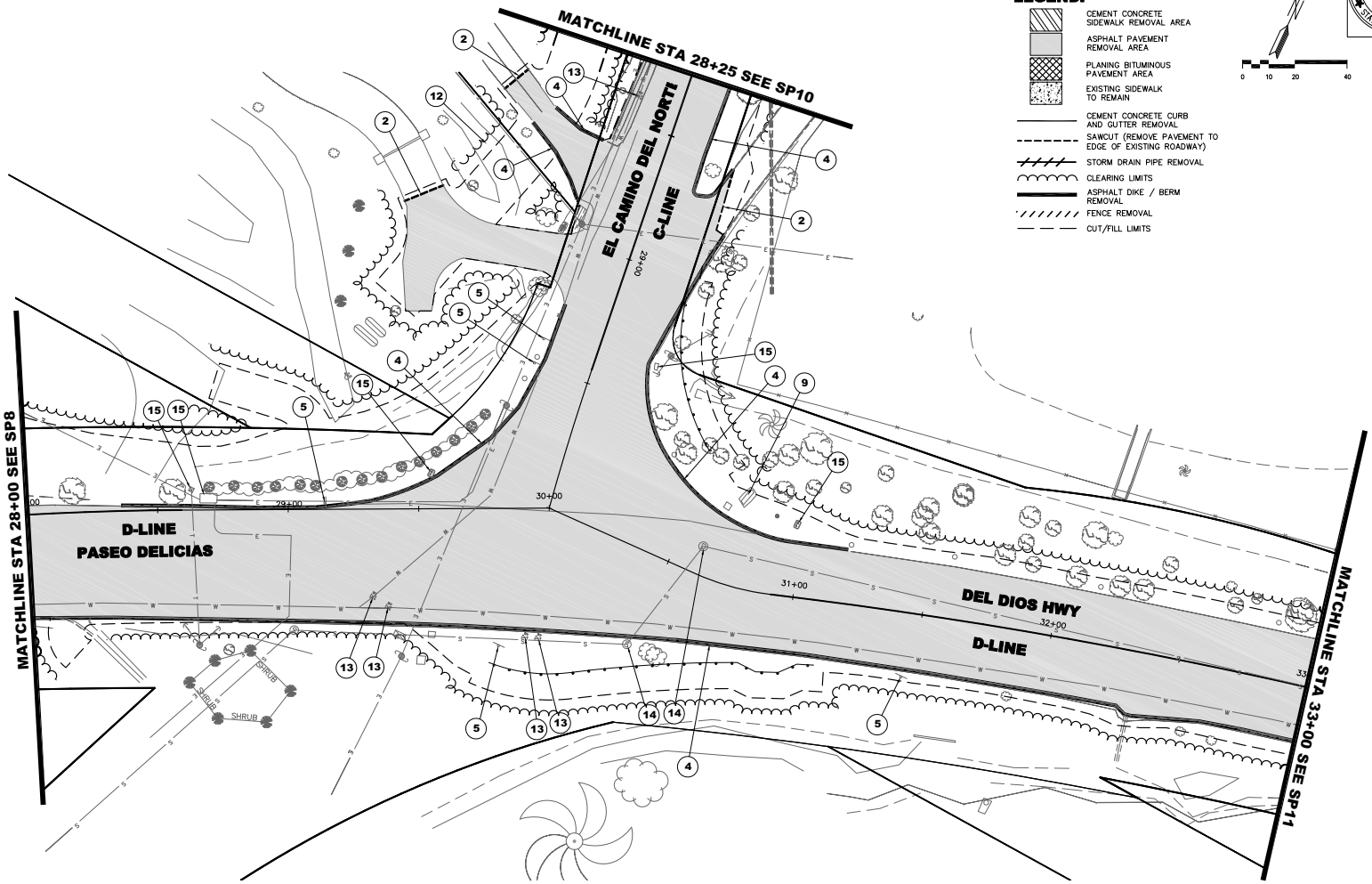
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 22 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

−1 0 1 2 3 4 5 6 7 8 9 10

0 10 20 40

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

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14. ADJUST EXISTING MANHOLE AND CATCH BASINS TO GRADE
15. EXISTING POWER, TELEPHONE, AND TV UTILITY FACILITIES TO BE RELOCATED BY OTHERS
16. REMOVE LIGHT POLE

GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
2. SIGNS TO BE MAINTAINED AS NECESSARY TO MAINTAIN TRAFFIC.
3. UPON COMPLETION ALL "STOP AHEAD" SIGNS ARE TO BE REMOVED.

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SP9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

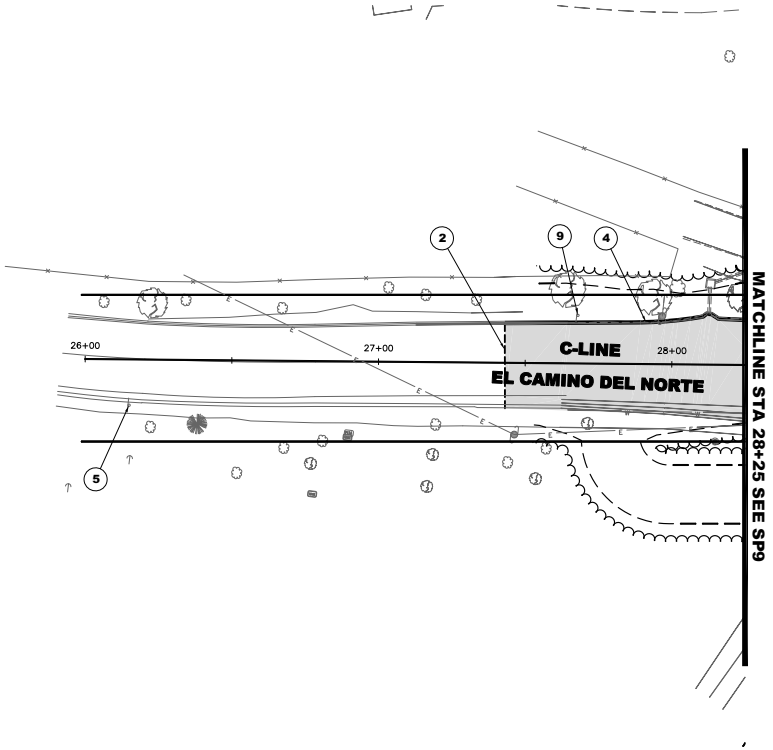
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 23 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 10 20 40



CONSTRUCTION NOTES:

1. REMOVE EXISTING CONCRETE CURB AND GUTTER
2. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
3. REMOVE EXISTING CONCRETE SIDEWALK AND BUS STOPS
4. REMOVE EXISTING ASPHALT DIKE/BERM
5. REMOVE EXISTING SIGN
6. REMOVE EXISTING FENCE
7. REMOVE EXISTING RETAINING WALL
8. RELOCATE FIRE HYDRANT
9. RELOCATE EXISTING SIGN, SEE SIGNING PLANS FOR DETAILS OF RELOCATION
10. REMOVE CURB INLET
11. REMOVE CMPA PIPE
12. NOT USED
13. ADJUST EXISTING WATER VALVES/METERS TO GRADE
14. ADJUST EXISTING MANHOLE AND CATCH BASINS TO GRADE
15. EXISTING POWER, TELEPHONE, AND TV UTILITY FACILITIES TO BE RELOCATED BY OTHERS
16. REMOVE LIGHT POLE

GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
2. SIGNS TO BE MAINTAINED AS NECESSARY TO MAINTAIN TRAFFIC.
3. UPON COMPLETION ALL "STOP AHEAD" SIGNS ARE TO BE REMOVED.

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
- CEMENT CONCRETE CURB AND GUTTER REMOVAL
- SAWCUT (REMOVE PAVEMENT TO EDGE OF EXISTING ROADWAY)
- STORM DRAIN PIPE REMOVAL
- CLEARING LIMITS
- ASPHALT DIKE / BERM REMOVAL
- FENCE REMOVAL
- CUT/FILL LIMITS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SP10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

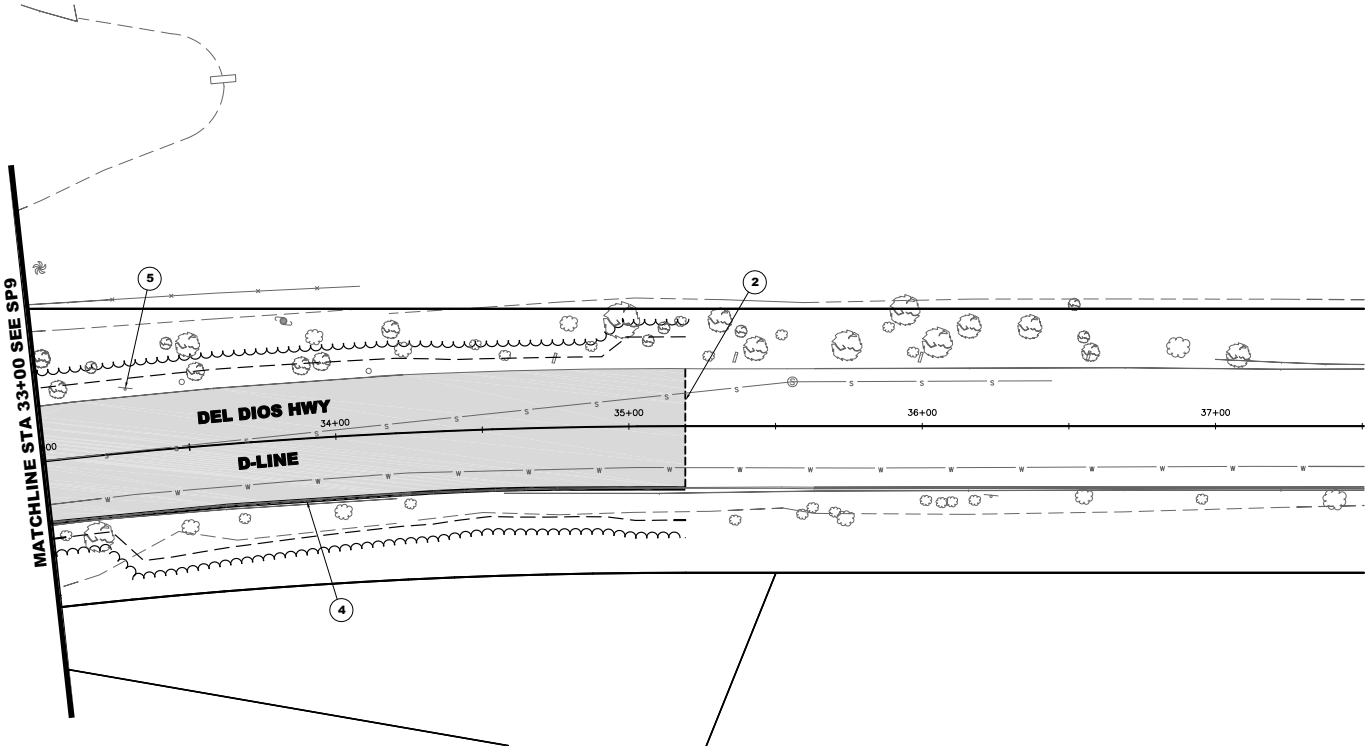
RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 24 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



CONSTRUCTION NOTES:

1. REMOVE EXISTING CONCRETE CURB AND GUTTER
2. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT
3. REMOVE EXISTING CONCRETE SIDEWALK AND BUS STOPS
4. REMOVE EXISTING ASPHALT DIKE/BERM
5. REMOVE EXISTING SIGN
6. REMOVE EXISTING FENCE
7. REMOVE EXISTING RETAINING WALL
8. RELOCATE FIRE HYDRANT
9. RELOCATE EXISTING SIGN, SEE SIGNING PLANS FOR DETAILS OF RELOCATION
10. REMOVE CURB INLET
11. REMOVE CMPA PIPE
12. NOT USED
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16. REMOVE LIGHT POLE

GENERAL NOTES:

1. CLEARING AND GRUBBING LIMITS SHALL BE APPROVED BY THE ENGINEER.
2. SIGNS TO BE MAINTAINED AS NECESSARY TO MAINTAIN TRAFFIC.
3. UPON COMPLETION ALL "STOP AHEAD" SIGNS ARE TO BE REMOVED.

LEGEND:

- CEMENT CONCRETE SIDEWALK REMOVAL AREA
- ASPHALT PAVEMENT REMOVAL AREA
- PLANING BITUMINOUS PAVEMENT AREA
- EXISTING SIDEWALK TO REMAIN
- CEMENT CONCRETE CURB AND GUTTER REMOVAL
- SAWCUT (REMOVE PAVEMENT TO EDGE OF EXISTING ROADWAY)
- STORM DRAIN PIPE REMOVAL
- CLEARING LIMITS
- ASPHALT DIKE / BERM REMOVAL
- FENCE REMOVAL
- CUT/FILL LIMITS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

SP11

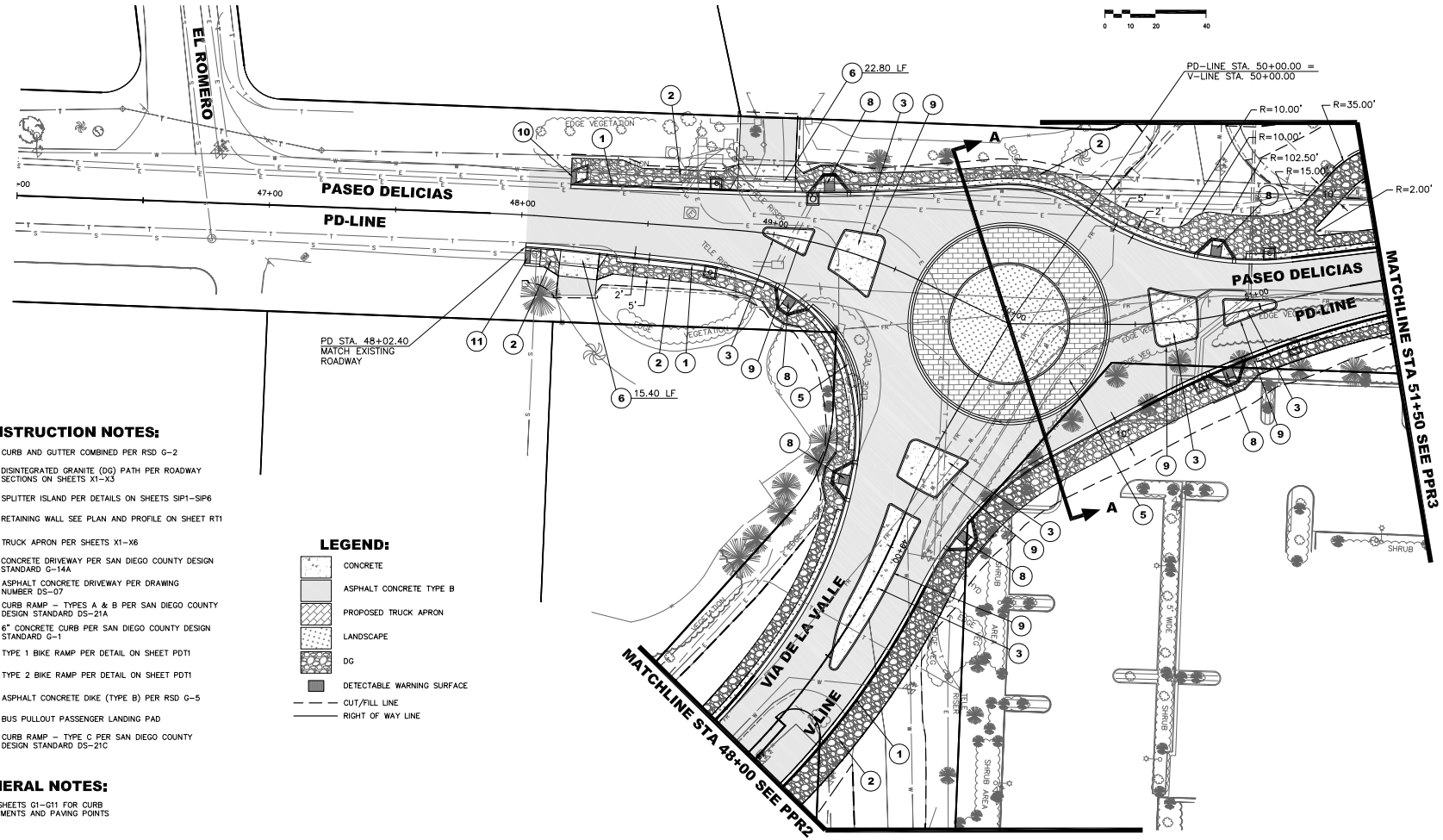
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SITE PREP PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 25 OF 153 SHEETS



CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
8. CURB RAMP - TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS-21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

-1 0 1 2 3 4 5 6 7 8 9 10

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYCKMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

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COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

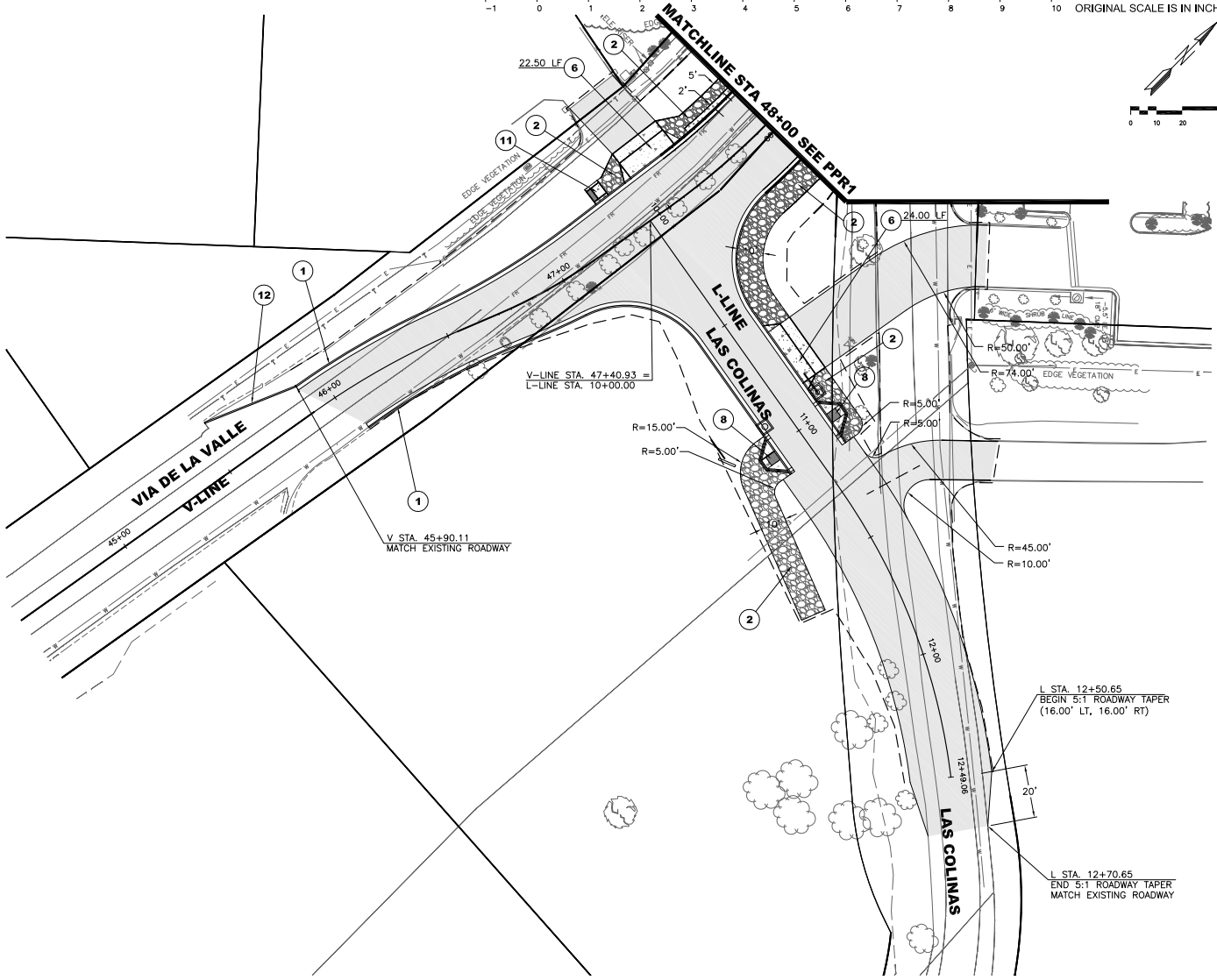
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COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 26 OF 153 SHEETS

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CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
8. CURB RAMP - TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS-21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

PPR2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

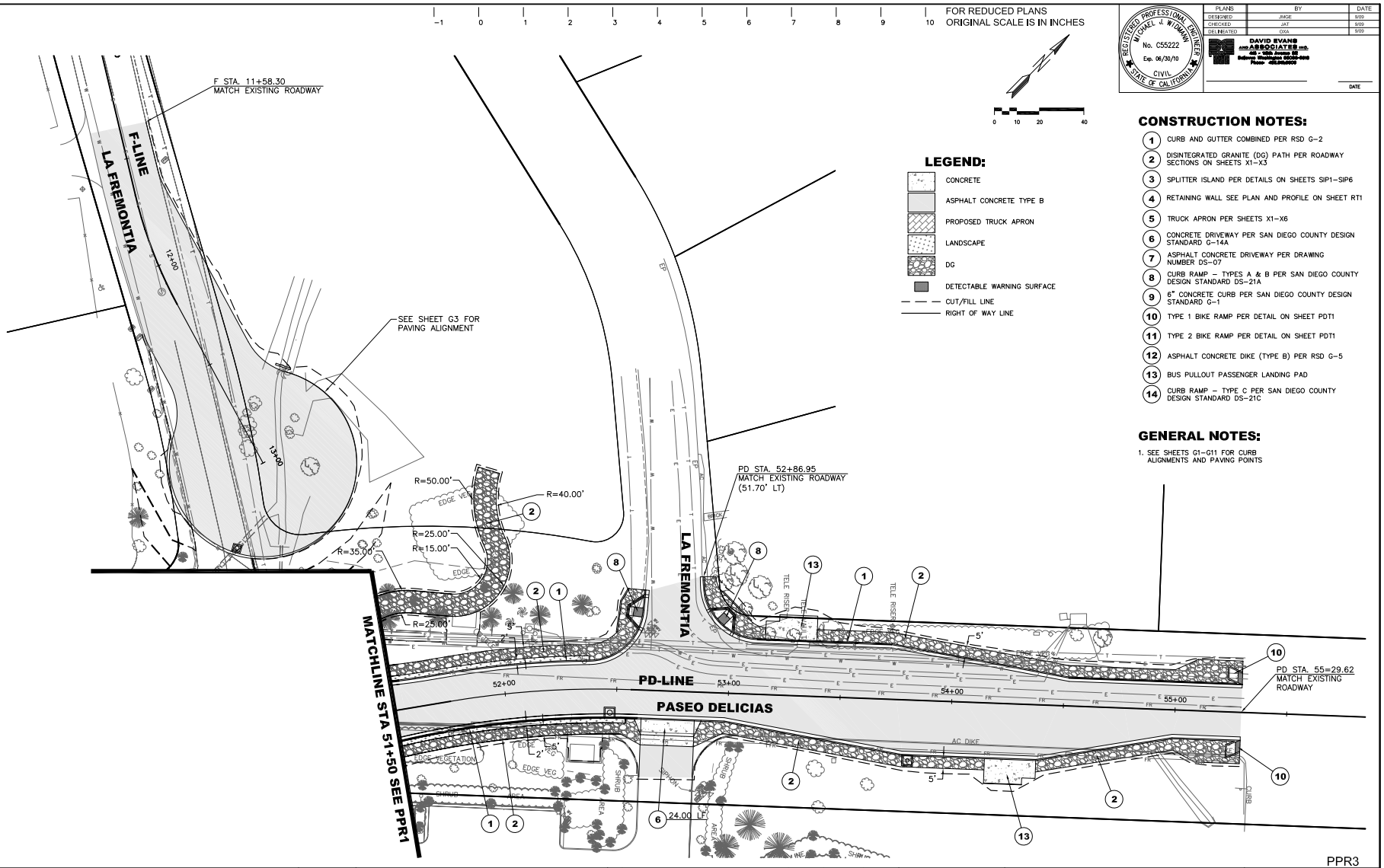
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 27 OF 153 SHEETS

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LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
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9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

PPR3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

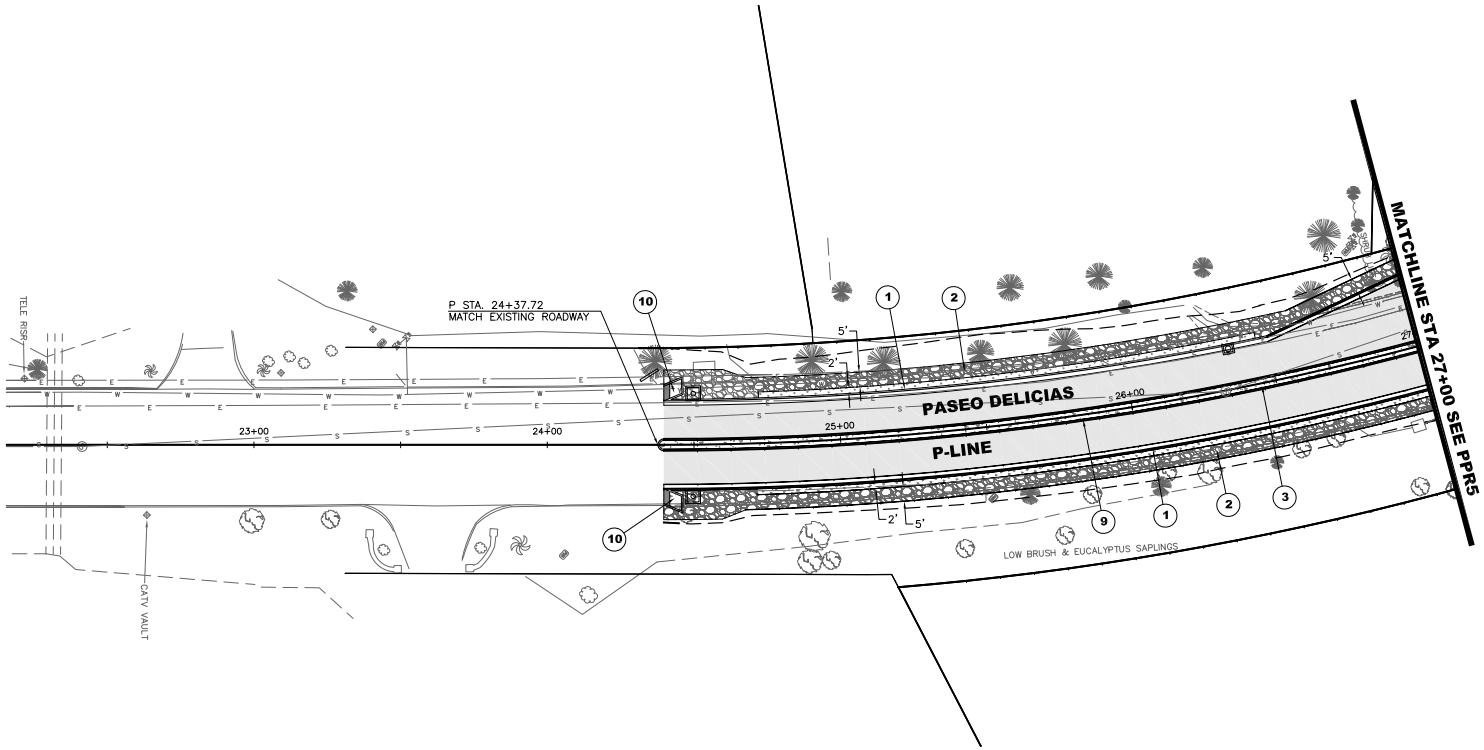
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 28 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone 619.235.0900

DATE

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
8. CURB RAMP - TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS-21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

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PPR4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 29 OF 153 SHEETS

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
8. CURB RAMP - TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS-21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
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12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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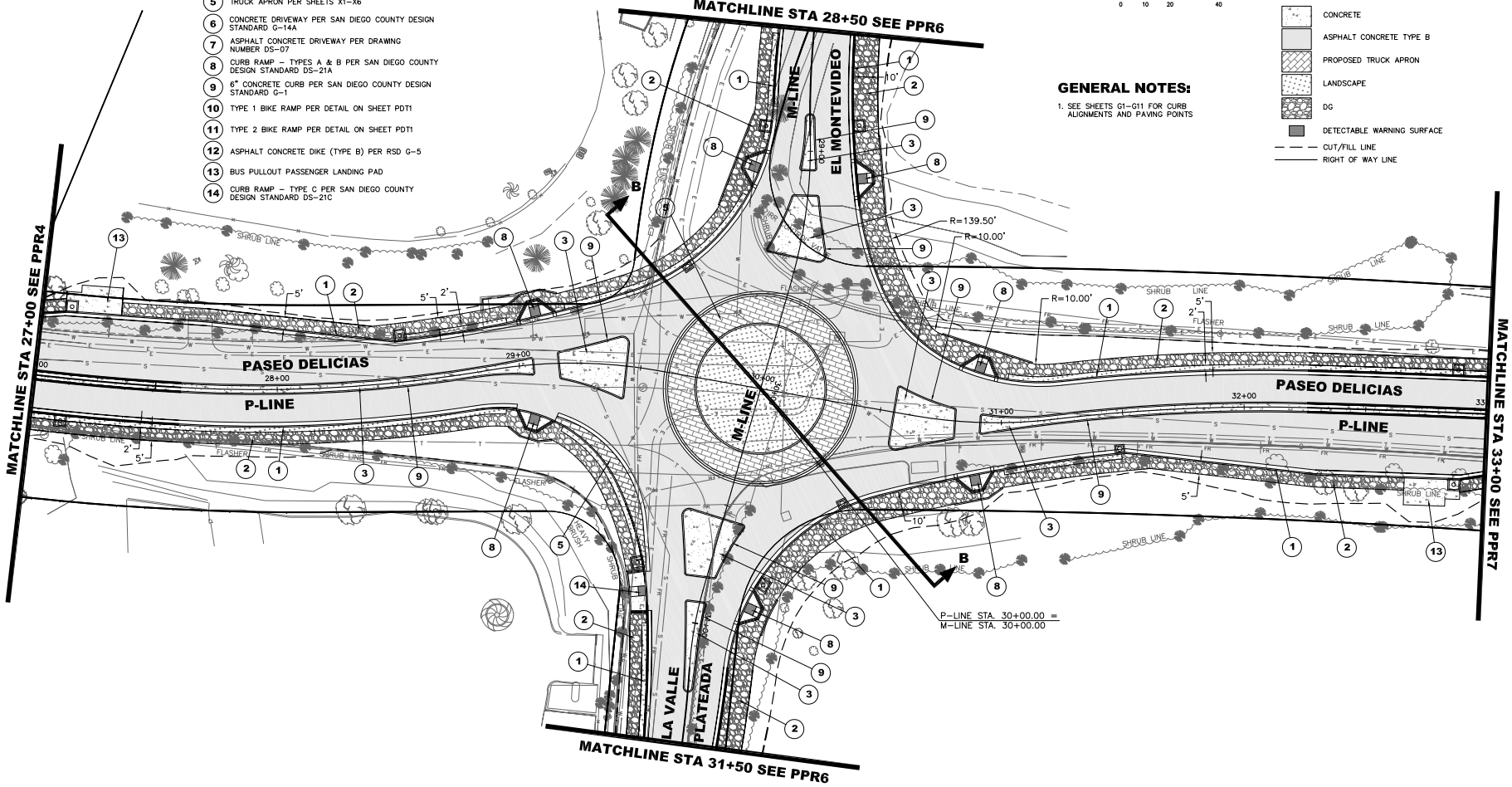
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GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE



PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

PPR5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

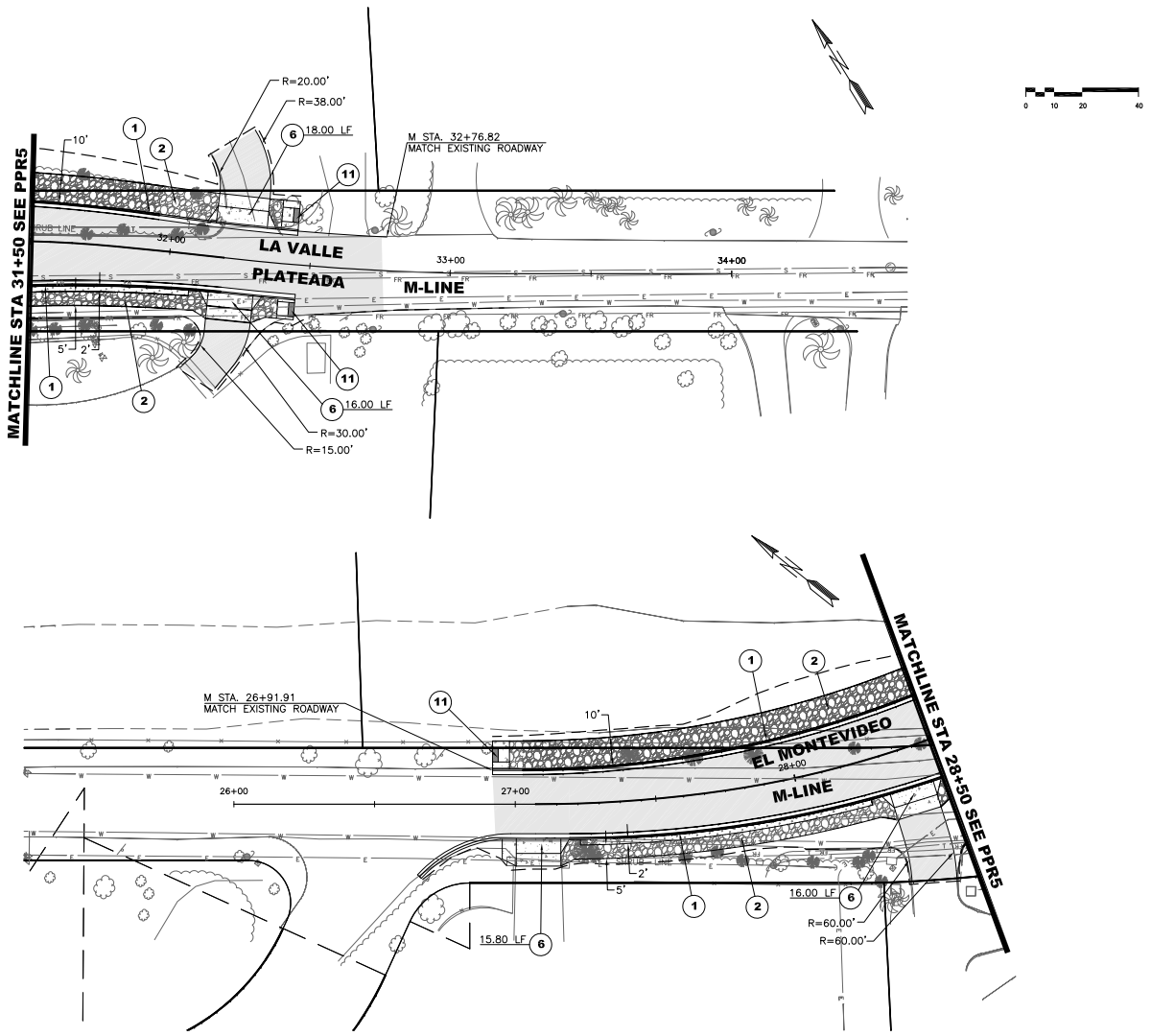
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 30 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES inc.

DATE

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
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11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

PPR6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
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CONST. COMPL.
FIELD REVISIONS

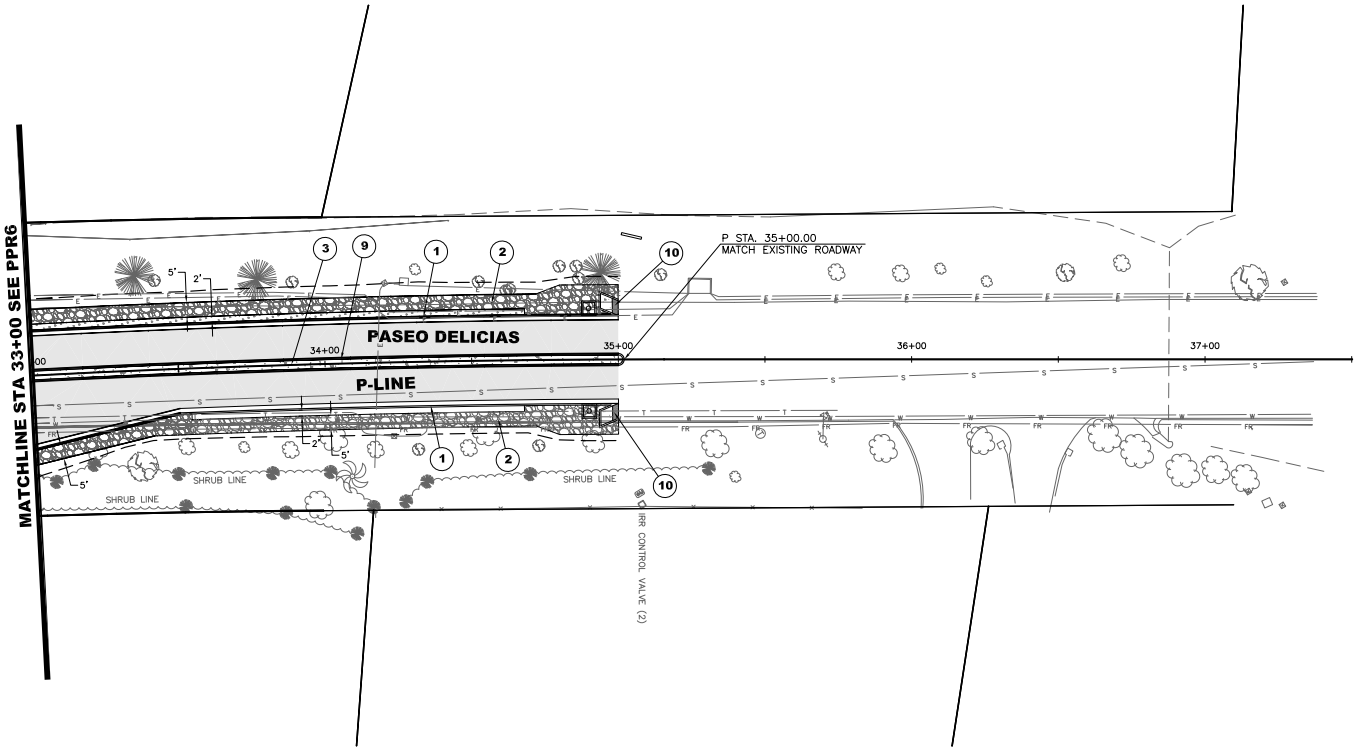
RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 31 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1-X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1-SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1-X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G-14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS-07
8. CURB RAMP - TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS-21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G-1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G-5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP - TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

PPR7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 32 OF 153 SHEETS

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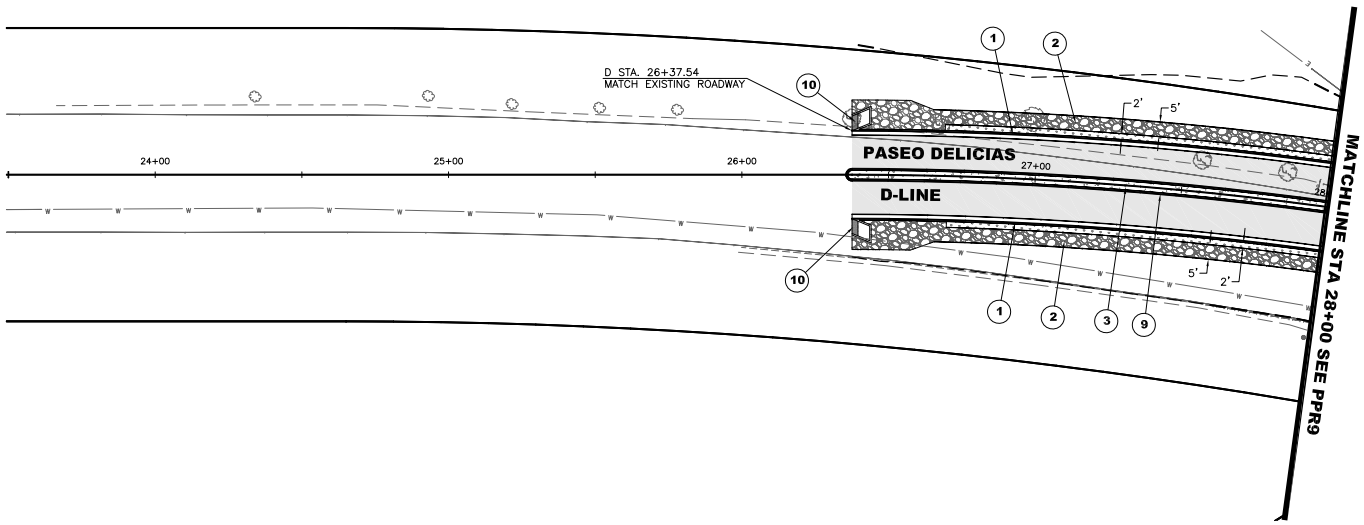
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PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE



CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G−2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1−X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1−SIP6
4. RETAINING WALL SEE PLAN AND PROFILE ON SHEET RT1
5. TRUCK APRON PER SHEETS X1−X6
6. CONCRETE DRIVEWAY PER SAN DIEGO COUNTY DESIGN STANDARD G−14A
7. ASPHALT CONCRETE DRIVEWAY PER DRAWING NUMBER DS−07
8. CURB RAMP − TYPES A & B PER SAN DIEGO COUNTY DESIGN STANDARD DS−21A
9. 6" CONCRETE CURB PER SAN DIEGO COUNTY DESIGN STANDARD G−1
10. TYPE 1 BIKE RAMP PER DETAIL ON SHEET PDT1
11. TYPE 2 BIKE RAMP PER DETAIL ON SHEET PDT1
12. ASPHALT CONCRETE DIKE (TYPE B) PER RSD G−5
13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP − TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS−21C

GENERAL NOTES:

1. SEE SHEETS G1−G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

PPR8

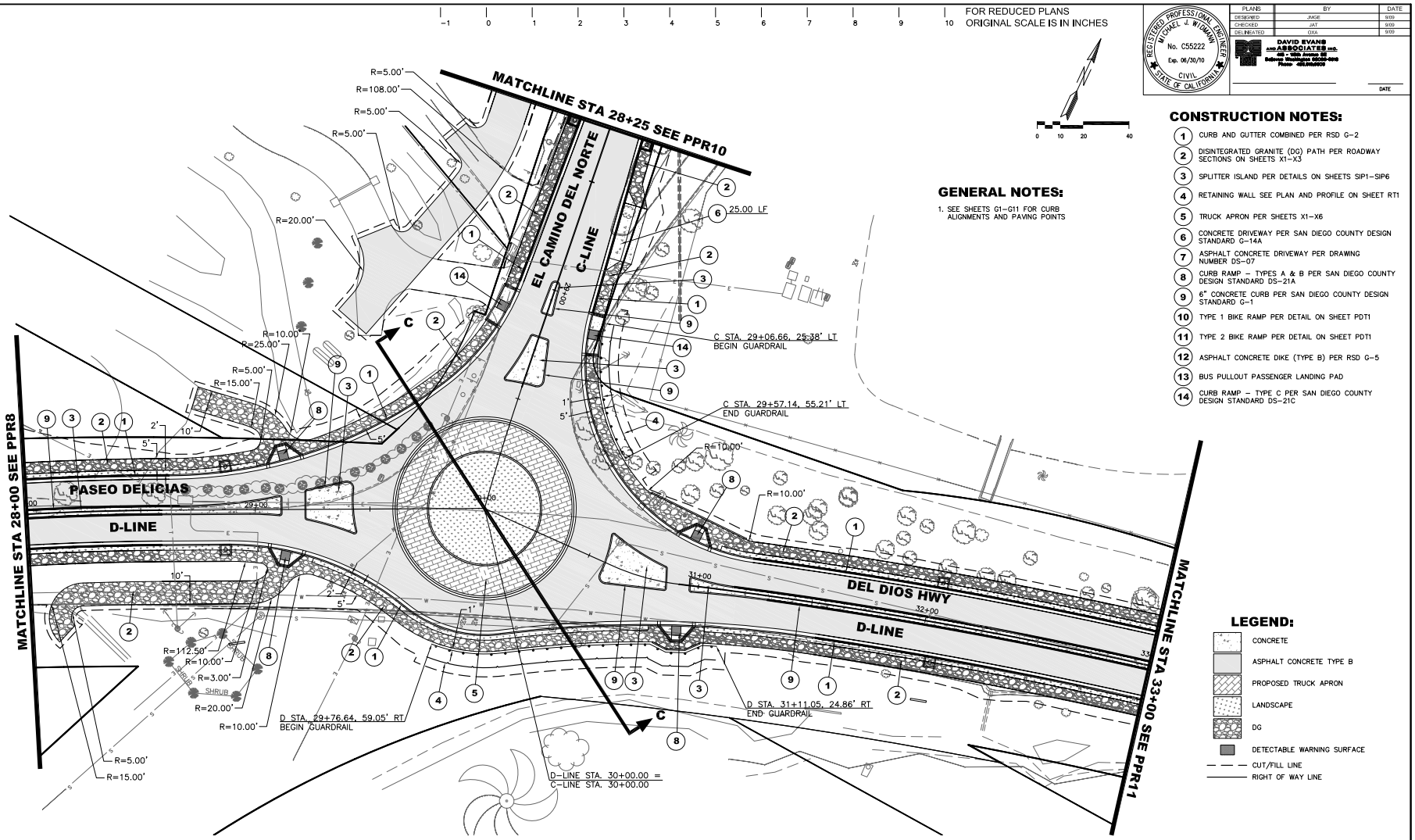
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 33 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

GENERAL NOTES:

1. SEE SHEETS G1–G11 FOR CURB ALIGNMENTS AND PAVING POINTS

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1–X3
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14. CURB RAMP – TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS-21C

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

PPR9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 34 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

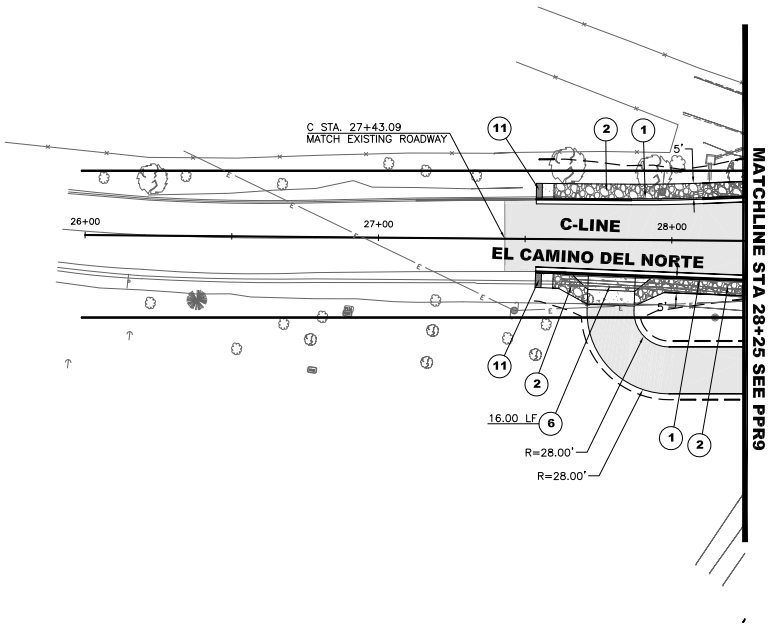
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CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G−2
2. DISINTEGRATED GRANITE (DG) PATH PER ROADWAY SECTIONS ON SHEETS X1−X3
3. SPLITTER ISLAND PER DETAILS ON SHEETS SIP1−SIP6
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13. BUS PULLOUT PASSENGER LANDING PAD
14. CURB RAMP − TYPE C PER SAN DIEGO COUNTY DESIGN STANDARD DS−21C

GENERAL NOTES:

1. SEE SHEETS G1−G11 FOR CURB ALIGNMENTS AND PAVING POINTS



LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

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PPR10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

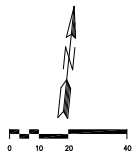
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 35 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



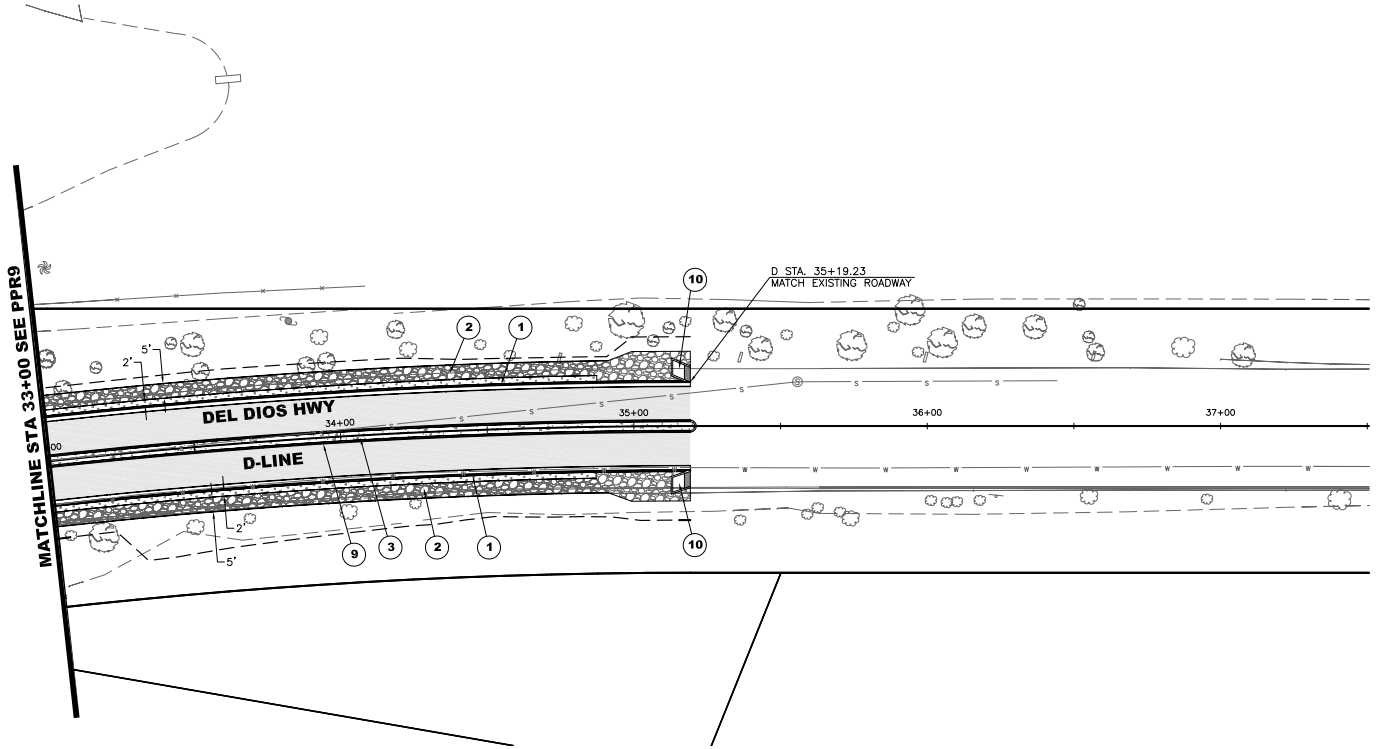
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

CONSTRUCTION NOTES:

1. CURB AND GUTTER COMBINED PER RSD G-2
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GENERAL NOTES:

1. SEE SHEETS G1-G11 FOR CURB ALIGNMENTS AND PAVING POINTS

LEGEND:

- CONCRETE
- ASPHALT CONCRETE TYPE B
- PROPOSED TRUCK APRON
- LANDSCAPE
- DG
- DETECTABLE WARNING SURFACE
- CUT/FILL LINE
- RIGHT OF WAY LINE

PPR11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PAVING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 36 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

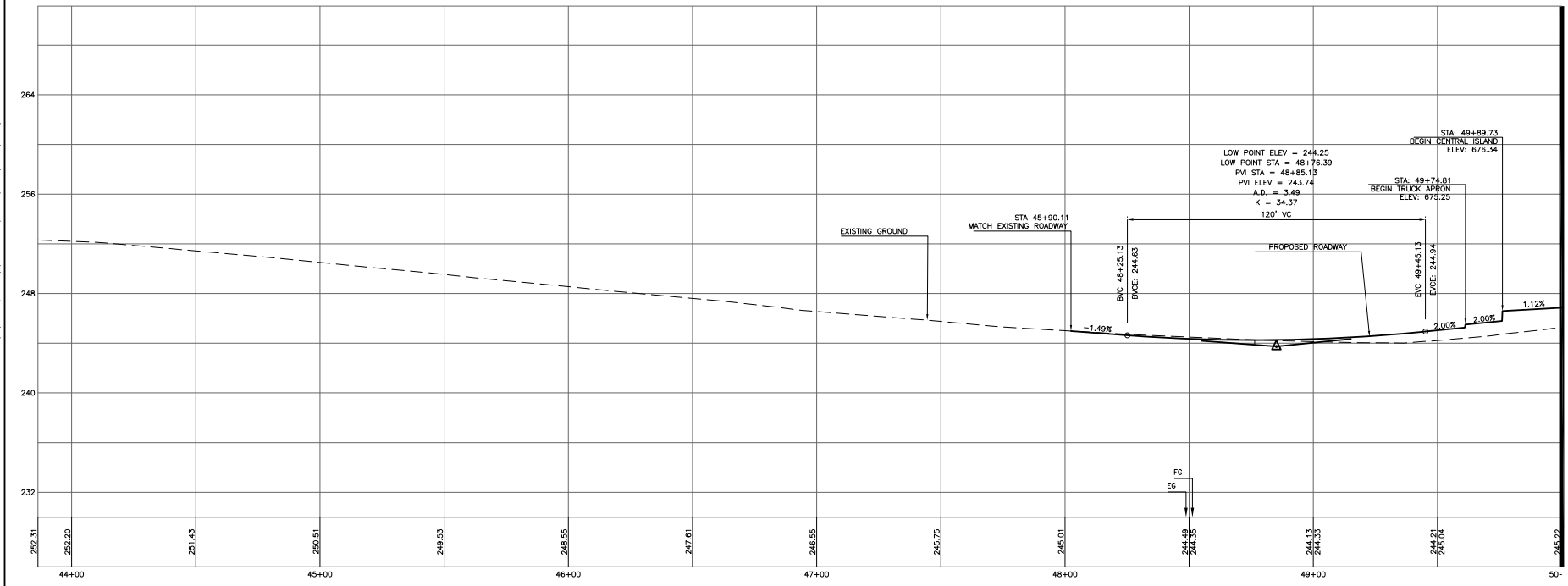
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
[illegible]

DATE

HORIZ. 0 10 20 40
VERT. 0 2 4 8



MATCHLINE STA 50+00 SEE PF2

PASEO DELICIAS - PD-LINE

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PF1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 37 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8

MATCHLINE STA 50+00 SEE PF1

STA: 50+37.40
END CENTRAL ISLAND
ELEV: 676.87

STA: 50+51.98
END TRUCK APRON
ELEV: 675.80

LOW POINT ELEV = 244.94
LOW POINT STA = 51+08.88
PVI STA = 51+22.38
PVI ELEV = 244.13
A.D. = 5.00
K = 27.00
135' VC

PROPOSED ROADWAY

BVC 50+54.88
BVCE: 245.48

EVC 51+89.88
EVCE: 246.15

PVI STA = 53+47.24
PVI ELEV = 250.87

STA 55+29.62
MATCH EXISTING ROADWAY

EXISTING GROUND

1.12%
-2.00%
-2.00%
3.00%
2.81%

FG
EG

264
256
248
240
232

248.68
244.94 245.57
245.09 244.88
245.37 245.25
246.59 246.48
247.92 247.95
249.46 249.45
250.94 250.95
252.36 252.35
253.73 253.76
255.25 255.16
256.57
257.64

-00 51+00 52+00 53+00 54+00 55+00 56+00

PASEO DELICIAS - PD-LINE

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PF2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 38 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

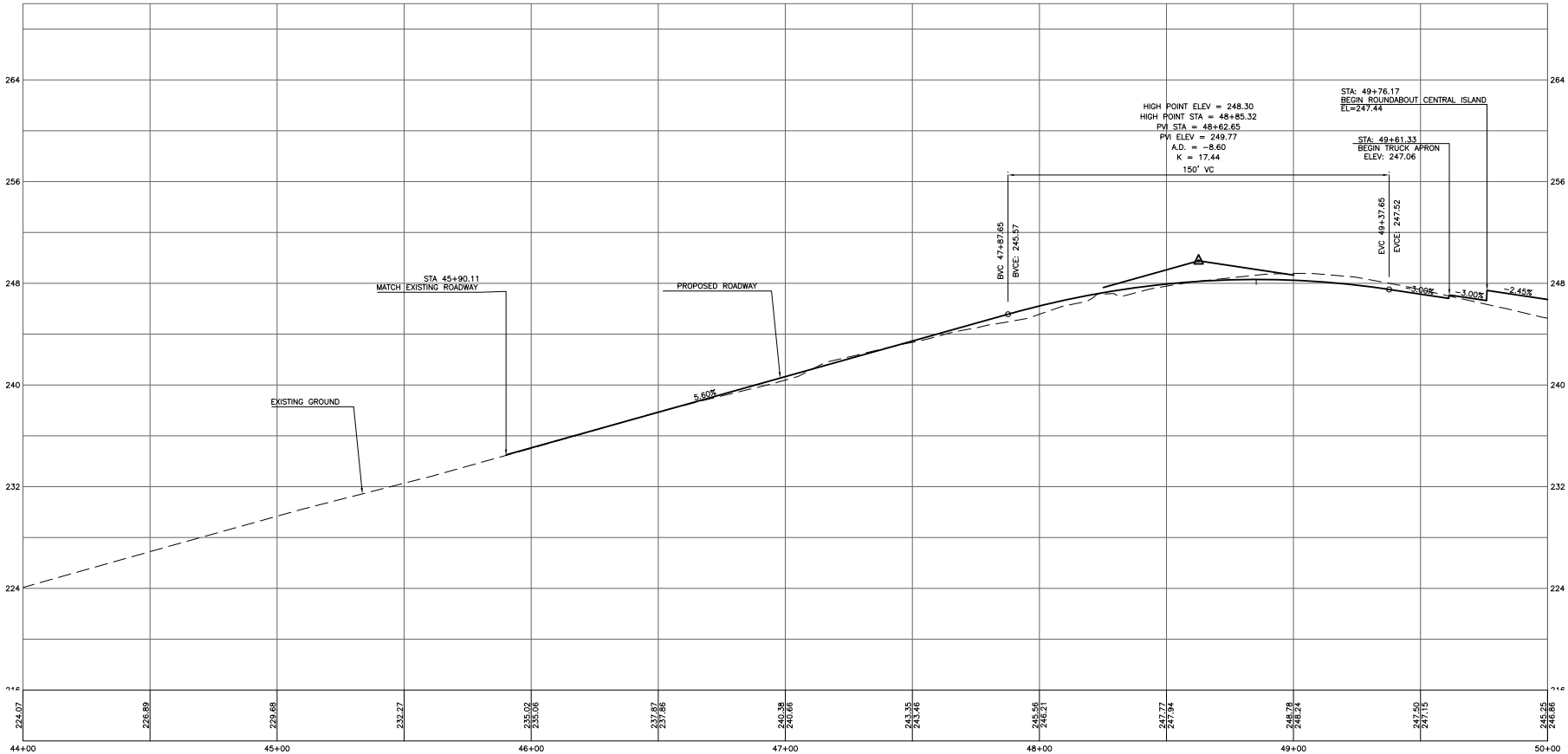
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



VIA DE LA VALLE - V-LINE

PF3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 39 OF 153 SHEETS

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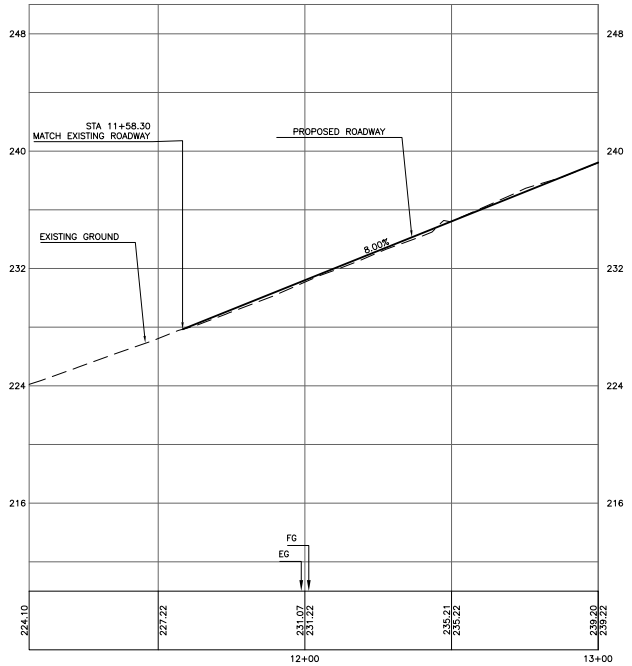
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

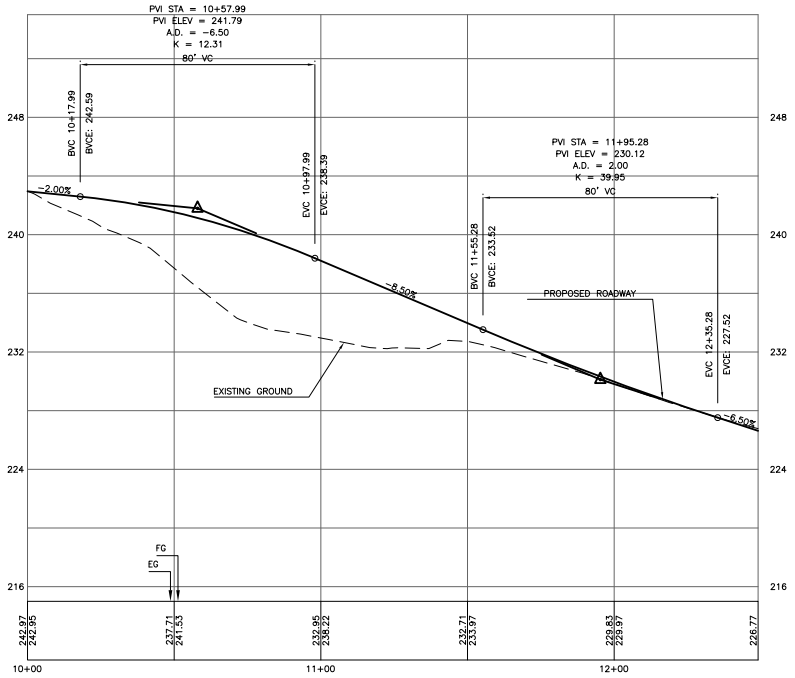
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

HORIZ. 0 10 20 40
VERT. 0 2 4 8



LA FREMONTIA - F-LINE



LAS COLINAS - L-LINE

PF4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

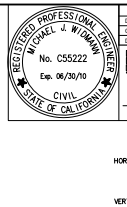
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 40 OF 153 SHEETS

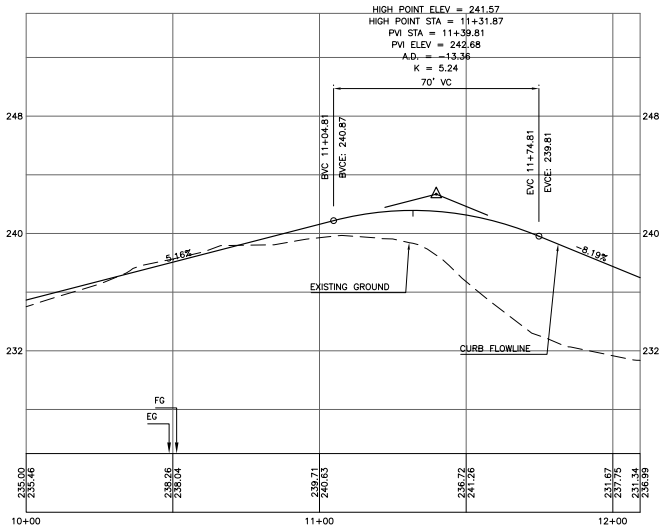
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ORIGINAL SCALE IS IN INCHES



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

HORIZ. 0 10 20 40
VERT. 0 2 4 8



G1-LINE

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PF5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 41 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

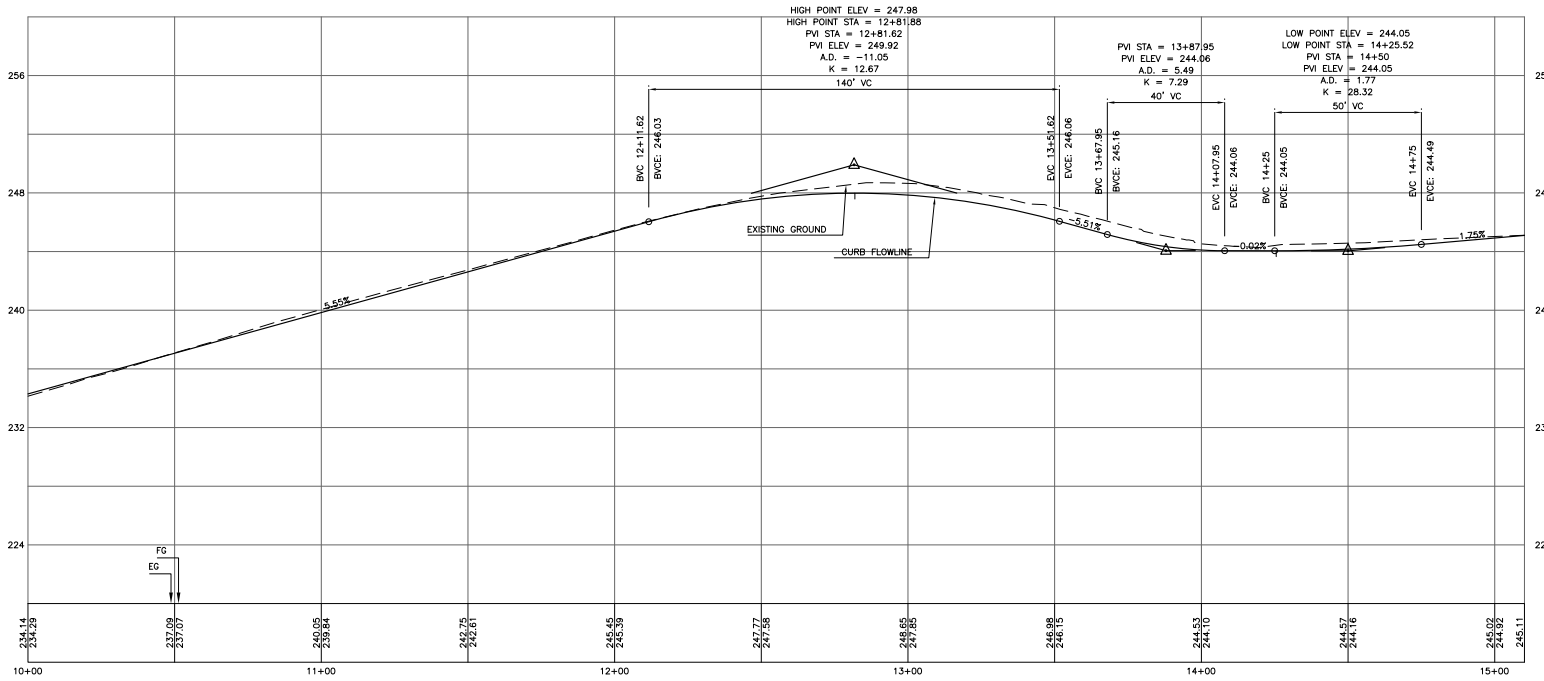
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92029-4009
Phone: 760.839.4900

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G2-LINE

PF6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 42 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

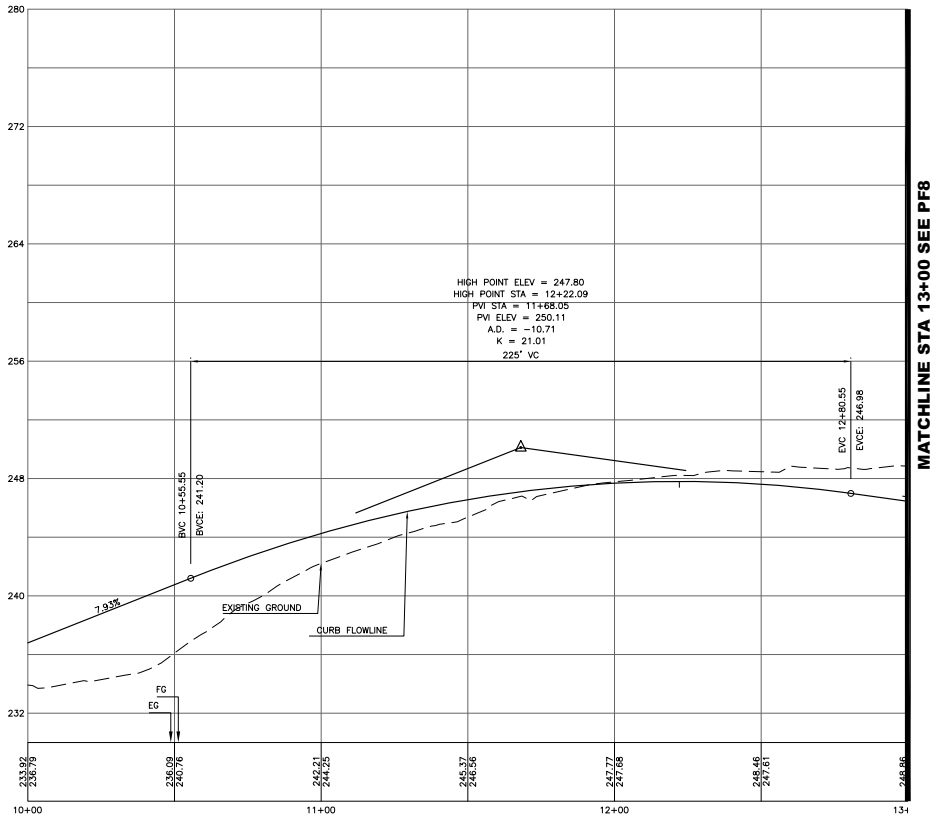
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC. 401 B Street, Suite 400 San Diego, California 92101-4240 Phone 619.235.0900

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G3-LINE

PF7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 43 OF 153 SHEETS

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−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

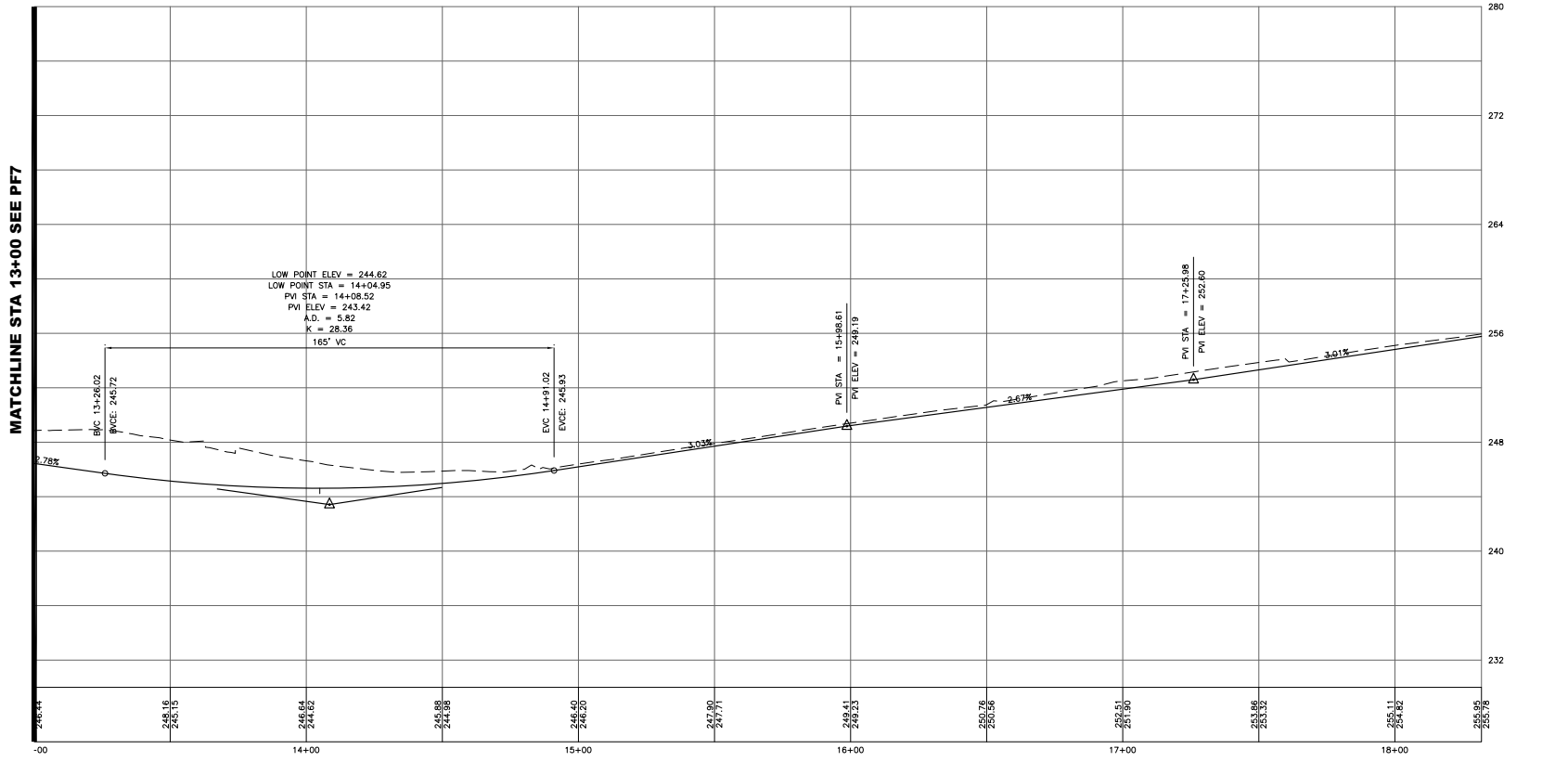
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
San Diego, California 92101-4240
Phone: (619)699-1000

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G3-LINE

PF8

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 44 OF 153 SHEETS

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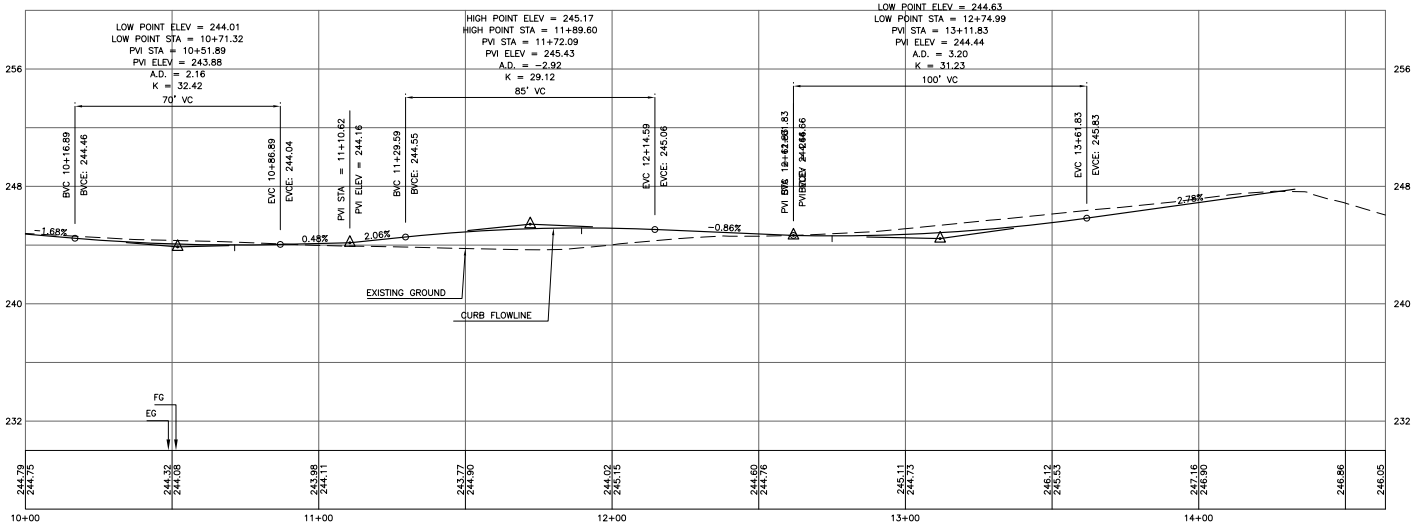
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ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

HORIZ. 0 10 20 40
VERT. 0 2 4 8



G4-LINE

PF9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
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RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 45 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

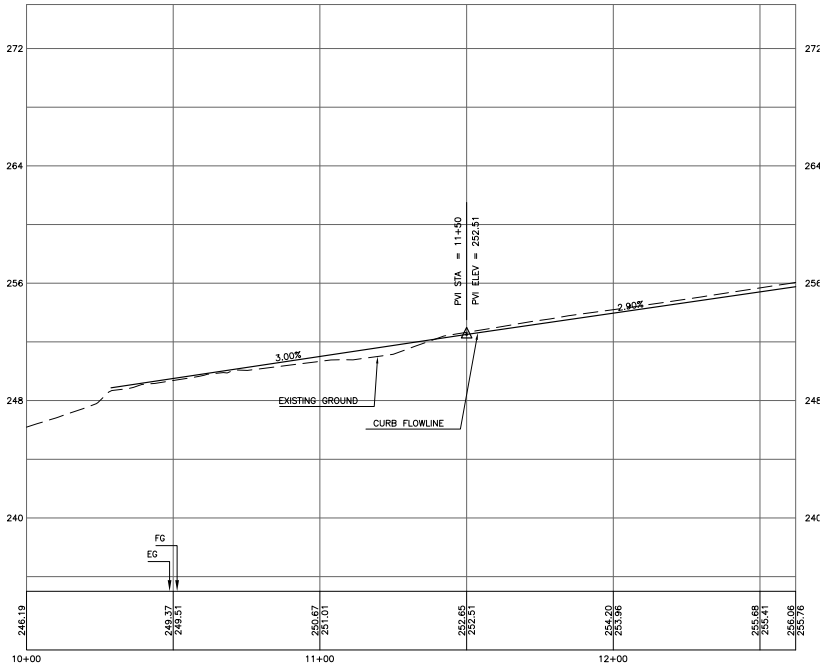
PLANS	BY	DATE
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CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92029-4009
Phone: 760.839.4900

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G5-LINE

PF10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
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RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 46 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
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CHECKED	JAT	9/09
DELINEATED	CKA	9/09

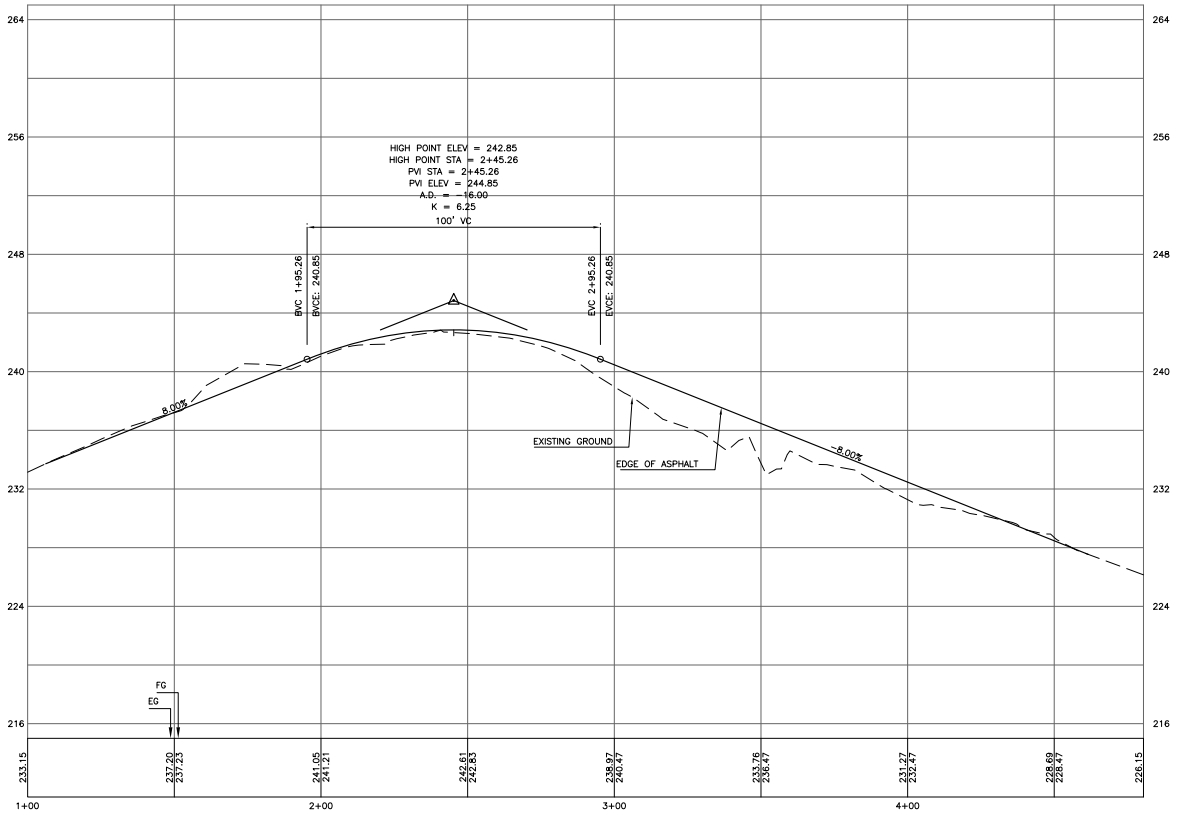
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue Ste
Escondido California 92025-4000
Phone (760)839-4900

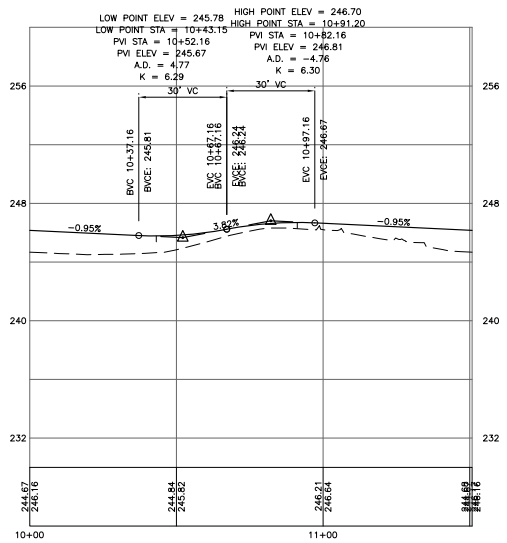
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VERT. 0 2 4 8



G6-LINE

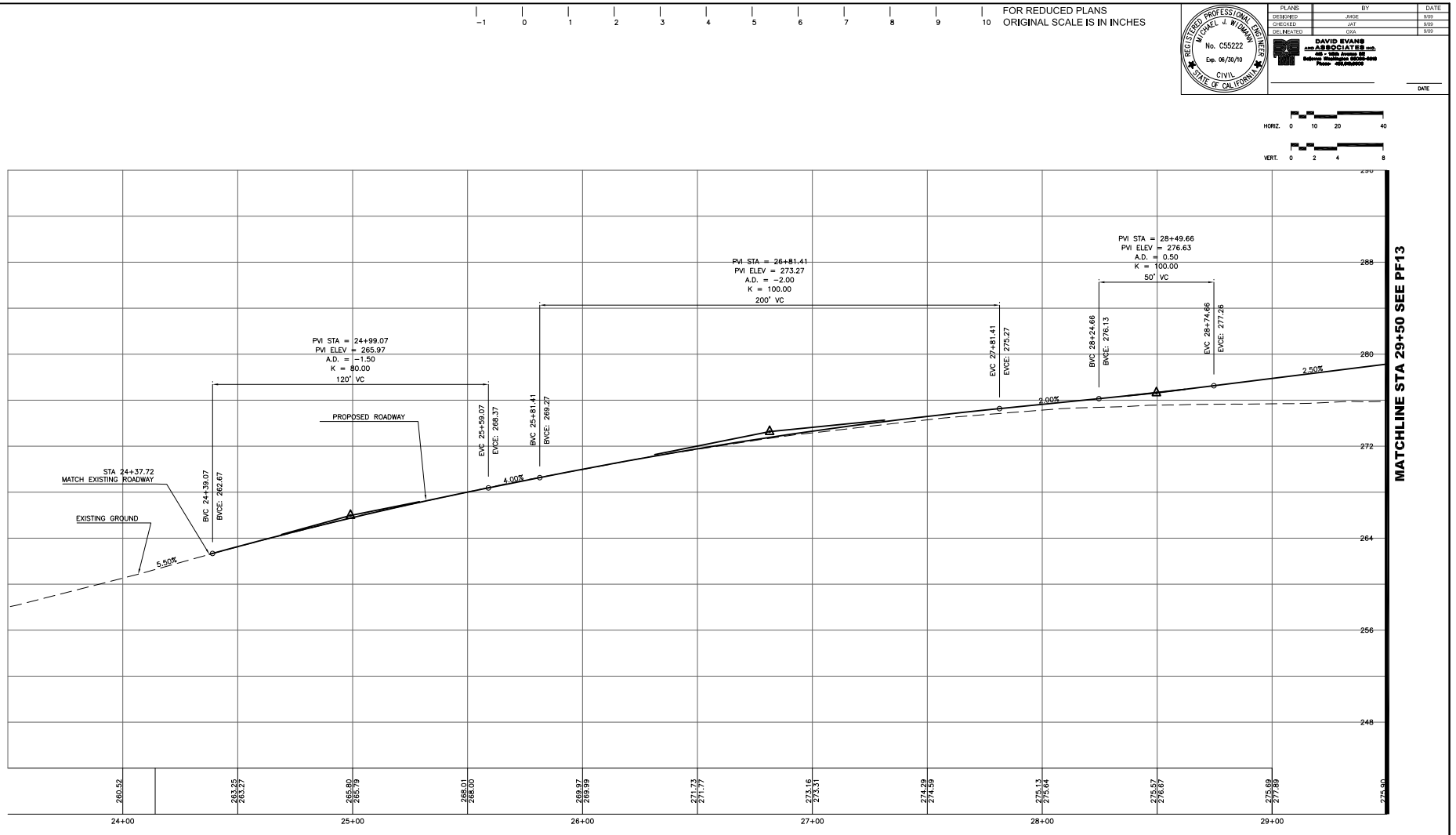


G7-LINE

PF11

COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS 5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295	REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX XXXXXX N. XXXXXX E. CONST. COMPL. FIELD REVISIONS	RANCHO SANTA FE ROUNDABOUTS VIA DE LA VALLE PROFILE	SCALE: HOR. AS NOTED VERT. AS NOTED W.A. UJ4174 R.S. 476 SHEET 47 OF 153 SHEETS

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PF12

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 48 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

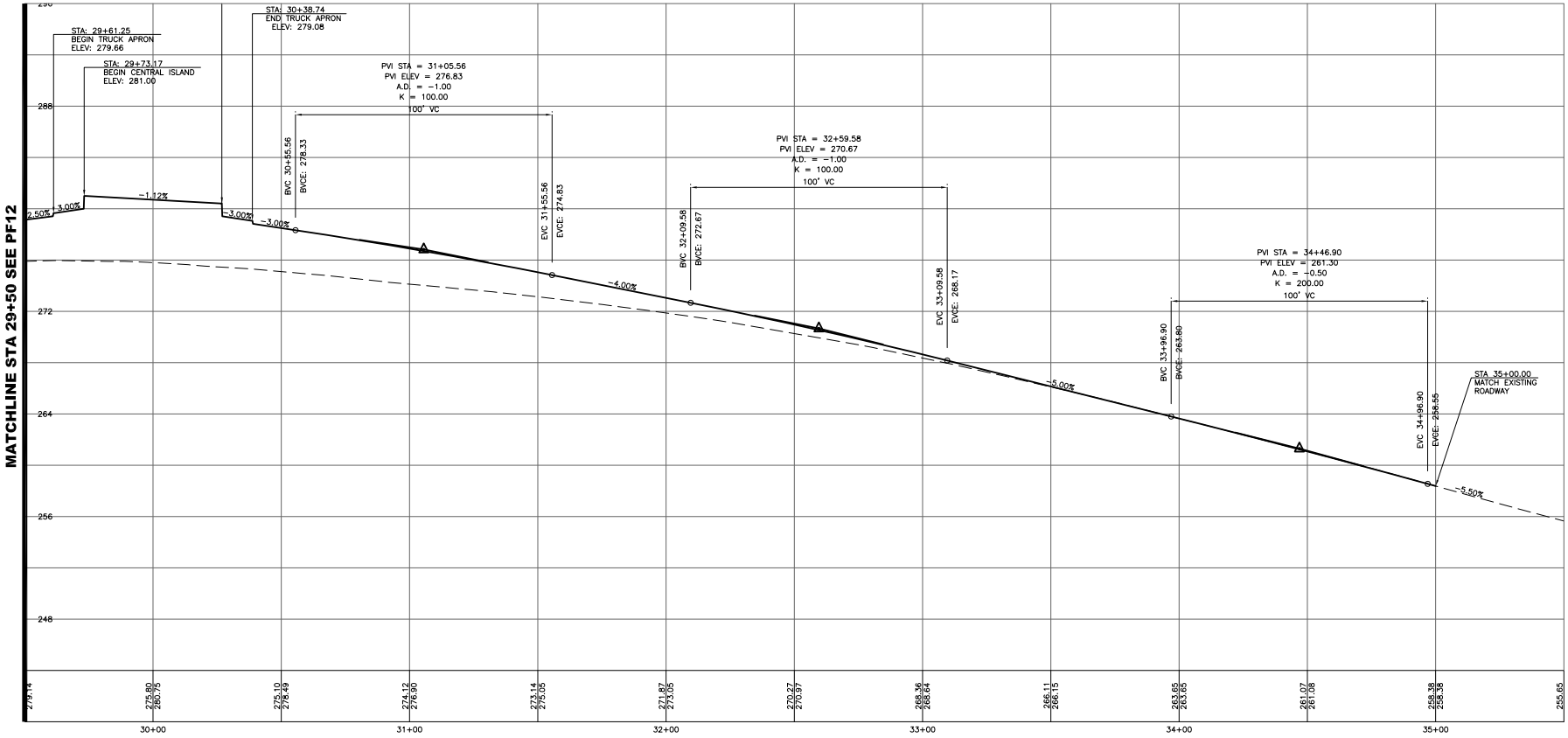
PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 800
San Diego, California 92101-4240
Phone 619.235.0900

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



PASEO DELICIAS - P LINE

PF13

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 49 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

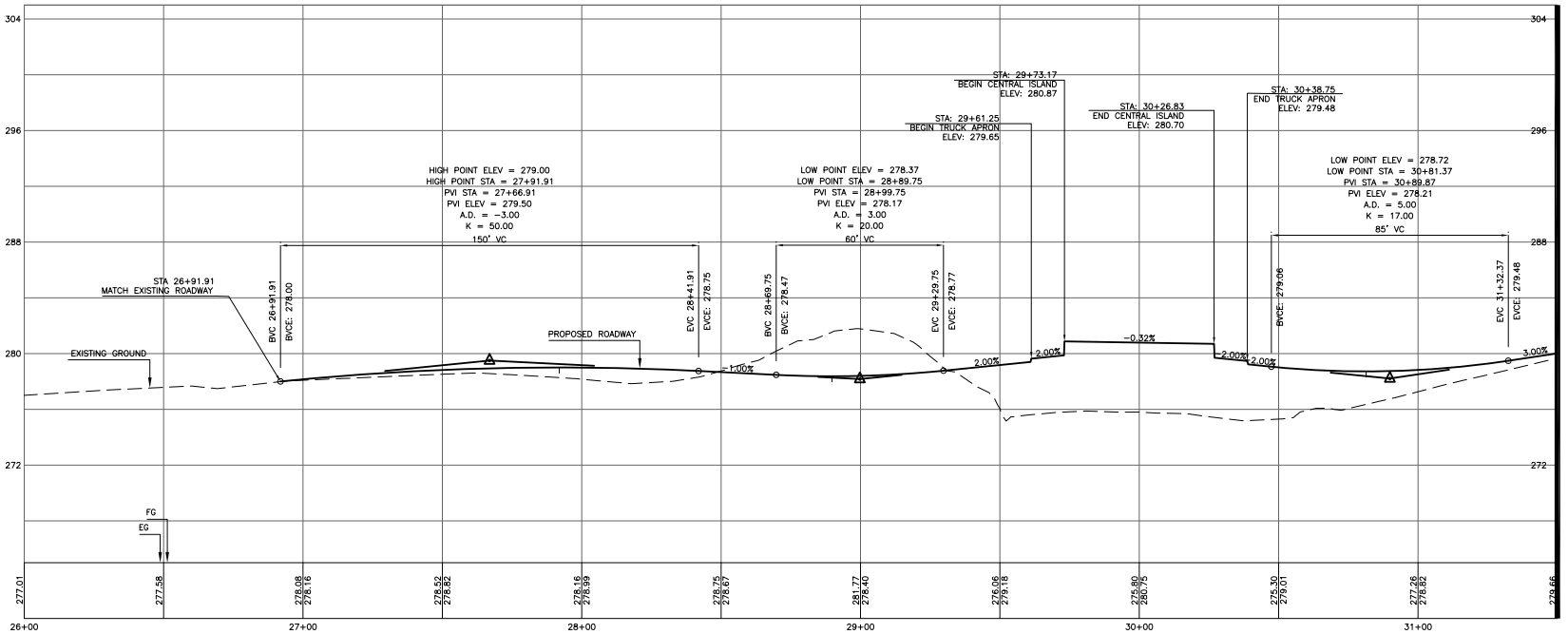
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



MATCHLINE STA 31+50 SEE PF15

EL MONTEVIDEO - M LINE

PF14

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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CONST. COMPL.
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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 50 OF 153 SHEETS

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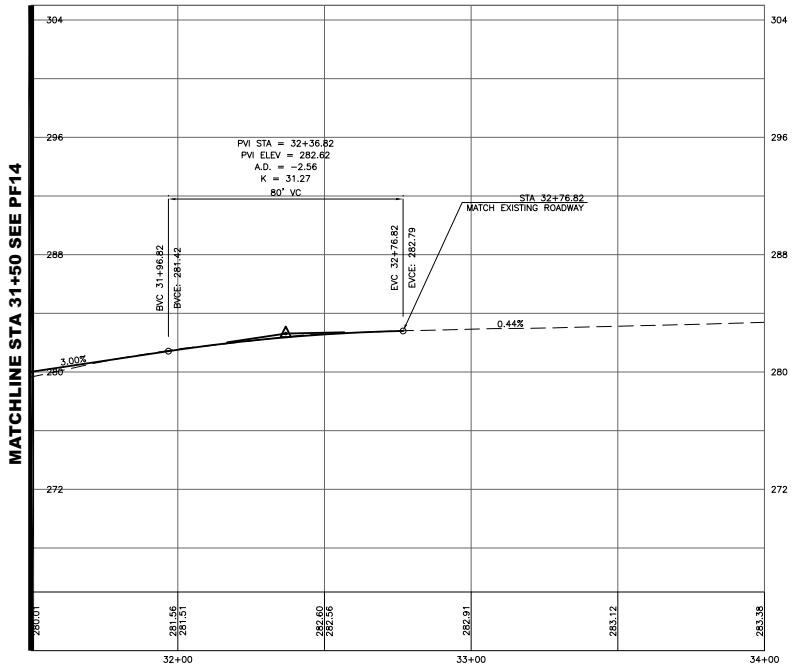
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ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

HORIZ. 0 10 20 40
VERT. 0 2 4 8



EL MONTEVIDEO - M LINE

PF15

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

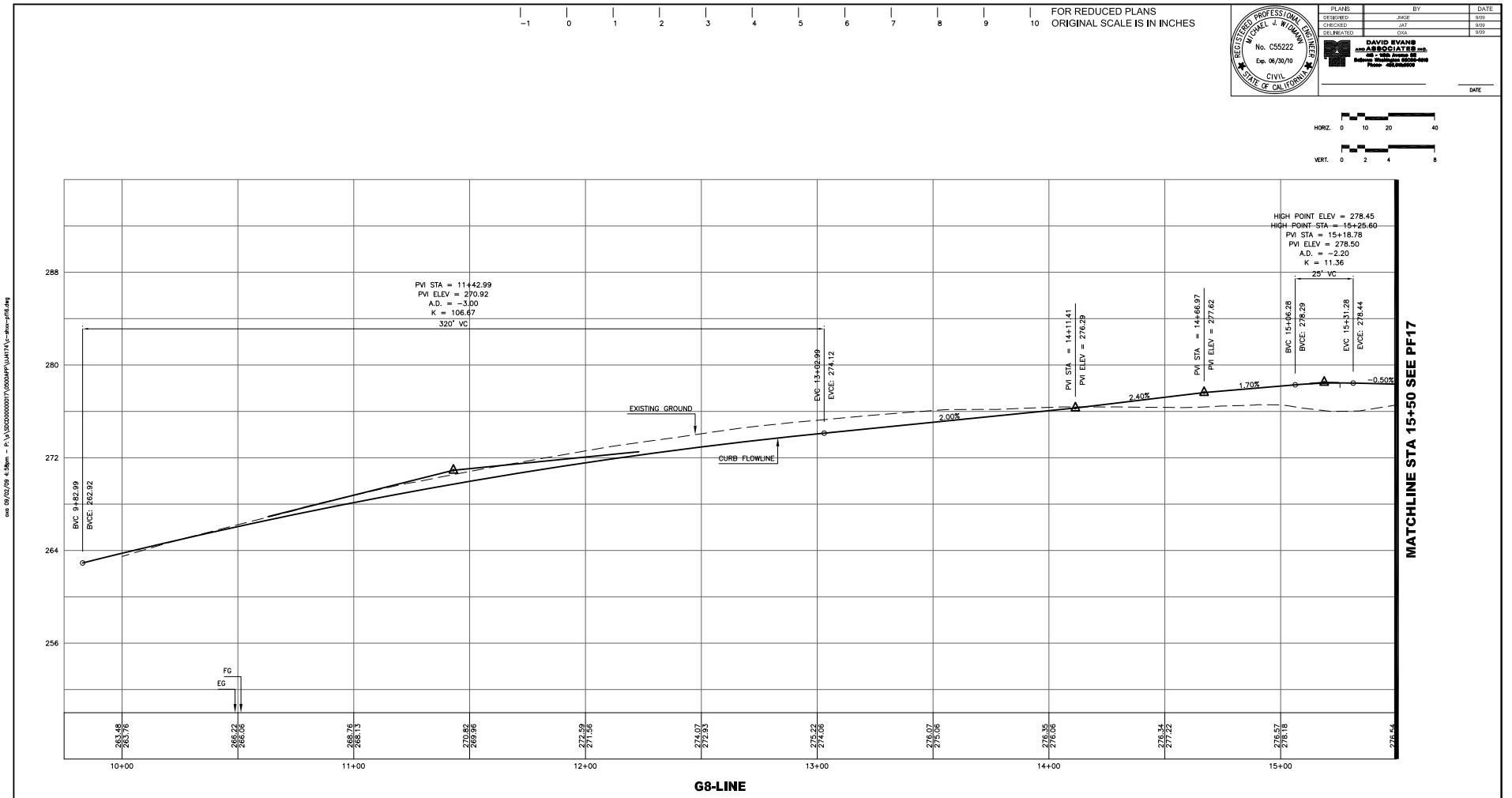
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 51 OF 153 SHEETS

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G8-LINE

PF16

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 52 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5679
Phone: 425.519.6500

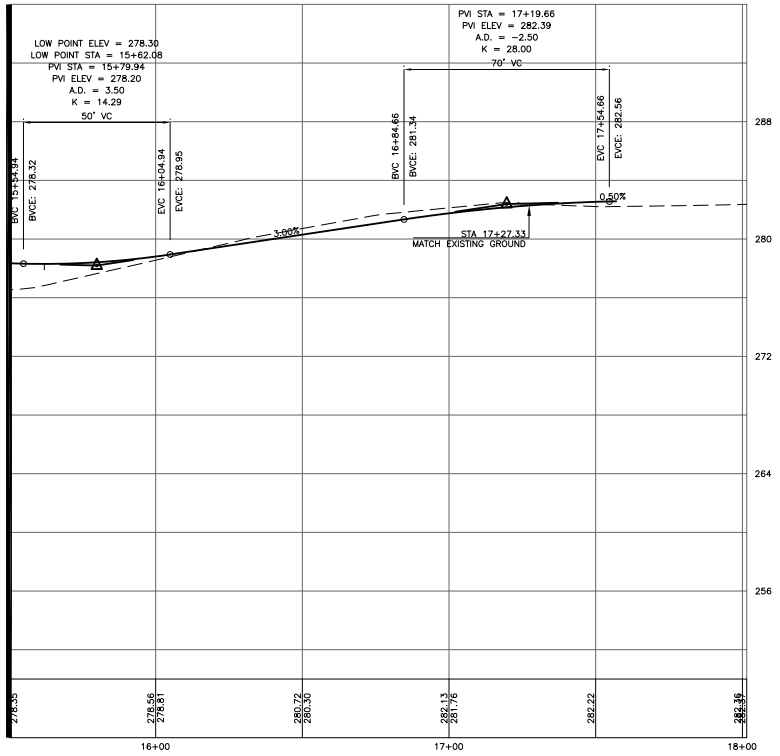
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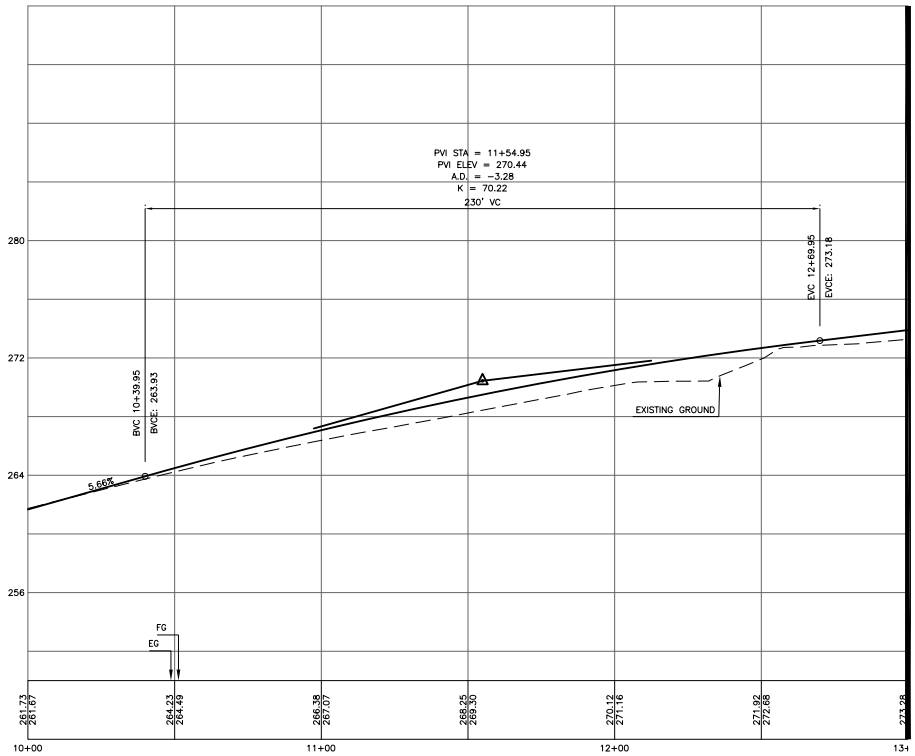
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MATCHLINE STA 15+50 SEE PF16



G8-LINE



G9-LINE

MATCHLINE STA 13+00 SEE PF18

PF17

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 53 OF 153 SHEETS

FOR REDUCED PLANS
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PLANS	BY	DATE
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CHECKED	JAT	9/09
DELINEATED	CKA	9/09

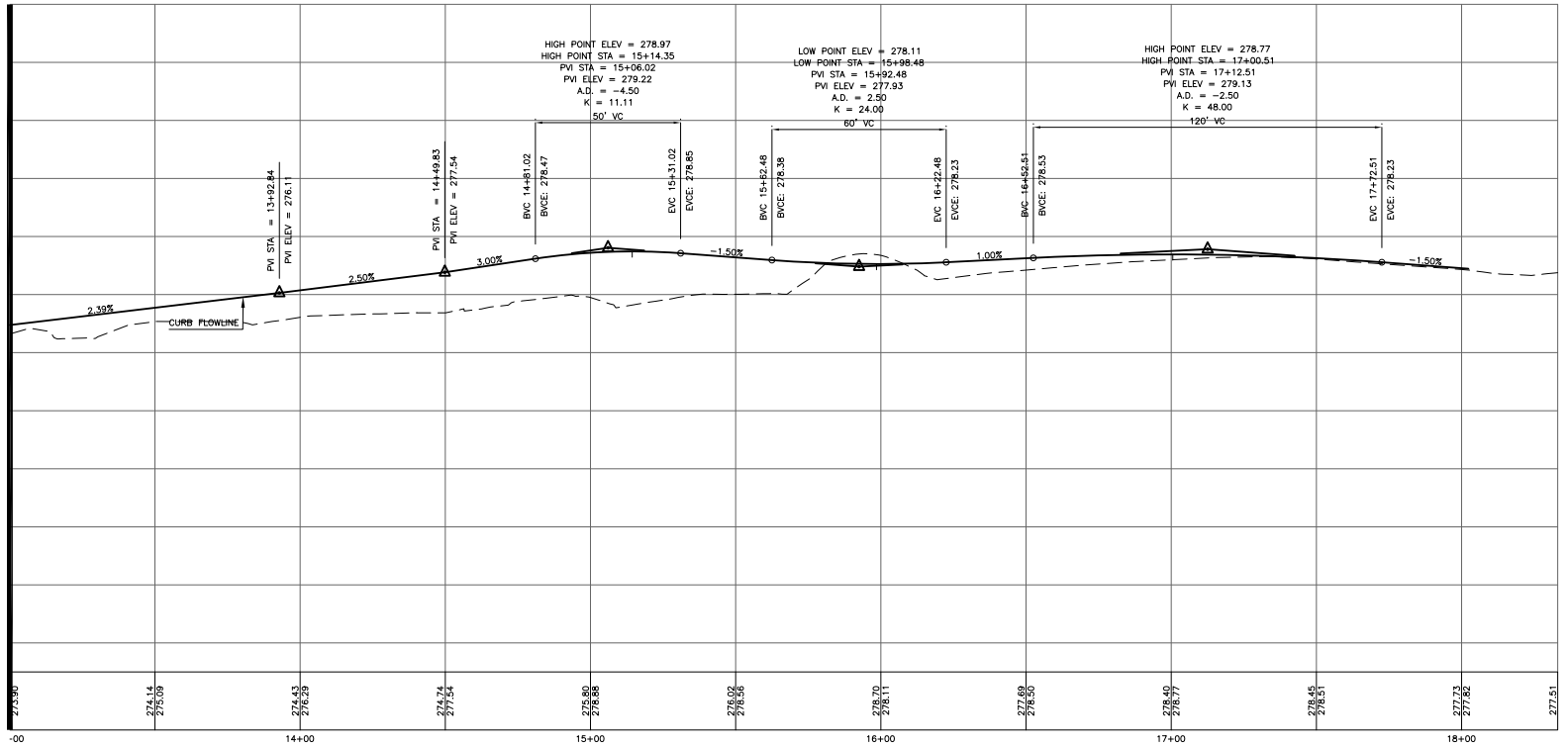
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



PF18

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 54 OF 153 SHEETS

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CHECKED	JAT	9/09
DELINEATED	CKA	9/09

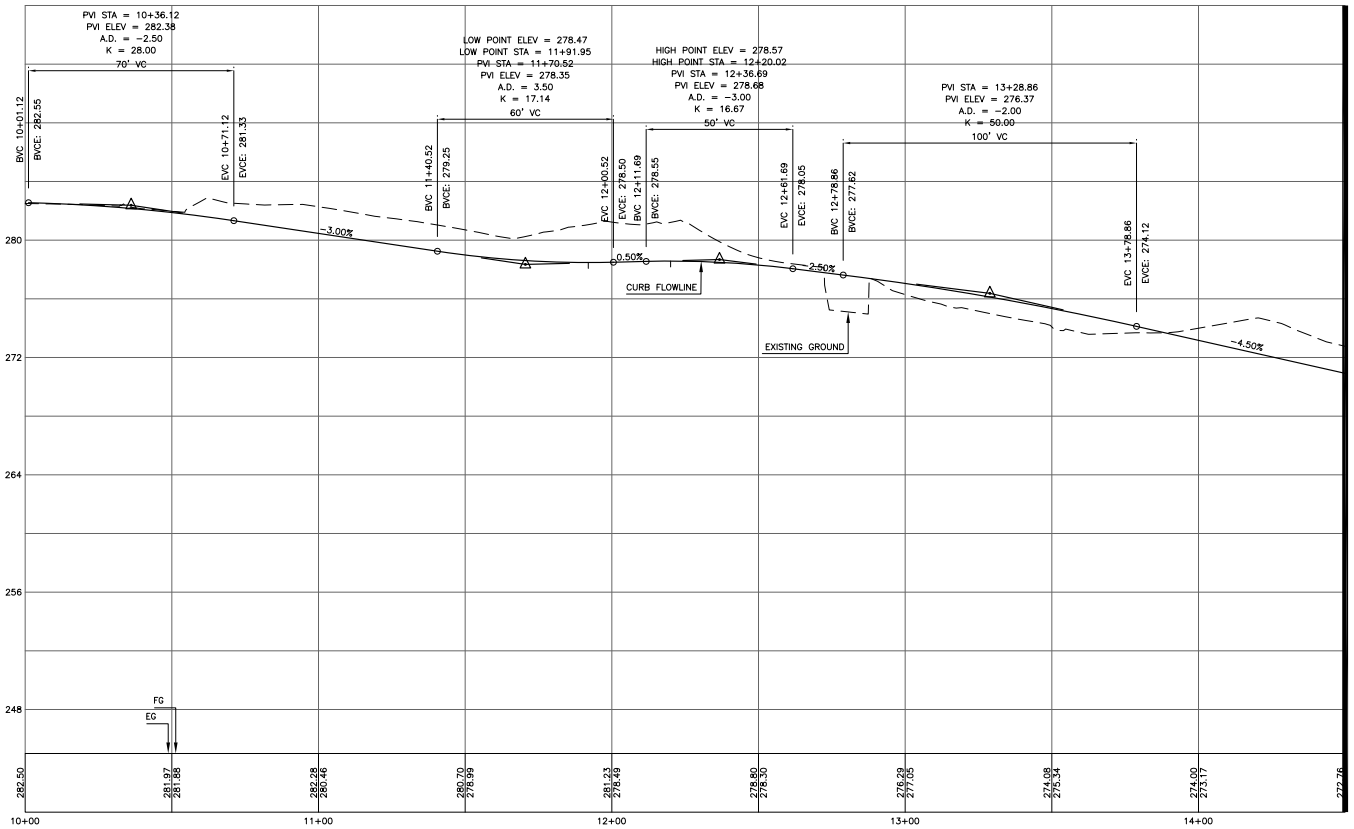
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC. 401 e. 10th Avenue Ste Bellevue Washington 98004-5000 Phone 425.519.6500

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



MATCHLINE STA 14+50 SEE PF20

G10-LINE

PF19

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 55 OF 153 SHEETS

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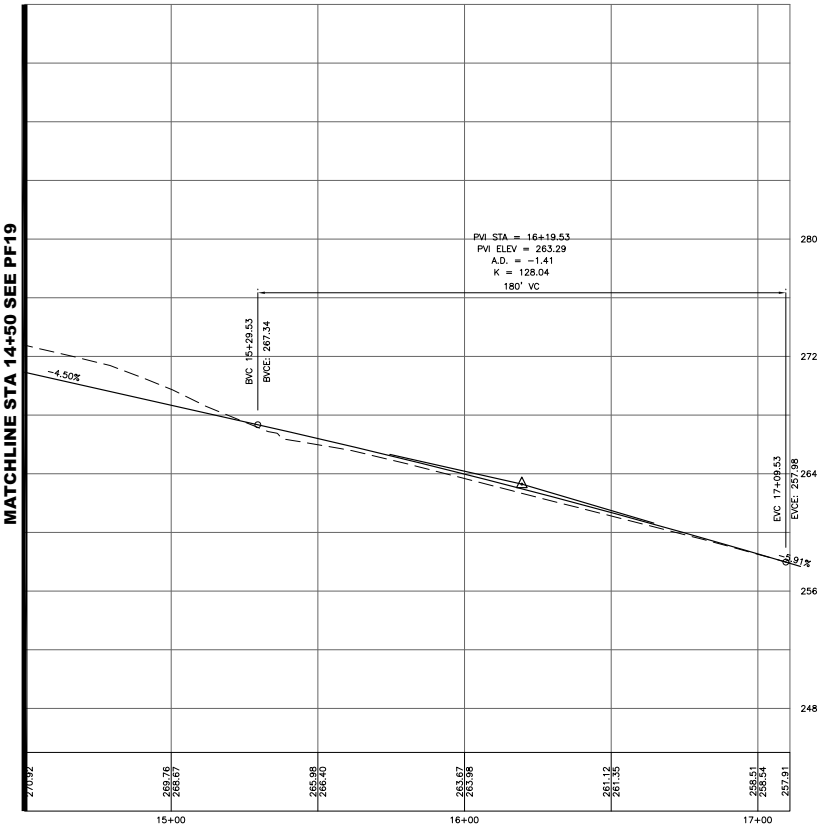
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DAVID EVANS AND ASSOCIATES INC.

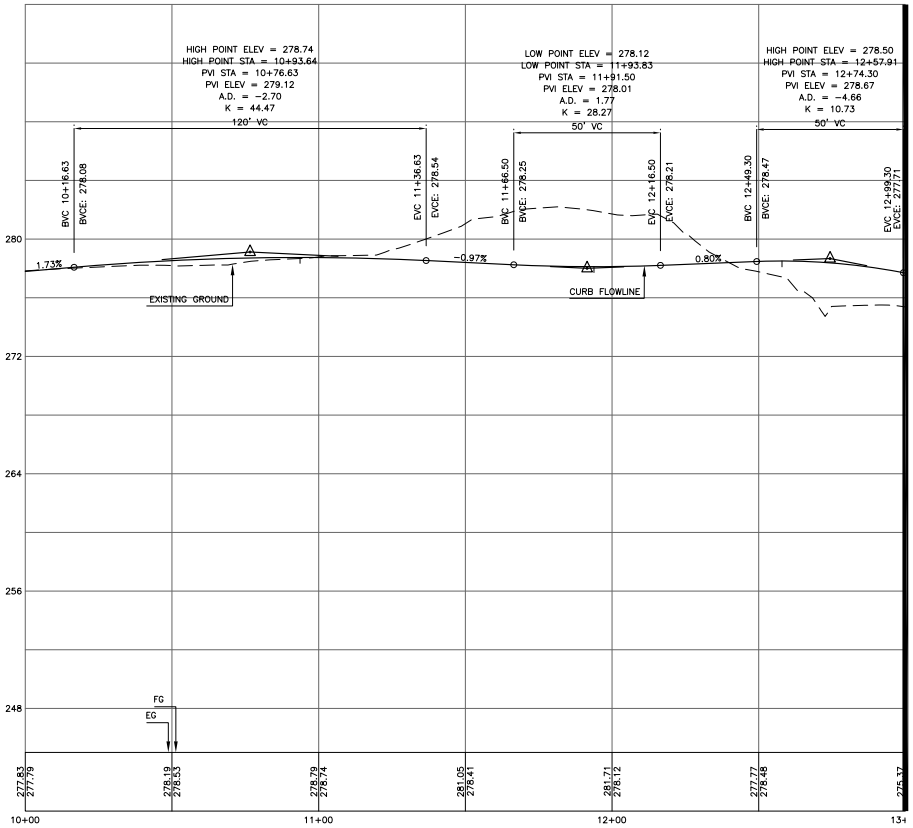
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G10-LINE



G11-LINE

PF20

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 56 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

−1 0 1 2 3 4 5 6 7 8 9 10

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

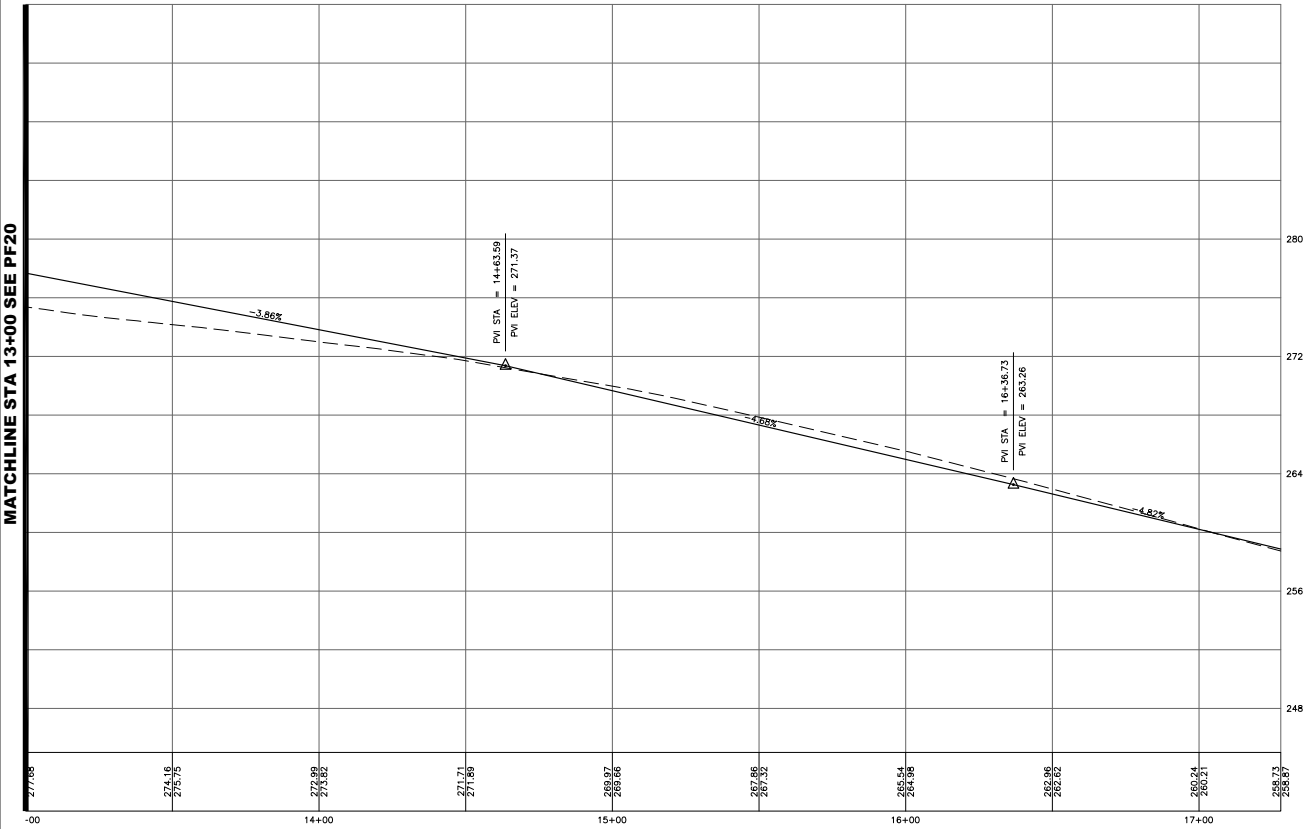
DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue Ste
Escondido, California 92029-4009
Phone: (760)839-4900

DATE

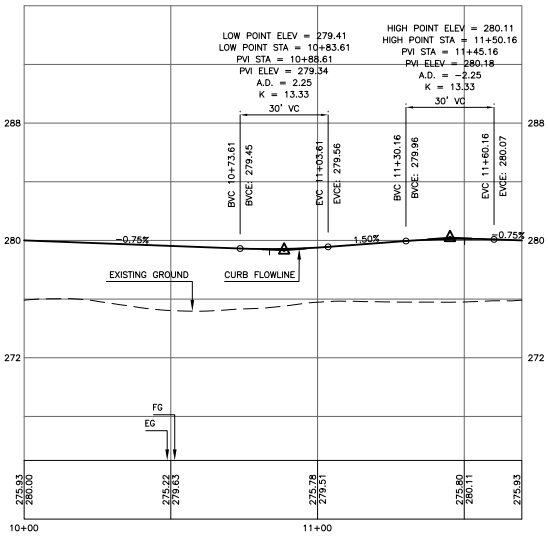
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VERT. 0 2 4 8

MATCHLINE STA 13+00 SEE PF20



G11-LINE



G12-LINE

PF21

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 57 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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CHECKED	JAT	9/09
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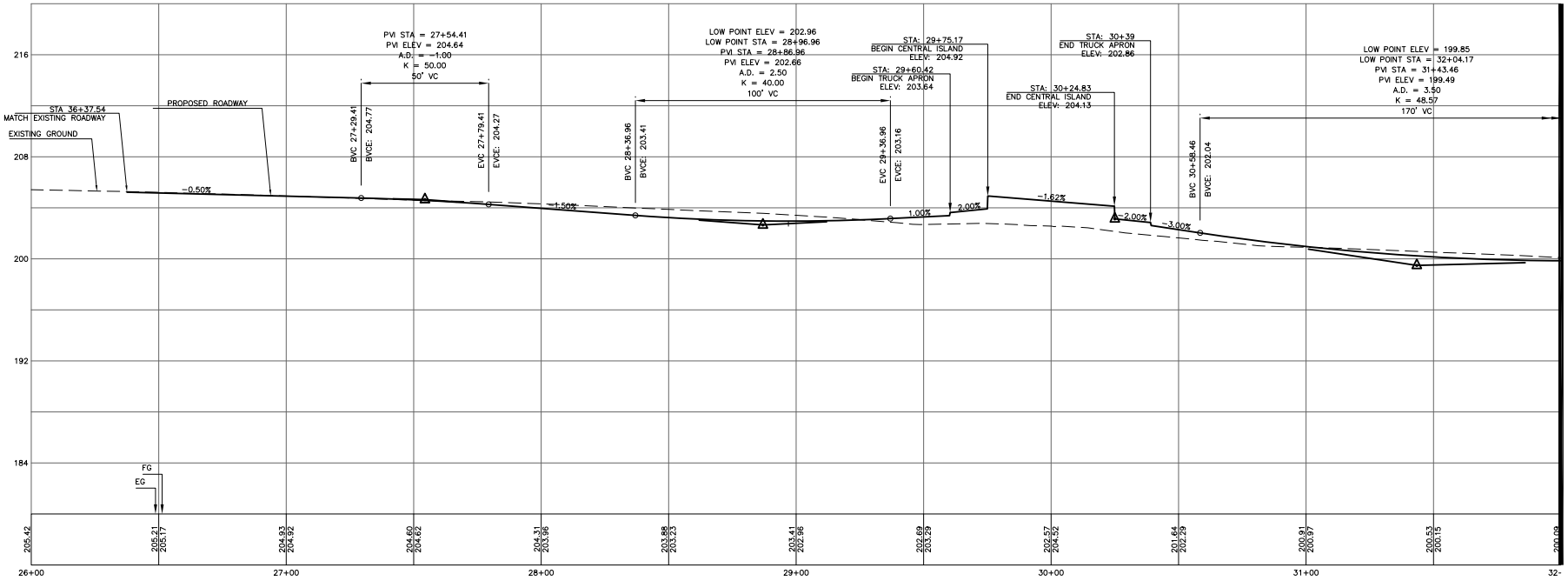
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone: (619)235-6000

DATE

HORZ. 0 10 20 40

VERT. 0 2 4 8



MATCHLINE STA 32+00 SEE PF23

DEL DIOS HIGHWAY - D LINE

PF22

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 58 OF 153 SHEETS

oxa 09/02/09 3:20pm – P:\a\SDC00000007\7\050AMPF\UJ4174\c-atxx-pf22.dwg

oca 09/02/09 4:38pm – P:\a\SDCD000007\Y\050JAPF\UJ4174\c-alxx-pf23.dwg

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

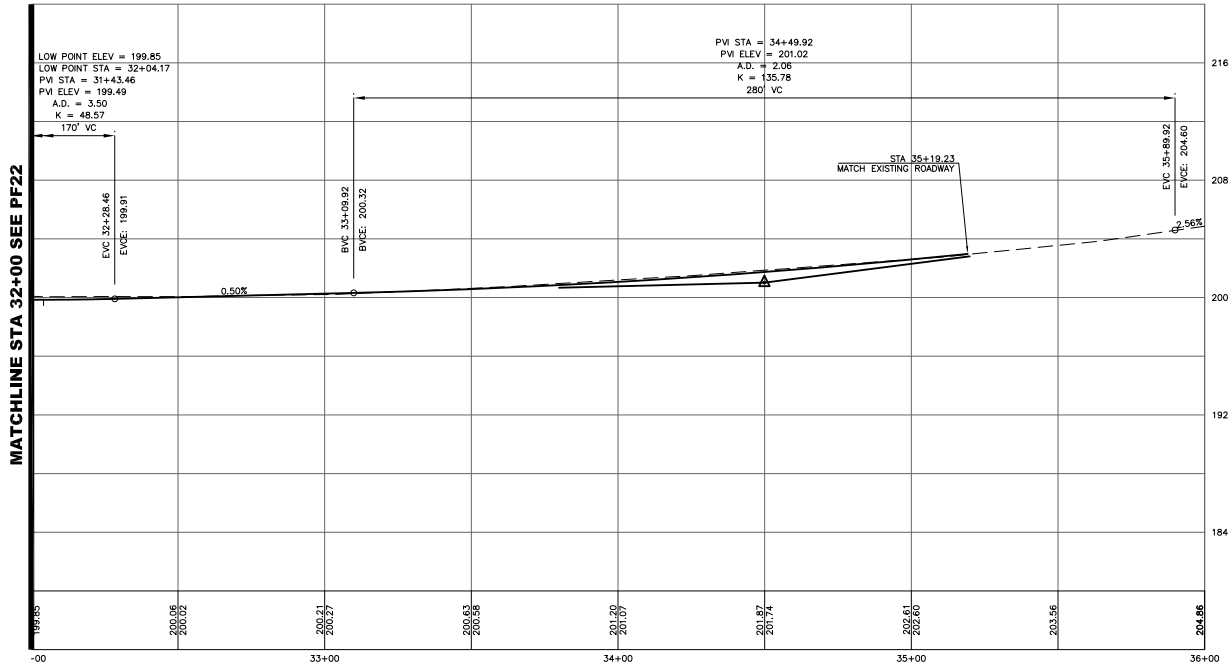
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
40 – 10th Avenue, Ste
Bellevue, Washington 98004-5000
Phone: 425.519.6500

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



DEL DIOS HIGHWAY - D LINE

PF23

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 59 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

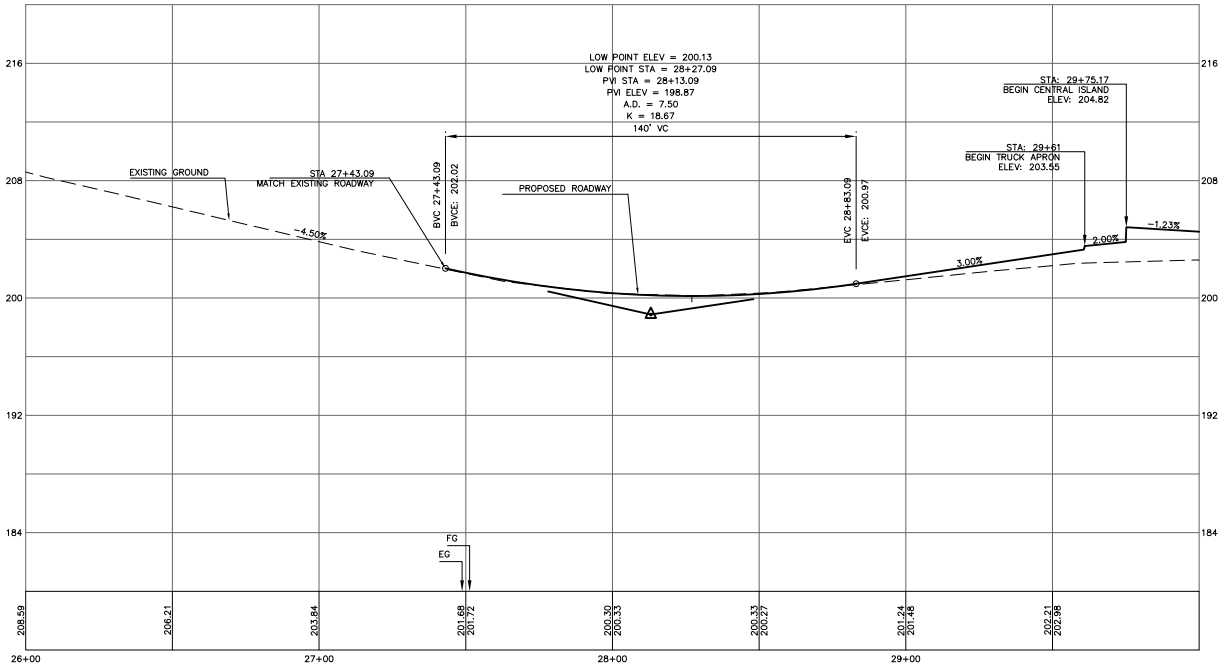
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5679
Phone: 425.519.6500

DATE

HORZ. 0 10 20 40

VERT. 0 2 4 8



EL CAMINO DEL NORTE - C LINE

oca 09/02/09 3:29pm – P:\a\SIO0000007\1050\APF\UJ4174\c-sht<n>-pf24.dwg

PF24

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 60 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

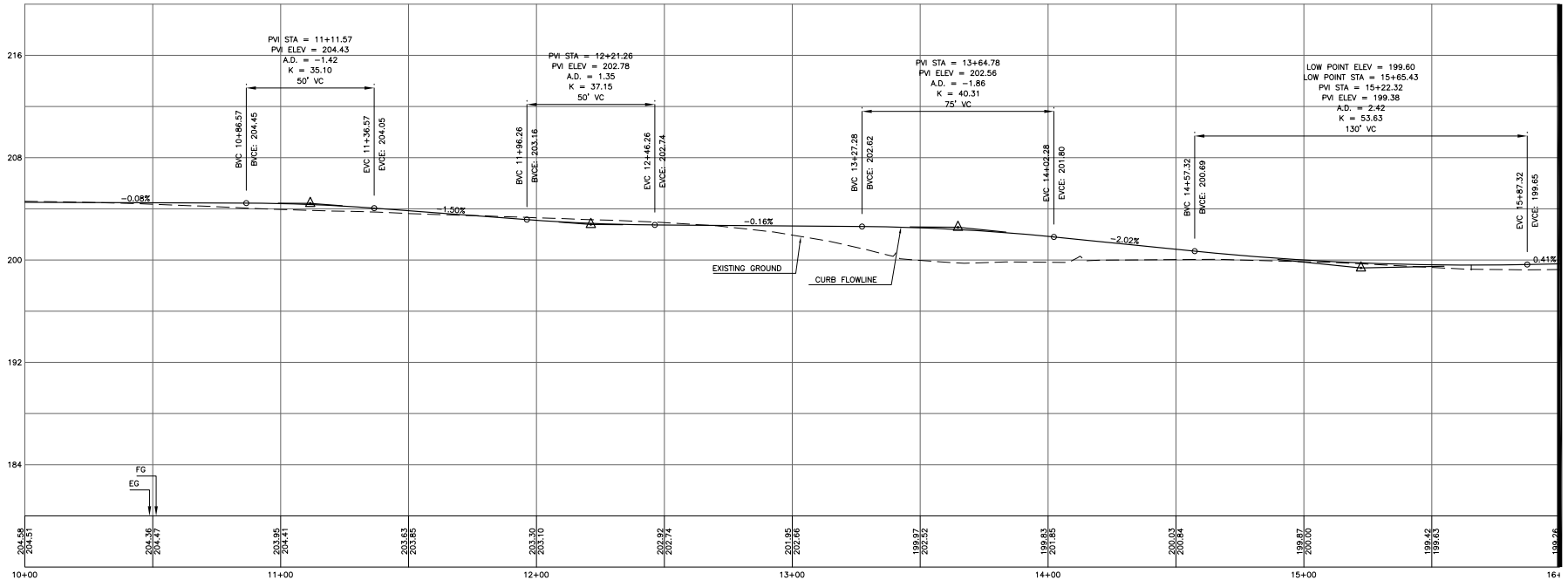
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



MATCHLINE STA 16+00 SEE PF26

G13-LINE

PF25

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 61 OF 153 SHEETS

oxa 09/02/09 3:20pm – P:\a\SIGD0000007\7\050JAPF\UJ4174\c-dtxx-pf25.dwg

oxa 09/02/09 3:19pm — P:\pj\SDC00000007\D00dAPP\UJ4174\c-dtlxx-pf26.dwg

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

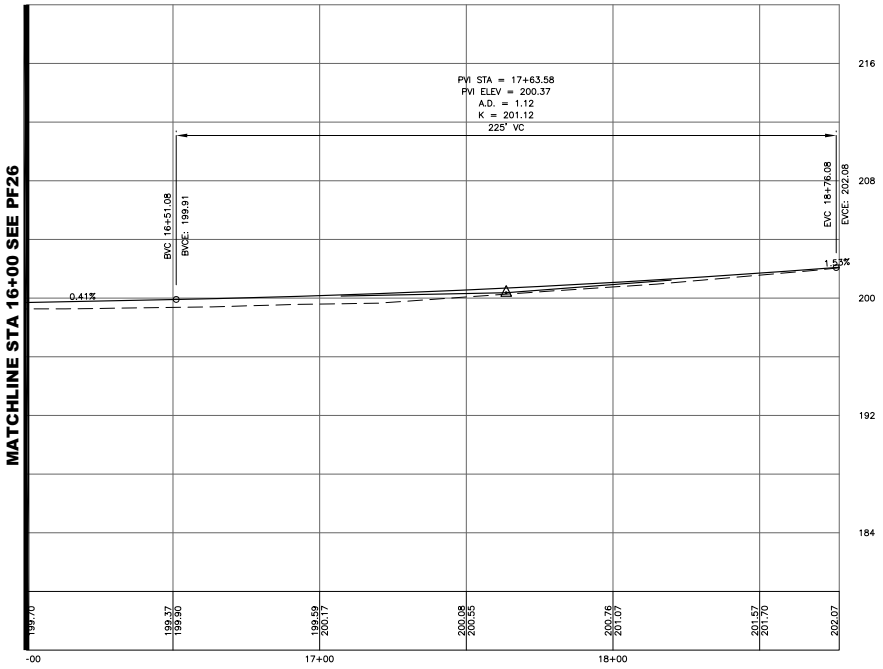
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
402 W. Broadway Ste 400
Mailing Address 92502-3629
Phone (951)688-0818

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G13-LINE

PF26

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 62 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10

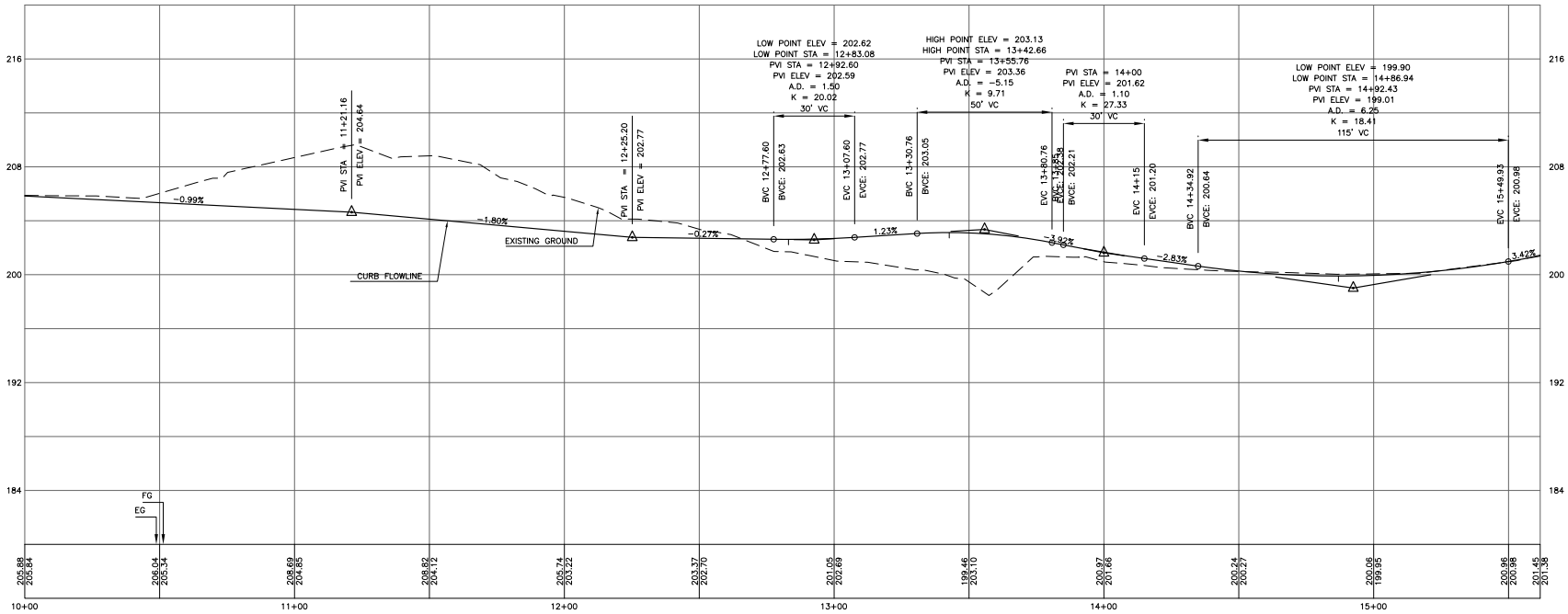
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

	PLANS	BY	DATE
DESIGNED		JMGE	9/09
CHECKED		JAT	9/09
DELINEATED		CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

HORZ. 0 10 20 40
VERT. 0 2 4 8



G14-LINE

PF27

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 63 OF 153 SHEETS

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oxa 09/02/09 3:19pm — P:\s\SDG00000007\V000\APP\UJ4174\c-alxx-pf28.dwg

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

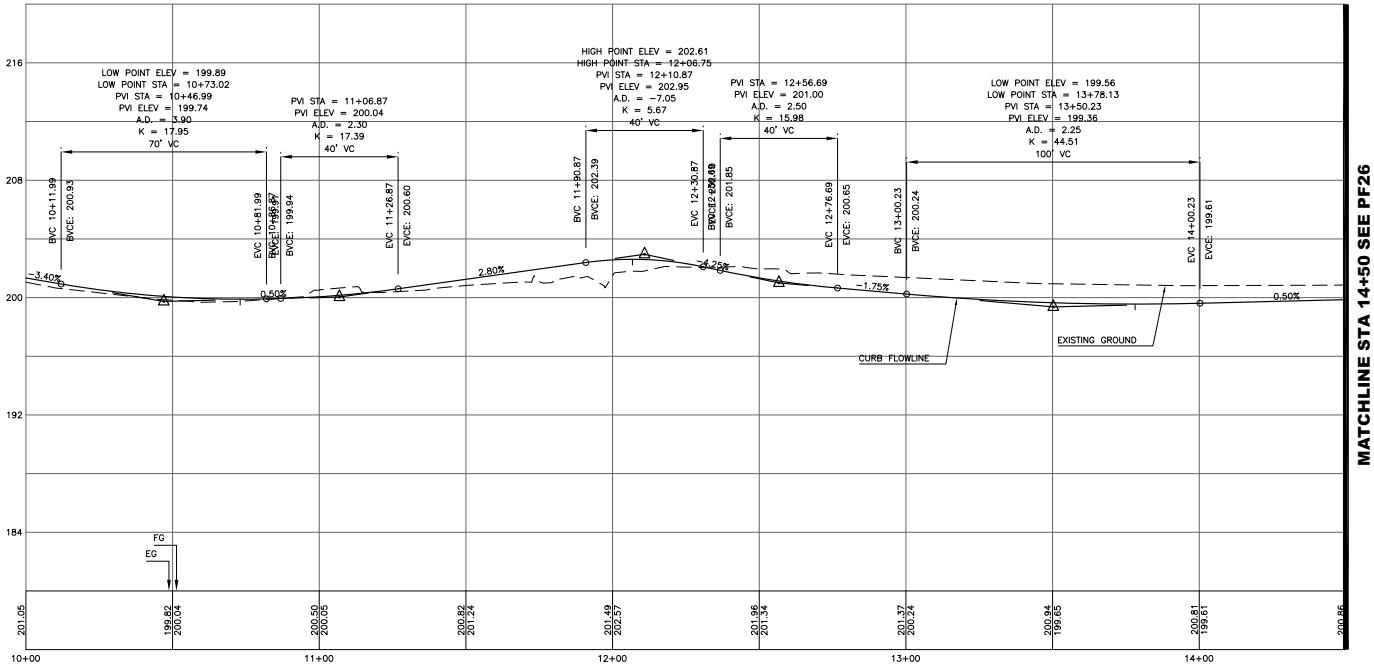
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
[illegible]

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



MATCHLINE STA 14+50 SEE PF26

G15-LINE

PF28

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 64 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

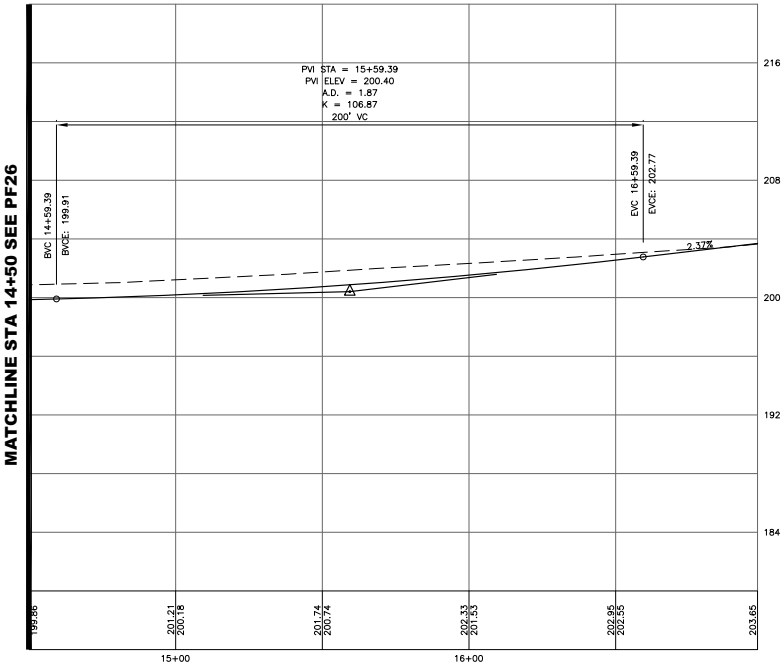
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

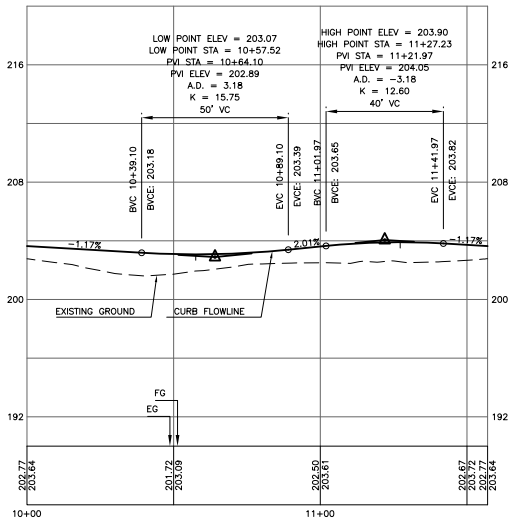
DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



G15-LINE



G16-LINE

PF29

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 65 OF 153 SHEETS

oxa 09/02/09 3:09pm — P:\s\SDC0000007\1050\APP\UJ4174\c-dsxx-pf29.dwg

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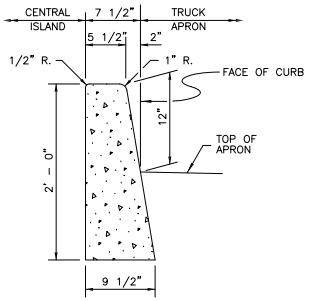
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ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

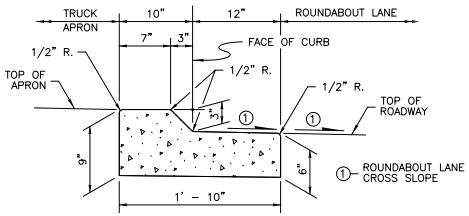
DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

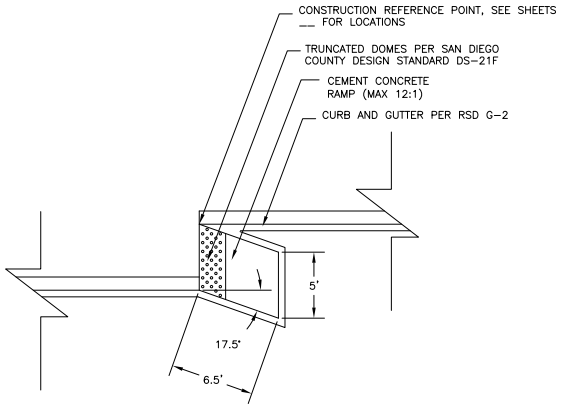
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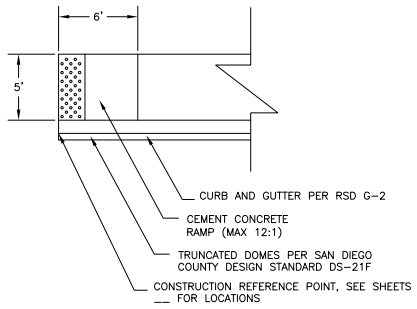
ROUNDABOUT CENTRAL ISLAND
CEMENT CONCRETE CURB
NOT TO SCALE



ROUNDABOUT TRUCK APRON
CEMENT CONCRETE CURB AND GUTTER
NOT TO SCALE



TYPE 1 BIKE RAMP DETAIL
NOT TO SCALE



TYPE 2 BIKE RAMP DETAIL
NOT TO SCALE

PDT1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL. _____
FIELD REVISIONS _____

RANCHO SANTA FE ROUNDABOUTS

PAVING DETAILS

SCALE: HOR. _____ VERT. _____
W.A. UJ4174 R.S. 476
SHEET 66 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

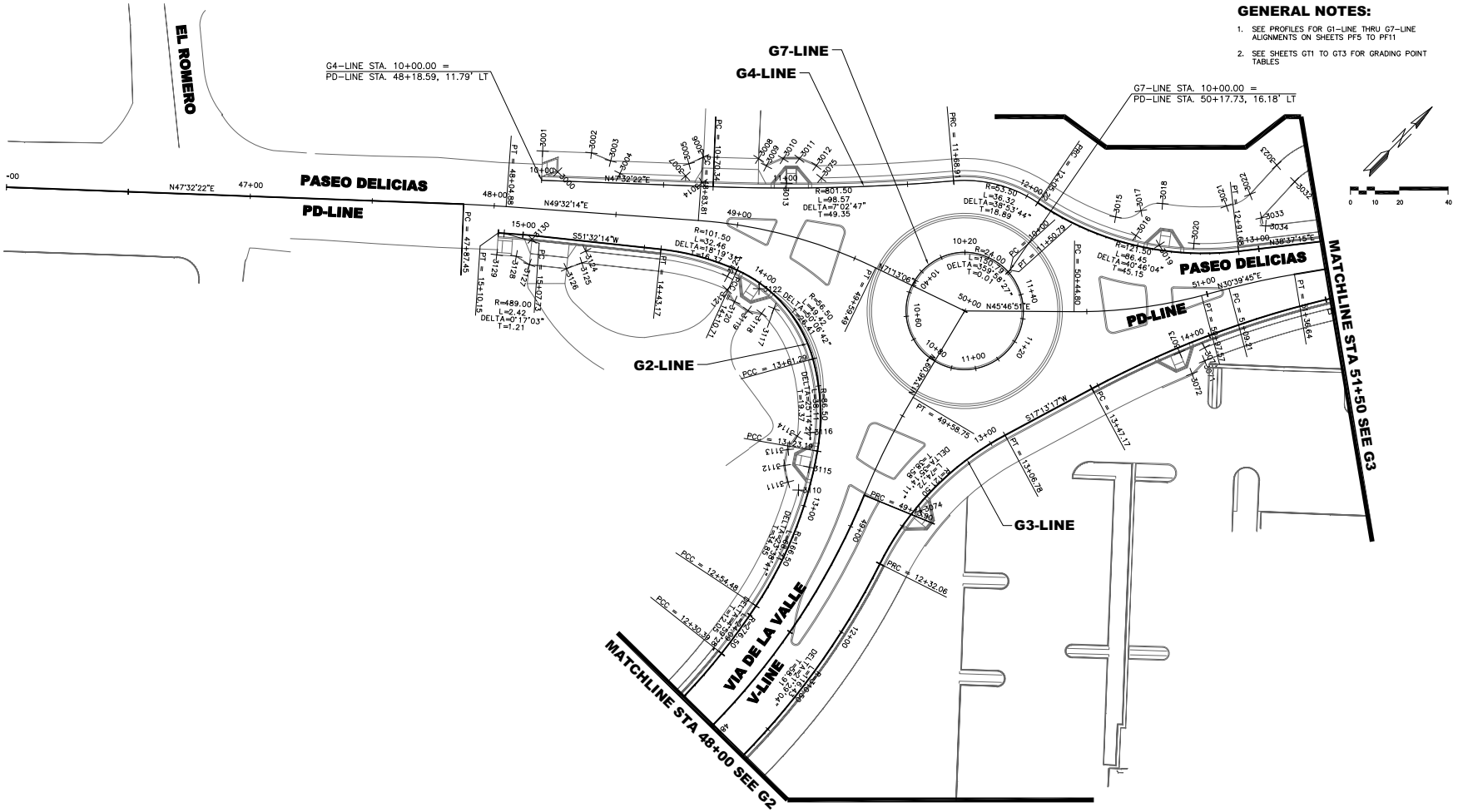
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 16th Avenue SW
Bellevue, Washington 98004-5040
Phone: 425.519.6500

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G1–LINE THRU G7–LINE ALIGNMENTS ON SHEETS PF5 TO PF11
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES



G1

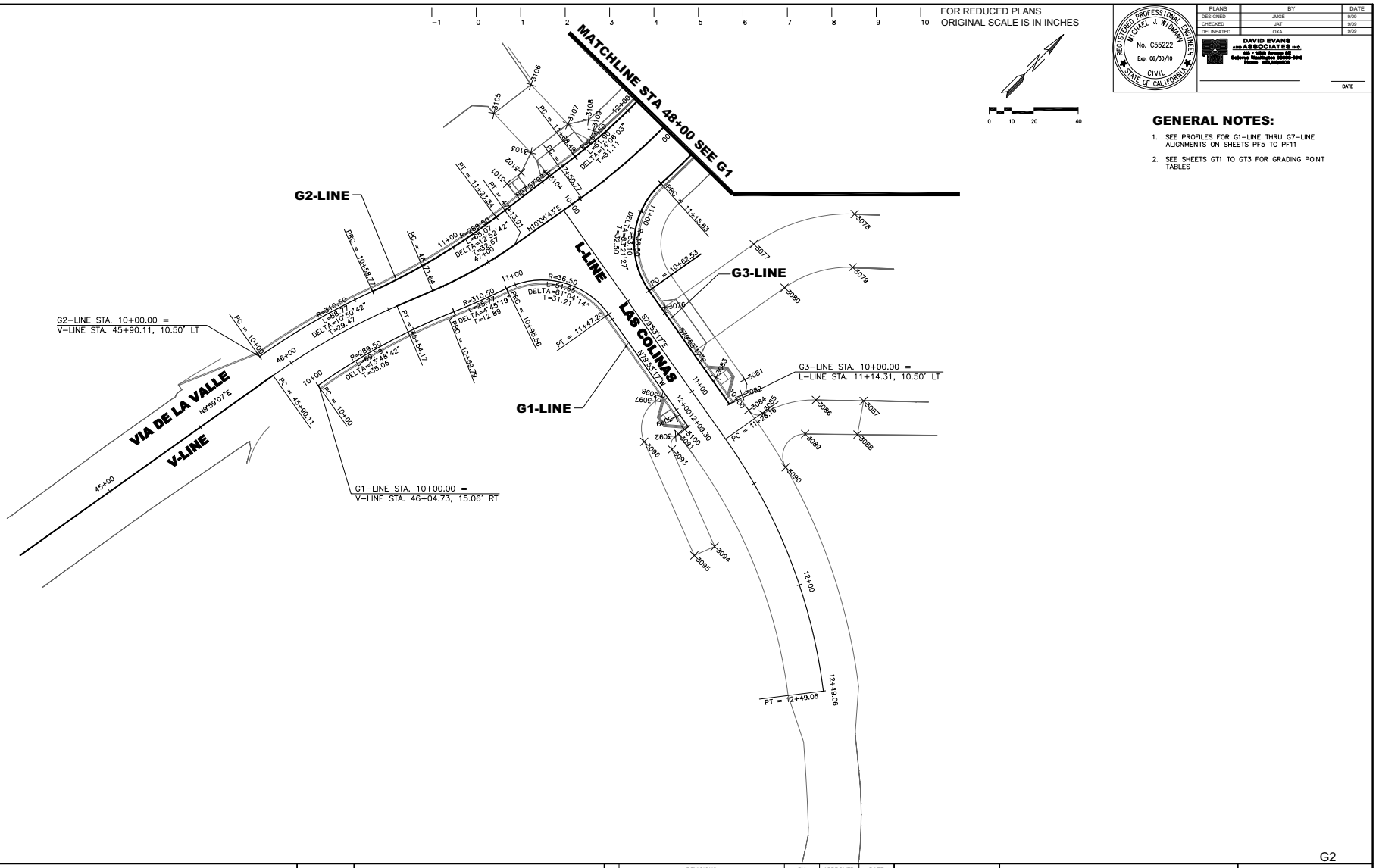
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 67 OF 153 SHEETS



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G1-LINE THRU G7-LINE ALIGNMENTS ON SHEETS PF5 TO PF11
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES

G2

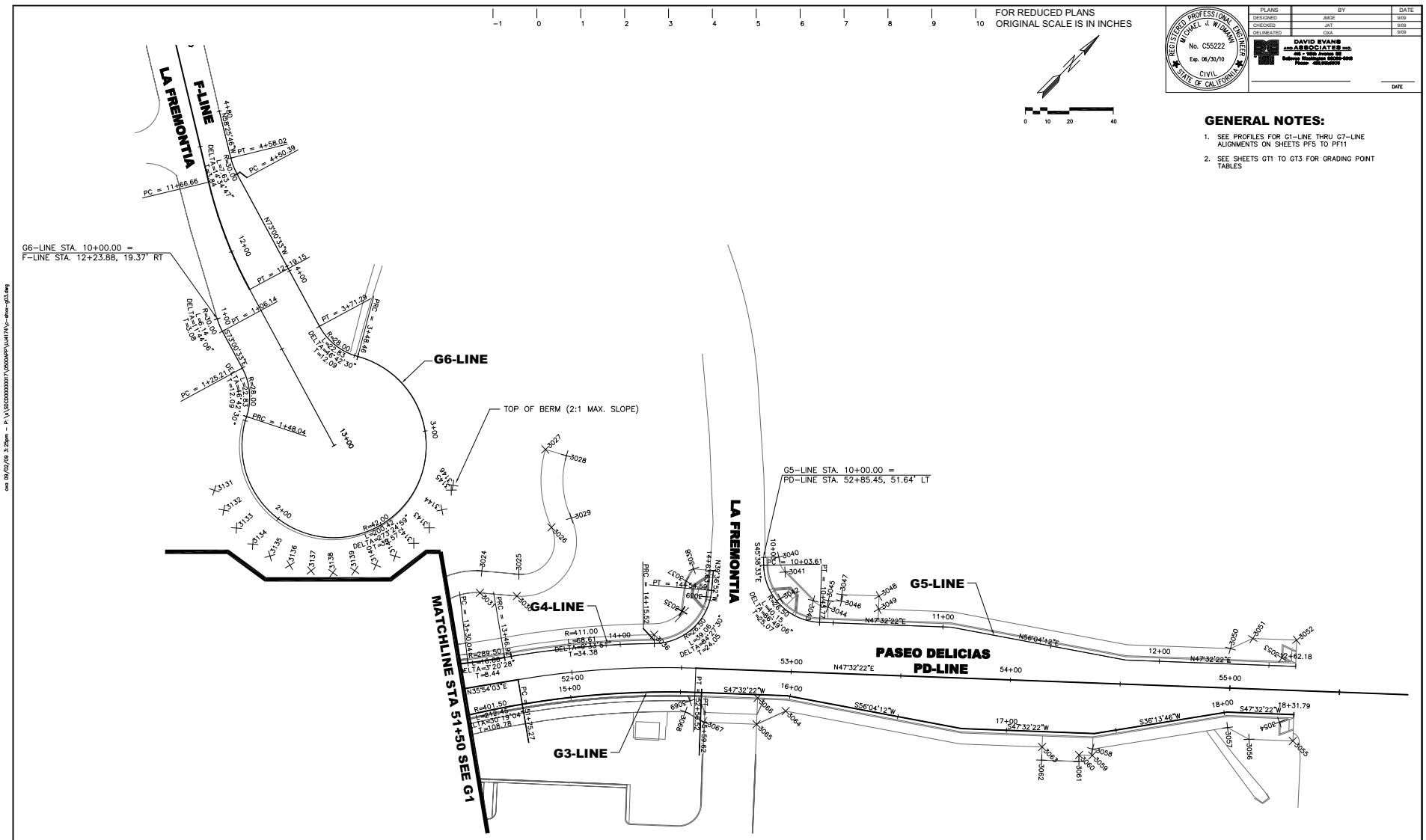
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 68 OF 153 SHEETS



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G1-LINE THRU G7-LINE ALIGNMENTS ON SHEETS PF5 TO PF11
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES

G3

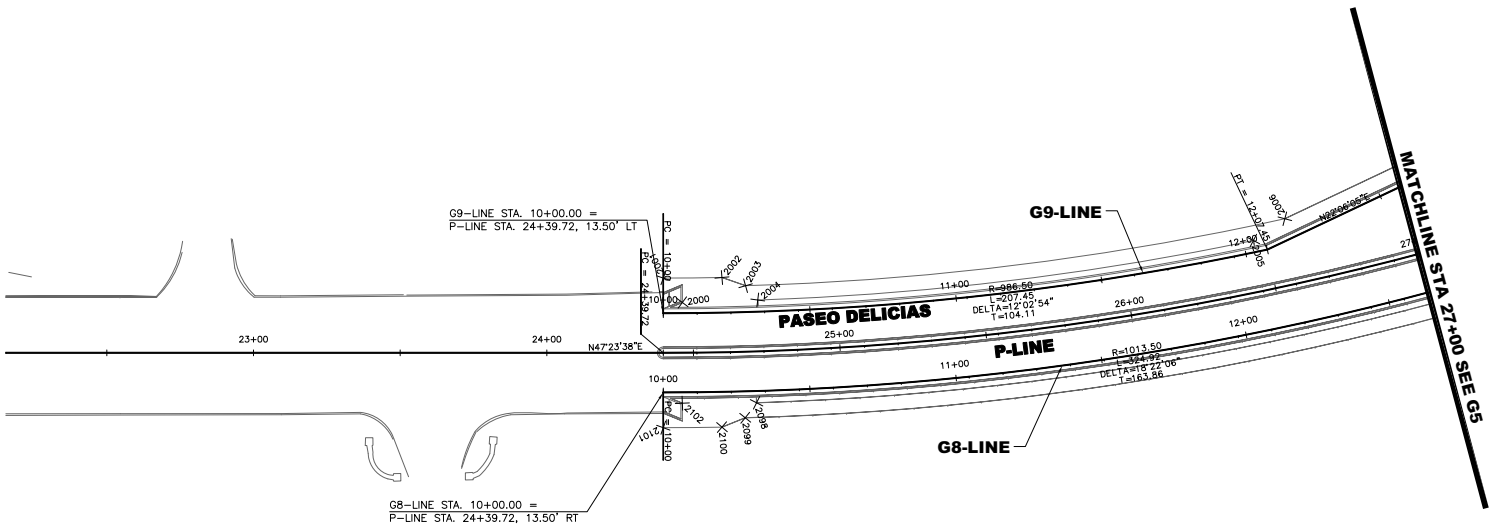
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 69 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone: 619.235.6000

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G8-LINE THRU G12-LINE ALIGNMENTS ON SHEETS PF16 TO PF21
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES

G4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

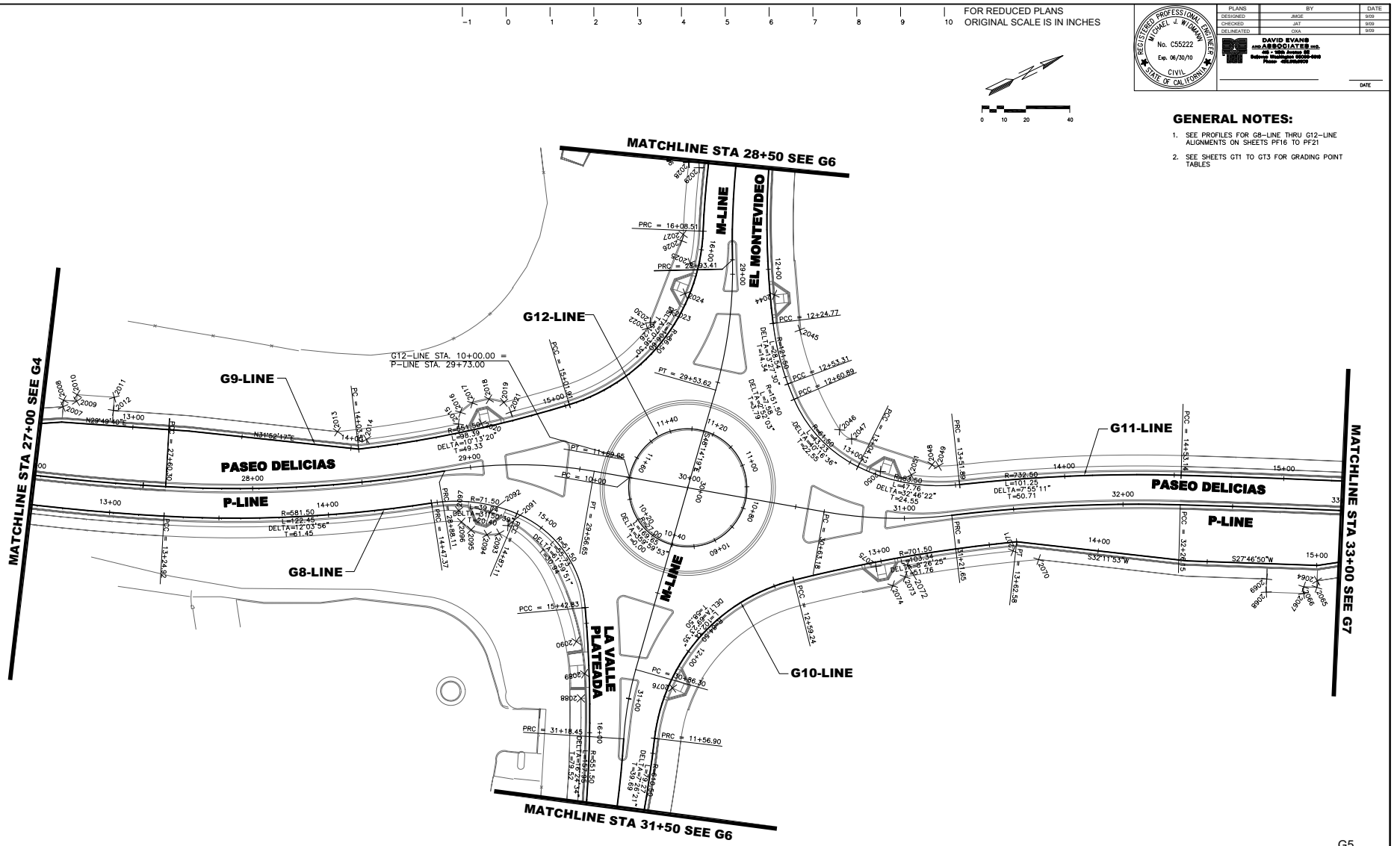
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 70 OF 153 SHEETS

oxo 09/02/09 3:25pm – P:\a\SDC00000007\1050\MAP\UJ4174\c-atxx-g04.dwg



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC. — 401 B Street, Suite 400 — San Diego, California 92101-4240 — Phone 619.235.6000

DATE

G5

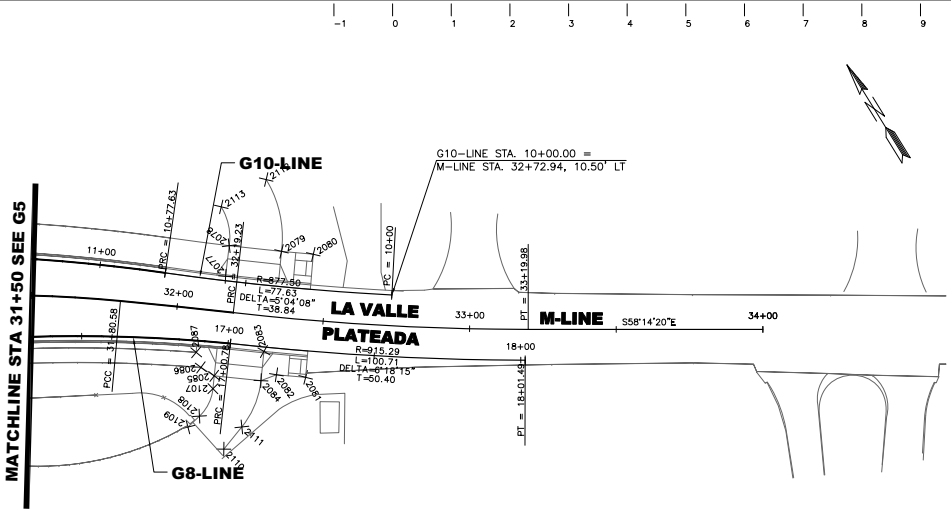
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

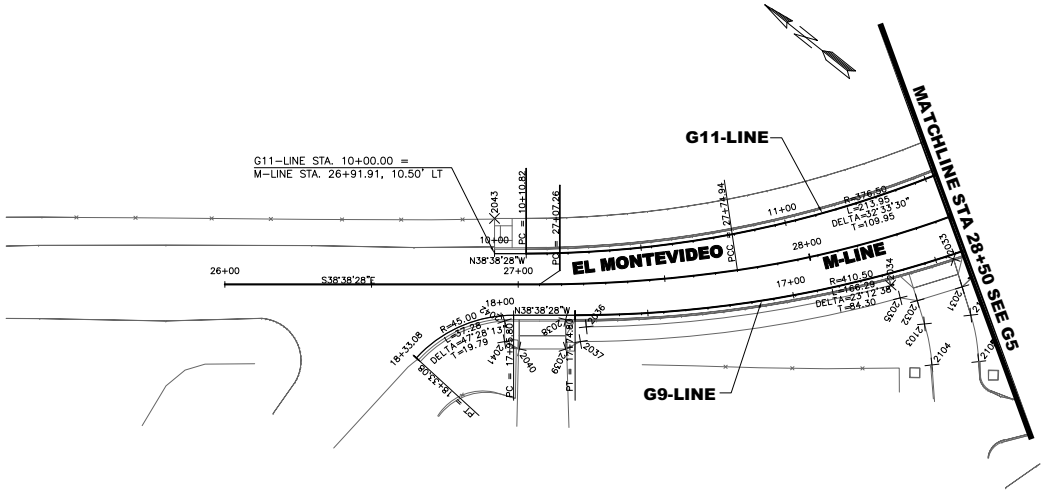
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 71 OF 153 SHEETS





FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 16th Avenue SW
Bellevue, Washington 98004-5040
Phone: 425.519.6500

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G8–LINE THRU G12–LINE ALIGNMENTS ON SHEETS PF16 TO PF21
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES

G6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 72 OF 153 SHEETS

dxa 09/02/09 3:25pm – P:\a\SDCD000000\7\050\APP\UJ4174\c-sht-xx-g06.dwg

dxp 09/02/09 3:25pm — P:\s\SDG000000017\050\MAPP\UJ4174\c-sht-g07.dwg

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 10 20 40

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

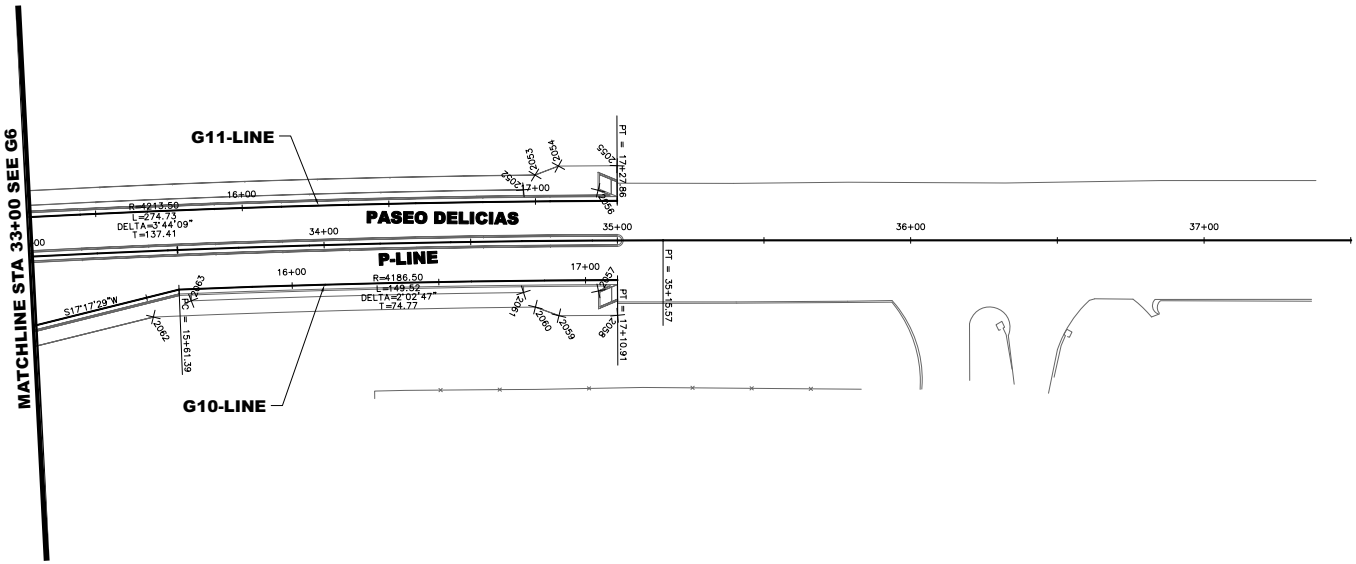
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC. 401 B Street Suite 400 San Diego California 92101-4240 Phone (619)235-0900

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G8−LINE THRU G12−LINE ALIGNMENTS ON SHEETS PF16 TO PF21
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES



G7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 73 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

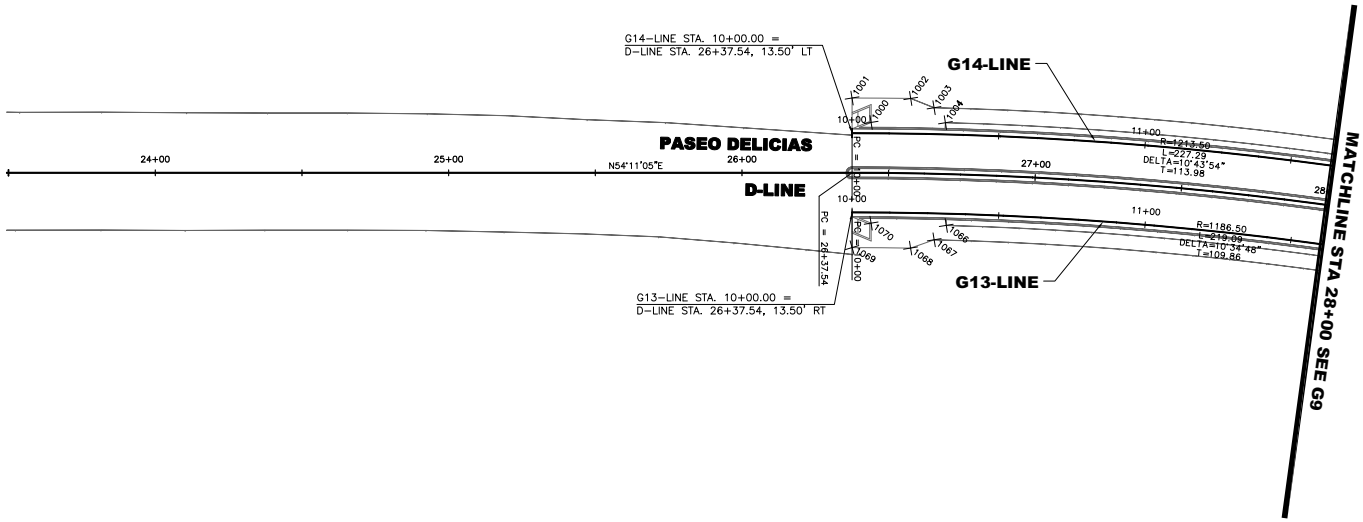
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G13−LINE THRU G16−LINE ALIGNMENTS ON SHEETS PF25 TO PF29
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES



G8

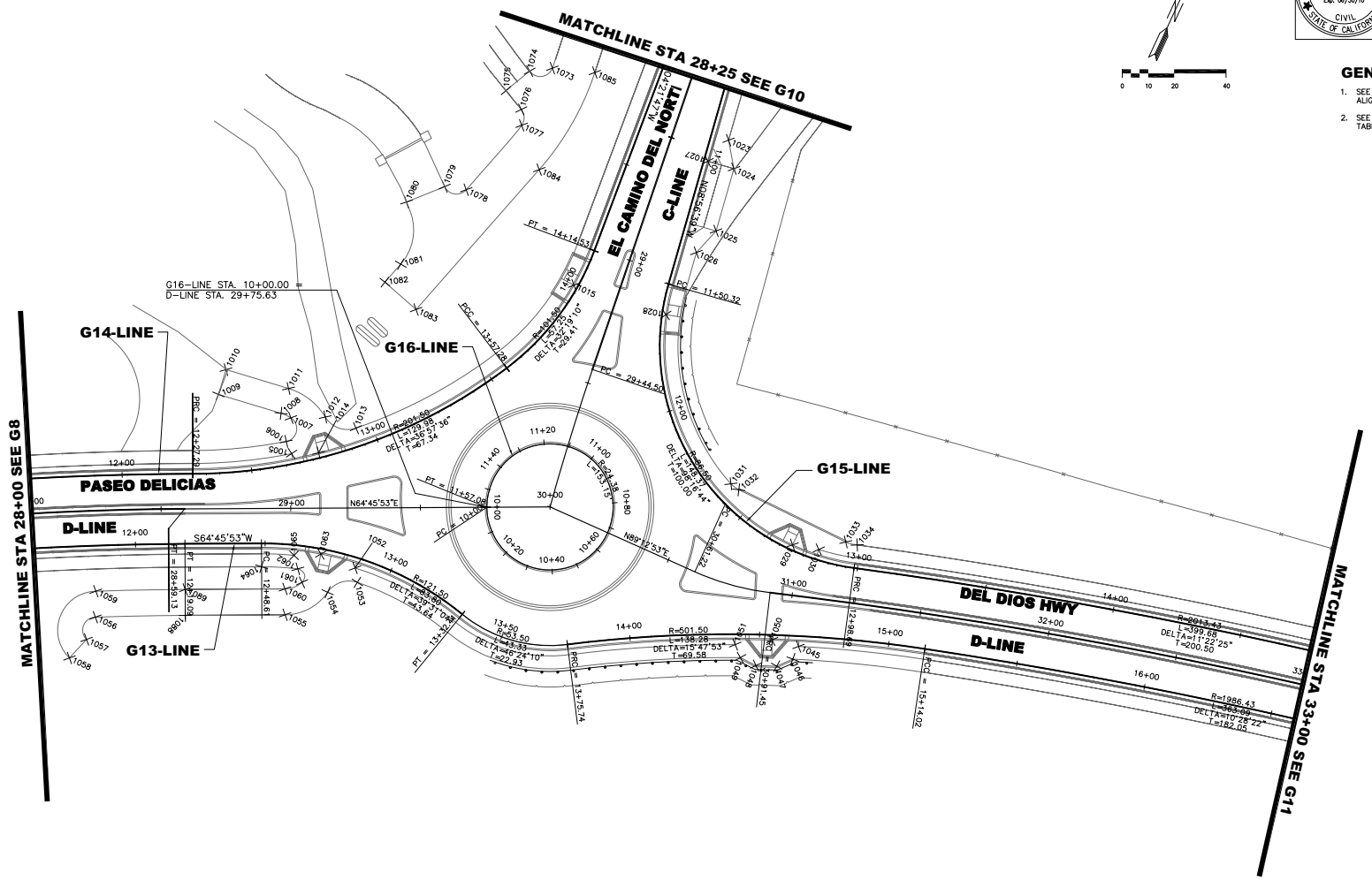
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 74 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G13-LINE THRU G16-LINE ALIGNMENTS ON SHEETS PF25 TO PF29
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES

G9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 75 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

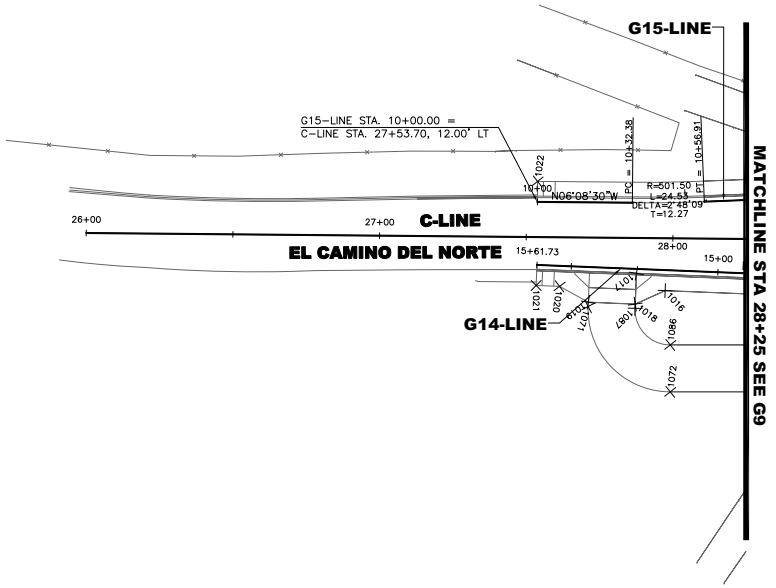
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5989
Phone: 425.519.6500

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G13–LINE THRU G16–LINE ALIGNMENTS ON SHEETS PF25 TO PF29
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES



G10

COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS 5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295	REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX XXXXXX N. XXXXXX E. CONST. COMPL. FIELD REVISIONS	RANCHO SANTA FE ROUNDABOUTS EL CAMINO DEL NORTE GRADING PLAN	SCALE: HOR. AS NOTED VERT. W.A. UJ4174 R.S. 476 SHEET 76 OF 153 SHEETS

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−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

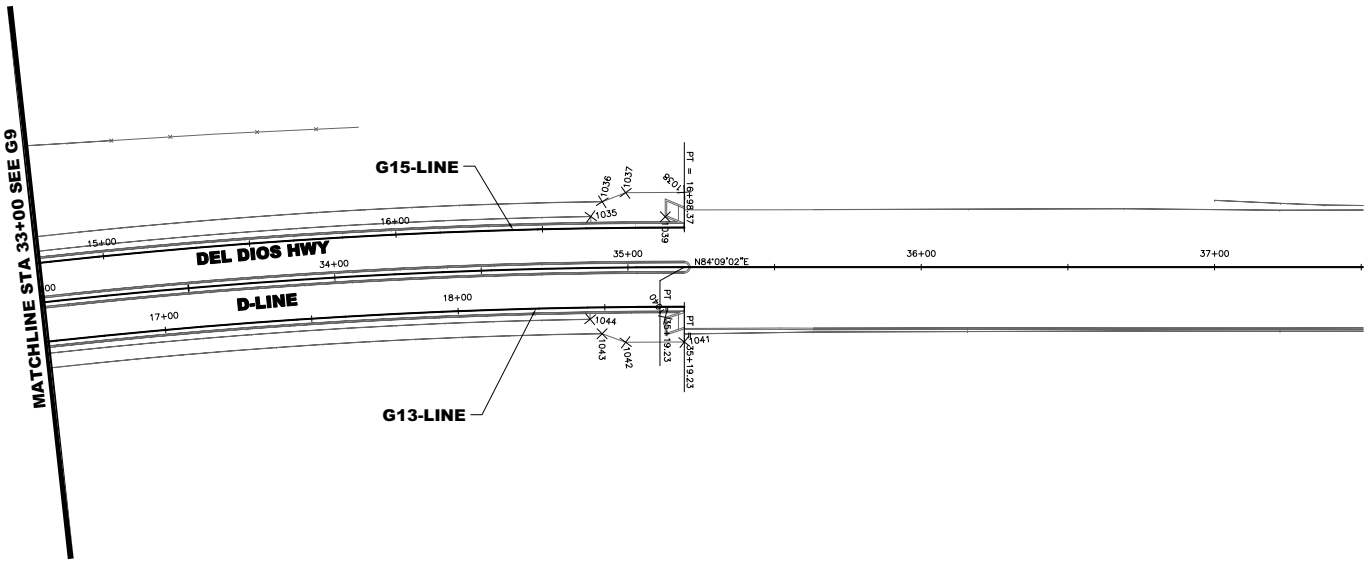
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. SEE PROFILES FOR G13–LINE THRU G16–LINE ALIGNMENTS ON SHEETS PF25 TO PF29
2. SEE SHEETS GT1 TO GT3 FOR GRADING POINT TABLES



G11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
GRADING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 77 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone 425.519.6500

DATE

POINT#	NORTHING	EASTING	DESCRIPTION
3000	1953261.712	6270590.622	BIKE RAMP
3001	1953263.472	6270580.201	BEGIN WALKWAY
3002	1953276.974	6270594.956	ANGLE PT WALKWAY
3003	1953280.161	6270602.883	ANGLE PT WALKWAY
3004	1953279.173	6270609.210	BEGIN PLANTER
3005	1953301.806	6270626.537	ANGLE PT WALKWAY
3006	1953308.019	6270628.882	ANGLE PT WALKWAY
3007	1953297.347	6270629.071	END PLANTER
3008	1953323.384	6270645.363	ANGLE PT WALKWAY
3009	1953323.479	6270649.790	ANGLE PT WALKWAY
3010	1953330.423	6270652.622	ANGLE PT WALKWAY
3011	1953335.071	6270657.310	ANGLE PT WALKWAY
3012	1953337.843	6270664.278	ANGLE PT WALKWAY
3013	1953324.237	6270660.586	PEDESTRIAN RAMP
3014	1953300.226	6270635.921	DRIVEWAY
3015	1953409.028	6270766.280	P.C.C. WALKWAY
3016	1953409.488	6270777.611	END PLANTER
3017	1953418.136	6270771.908	P.R.C. WALKWAY
3018	1953426.424	6270776.147	P.R.C. WALKWAY
3019	1953413.392	6270787.149	PEDESTRIAN RAMP
3020	1953423.847	6270796.775	BEGIN PLANTER
3021	1953444.106	6270795.438	P.C.C. WALKWAY
3022	1953454.292	6270798.965	P.T. WALKWAY
3023	1953470.485	6270798.412	P.C. WALKWAY
3024	1953498.642	6270811.074	P.T. WALKWAY
3025	1953509.435	6270824.113	P.C. WALKWAY
3026	1953535.075	6270819.706	P.R.C. WALKWAY
3027	1953558.402	6270792.830	P.T. WALKWAY
3028	1953563.127	6270801.643	P.C. WALKWAY
3029	1953544.466	6270823.144	P.R.C. WALKWAY
3030	1953501.731	6270830.489	P.T. WALKWAY
3031	1953490.939	6270817.451	P.C. WALKWAY
3032	1953470.827	6270808.406	P.T. WALKWAY
3033	1953450.755	6270809.092	P.C. WALKWAY
3034	1953449.575	6270812.653	P.T. WALKWAY
3035	1953549.659	6270888.921	ANGLE PT WALKWAY
3036	1953533.102	6270887.387	END PLANTER
3037	1953560.733	6270880.654	ANGLE PT WALKWAY
3038	1953567.093	6270879.149	ANGLE PT WALKWAY
3039	1953562.053	6270892.148	PEDESTRIAN RAMP
3040	1953598.179	6270902.978	P.C. WALKWAY
3041	1953595.330	6270909.804	P.T. WALKWAY
3042	1953585.213	6270916.791	PEDESTRIAN RAMP
3043	1953595.027	6270928.109	P.C. WALKWAY
3044	1953597.649	6270935.025	P.T. WALKWAY
3045	1953599.862	6270933.000	ANGLE PT WALKWAY
3046	1953603.912	6270937.426	ANGLE PT WALKWAY
3047	1953606.125	6270935.401	ANGLE PT WALKWAY
3048	1953617.602	6270947.943	ANGLE PT WALKWAY
3049	1953613.176	6270951.993	ANGLE PT WALKWAY
3050	1953712.945	6271078.798	ANGLE PT WALKWAY
3051	1953723.384	6271082.800	ANGLE PT WALKWAY
3052	1953736.886	6271097.554	END WALKWAY
3053	1953726.350	6271098.385	BIKE RAMP

POINT#	NORTHING	EASTING	DESCRIPTION
3054	1953704.709	6271118.187	BIKE RAMP
3055	1953702.950	6271128.608	END WALKWAY
3056	1953689.448	6271113.853	ANGLE PT WALKWAY
3057	1953686.386	6271103.101	ANGLE PT WALKWAY
3058	1953636.219	6271066.197	ANGLE PT WALKWAY
3059	1953634.077	6271068.156	ANGLE PT WALKWAY
3060	1953630.027	6271063.730	ANGLE PT WALKWAY
3061	1953627.813	6271065.755	ANGLE PT WALKWAY
3062	1953616.337	6271053.213	ANGLE PT WALKWAY
3063	1953620.763	6271049.163	ANGLE PT WALKWAY
3064	1953550.380	6270954.471	ANGLE PT WALKWAY
3065	1953536.808	6270949.269	ANGLE PT WALKWAY
3066	1953545.661	6270941.168	DRIVEWAY
3067	1953520.722	6270931.689	ANGLE PT WALKWAY
3068	1953518.005	6270922.149	ANGLE PT WALKWAY
3069	1953522.984	6270920.139	END PLANTER
3070	1953396.503	6270829.865	BEGIN PLANTER
3071	1953392.670	6270833.628	ANGLE PT WALKWAY
3072	1953385.288	6270833.684	ANGLE PT WALKWAY
3073	1953387.909	6270823.946	PEDESTRIAN RAMP
3074	1953267.194	6270793.851	PEDESTRIAN RAMP
3075	1953335.757	6270669.235	BEGIN PLANTER
3076	1953086.759	6270852.231	DRIVEWAY
3077	1953135.033	6270860.844	DRIVEWAY
3078	1953176.548	6270883.646	DRIVEWAY
3079	1953158.870	6270899.878	DRIVEWAY
3080	1953130.819	6270884.472	DRIVEWAY
3081	1953088.768	6270900.770	P.C. WALKWAY
3082	1953082.968	6270904.815	P.T. WALKWAY
3083	1953080.381	6270890.843	DRIVEWAY
3084	1953080.200	6270911.788	DRIVEWAY
3085	1953083.815	6270917.491	DRIVEWAY
3086	1953104.725	6270929.991	DRIVEWAY
3087	1953119.496	6270945.597	DRIVEWAY
3088	1953106.780	6270954.228	DRIVEWAY
3089	1953090.413	6270937.312	DRIVEWAY
3090	1953073.600	6270941.556	DRIVEWAY
3091	1953050.392	6270896.668	ANGLE PT WALKWAY
3092	1953048.908	6270896.404	P.T. WALKWAY
3093	1953043.382	6270899.483	P.C. WALKWAY
3094	1953025.775	6270943.880	ANGLE PT WALKWAY
3095	1953016.480	6270940.194	ANGLE PT WALKWAY
3096	1953037.096	6270888.207	P.T. WALKWAY
3097	1953053.674	6270878.970	P.C. WALKWAY
3098	1953056.998	6270879.563	ANGLE PT WALKWAY
3099	1953055.067	6270890.392	PEDESTRIAN RAMP
3100	1953053.838	6270897.283	ANGLE PT WALKWAY
3101	1953076.530	6270762.654	BEGIN WALKWAY
3102	1953084.453	6270763.761	ANGLE PT WALKWAY
3103	1953093.898	6270760.537	ANGLE PT WALKWAY
3104	1953092.256	6270772.424	DRIVEWAY
3105	1953094.833	6270736.333	DRIVEWAY
3106	1953115.764	6270739.121	DRIVEWAY
3107	1953114.818	6270763.371	ANGLE PT WALKWAY

POINT#	NORTHING	EASTING	DESCRIPTION
3108	1953122.619	6270768.633	ANGLE PT WALKWAY
3109	1953120.700	6270773.494	BEGIN PLANTER
3110	1953238.154	6270752.386	END PLANTER
3111	1953237.483	6270747.037	ANGLE PT WALKWAY
3112	1953241.379	6270741.271	ANGLE PT WALKWAY
3113	1953246.917	6270737.671	ANGLE PT WALKWAY
3114	1953253.523	6270736.550	ANGLE PT WALKWAY
3115	1953247.920	6270748.945	PEDESTRIAN RAMP
3116	1953258.242	6270739.165	BEGIN PLANTER
3117	1953284.044	6270692.952	END PLANTER
3118	1953279.096	6270690.793	ANGLE PT WALKWAY
3119	1953275.944	6270686.017	ANGLE PT WALKWAY
3120	1953274.773	6270679.504	ANGLE PT WALKWAY
3121	1953276.055	6270673.900	ANGLE PT WALKWAY
3122	1953285.554	6270682.961	PEDESTRIAN RAMP
3123	1953279.989	6270670.196	END PLANTER
3124	1953246.656	6270621.509	BEGIN PLANTER
3125	1953242.119	6270623.836	ANGLE PT WALKWAY
3126	1953236.038	6270621.004	ANGLE PT WALKWAY
3127	1953226.494	6270608.990	ANGLE PT WALKWAY
3128	1953225.186	6270602.780	ANGLE PT WALKWAY
3129	1953219.990	6270596.698	BEGIN WALKWAY
3130	1953234.716	6270602.459	DRIVEWAY

POINT#	NORTHING	EASTING	EL	DESCRIPTION
3131	1953439.245	6270698.486	245.12	BERM
3132	1953435.819	6270707.867	245.31	BERM
3133	1953434.066	6270717.700	245.50	BERM
3134	1953434.084	6270728.184	245.68	BERM
3135	1953435.741	6270737.528	245.88	BERM
3136	1953439.118	6270746.928	246.07	BERM
3137	1953444.070	6270755.601	246.27	BERM
3138	1953450.447	6270763.288	246.46	BERM
3139	1953458.056	6270769.756	246.65	BERM
3140	1953466.670	6270774.811	246.83	BERM
3141	1953475.672	6270778.200	246.69	BERM
3142	1953485.849	6270780.119	246.11	BERM
3143	1953495.836	6270780.212	245.35	BERM
3144	1953505.688	6270778.577	244.59	BERM
3145	1953515.110	6270775.262	243.83	BERM
3146	1953517.211	6270774.259	243.20	BERM

GT1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
GRADING POINT TABLES

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 78 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

POINT#	NORTHING	EASTING	DESCRIPTION
2000	1955473.999	6273001.442	BIKE RAMP
2001	1955475.719	6272991.030	BEGIN WALKWAY
2002	1955489.408	6273005.610	ANGLE PT WALKWAY
2003	1955492.801	6273013.439	ANGLE PT WALKWAY
2004	1955492.016	6273019.788	BEGIN PLANTER
2005	1955621.336	6273130.421	END PLANTER
2006	1955634.065	6273133.289	ANGLE PT WALKWAY
2007	1955681.504	6273152.531	ANGLE PT WALKWAY
2008	1955682.970	6273149.973	ANGLE PT WALKWAY
2009	1955688.176	6273152.957	ANGLE PT WALKWAY
2010	1955689.668	6273150.354	ANGLE PT WALKWAY
2011	1955704.416	6273158.810	ANGLE PT WALKWAY
2012	1955701.432	6273164.015	ANGLE PT WALKWAY
2013	1955789.321	6273217.269	ANGLE PT WALKWAY
2014	1955799.650	6273226.165	BEGIN PLANTER
2015	1955840.500	6273238.130	END PLANTER
2016	1955843.641	6273233.760	ANGLE PT WALKWAY
2017	1955850.414	6273232.317	ANGLE PT WALKWAY
2018	1955857.964	6273234.035	ANGLE PT WALKWAY
2019	1955863.446	6273238.265	ANGLE PT WALKWAY
2020	1955850.021	6273242.483	PEDESTRIAN RAMP
2021	1955864.388	6273243.564	BEGIN PLANTER
2022	1955937.111	6273236.319	P.C.C. WALKWAY
2023	1955950.417	6273234.256	END PLANTER
2024	1955959.516	6273229.575	PEDESTRIAN RAMP
2025	1955967.649	6273218.032	END PLANTER
2026	1955968.662	6273207.230	P.C. WALKWAY
2027	1955970.509	6273204.875	P.T. WALKWAY
2028	1955987.155	6273176.276	ANGLE PT WALKWAY
2029	1955990.332	6273180.609	BEGIN PLANTER
2030	1955939.573	6273234.617	P.T. WALKWAY
2031	1955987.940	6273170.441	ANGLE PT WALKWAY
2032	1955996.940	6273157.212	ANGLE PT WALKWAY
2033	1955996.197	6273176.055	DRIVEWAY
2034	1956007.280	6273155.698	END PLANTER
2035	1956002.080	6273154.339	ANGLE PT WALKWAY
2036	1956079.515	6273079.778	BEGIN PLANTER
2037	1956077.940	6273074.618	ANGLE PT WALKWAY
2038	1956086.532	6273077.347	DRIVEWAY
2039	1956080.288	6273069.536	ANGLE PT WALKWAY
2040	1956092.650	6273059.653	ANGLE PT WALKWAY
2041	1956098.116	6273058.483	ANGLE PT WALKWAY
2042	1956102.487	6273063.951	BEGIN WALKWAY
2043	1956127.029	6273089.140	BEGIN WALKWAY
2044	1955995.983	6273247.894	PEDESTRIAN RAMP
2045	1955999.431	6273267.279	P.C. WALKWAY
2046	1955995.971	6273316.265	P.C.C. WALKWAY
2047	1955999.011	6273322.423	P.T. WALKWAY
2048	1956026.922	6273349.040	P.C.C. WALKWAY
2049	1956029.436	6273350.789	P.T. WALKWAY
2050	1956004.447	6273341.425	PEDESTRIAN RAMP
2051	1956016.418	6273348.891	BEGIN PLANTER
2052	1956341.590	6273516.987	END PLANTER
2053	1956347.583	6273514.729	ANGLE PT WALKWAY
2054	1956355.995	6273516.243	ANGLE PT WALKWAY
2055	1956373.148	6273526.528	END WALKWAY
2056	1956363.279	6273530.309	BIKE RAMP
2057	1956345.554	6273559.713	BIKE RAMP
2058	1956346.819	6273570.206	END WALKWAY

POINT#	NORTHING	EASTING	DESCRIPTION
2059	1956329.665	6273559.922	ANGLE PT WALKWAY
2060	1956324.327	6273553.255	ANGLE PT WALKWAY
2061	1956323.439	6273546.915	END PLANTER
2062	1956211.257	6273488.491	BEGIN PLANTER
2063	1956225.165	6273490.483	ANGLE PT WALKWAY
2064	1956162.124	6273473.129	ANGLE PT WALKWAY
2065	1956160.725	6273475.783	ANGLE PT WALKWAY
2066	1956155.418	6273472.984	ANGLE PT WALKWAY
2067	1956154.018	6273475.638	ANGLE PT WALKWAY
2068	1956138.981	6273467.707	ANGLE PT WALKWAY
2069	1956141.780	6273462.400	ANGLE PT WALKWAY
2070	1956051.940	6273409.120	ANGLE PT WALKWAY
2071	1956043.181	6273400.496	END PLANTER
2072	1955996.933	6273385.384	BEGIN PLANTER
2073	1955993.652	6273389.644	ANGLE PT WALKWAY
2074	1955986.793	6273390.827	ANGLE PT WALKWAY
2075	1955983.727	6273379.643	PEDESTRIAN RAMP
2076	1955875.988	6273389.197	PEDESTRIAN RAMP
2077	1955800.066	6273487.139	DRIVEWAY
2078	1955808.281	6273493.679	DRIVEWAY
2079	1955797.257	6273507.824	DRIVEWAY
2080	1955790.718	6273516.510	BEGIN WALKWAY
2081	1955756.417	6273492.217	BEGIN WALKWAY
2082	1955762.408	6273484.211	ANGLE PT WALKWAY
2083	1955771.409	6273484.768	DRIVEWAY
2084	1955763.487	6273478.666	ANGLE PT WALKWAY
2085	1955773.243	6273465.984	ANGLE PT WALKWAY
2086	1955778.090	6273463.634	ANGLE PT WALKWAY
2087	1955783.308	6273464.967	BEGIN PLANTER
2088	1955836.302	6273375.241	END PLANTER
2089	1955842.725	6273365.842	PEDESTRIAN RAMP
2090	1955845.663	6273350.963	BEGIN PLANTER
2091	1955840.643	6273289.764	END PLANTER
2092	1955835.721	6273280.718	PEDESTRIAN RAMP
2093	1955835.575	6273291.256	ANGLE PT WALKWAY
2094	1955830.254	6273289.283	ANGLE PT WALKWAY
2095	1955824.669	6273284.114	ANGLE PT WALKWAY
2096	1955822.290	6273278.961	ANGLE PT WALKWAY
2097	1955823.385	6273273.793	END PLANTER
2098	1955465.962	6273043.208	BEGIN PLANTER
2099	1955459.583	6273043.828	ANGLE PT WALKWAY
2100	1955451.863	6273040.142	ANGLE PT WALKWAY
2101	1955438.181	6273025.555	BEGIN WALKWAY
2102	1955448.729	6273024.685	BIKE RAMP
2103	1955990.098	6273152.560	DRIVEWAY
2104	1955979.370	6273143.238	DRIVEWAY
2105	1955967.606	6273154.083	DRIVEWAY
2106	1955979.618	6273164.782	DRIVEWAY
2107	1955769.760	6273463.301	DRIVEWAY
2108	1955764.226	6273454.463	DRIVEWAY
2109	1955763.128	6273449.166	DRIVEWAY
2110	1955750.280	6273455.612	DRIVEWAY
2111	1955753.495	6273464.812	DRIVEWAY
2112	1955820.825	6273516.261	DRIVEWAY
2113	1955820.962	6273498.331	DRIVEWAY

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
400 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: (425)455-0900

DATE

GT2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

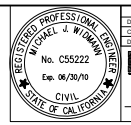
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
GRADING POINT TABLES

SCALE: HOR. VERT.
W.A. UJ4174 R.S. 476
SHEET 79 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: (425)455-5600

DATE

POINT#	NORTHING	EASTING	DESCRIPTION
1000	1957731.483	6275141.895	BIKE RAMP
1001	1957734.436	6275131.748	BEGIN WALKWAY
1002	1957746.007	6275148.061	ANGLE PT WALKWAY
1003	1957748.099	6275156.354	ANGLE PT WALKWAY
1004	1957746.240	6275162.487	BEGIN PLANTER
1005	1957862.858	6275365.666	END PLANTER
1006	1957866.247	6275361.825	P.C.C. WALKWAY
1007	1957875.252	6275359.579	P.C.C. WALKWAY
1008	1957875.242	6275355.407	P.T. WALKWAY
1009	1957871.681	6275330.462	ANGLE PT WALKWAY
1010	1957881.581	6275329.049	ANGLE PT WALKWAY
1011	1957885.142	6275353.993	P.C. WALKWAY
1012	1957881.126	6275371.495	P.R.C. WALKWAY
1013	1957882.222	6275384.025	P.C.C. WALKWAY
1014	1957867.512	6275374.962	PEDESTRIAN RAMP
1015	1957967.676	6275437.040	PEDESTRIAN RAMP
1016	1958085.428	6275423.710	ANGLE PT WALKWAY
1017	1958095.817	6275428.433	DRIVEWAY
1018	1958095.018	6275417.961	ANGLE PT WALKWAY
1019	1958110.972	6275416.743	ANGLE PT WALKWAY
1020	1958121.323	6275420.971	ANGLE PT WALKWAY
1021	1958129.300	6275420.363	END WALKWAY
1022	1958132.926	6275455.652	END WALKWAY
1023	1958043.547	6275467.518	ANGLE PT WALKWAY
1024	1958034.447	6275474.015	ANGLE PT WALKWAY
1025	1958009.751	6275477.902	ANGLE PT WALKWAY
1026	1957999.012	6275474.527	ANGLE PT WALKWAY
1027	1958032.814	6275463.640	DRIVEWAY
1028	1957972.318	6275473.962	PEDESTRIAN RAMP
1029	1957912.344	6275555.682	PEDESTRIAN RAMP
1030	1957914.984	6275565.611	BEGIN PLANTER
1031	1957923.689	6275524.223	P.C.C. WALKWAY
1032	1957922.893	6275527.941	P.T. WALKWAY
1033	1957921.988	6275573.852	P.C. WALKWAY
1034	1957922.818	6275578.294	P.T. WALKWAY
1035	1957994.499	6275939.806	END PLANTER
1036	1957999.932	6275943.200	ANGLE PT WALKWAY
1037	1958003.823	6275950.813	ANGLE PT WALKWAY
1038	1958005.959	6275970.698	END WALKWAY
1039	1957997.007	6275965.081	BIKE RAMP
1040	1957962.879	6275968.578	BIKE RAMP
1041	1957955.225	6275975.896	END WALKWAY
1042	1957953.086	6275956.011	ANGLE PT WALKWAY
1043	1957955.155	6275947.727	ANGLE PT WALKWAY
1044	1957959.653	6275943.174	END PLANTER
1045	1957877.783	6275574.303	BEGIN PLANTER
1046	1957872.402	6275574.331	ANGLE PT WALKWAY
1047	1957867.320	6275569.862	ANGLE PT WALKWAY
1048	1957864.156	6275562.514	ANGLE PT WALKWAY
1049	1957864.400	6275555.752	ANGLE PT WALKWAY
1050	1957875.713	6275564.070	PEDESTRIAN RAMP

POINT#	NORTHING	EASTING	DESCRIPTION
1051	1957868.119	6275551.861	END PLANTER
1052	1957833.143	6275406.457	BEGIN PLANTER
1053	1957828.480	6275409.605	P.T. WALKWAY
1054	1957820.185	6275400.802	P.R.C. WALKWAY
1055	1957805.391	6275389.602	P.C. WALKWAY
1056	1957773.725	6275323.634	P.T. WALKWAY
1057	1957764.509	6275324.172	P.C. WALKWAY
1058	1957755.233	6275321.197	P.T. WALKWAY
1059	1957782.883	6275319.580	P.C.C. WALKWAY
1060	1957814.437	6275385.339	P.T. WALKWAY
1061	1957819.494	6275390.245	P.C.C. WALKWAY
1062	1957823.542	6275386.562	P.C.C. WALKWAY
1063	1957832.467	6275392.230	PEDESTRIAN RAMP
1064	1957818.378	6275373.568	P.C. WALKWAY
1065	1957827.647	6275383.087	END PLANTER
1066	1957718.007	6275183.208	BEGIN PLANTER
1067	1957711.626	6275182.734	ANGLE PT WALKWAY
1068	1957704.616	6275177.867	ANGLE PT WALKWAY
1069	1957693.080	6275161.592	BEGIN WALKWAY
1070	1957703.641	6275161.986	BIKE RAMP
1071	1958110.863	6275415.312	P.C. DRIVEWAY
1072	1958079.699	6275389.631	P.T. DRIVEWAY
1073	1958040.118	6275394.180	P.C. DRIVEWAY
1074	1958035.389	6275386.714	P.T. DRIVEWAY
1075	1958024.716	6275381.575	ANGLE PT DRIVEWAY
1076	1958020.592	6275390.004	P.C. DRIVEWAY
1077	1958015.131	6275392.711	P.T. DRIVEWAY
1078	1957983.554	6275383.813	P.C. DRIVEWAY
1079	1957981.160	6275375.774	P.T. DRIVEWAY
1080	1957969.549	6275364.906	P.C. DRIVEWAY
1081	1957946.875	6275373.014	P.T. DRIVEWAY
1082	1957938.013	6275370.405	ANGLE PT DRIVEWAY
1083	1957933.495	6275385.754	ANGLE PT DRIVEWAY
1084	1958002.470	6275406.061	P.C. DRIVEWAY
1085	1958045.485	6275409.730	P.T. DRIVEWAY
1086	1958081.553	6275405.523	P.C. DRIVEWAY
1087	1958094.909	6275416.529	P.T. DRIVEWAY
1088	1957788.980	6275354.790	P.T. WALKWAY
1089	1957798.030	6275350.530	P.C. WALKWAY

GT3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

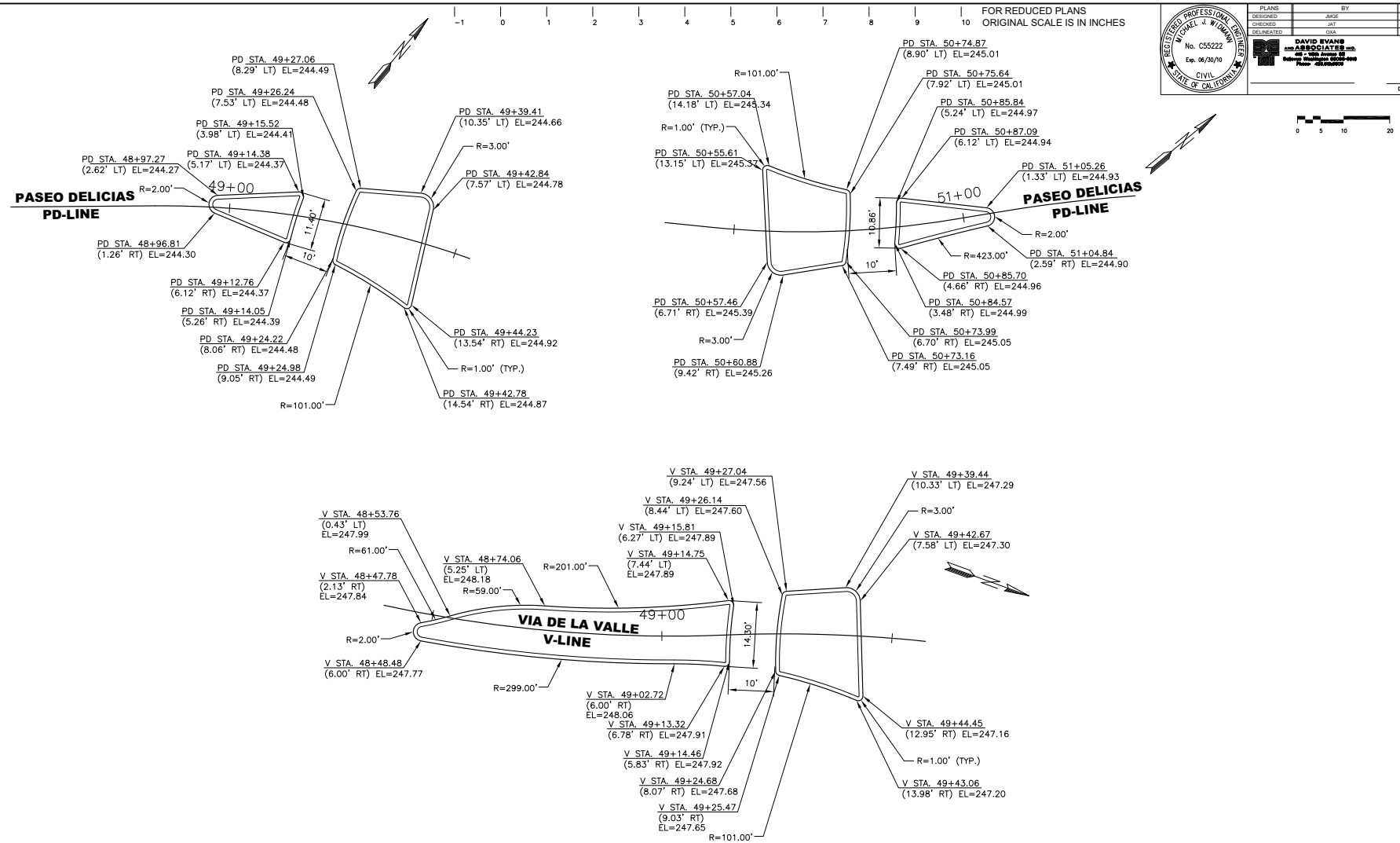
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL. _____
FIELD REVISIONS _____

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
GRADING POINT TABLES

SCALE: HOR. _____ VERT. _____
W.A. UJ4174 R.S. 476
SHEET 80 OF 153 SHEETS

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SIP1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 81 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

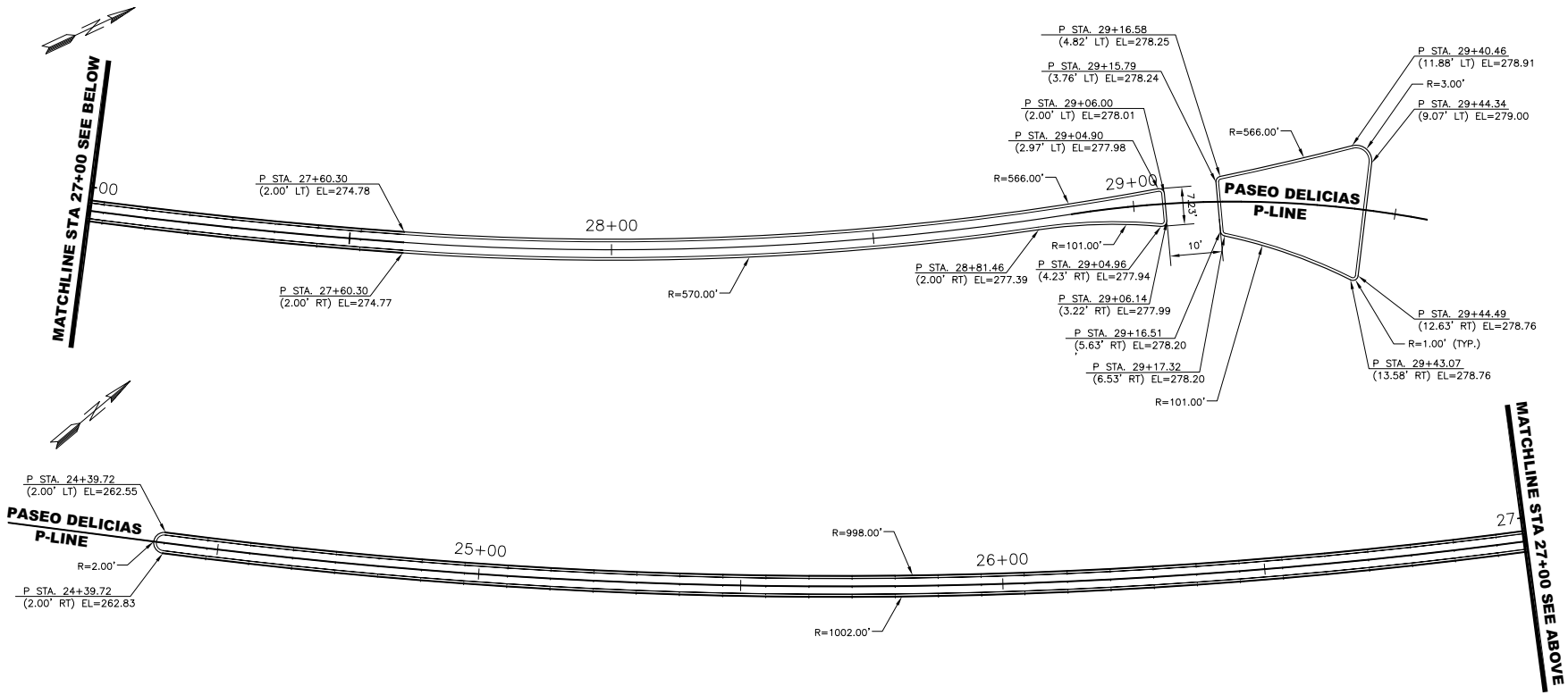
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

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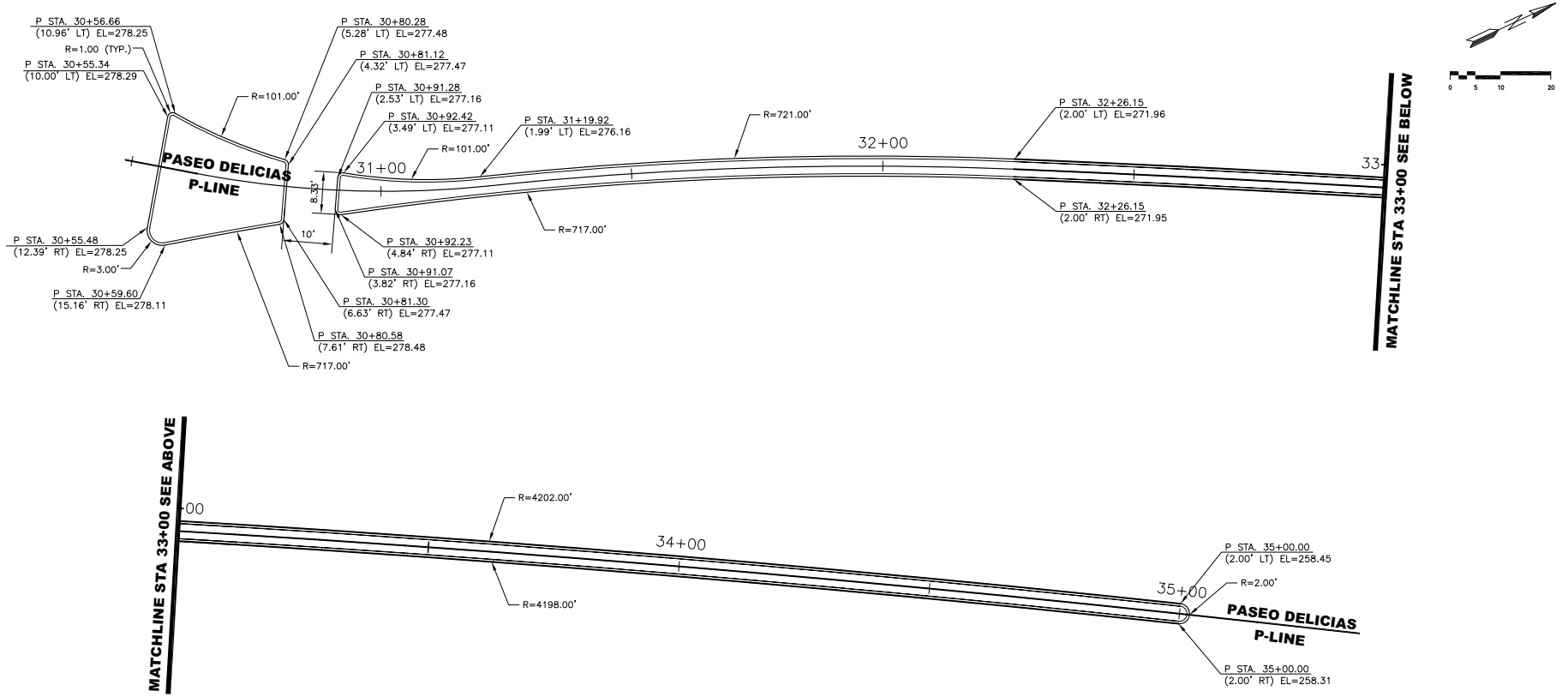
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 82 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SIP3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

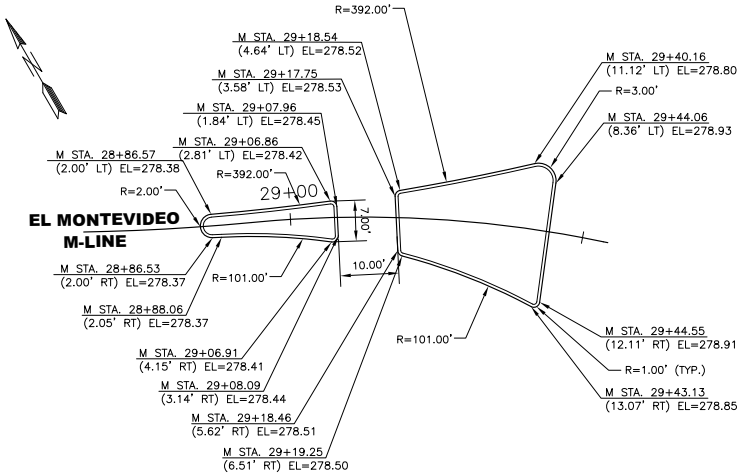
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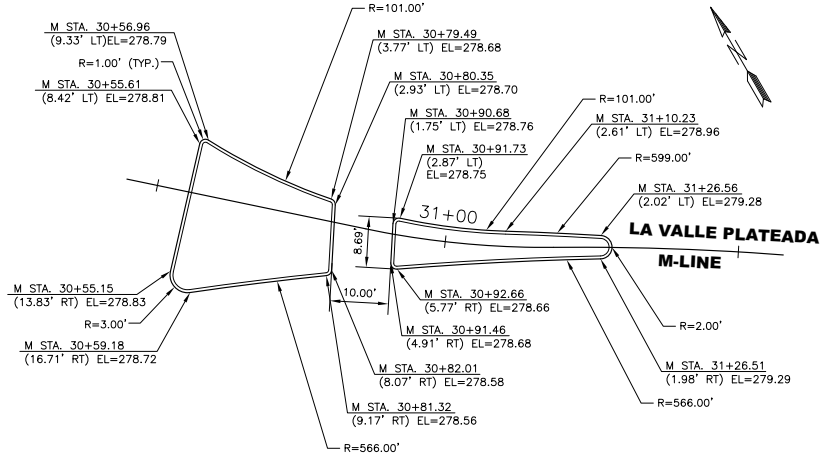
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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES





PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

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SIP4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

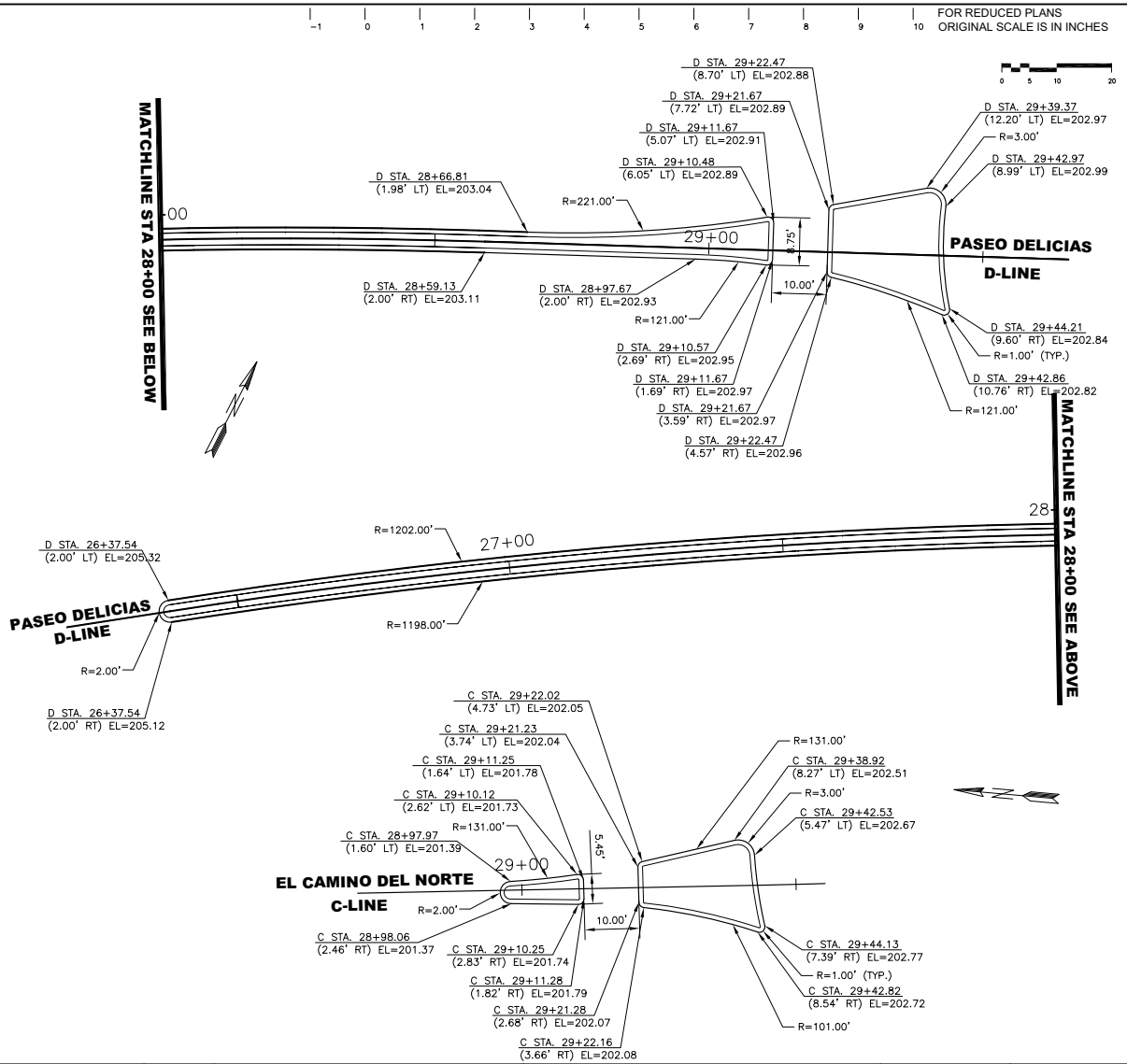
REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 84 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SIP5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

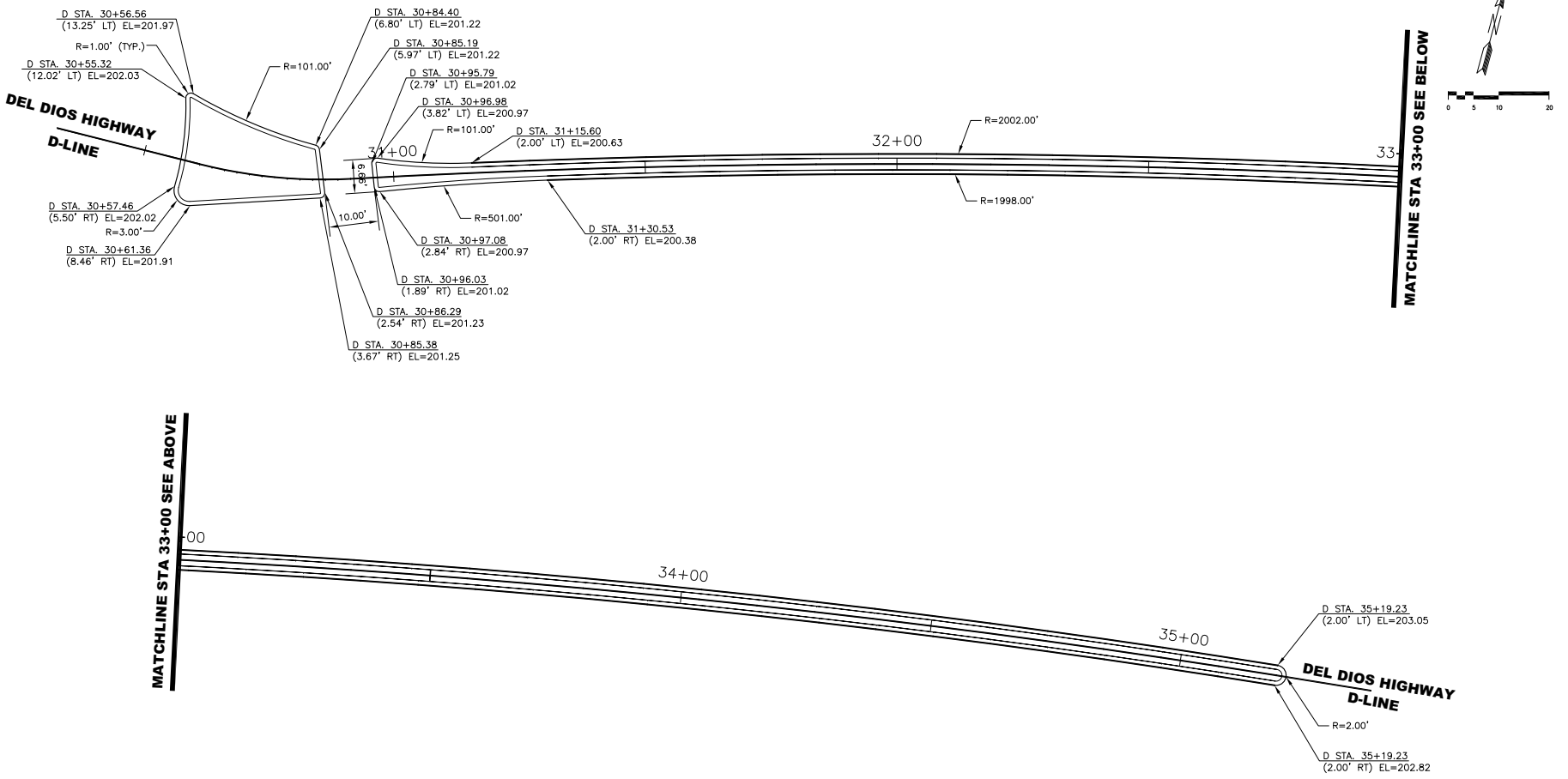
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CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



PLANS	BY	DATE
DESIGNED	JMGE	9/09
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DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

SIP6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

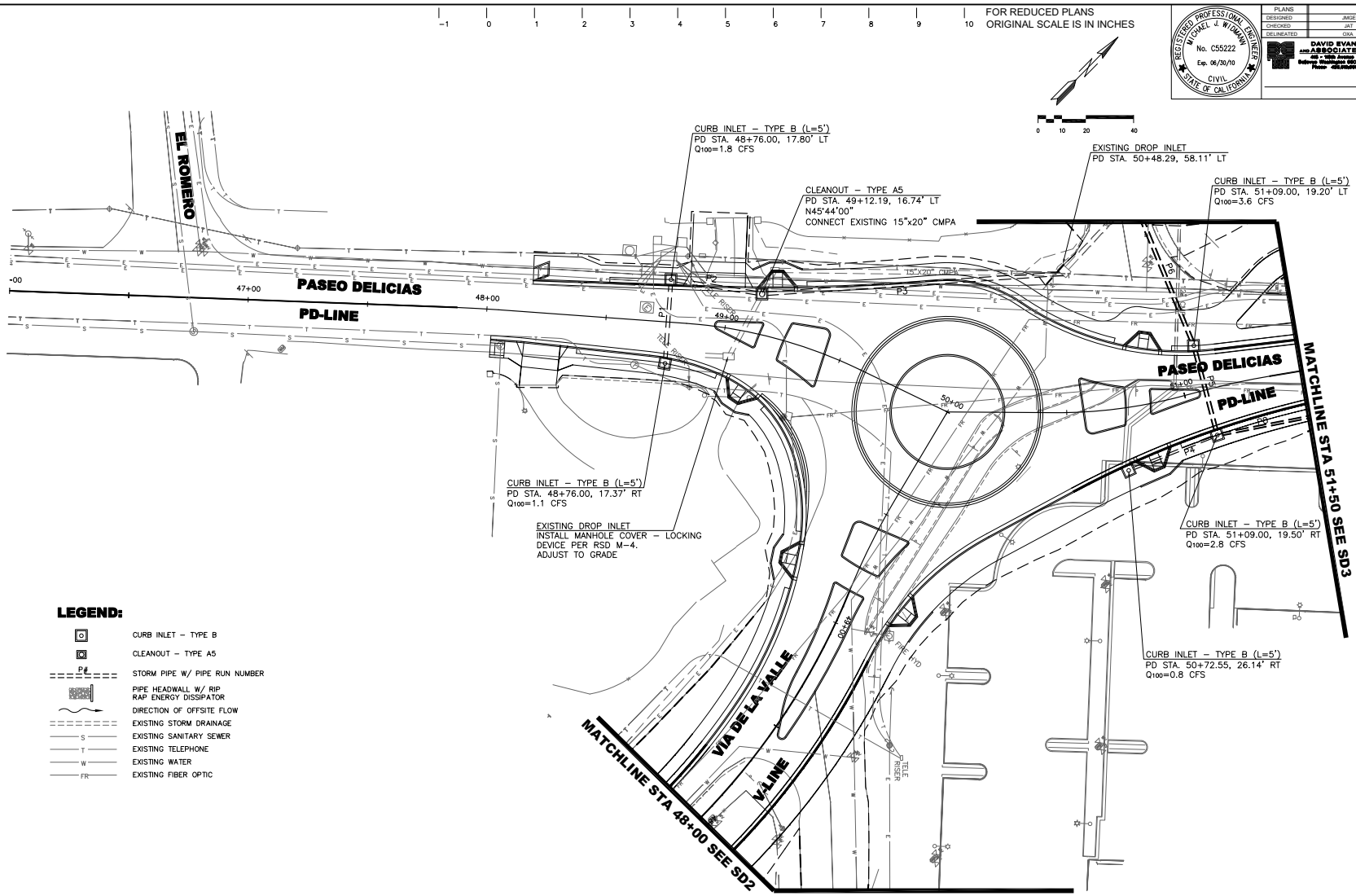
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CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SPLITTER ISLAND PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SD1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

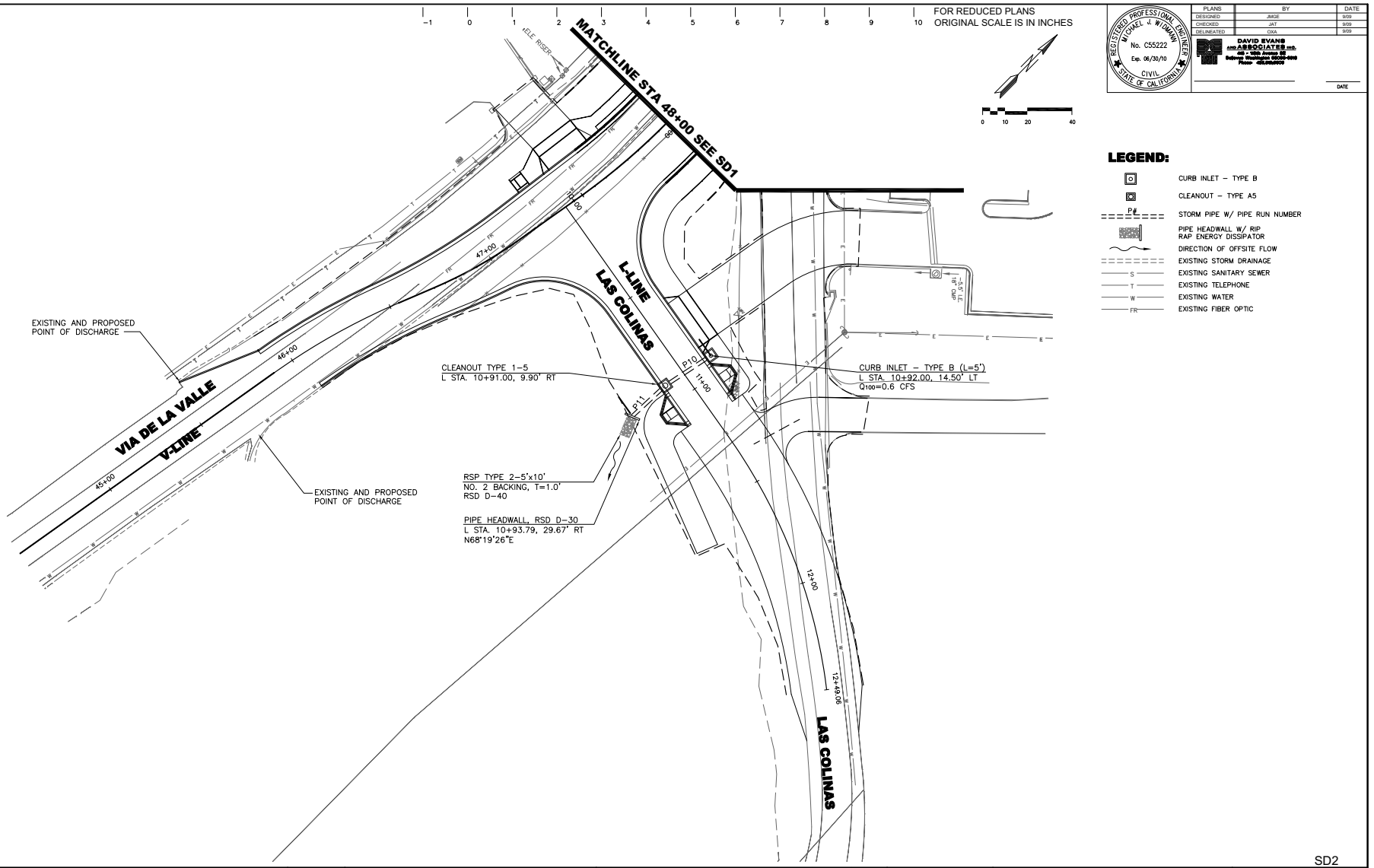
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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 87 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SD2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

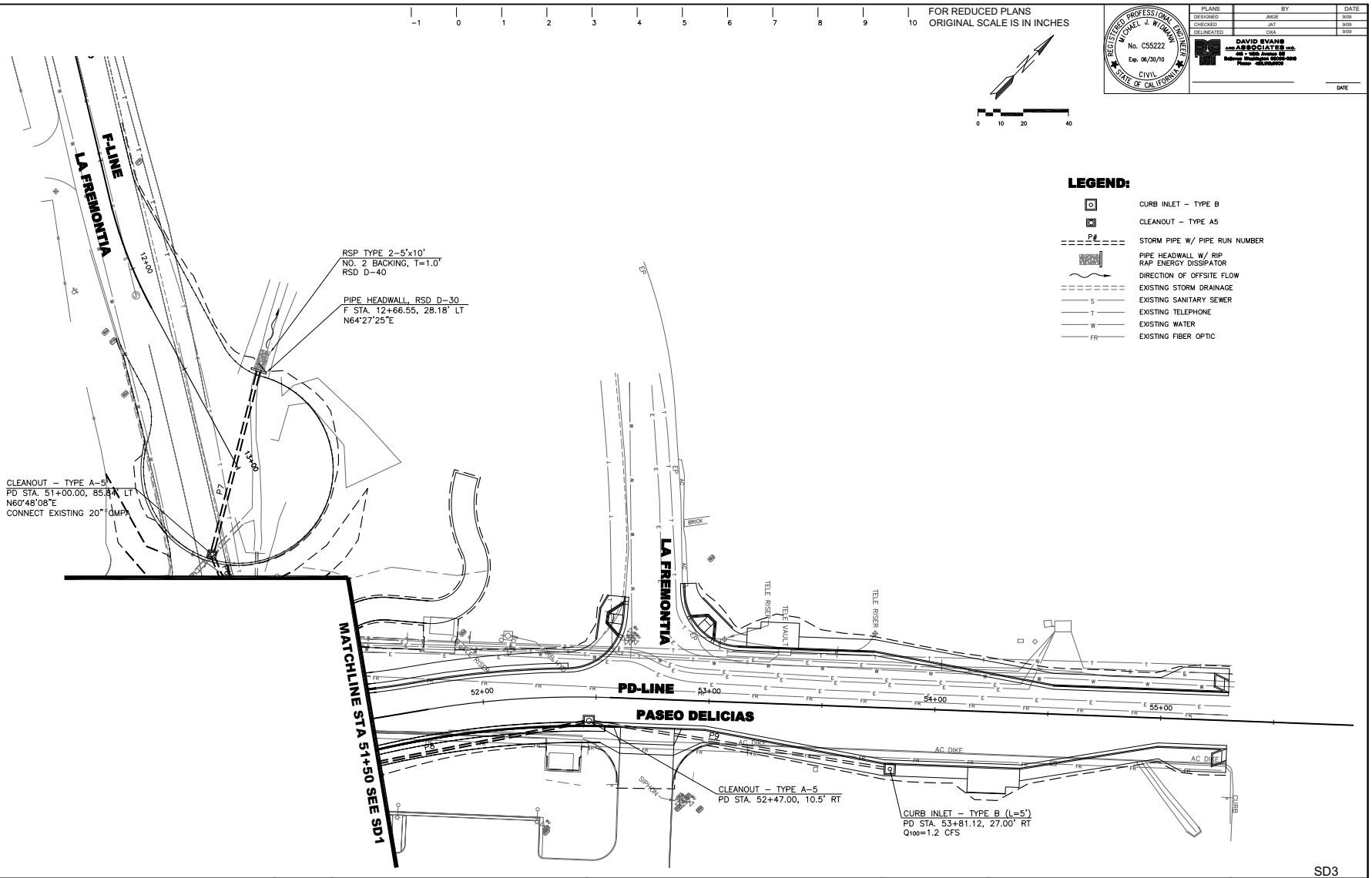
REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 88 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
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DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

SD3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 89 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

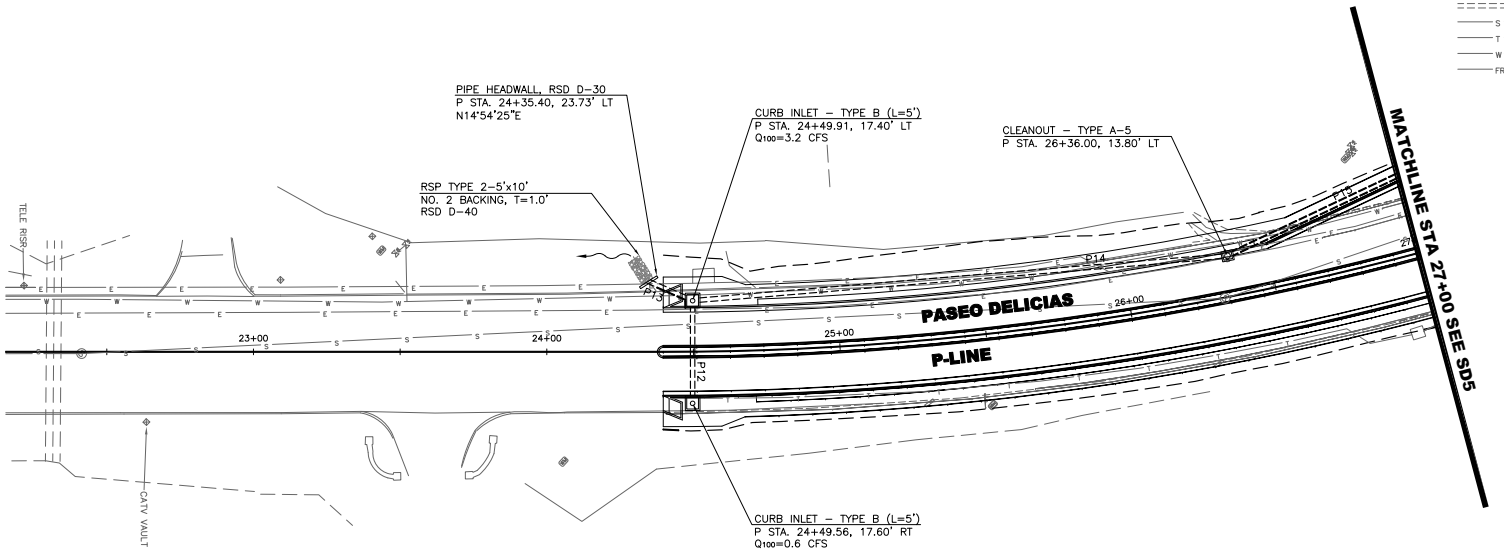
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 16th Avenue SW
Bellevue, Washington 98004-5040
Phone: 425.519.6500

DATE

LEGEND:

- CURB INLET – TYPE B
- CLEANOUT – TYPE A5
- P# — STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S — EXISTING SANITARY SEWER
- T — EXISTING TELEPHONE
- W — EXISTING WATER
- FR — EXISTING FIBER OPTIC



SD4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

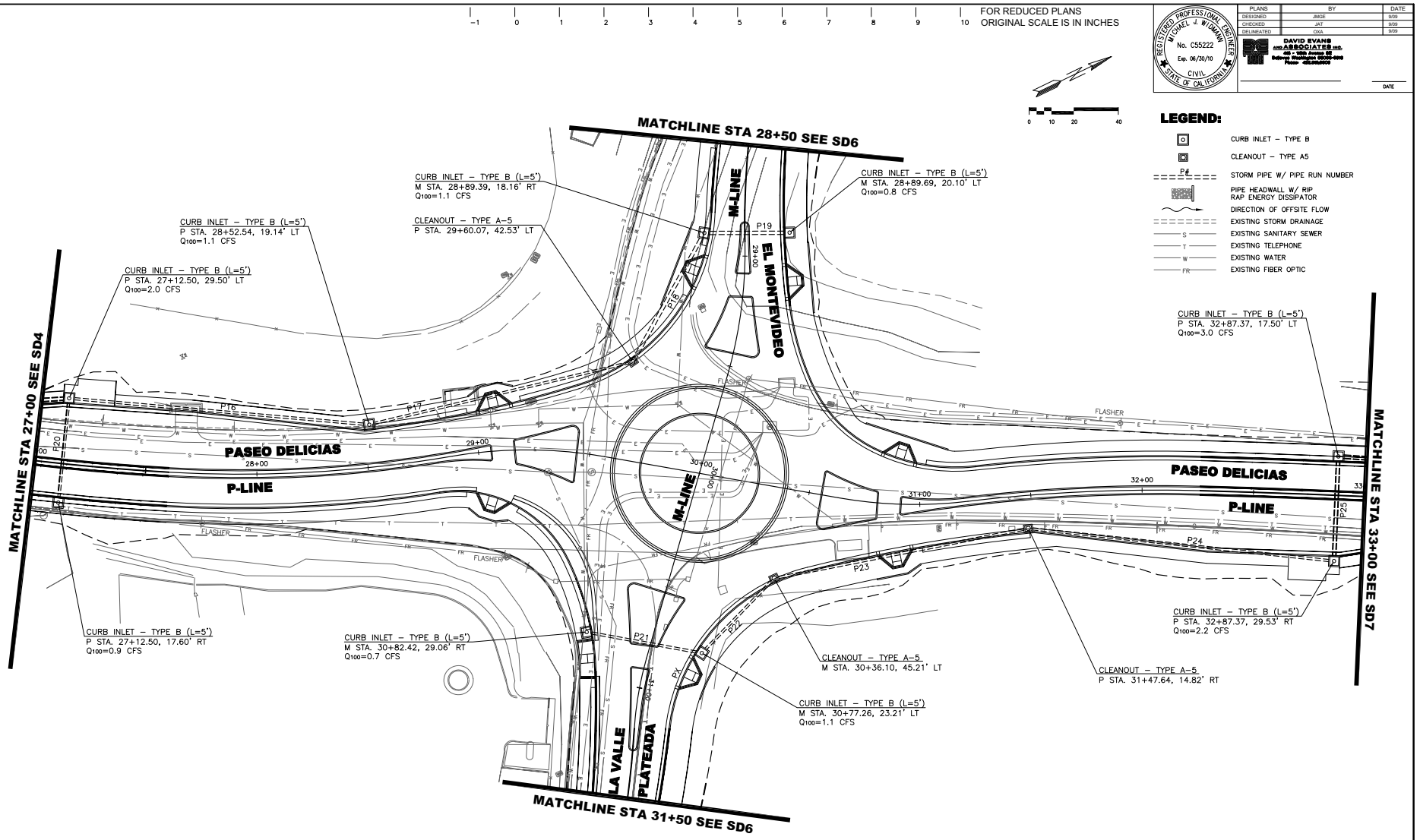
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 90 OF 153 SHEETS

oxa 09/02/09 3:02pm – P:\a\SDC000000017\DOU\APP\UJ4174\c-stnx-sd04.dwg



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SD5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 91 OF 153 SHEETS

oxa 09/02/09 3:02pm – P:\a\SDC0000000\7\DOCUMENT\UJ4174\c-drlx-sd05.dwg

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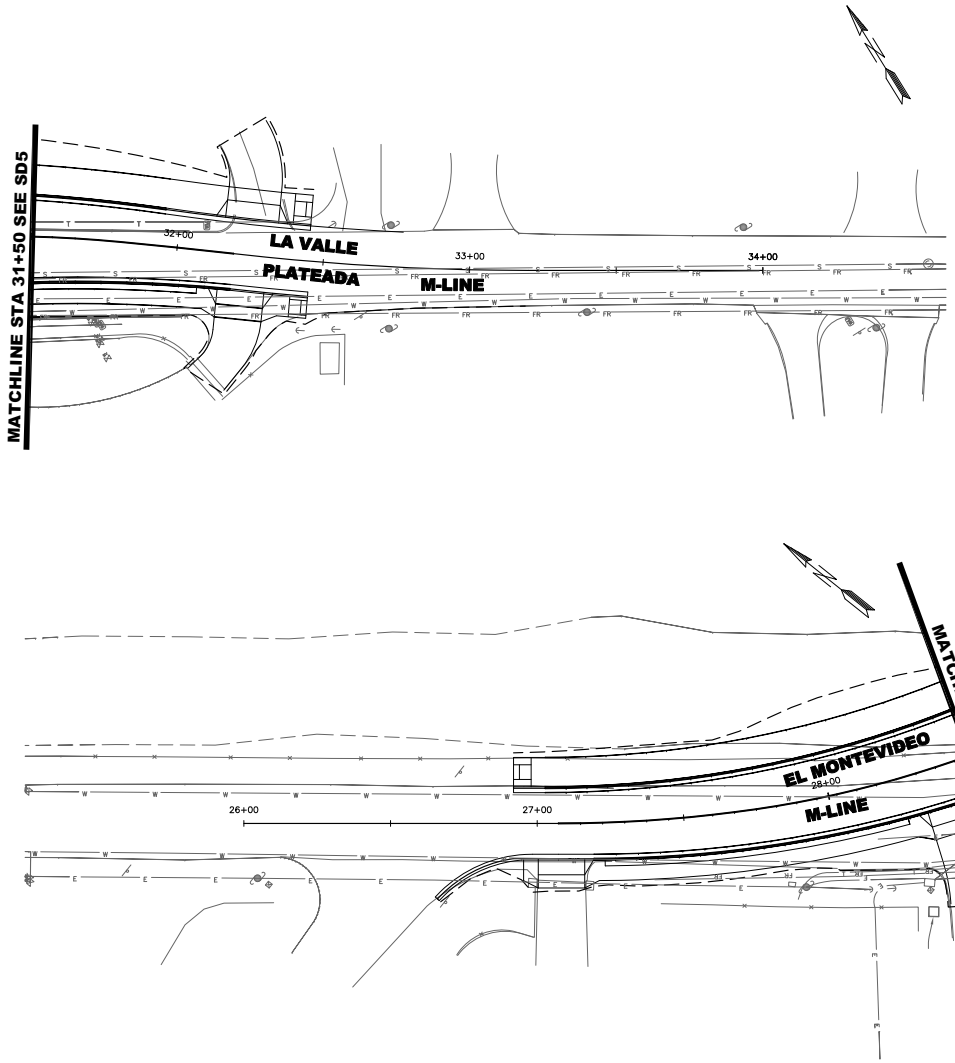
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone 619.235.6000

DATE

0 10 20 40



LEGEND:

- CURB INLET – TYPE B
- CLEANOUT – TYPE A5
- P# STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S EXISTING SANITARY SEWER
- T EXISTING TELEPHONE
- W EXISTING WATER
- FR EXISTING FIBER OPTIC

SD6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 92 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

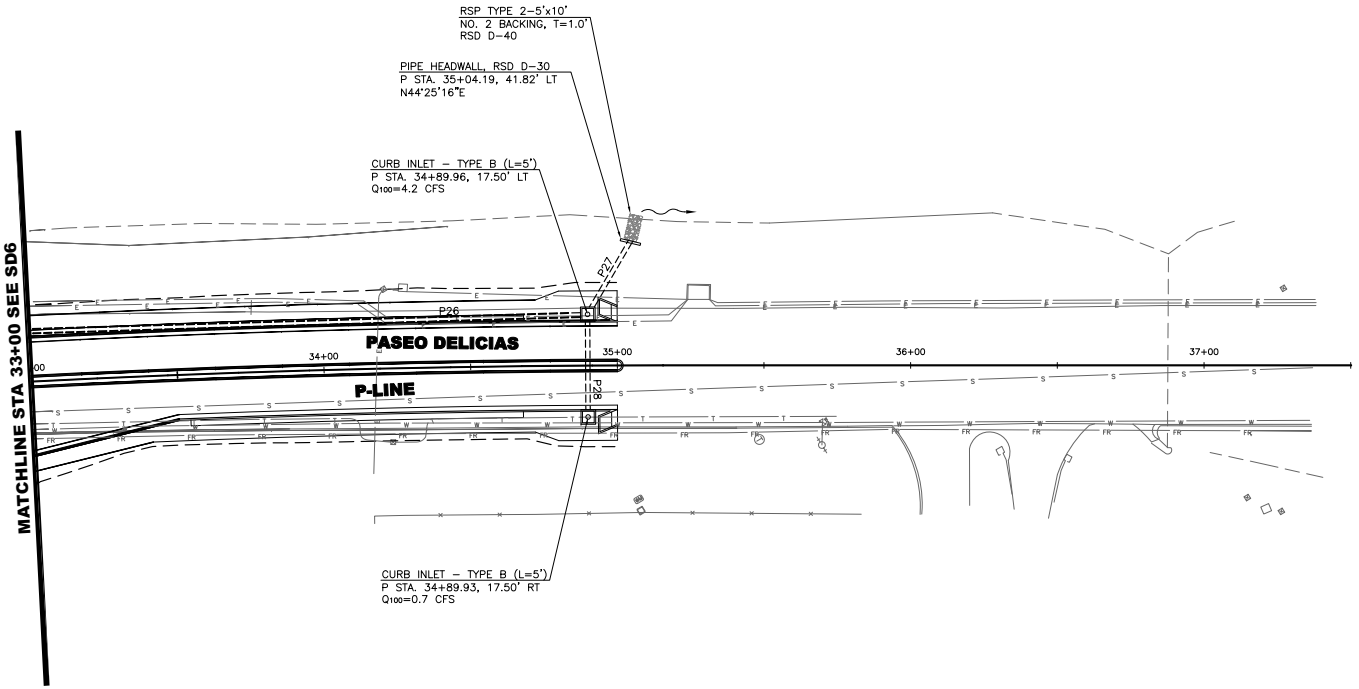
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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone: (619) 235-0900

DATE



LEGEND:

- CURB INLET - TYPE B
- CLEANOUT - TYPE A5
- P#: STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S: EXISTING SANITARY SEWER
- T: EXISTING TELEPHONE
- W: EXISTING WATER
- FR: EXISTING FIBER OPTIC

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SD7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 93 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

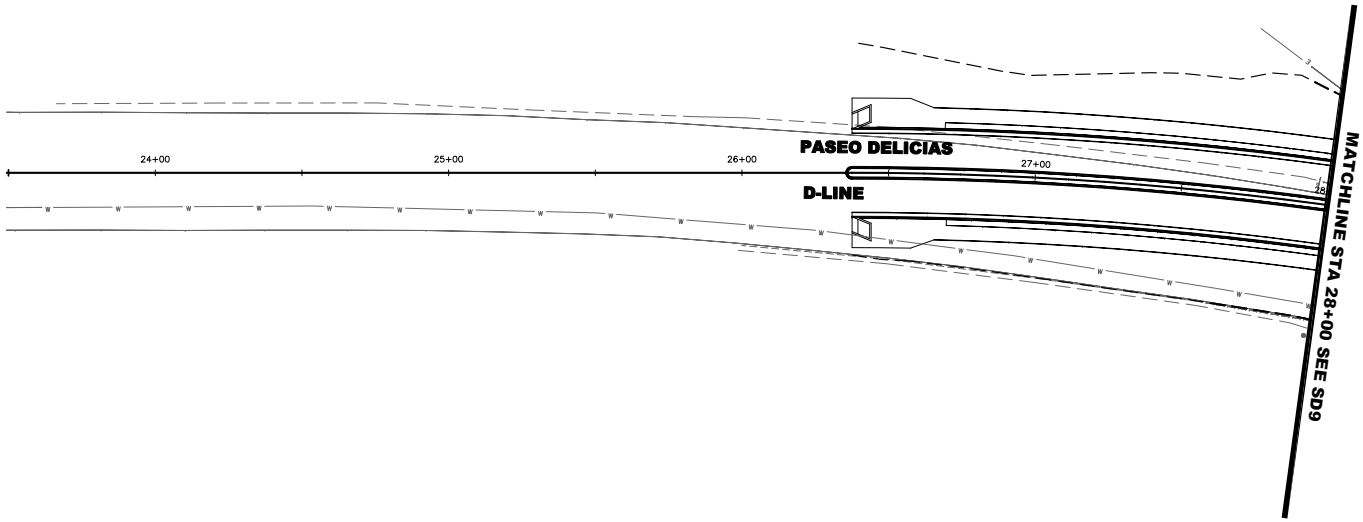
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92025-4869
Phone: (760)839-4900

DATE

LEGEND:

- CURB INLET – TYPE B
- CLEANOUT – TYPE A5
- P# STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S EXISTING SANITARY SEWER
- T EXISTING TELEPHONE
- W EXISTING WATER
- FR EXISTING FIBER OPTIC



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SD8

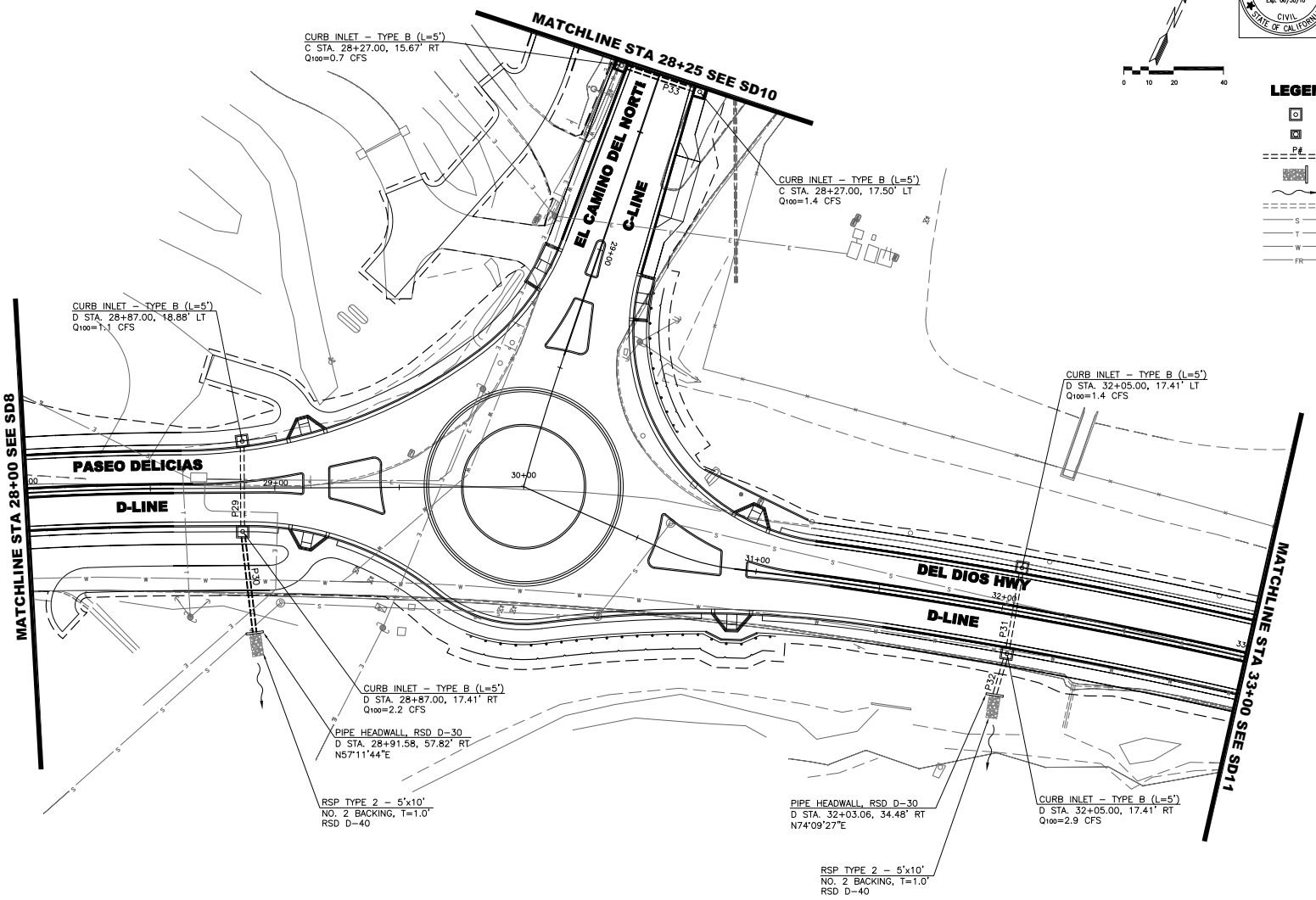
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 94 OF 153 SHEETS



REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
San Diego, California 92101-4240
Phone 619.235.6000

DATE

SD9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 95 OF 153 SHEETS

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0 10 20 40

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

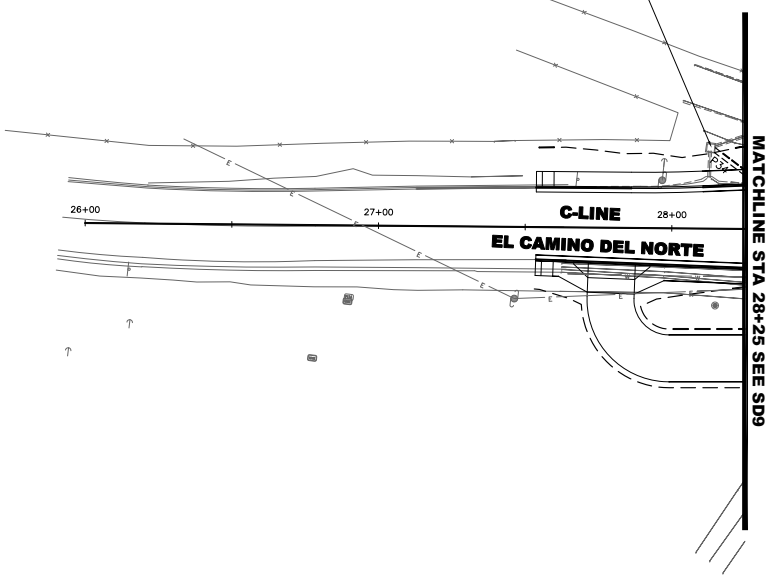
DAVID EVANS AND ASSOCIATES INC.
401 • 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

LEGEND:

- CURB INLET – TYPE B
- CLEANOUT – TYPE A5
- STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S — EXISTING SANITARY SEWER
- T — EXISTING TELEPHONE
- W — EXISTING WATER
- FR — EXISTING FIBER OPTIC

EXISTING DROP INLET
CONNECT PIPE TO EXISTING
F/L BOX=193.87
EX. F/L 12" RCP=194.35 (OUT)
EX. F/L 12" RCP=196.60 (IN)



SD10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 96 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

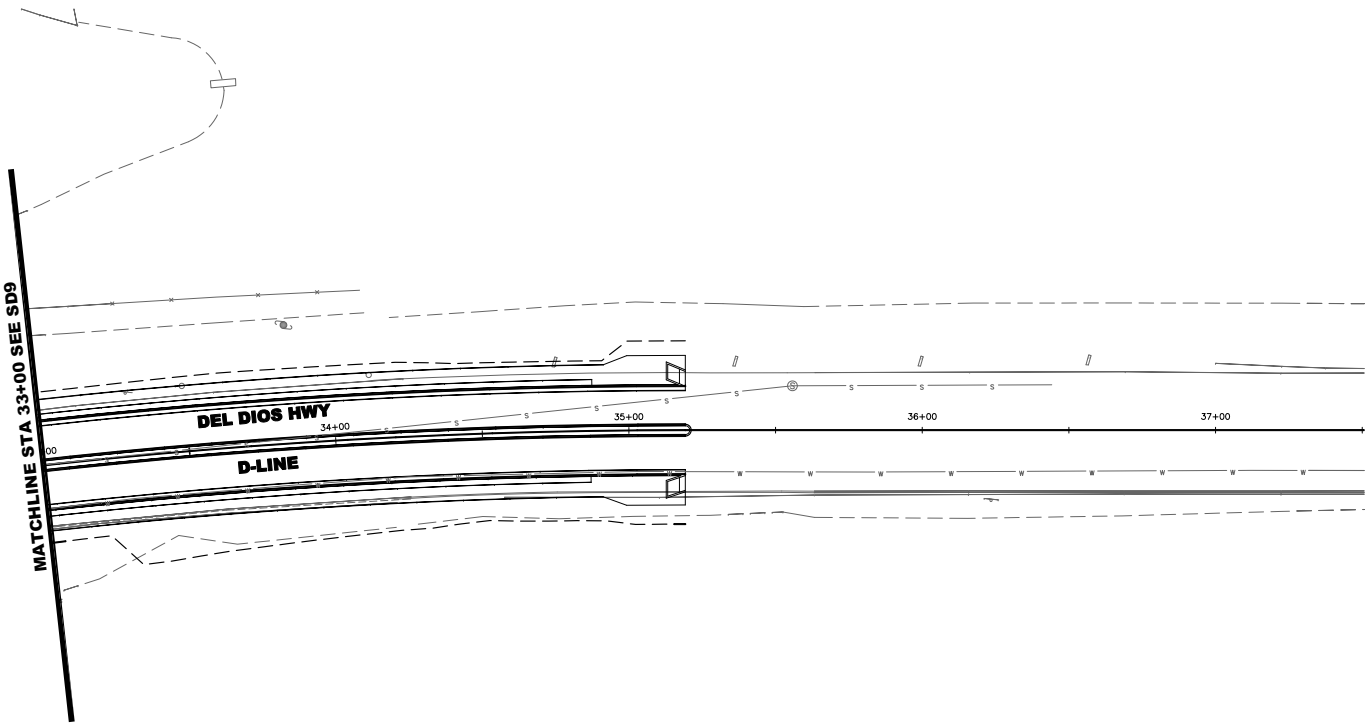
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

LEGEND:

- CURB INLET – TYPE B
- CLEANOUT – TYPE A5
- P# STORM PIPE W/ PIPE RUN NUMBER
- PIPE HEADWALL W/ RIP RAP ENERGY DISSIPATOR
- DIRECTION OF OFFSITE FLOW
- EXISTING STORM DRAINAGE
- S EXISTING SANITARY SEWER
- T EXISTING TELEPHONE
- W EXISTING WATER
- FR EXISTING FIBER OPTIC



SD11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STORM DRAINAGE PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 97 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

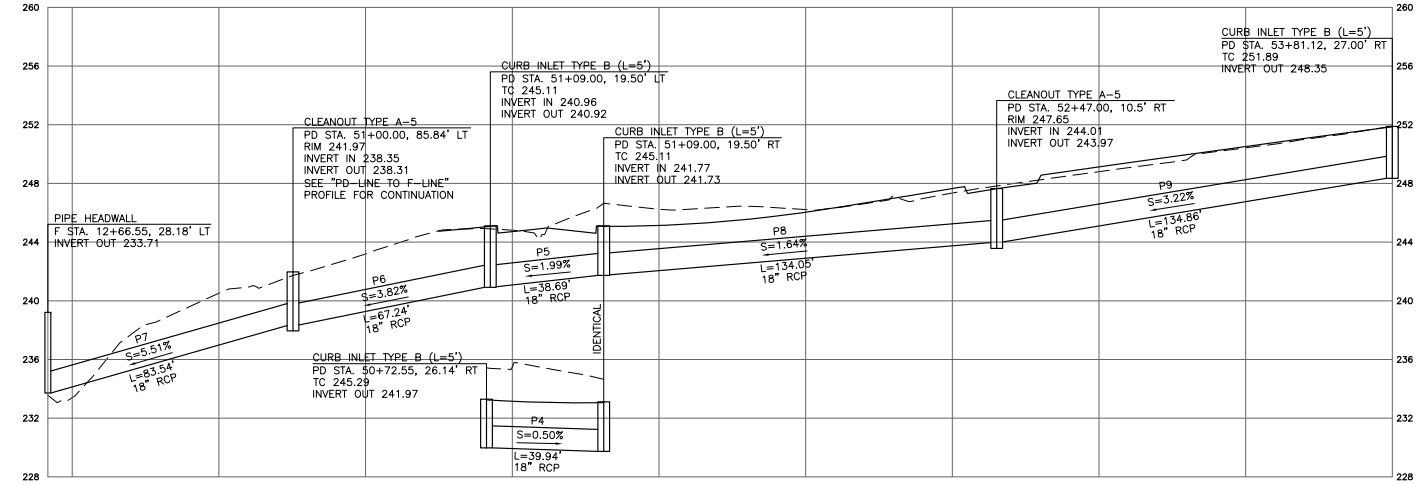
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYCKMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 • 16th Avenue SW
Bellevue, Washington 98004-5040
Phone: 425.519.6500

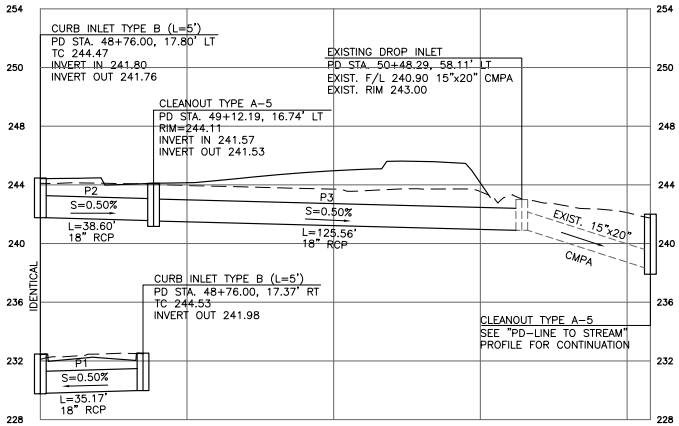
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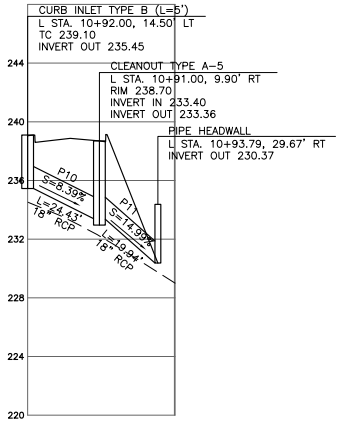
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PD-LINE TO STREAM



PD-LINE TO F-LINE



L-LINE

SDP1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STORM DRAINAGE PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 98 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

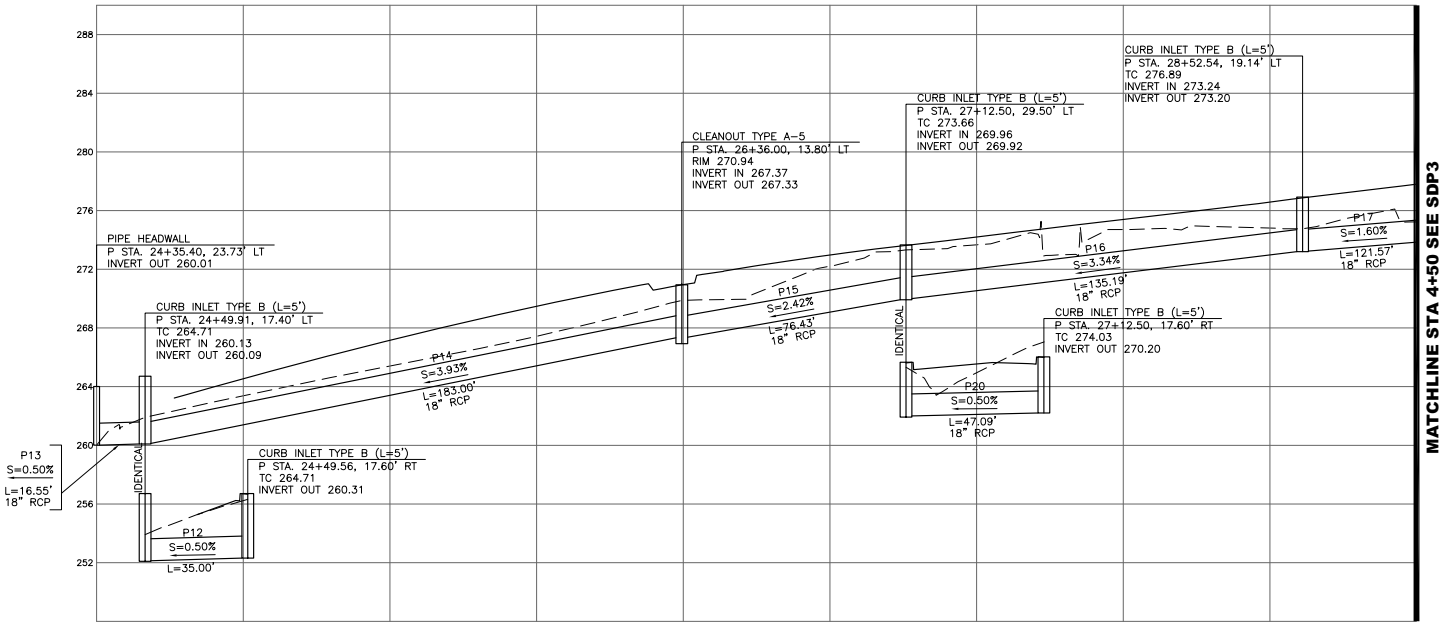
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 • 16th Avenue SE
Bellevue, Washington 98004-5040
Phone: 425.519.6500

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



P-LINE TO M-LINE

SDP2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 99 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

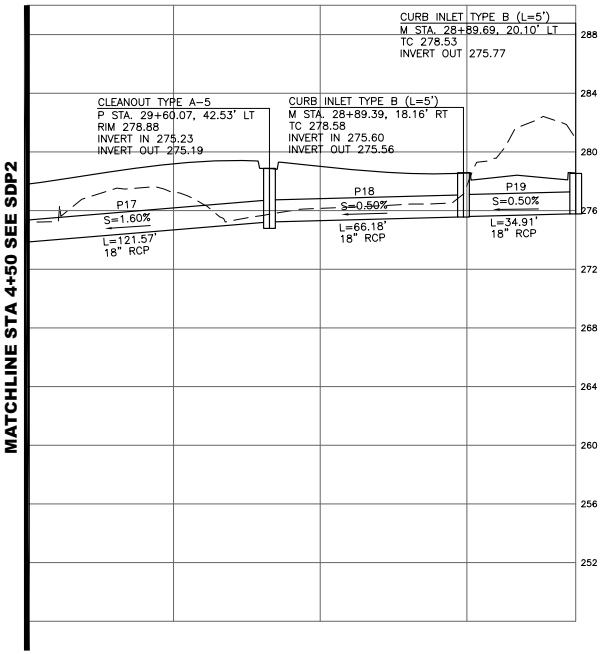
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

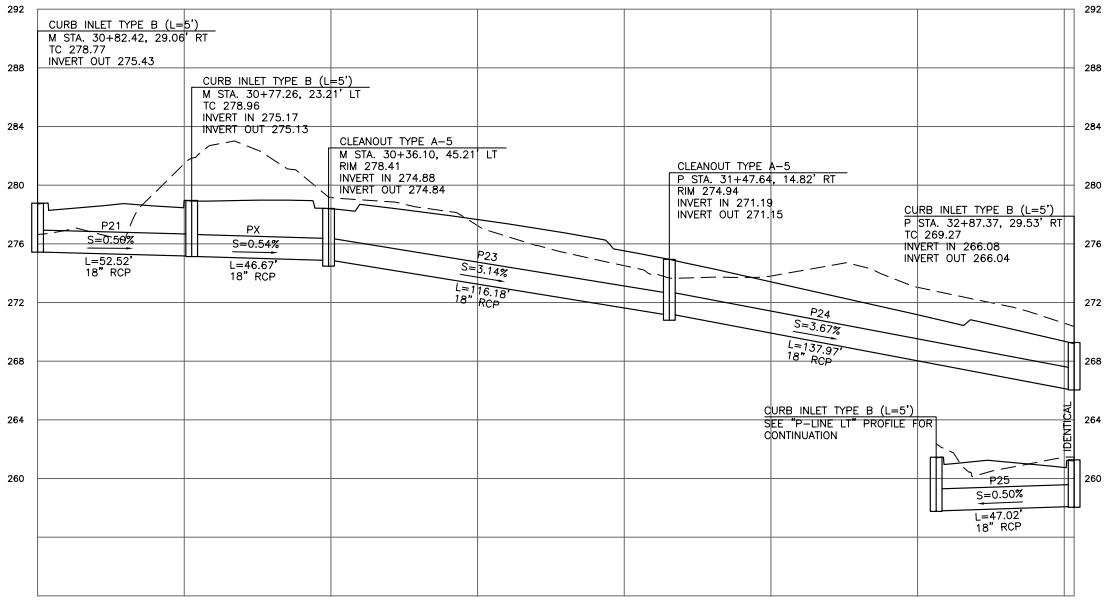
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HORIZ. 0 10 20 40
VERT. 0 2 4 8

MATCHLINE STA 4+50 SEE SDP2



P-LINE TO M-LINE



P-LINE RT

P-LINE LT

SDP3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 100 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

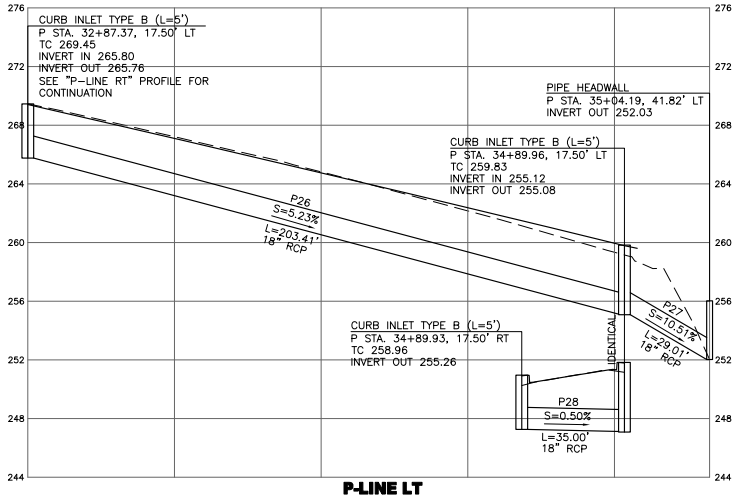
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

HORIZ. 0 10 20 40

VERT. 0 2 4 8



P-LINE LT

SDP4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STORM DRAINAGE PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 101 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

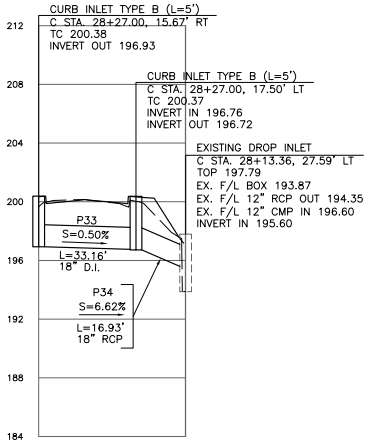
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYCKMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 - 16th Avenue SE
Bellevue, Washington 98004-4699
Phone: 425.519.6500

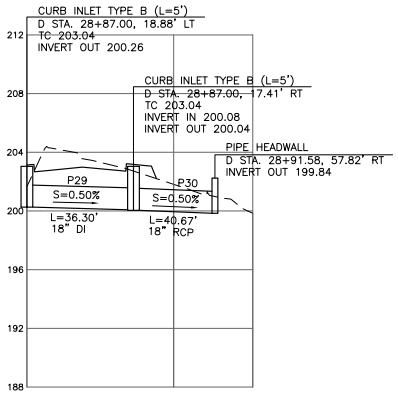
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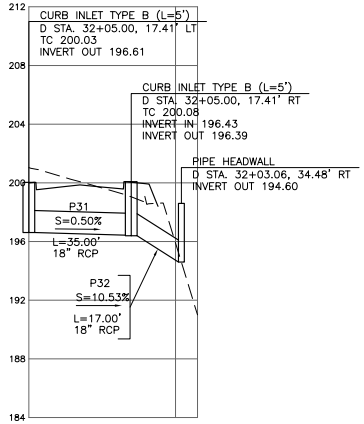
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C STA. 28+27



D STA. 28+87



D STA. 32+05

SDP5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

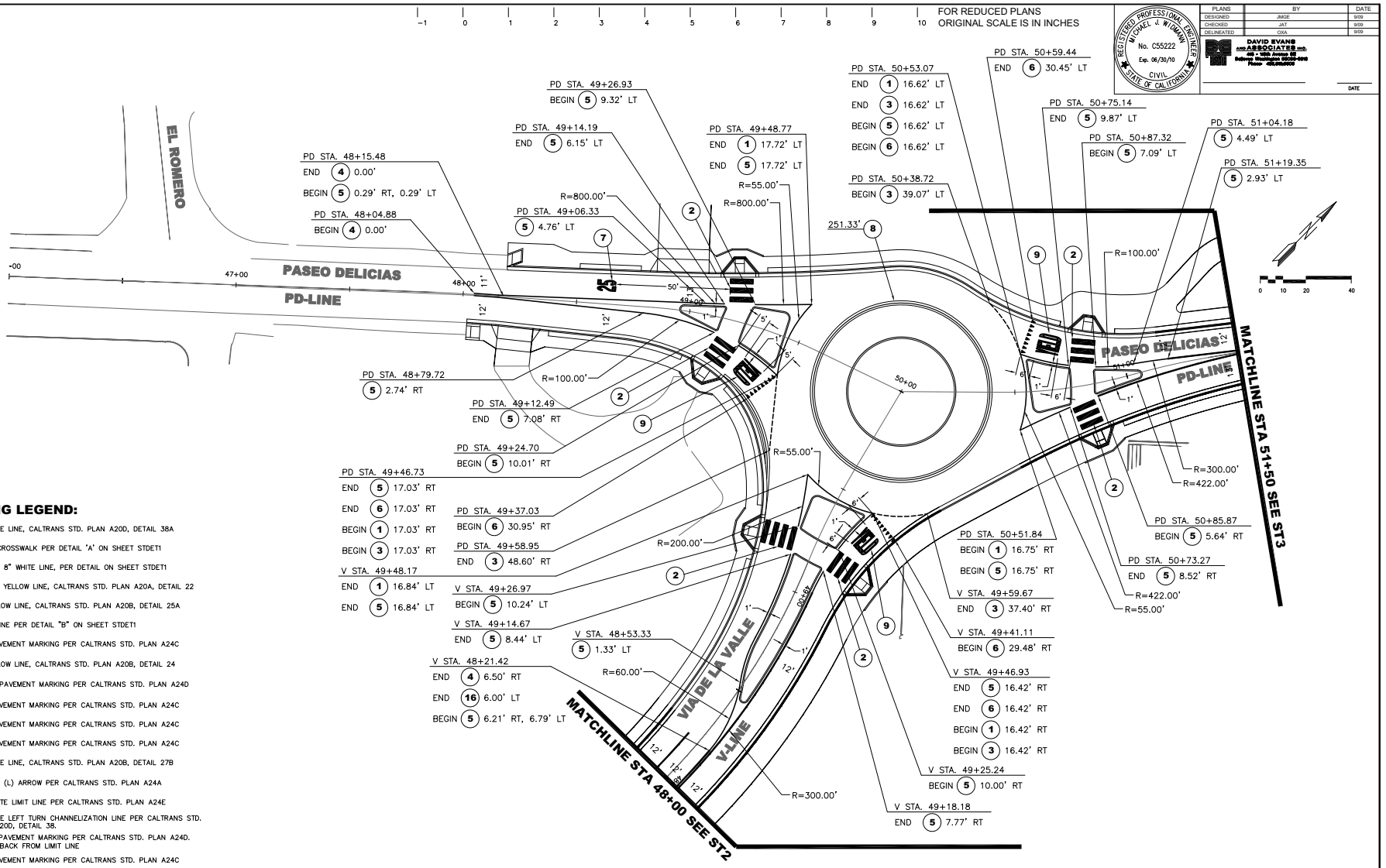
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STORM DRAINAGE PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 102 OF 153 SHEETS

oxa 09/02/09 3:09pm — P:\a\SIO0000007\IO50\MPF\UJ4174\c-stnx-sdp05.dwg



STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

ST1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

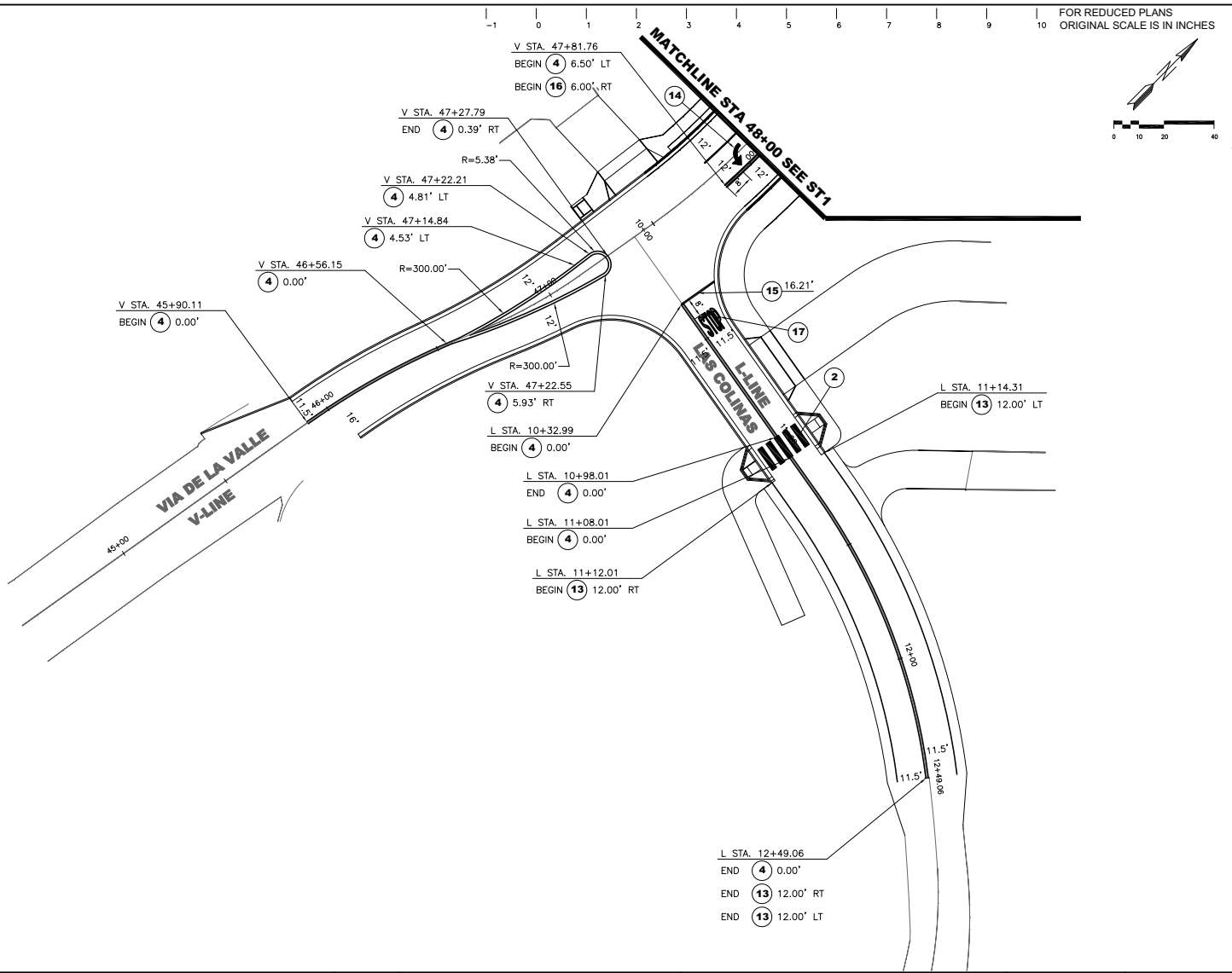
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 103 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

ST2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

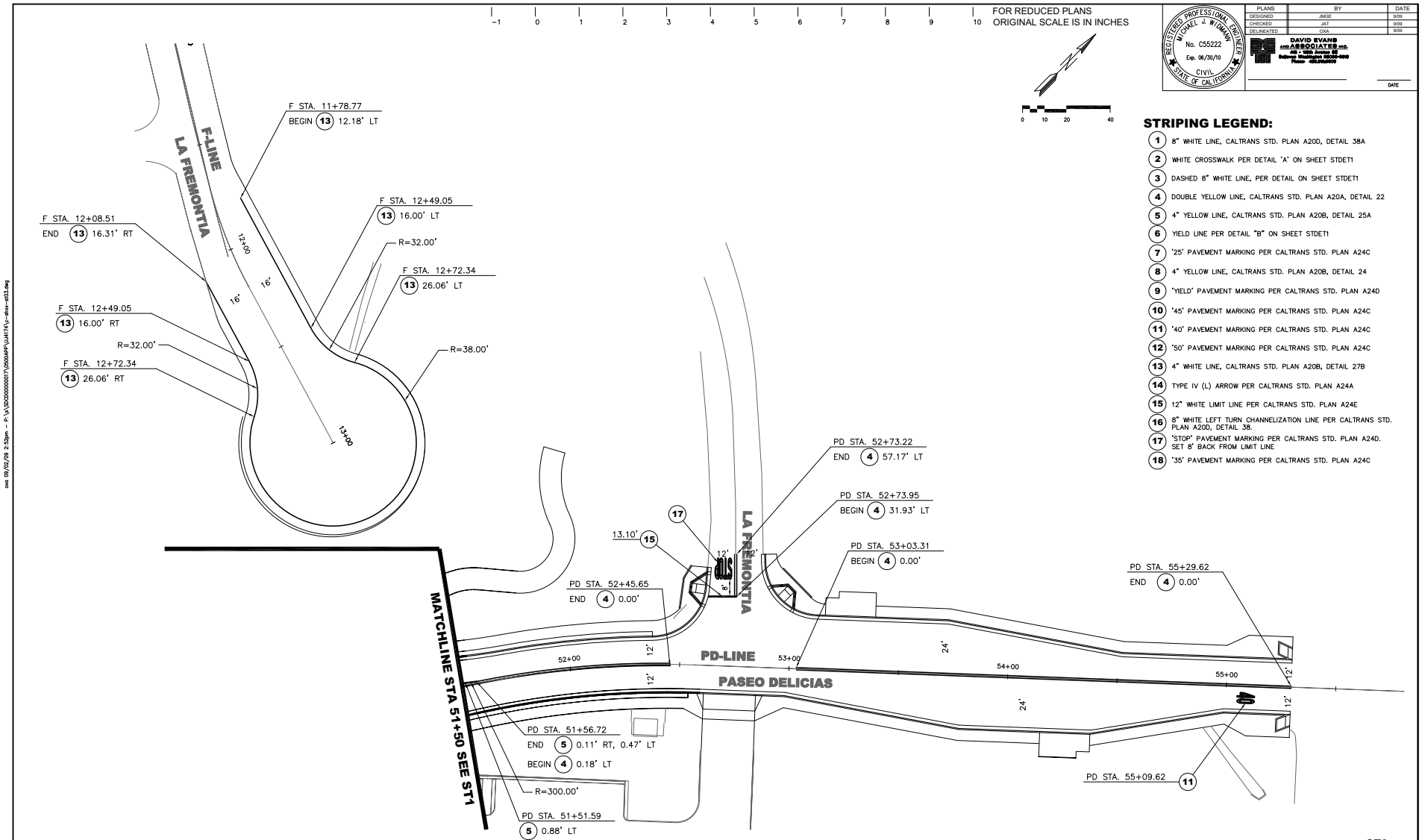
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 104 OF 153 SHEETS

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STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

ST3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

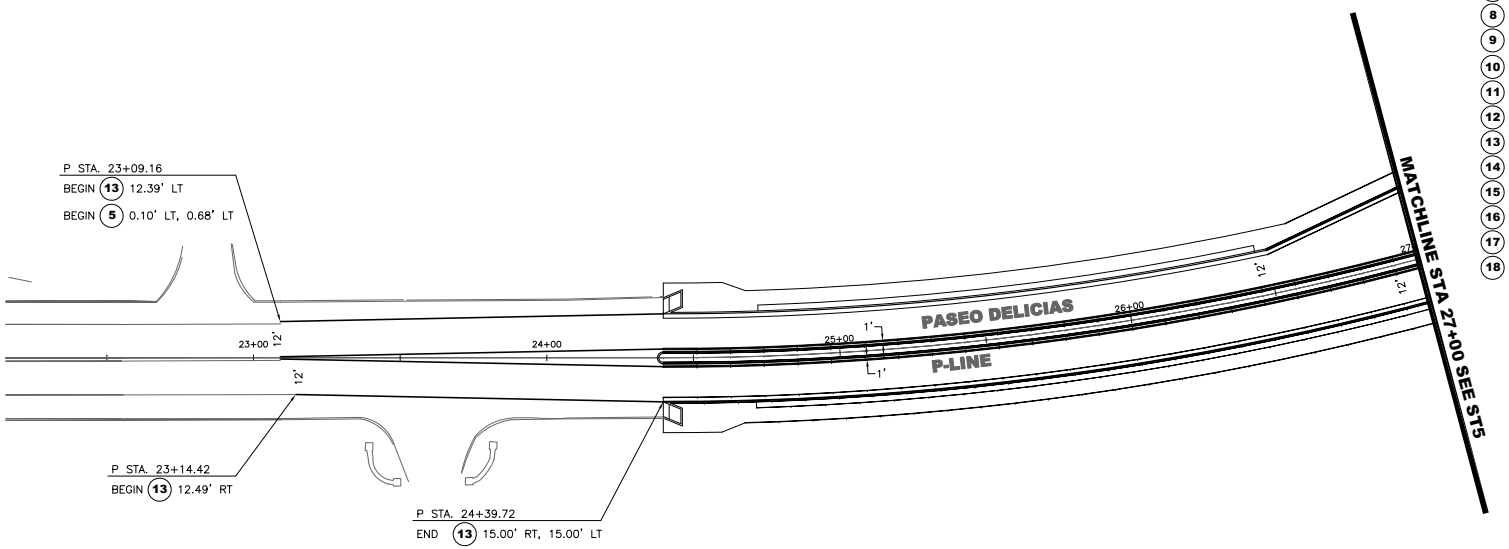
RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 105 OF 153 SHEETS

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0 10 20 40



STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 307
San Diego, California 92101-4240
Phone 619.235.0900

DATE

ST4

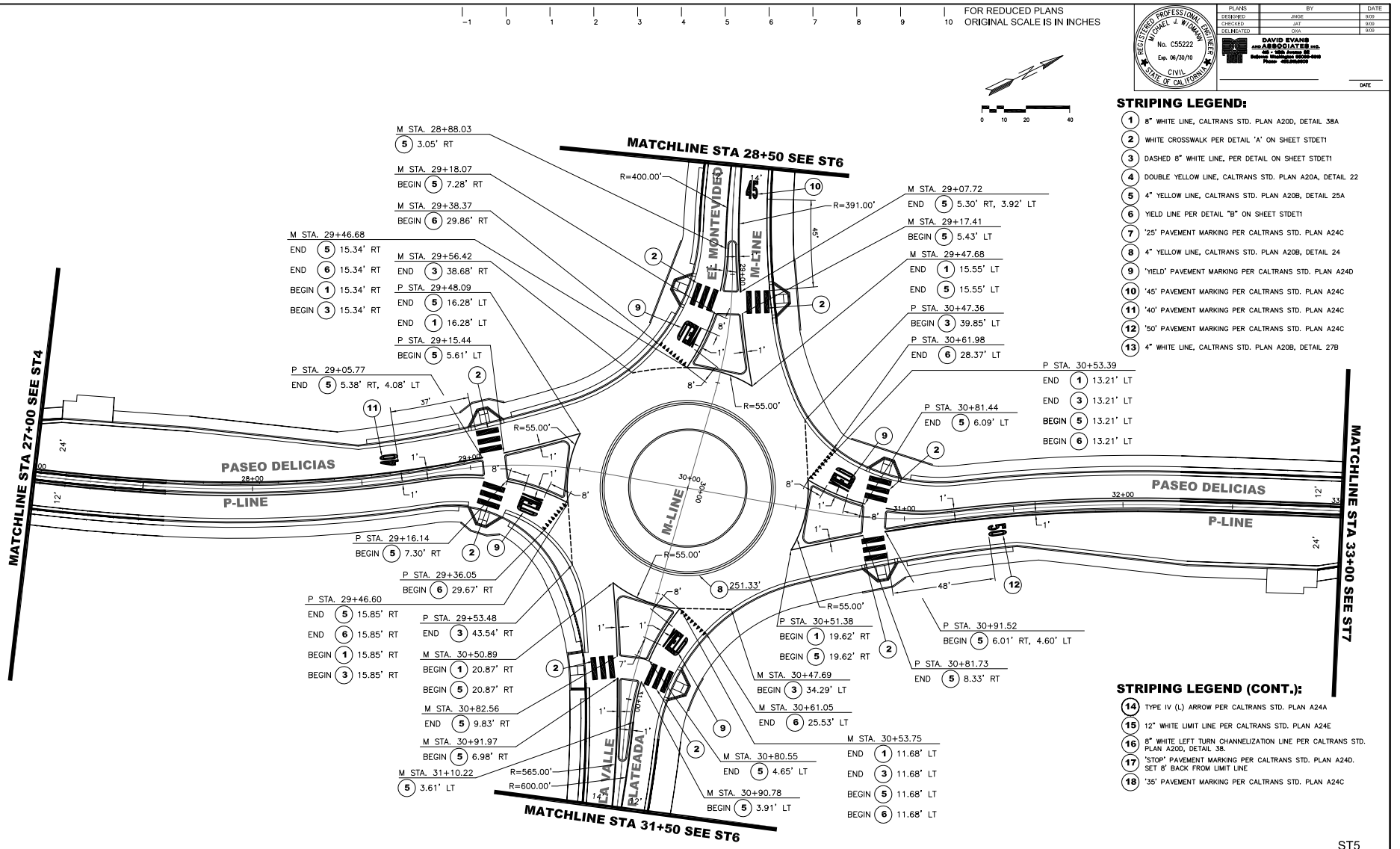
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 106 OF 153 SHEETS



PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

ST5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

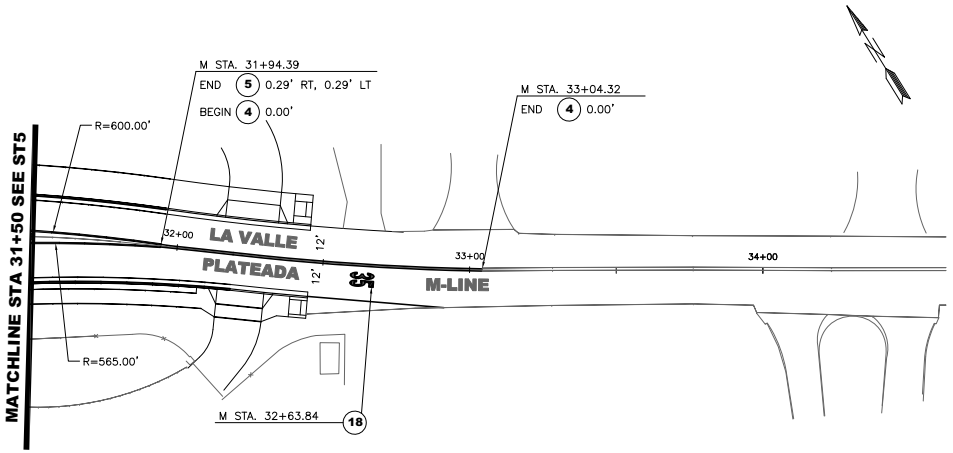
REVISIONS	BY	APPROVED	DATE

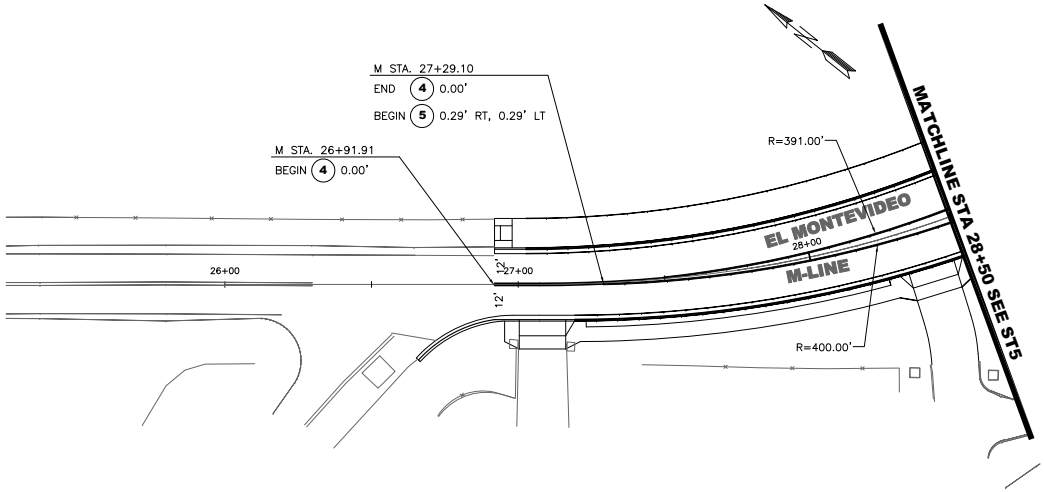
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 107 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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0 10 20 40

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

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ST6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 108 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

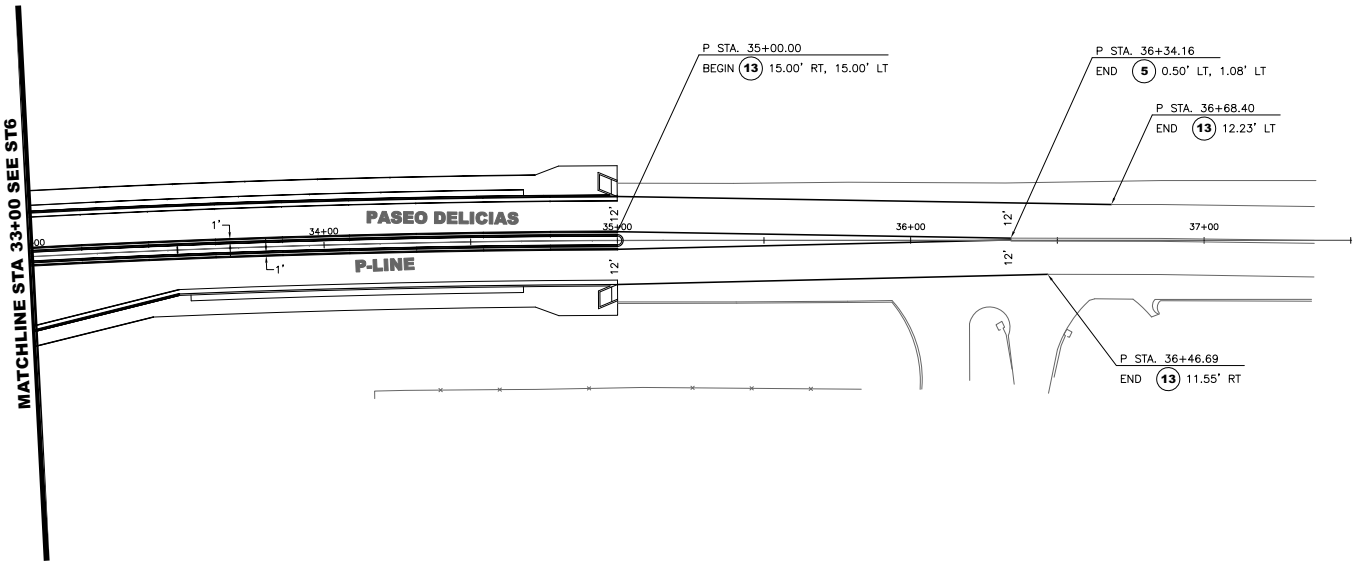
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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE



STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

ST7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 109 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

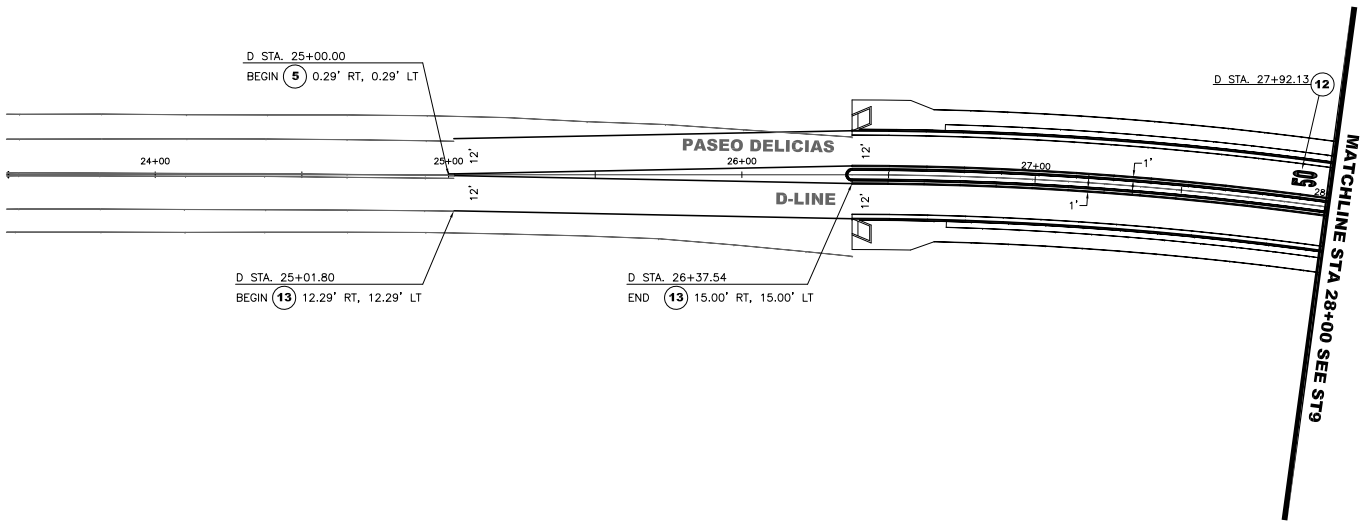
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone 619.235.0900

DATE

STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C



ST8

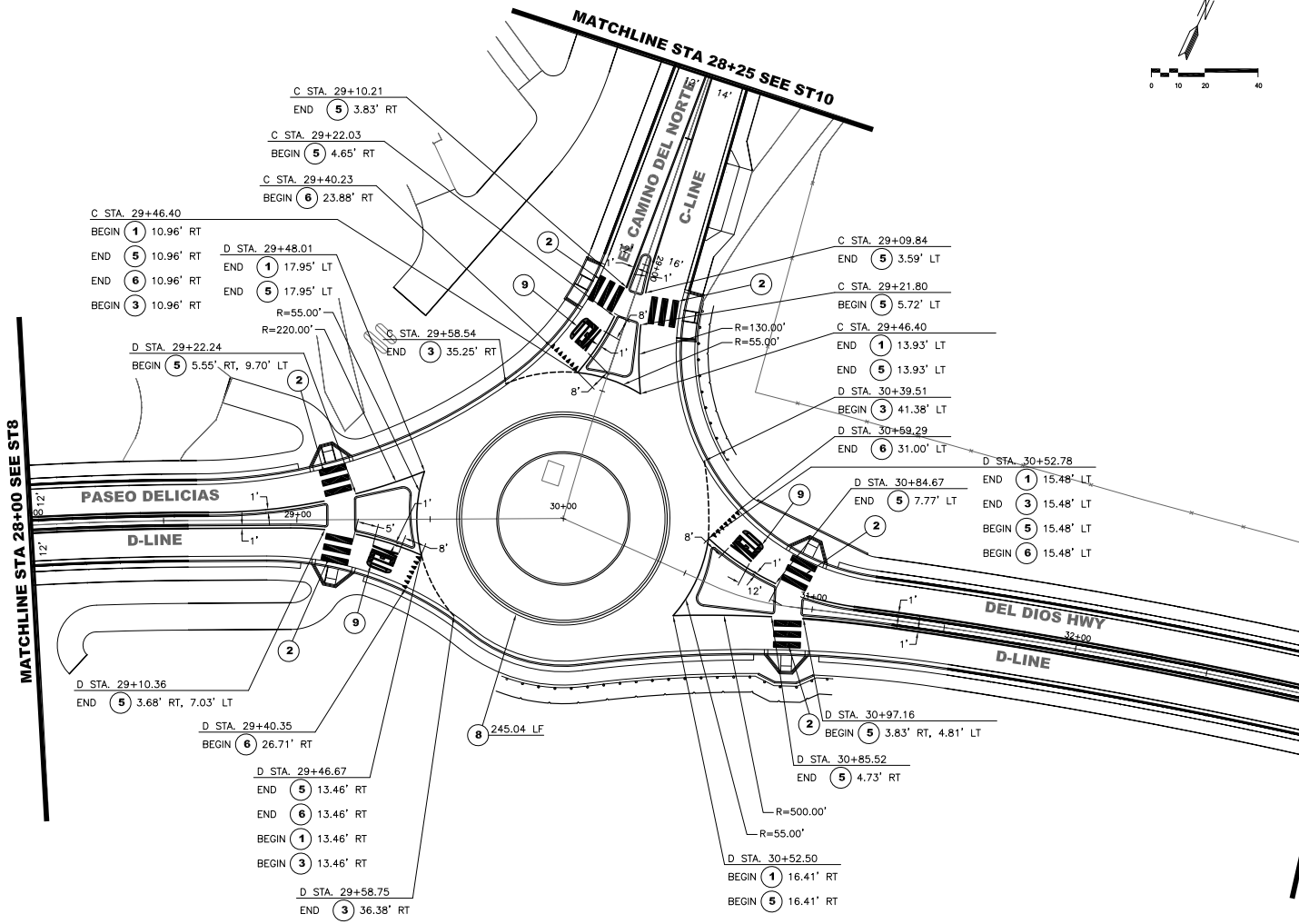
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 110 OF 153 SHEETS



STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
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16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
40 - 10th Avenue SE
Bellevue, Washington 98004-5040
Phone 425.519.6500

DATE

ST9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 111 OF 153 SHEETS

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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

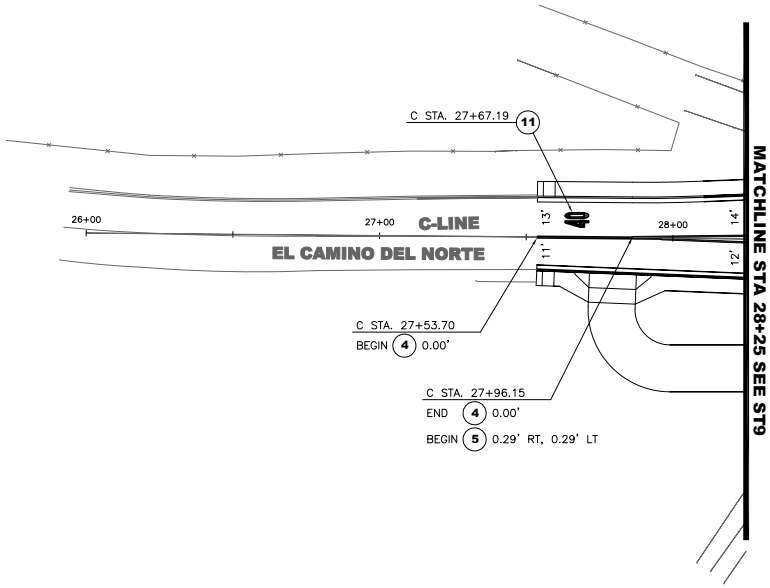
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DAVID EVANS AND ASSOCIATES INC.

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STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C



ST10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

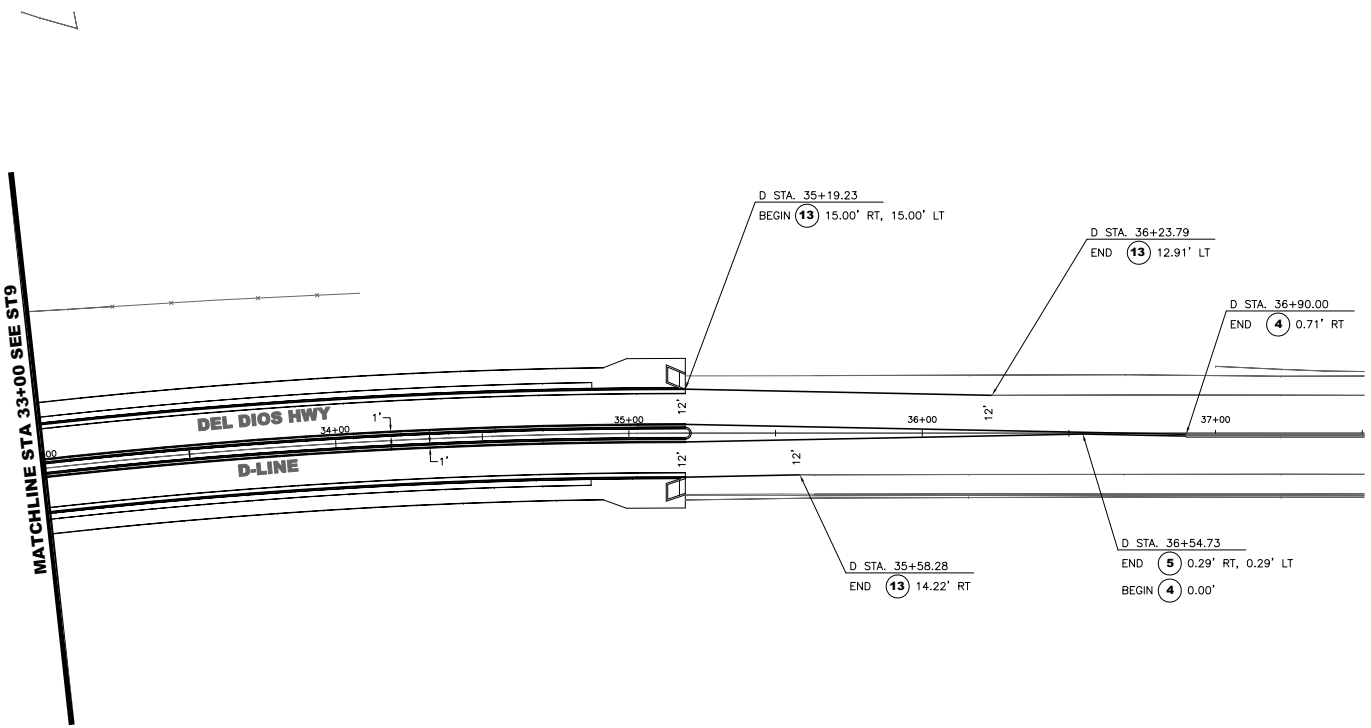
COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 112 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



STRIPING LEGEND:

1. 8" WHITE LINE, CALTRANS STD. PLAN A20D, DETAIL 38A
2. WHITE CROSSWALK PER DETAIL 'A' ON SHEET STDET1
3. DASHED 8" WHITE LINE, PER DETAIL ON SHEET STDET1
4. DOUBLE YELLOW LINE, CALTRANS STD. PLAN A20A, DETAIL 22
5. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 25A
6. YIELD LINE PER DETAIL "B" ON SHEET STDET1
7. '25' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
8. 4" YELLOW LINE, CALTRANS STD. PLAN A20B, DETAIL 24
9. 'YIELD' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D
10. '45' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
11. '40' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
12. '50' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C
13. 4" WHITE LINE, CALTRANS STD. PLAN A20B, DETAIL 27B
14. TYPE IV (L) ARROW PER CALTRANS STD. PLAN A24A
15. 12" WHITE LIMIT LINE PER CALTRANS STD. PLAN A24E
16. 8" WHITE LEFT TURN CHANNELIZATION LINE PER CALTRANS STD. PLAN A20D, DETAIL 38.
17. 'STOP' PAVEMENT MARKING PER CALTRANS STD. PLAN A24D. SET 8' BACK FROM LIMIT LINE
18. '35' PAVEMENT MARKING PER CALTRANS STD. PLAN A24C

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

ST11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STRIPING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 113 OF 153 SHEETS

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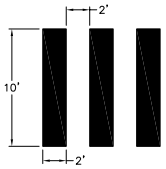
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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

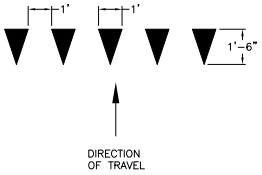
PLANS	BY	DATE
DESIGNED	JMGE	9/09
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DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5905
Phone: 425.519.6500

DATE



DETAIL "A"
WHITE INTERNATIONAL CROSSWALK
NOT TO SCALE



DETAIL "B"
YIELD LINE
NOT TO SCALE



DETAIL "C"
DASHED 8" WHITE LINE
NOT TO SCALE

STDET1

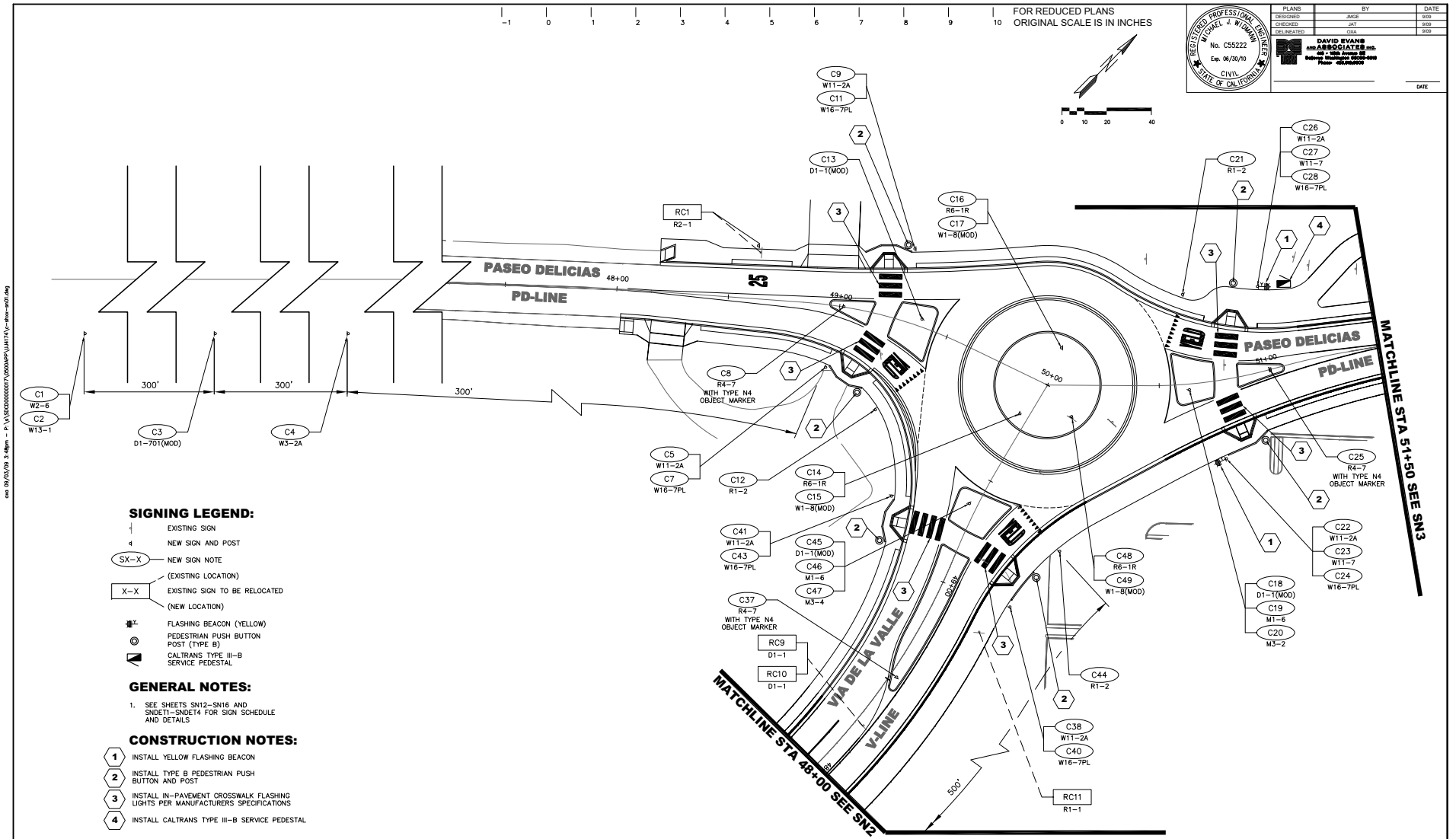
COUNTY OF SAN DIEGO
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5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STRIPING DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 114 OF 153 SHEETS



SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX-X — NEW SIGN NOTE
- X-X — (EXISTING LOCATION) / EXISTING SIGN TO BE RELOCATED / (NEW LOCATION)
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III-B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12-SN16 AND SNDET1-SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN-PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III-B SERVICE PEDESTAL

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SN1

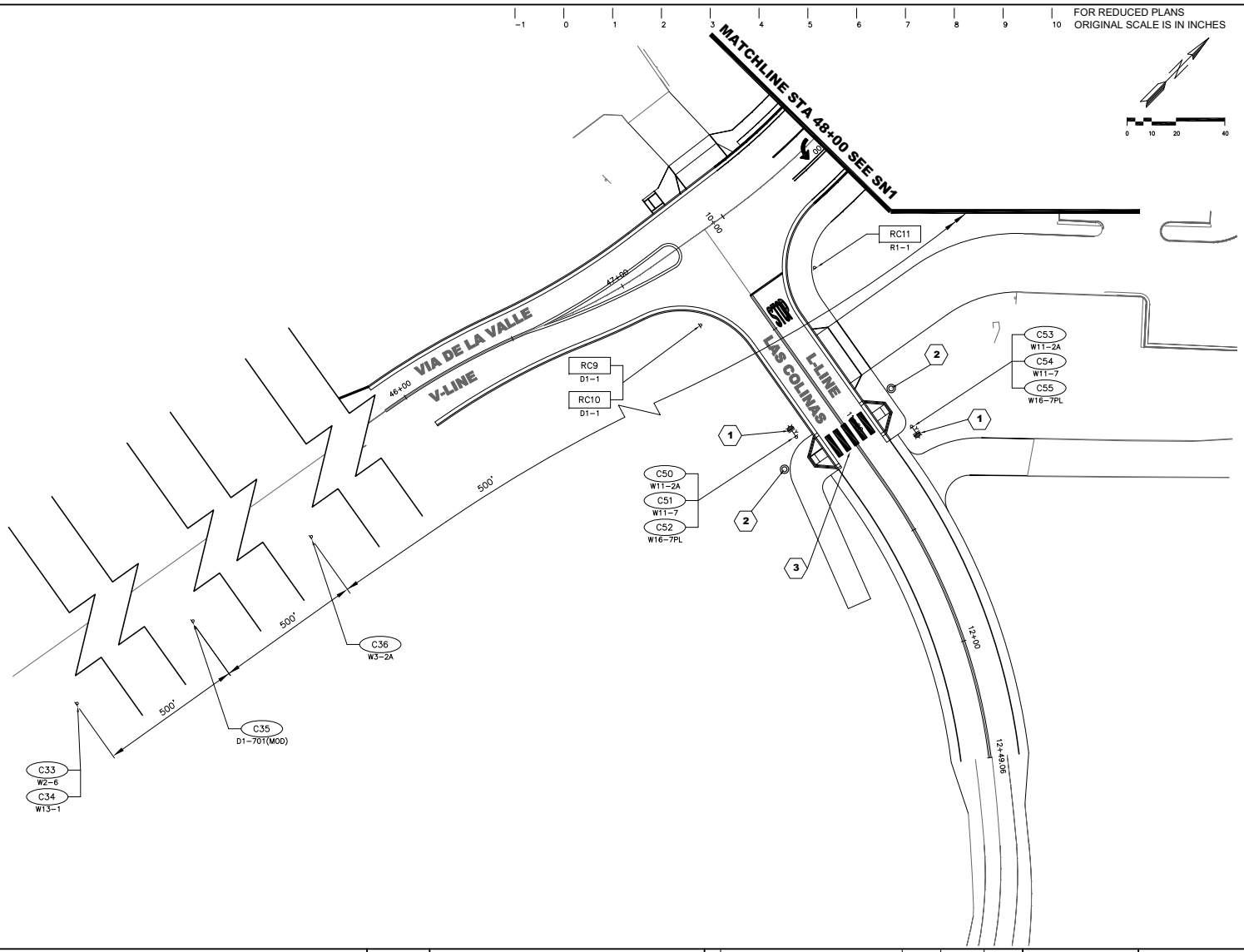
COUNTY OF SAN DIEGO
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5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 115 OF 153 SHEETS



SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX–X — NEW SIGN NOTE
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GENERAL NOTES:

1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SN2

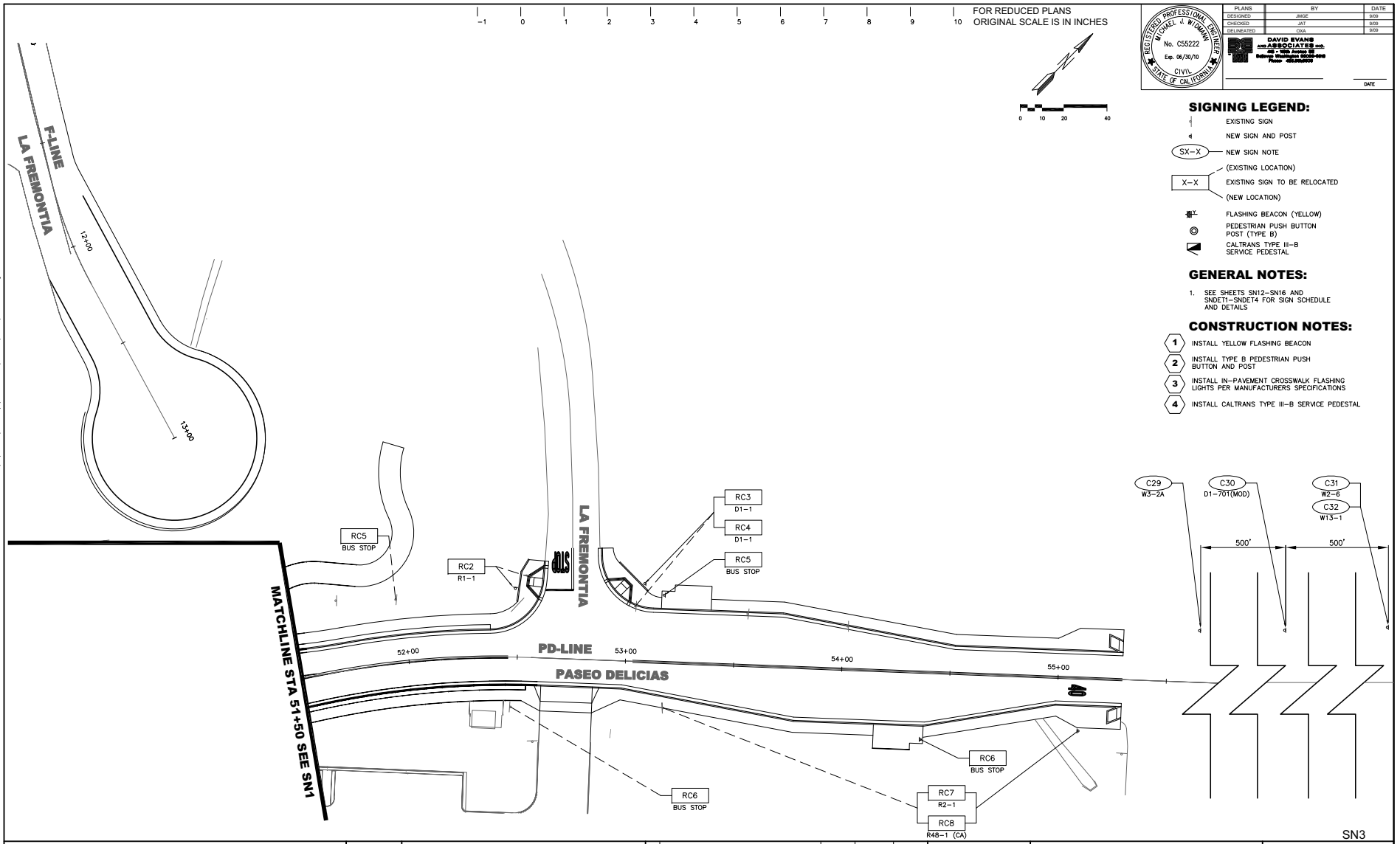
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 116 OF 153 SHEETS



SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX–X — NEW SIGN NOTE
- (EXISTING LOCATION) / X–X / (NEW LOCATION) — EXISTING SIGN TO BE RELOCATED
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III–B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SN3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 117 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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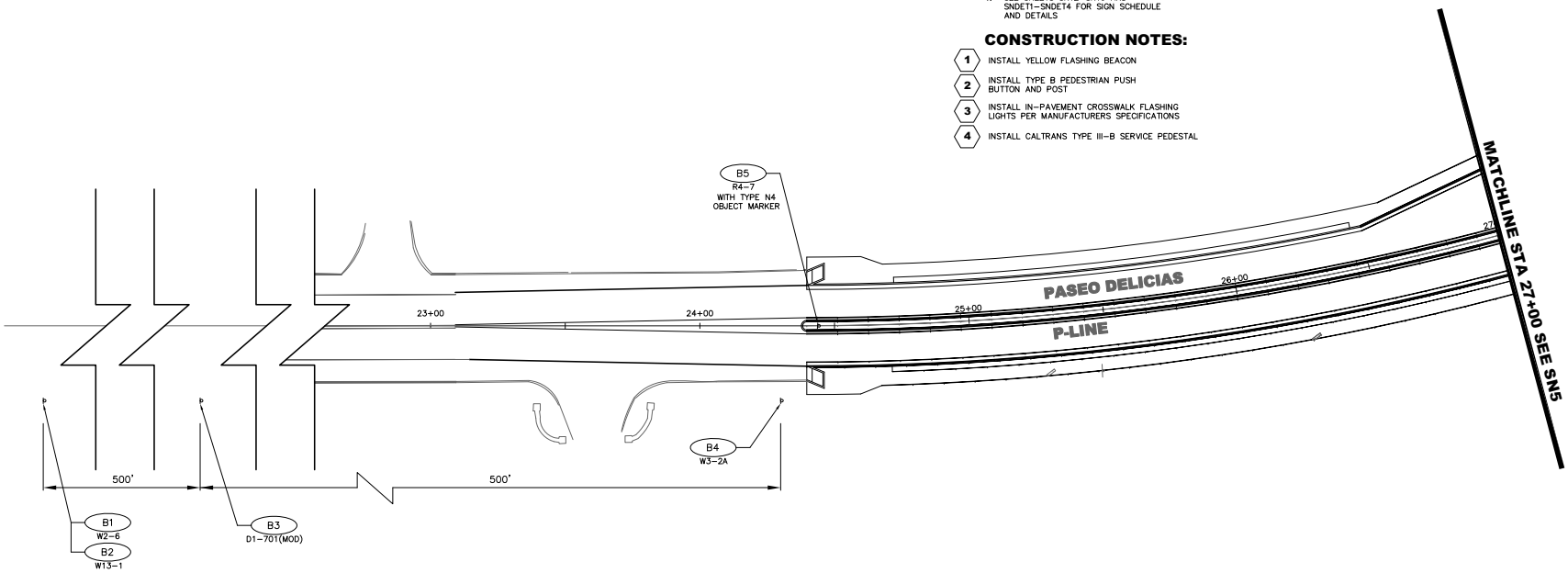
- EXISTING SIGN
- NEW SIGN AND POST
- SX−X — NEW SIGN NOTE
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- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III−B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12−SN16 AND SNDET1−SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN−PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III−B SERVICE PEDESTAL



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.
401 − 16th Avenue SW
Bellevue, Washington 98004−5040
Phone: 425.519.6500

DATE

SN4

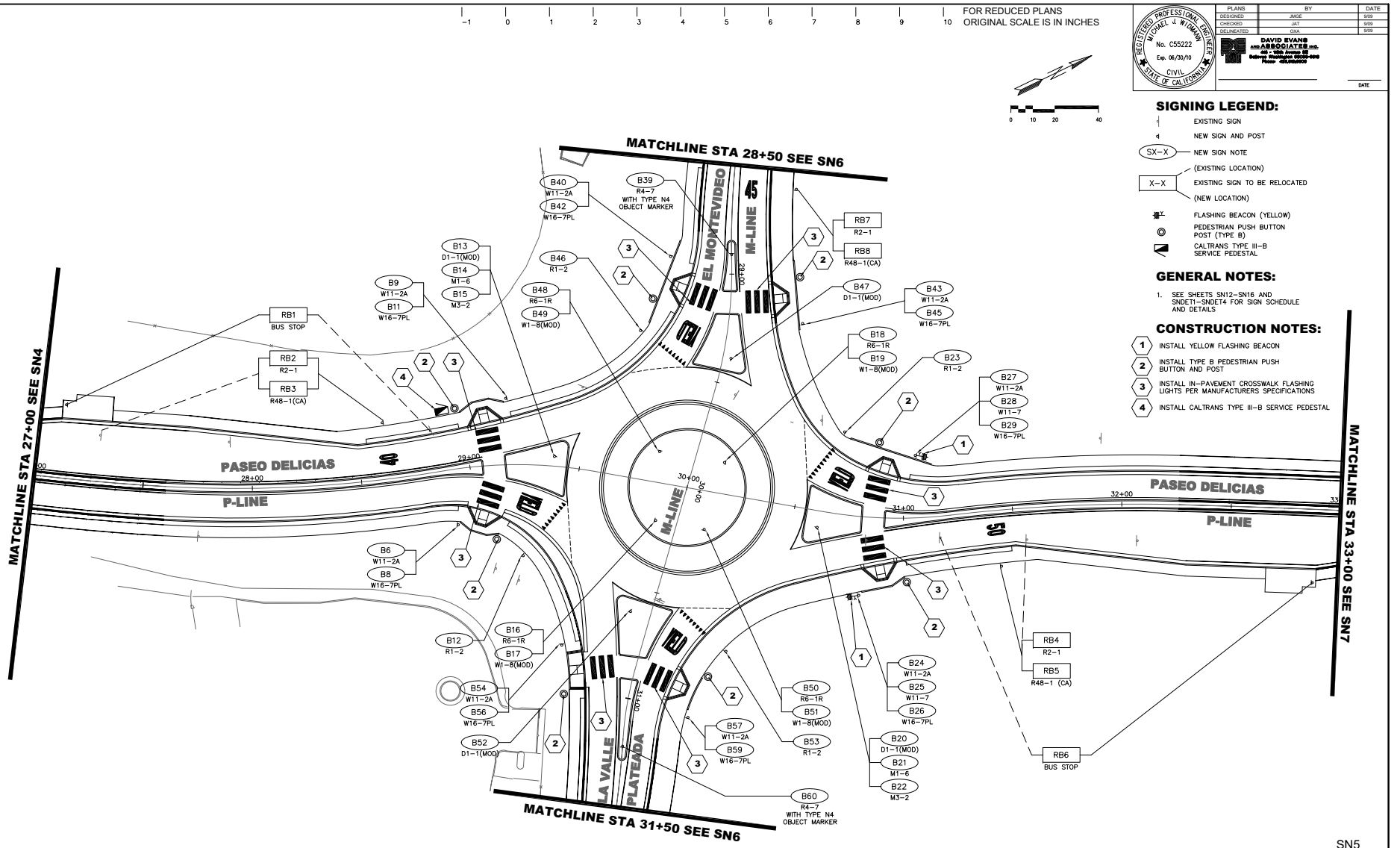
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 118 OF 153 SHEETS



SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX-X — NEW SIGN NOTE
- X-X — (EXISTING LOCATION) EXISTING SIGN TO BE RELOCATED (NEW LOCATION)
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- CALTRANS TYPE III-B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12-SN16 AND SNDET1-SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
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3. INSTALL IN-PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III-B SERVICE PEDESTAL

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SN5

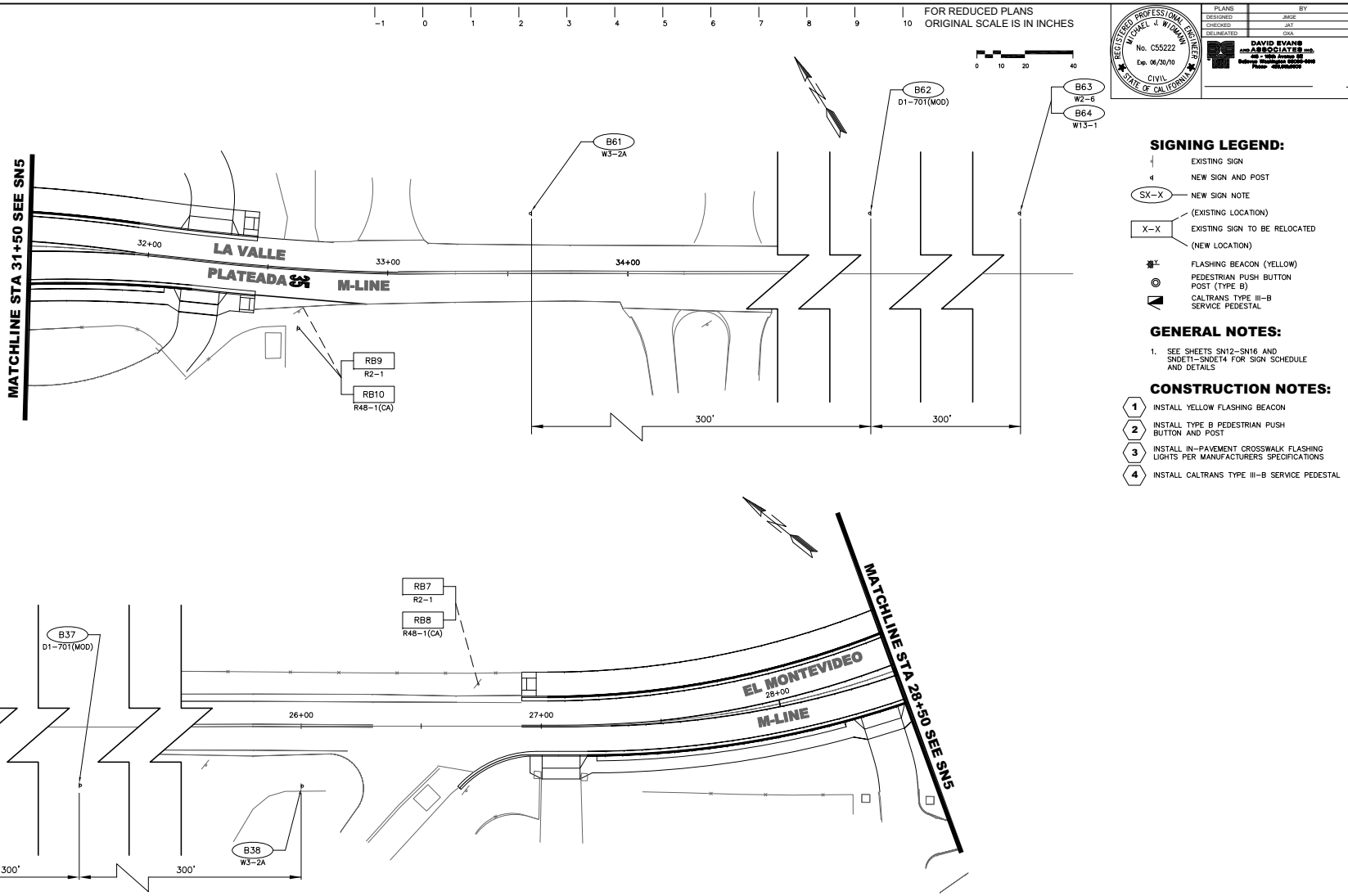
COUNTY OF SAN DIEGO
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5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
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RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 119 OF 153 SHEETS



SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
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- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III-B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12-SN16 AND SNDET1-SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
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3. INSTALL IN-PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
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DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SN6

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 120 OF 153 SHEETS

SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX–X — NEW SIGN NOTE
- (EXISTING LOCATION)
- X–X — EXISTING SIGN TO BE RELOCATED
- (NEW LOCATION)
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III–B SERVICE PEDESTAL

GENERAL NOTES:

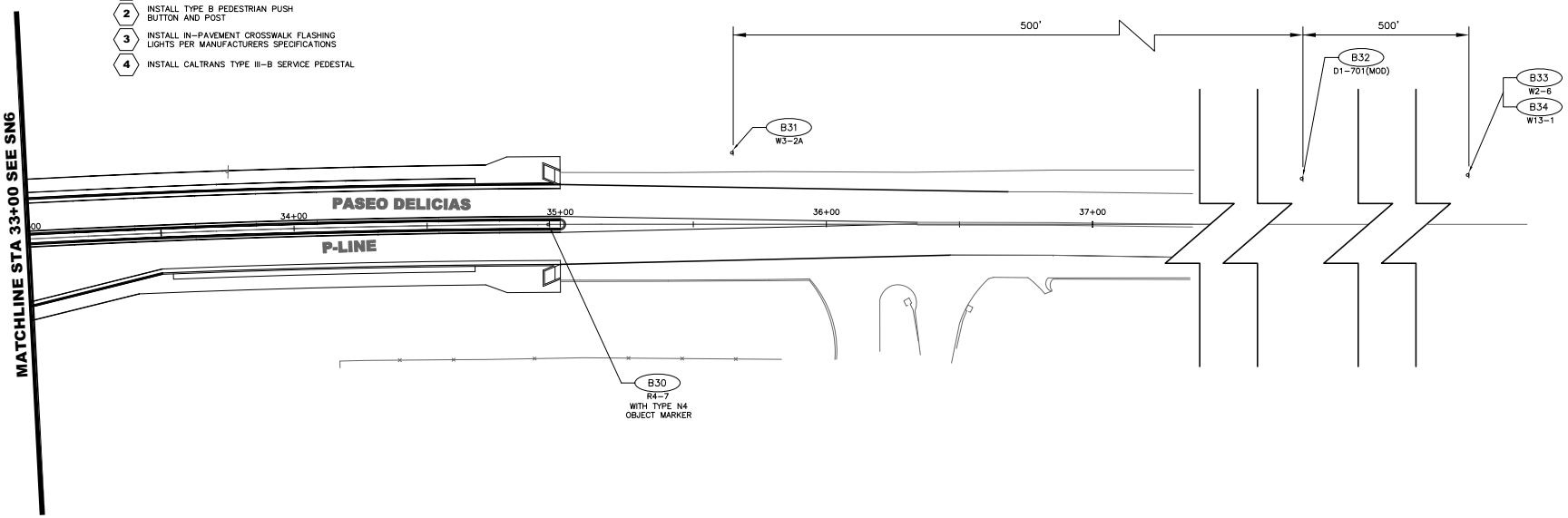
1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN–PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III–B SERVICE PEDESTAL

–1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 10 20 40



PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SN7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 121 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5989
Phone: 425.519.6500

DATE

SIGNING LEGEND:

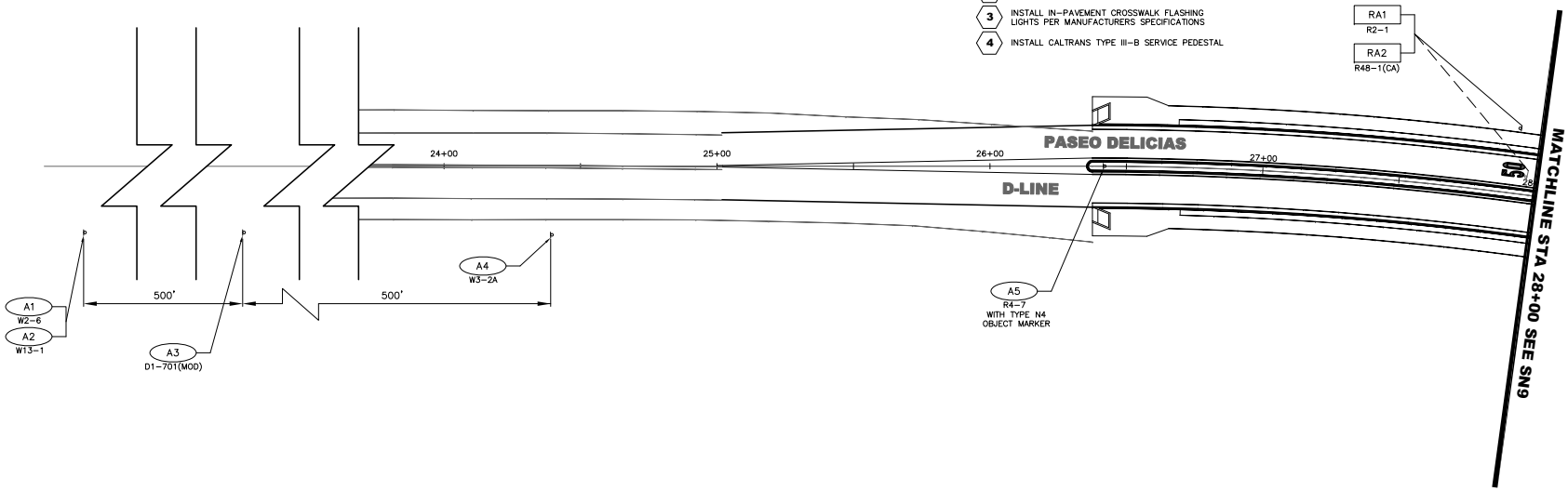
- EXISTING SIGN
- NEW SIGN AND POST
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- FLASHING BEACON (YELLOW)
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- CALTRANS TYPE III–B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
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4. INSTALL CALTRANS TYPE III–B SERVICE PEDESTAL



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SN8

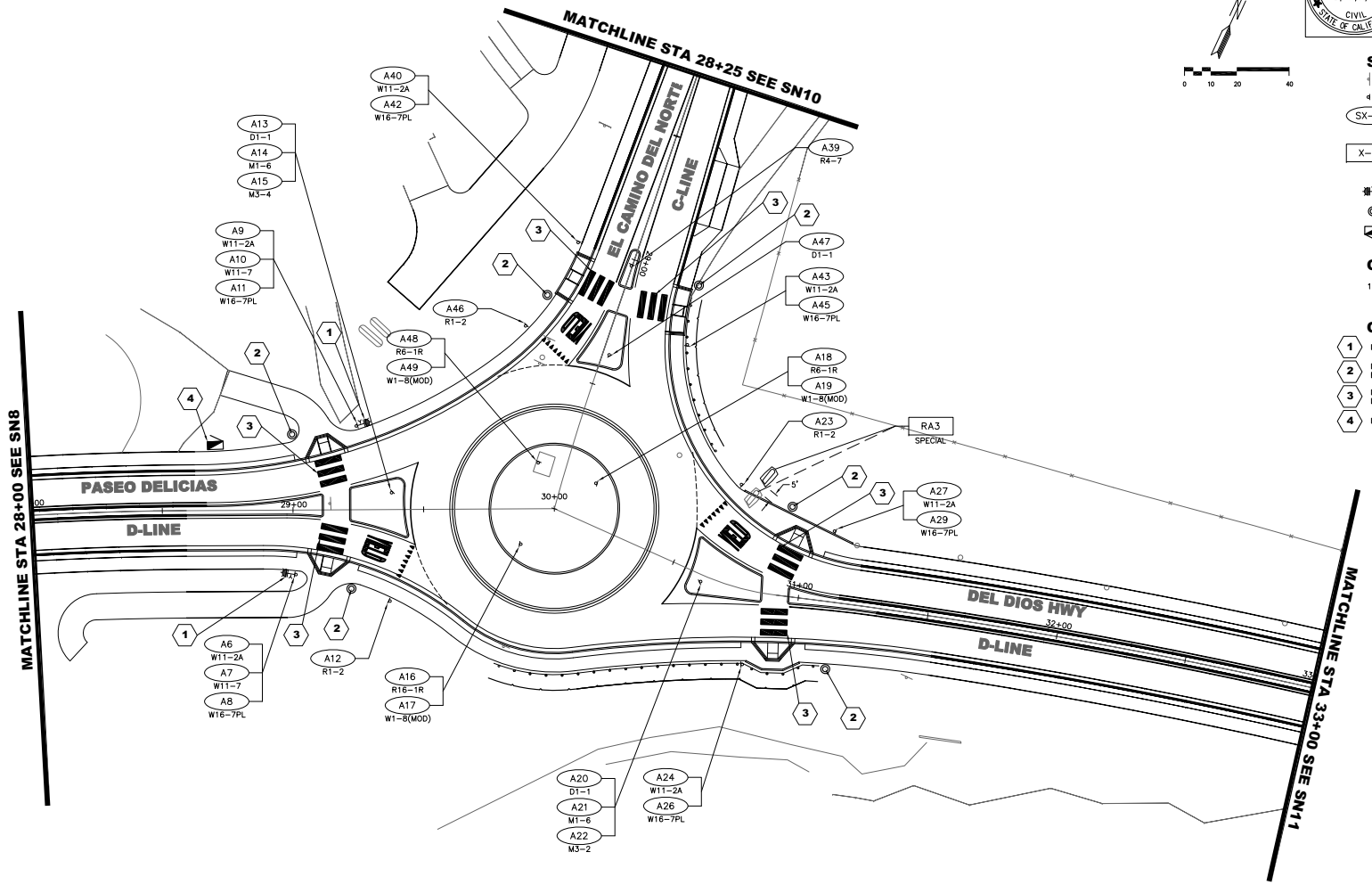
COUNTY OF SAN DIEGO
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5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 122 OF 153 SHEETS



FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

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DELINEATED	CKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
San Diego, California 92101-4240
Phone 619.235.6000

DATE

SIGNING LEGEND:

- EXISTING SIGN
- NEW SIGN AND POST
- SX–X — NEW SIGN NOTE
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- X–X — EXISTING SIGN TO BE RELOCATED
- (NEW LOCATION)
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III–B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN–PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III–B SERVICE PEDESTAL

SN9

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 123 OF 153 SHEETS

oxa 09/03/09 3:50pm – P:\a\SDC00000007\1050\MPP\UJ4174\c-sht\sn10.dwg

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 10 20 40

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

SIGNING LEGEND:

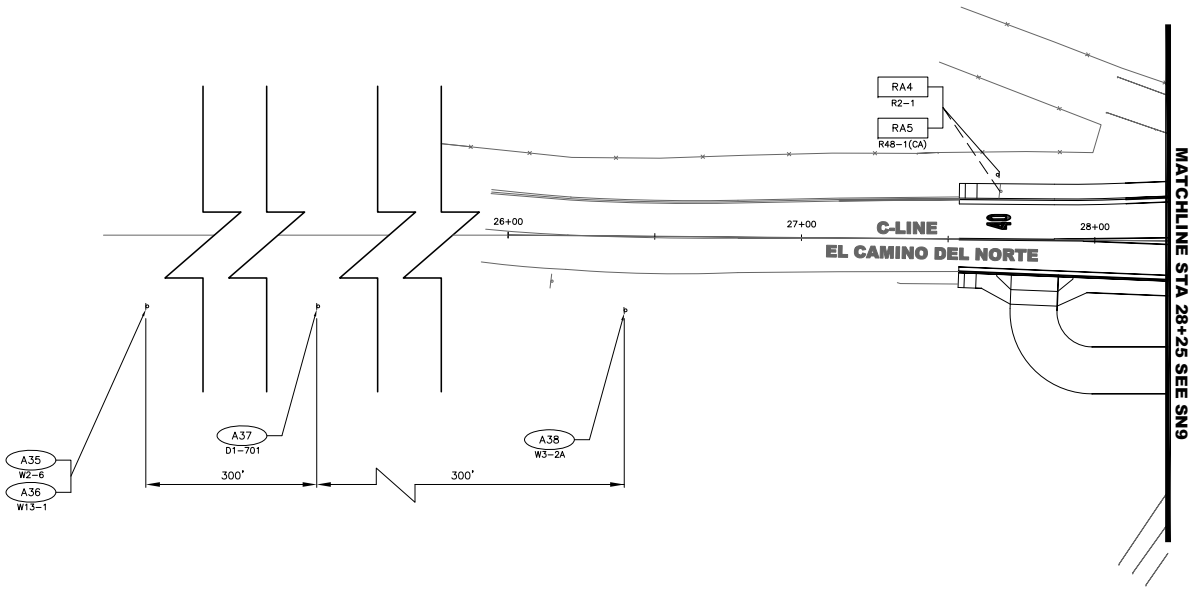
- EXISTING SIGN
- NEW SIGN AND POST
- SX−X — NEW SIGN NOTE
- X−X — (EXISTING LOCATION) EXISTING SIGN TO BE RELOCATED (NEW LOCATION)
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III−B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12−SN16 AND SNDET1−SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN−PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III−B SERVICE PEDESTAL



SN10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 124 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	CKA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYCKMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

SIGNING LEGEND:

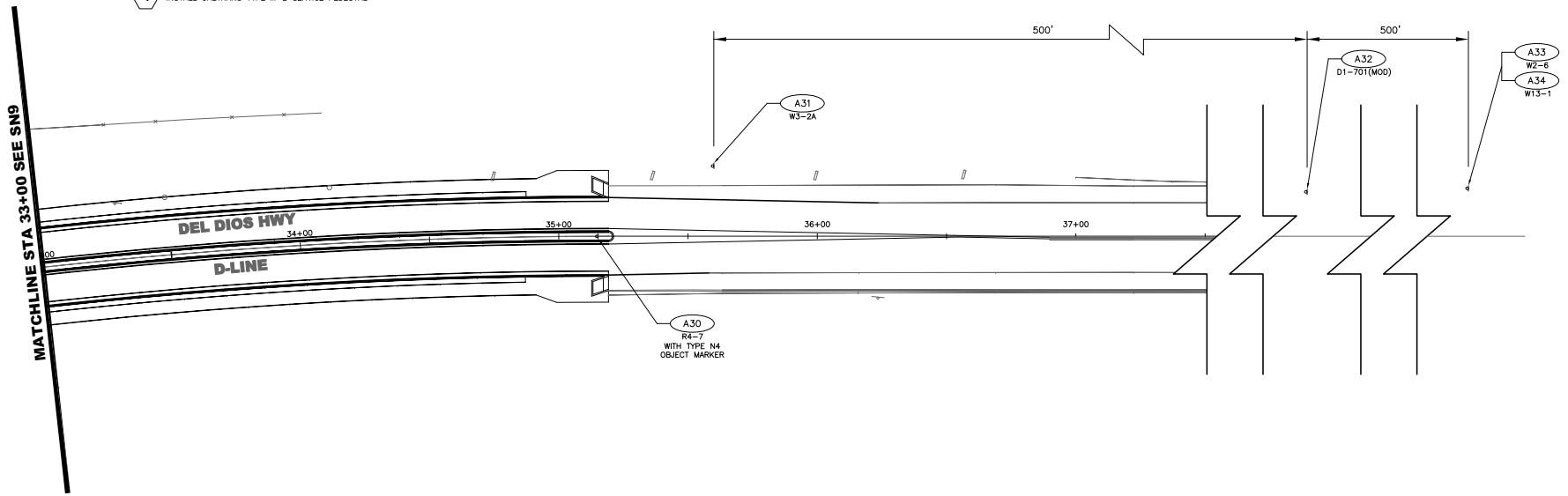
- EXISTING SIGN
- NEW SIGN AND POST
- SX–X — NEW SIGN NOTE
- X–X — (EXISTING LOCATION) EXISTING SIGN TO BE RELOCATED (NEW LOCATION)
- FLASHING BEACON (YELLOW)
- PEDESTRIAN PUSH BUTTON POST (TYPE B)
- CALTRANS TYPE III–B SERVICE PEDESTAL

GENERAL NOTES:

1. SEE SHEETS SN12–SN16 AND SNDET1–SNDET4 FOR SIGN SCHEDULE AND DETAILS

CONSTRUCTION NOTES:

1. INSTALL YELLOW FLASHING BEACON
2. INSTALL TYPE B PEDESTRIAN PUSH BUTTON AND POST
3. INSTALL IN–PAVEMENT CROSSWALK FLASHING LIGHTS PER MANUFACTURERS SPECIFICATIONS
4. INSTALL CALTRANS TYPE III–B SERVICE PEDESTAL



SN11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SIGNING PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 125 OF 153 SHEETS

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-1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone 425.519.6500

DATE

SIGN #	SIGN CODE	LEGEND	LOCATION			SIGN SIZE		SHEETING	LETTER SIZE	POST	POST	POST LENGTH		CLEARANCE		COMMENTS
			STATION	OFFSET		X	Y	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	V	W	
C1	W2-6	ROUNDABOUT AHEAD (SYMBOL)	PD 40+28.44	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.2'	12.0'	(PLACE 300 FT IN FRONT OF C3, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C2	W13-1	ADVISORY SPEED PLATE (W6)	PD 40+28.44	24.00'	RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. C1
C3	D1-701 (MOD)	(G20- LANE DESIGNATION OR G24- LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	PD 43+28.44	24.00'	RT	90	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 300 FT IN FRONT OF C4, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C4	W3-2A	(W28) YIELD AHEAD SYMBOL SIGN	PD 46+28.44	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 300 FT IN FRONT OF C12, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
RC1	R2-1	(R2) Speed Limit Sign "25 MPH"	PD 48+62.23	23.82'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	9.5'	RELOCATE EXISTING POST WITH EXISITING SIGN
C5	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	PD 48+97.12	27.82'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.7'	---	10.2'	9.0'	
C7	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	PD 48+97.12	27.82'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C6
C8	R4-7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	PD 49+01.44	0.20'	LT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	4.2'	
C9	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	PD 49+25.76	32.57'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	9.0'	
C11	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	PD 49+25.76	32.57'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C10
C12	R1-2	YIELD SIGN	PD 49+28.44	41.41'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7'	11.3'	
C13	D1-1 (MOD)	(G8-1) DESTINATION AND STREET NAME w/ARROW SIGNS (PASEO DELICIAS)	PD 49+37.17	3.79'	LT	84	18	III OR IV	6D	WOOD POST	TYPE M	14.5'	14.5'	7'	5.5'	
C14	R6-1R	(R10) ONE WAY SIGN (RIGHT)	PD 49+94.02	16.97'	RT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	20.5'	
C15	W1-8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	PD 49+94.02	16.97'	RT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. C14
C16	R6-1R	(R10) ONE WAY SIGN (RIGHT)	PD 50+06.63	16.72'	LT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	20.5'	
C17	W1-8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	PD 50+06.63	16.72'	LT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. C16
C18	D1-1 (MOD)	(G8-1) DESTINATION AND STREET NAME w/ARROW SIGNS (PASEO DELICIAS)	PD 50+63.20	2.84'	RT	84	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	5.6'	
C19	M1-6	(G25) COUNTY ROUTE MARKER (S6 - SAN DIEGO COUNTY)	PD 50+63.08	2.94'	RT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. C18
C20	M3-2	(G49) CARDINAL DIRECTION PLATE (EAST)	PD 50+63.08	2.94'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C19
C21	R1-2	YIELD SIGN	PD 50+64.63	40.04'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.4'	---	7'	9.0'	
C22	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	PD 50+74.74	35.31'	RT	36	36	III OR IV	---	TYPE 1-A STADARD	TAPERED 5" ID AT BASE	13.0'	---	10.2'	12.0'	INSTALL YELLOW FLASHING BEACON (SEE STD PLAN RSP ES-7B)
C23	W11-7	(W45) EQUESTRIAN SYMBOL SIGN	PD 50+74.74	35.31'	RT	36	36	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. C22
C24	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	PD 50+74.74	35.31'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C23
C25	R4-7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	PD 51+00.73	0.18'	RT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	5.0'	
C26	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	PD 51+04.76	37.28'	LT	36	36	III OR IV	---	TYPE 1-A STADARD	TAPERED 5" ID AT BASE	13.2'	---	10.2'	19.0'	INSTALL YELLOW FLASHING BEACON (SEE STD PLAN RSP ES-7B)
C27	W11-7	(W45) EQUESTRIAN SYMBOL SIGN	PD 51+04.76	37.28'	LT	36	36	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. C26
C28	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	PD 51+04.76	37.28'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C27
RC2	R1-1	STOP SIGN	PD 52+48.60	32.24'	LT	36	36	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	13.3'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC3	D1-1	DESIGNATION (PASEO DELICIAS)	PD 53+08.14	36.16'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	11.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC4	D1-1	DESIGNATION (LA FREMONTIA)	PD 53+08.14	36.16'	LT	---	---	USE SALVAGED SIGN		---		---	---	6'	---	INSTALL BELOW SIGN NO. RC3
RC5	SPECIAL	BUS STOP SIGN	PD 53+17.27	31.13'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	7.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC6	SPECIAL	BUS STOP SIGN	PD 54+36.98	31.13'	RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	7.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC7	R2-1	(R2) Speed Limit Sign "40 MPH"	PD 55+09.62	24.50'	RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	12.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC8	R48-1 (CA)	RADAR ENFORCED SIGN	PD 55+09.62	24.50'	RT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RC7
C29	W3-2A	(W28) YIELD AHEAD SYMBOL SIGN	PD 55+64.63	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT BEHIND C21, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C30	D1-701 (MOD)	(G20- LANE DESIGNATION OR G24- LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	PD 60+64.63	24.00'	LT	90	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 500 FT BEHIND C29, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C31	W2-6	ROUNDABOUT AHEAD (SYMBOL)	PD 65+64.63	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT BEHIND C30, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C32	W13-1	ADVISORY SPEED PLATE (W6)	PD 65+64.63	24.00'	LT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. C31
C33	W2-6	ROUNDABOUT AHEAD (SYMBOL)	V 34+35.10	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT IN FRONT OF C35, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C34	W13-1	ADVISORY SPEED PLATE (W6)	V 34+35.10	24.00'	RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. C33
C35	D1-701 (MOD)	(G20- LANE DESIGNATION OR G24- LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	V 39+35.10	24.00'	RT	120	36	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	16.0'	16.0'	7'	12.0'	(PLACE 500 FT IN FRONT OF C36, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
C36	W3-2A	(W28) YIELD AHEAD SYMBOL SIGN	V 44+35.10	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT IN FRONT OF C44, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD

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SN12

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

SIGN SCHEDULE

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 126 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5695
Phone: 425.519.6500

DATE

SIGN #	SIGN CODE	LEGEND	LOCATION			SIGN SIZE		SHEETING	LETTER SIZE	POST	POST	POST LENGTH		CLEARANCE		COMMENTS
			STATION	OFFSET		X	Y	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	V	W	
RC9	D1−1	DESIGNATION (VIA DE LA VALLE)	V 47+16.45	31.07'	RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	6.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RC10	D1−1	DESIGNATION (LAS COLINAS)	V 47+16.45	31.07'	RT	---	---	USE SALVAGED SIGN		---		---	---	6'	---	INSTALL BELOW SIGN NO. RC9
C37	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	V 48+52.48	3.07'	RT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	3.9'	
C38	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	V 49+01.88	31.79'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.6'	---	10.2'	12.0'	
C40	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	V 49+01.88	31.79'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C39
C41	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	V 49+25.88	36.77'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.6'	---	10.2'	9.1'	
C43	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	V 49+25.88	36.77'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C42
C44	R1−2	YIELD SIGN	V 49+35.10	41.90'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.4'	---	7'	12.0'	
C45	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (VIA DE LA VALLE)	V 49+37.02	4.04'	LT	96	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	5.1'	
C46	M1−6	(G25) COUNTY ROUTE MARKER (S6 − SAN DIEGO COUNTY)	V 49+37.02	4.04'	LT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALLL BELOW SIGN NO. C45
C47	M3−4	(G49) CARDINAL DIRECTION PLATE (WEST)	V 49+37.02	4.04'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALLL BELOW SIGN NO. C46
C48	R6−1R	(R10) ONE WAY SIGN (RIGHT)	V 49+92.92	16.53'	RT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	20.5'	
C49	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	V 49+92.92	16.53'	RT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALLL BELOW SIGN NO. C48
RC11	R1−1	STOP SIGN	L 10+39.24	27.70'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	12.3'	RELOCATE EXISTING POST WITH EXISITING SIGN
C50	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	L 10+90.71	18.50'	RT	36	36	III OR IV	---	TYPE 1−A STADARD	TAPERED 5" ID AT BASE	16.2'	---	10.2'	6.5'	INSTALL YELLOW FLASHING BEACON (SEE STD PLAN RSP ES−7B)
C51	W11−7	(W45) EQUESTRIAN SYMBOL SIGN	L 10+90.71	18.50'	RT	36	36	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. C50
C52	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	L 10+90.71	18.50'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C51
C53	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	L 11+15.31	22.57'	LT	36	36	III OR IV	---	TYPE 1−A STADARD	TAPERED 5" ID AT BASE	14.3'	---	10.2'	9.0'	INSTALL YELLOW FLASHING BEACON (SEE STD PLAN RSP ES−7B)
C54	W11−7	(W45) EQUESTRIAN SYMBOL SIGN	L 11+15.31	22.57'	LT	36	36	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. C53
C55	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	L 11+15.31	22.57'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. C54
B1	W2−6	ROUNDABOUT AHEAD (SYMBOL)	P 14+24.52	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT IN FRONT OF B3, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B2	W13−1	ADVISORY SPEED PLATE (W6)	P 14+24.52	24.00'	RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. B1
B3	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	P 19+24.52	24.00'	RT	144	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 500 FT IN FRONT OF B4, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B4	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	P 24+24.52	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT IN FRONT OF B12, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B5	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	P 24+43.72	0.00'		24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.0'	
RB1	SPECIAL	BUS STOP SIGN	P 27+11.88	33.65'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	7.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RB2	R2−1	(R2) Speed Limit Sign "40 MPH"	P 28+63.17	25.90'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	9.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RB3	R48−1 (CA)	RADAR ENFORCED SIGN	P 28+63.17	25.90'	LT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RB2
B6	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	P 28+90.05	25.24'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	9.2'	
B8	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	P 28+90.05	25.24'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B7
B9	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	P 29+17.46	30.46'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	9.0'	
B11	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	P 29+17.46	30.46'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B10
B12	R1−2	YIELD SIGN	P 29+24.52	41.28'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.8'	---	7'	13.5'	
B13	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (PASEO DELICIAS)	P 29+38.51	4.84'	LT	84	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	4.1'	
B14	M1−6	(G25) COUNTY ROUTE MARKER (S6 − SAN DIEGO COUNTY)	P 29+38.51	4.84'	LT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. B13
B15	M3−4	(G50) CARDINAL DIRECTION PLATE (WEST)	P 29+38.51	4.84'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B14
B16	R6−1R	(R10) ONE WAY SIGN (RIGHT)	P 29+87.98	17.22'	RT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	17.5'	
B17	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	P 29+87.98	17.22'	RT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. B16
B18	R6−1R	(R10) ONE WAY SIGN (RIGHT)	P 30+15.37	14.30'	LT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	17.5'	
B19	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	P 30+15.37	14.30'	LT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. B18

SN13

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

SIGN SCHEDULE

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 127 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5699
Phone 425.519.6500

DATE

SIGN #	SIGN CODE	LEGEND	LOCATION		SIGN SIZE		SHEETING	LETTER SIZE	POST	POST	POST LENGTH		CLEARANCE		COMMENTS
			STATION	OFFSET	X	Y	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	V	W	
B20	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (PASEO DELICIAS)	P 30+61.45	8.01' RT	84	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	4.1'	
B21	M1−6	(G25) COUNTY ROUTE MARKER (S6 − SAN DIEGO COUNTY)	P 30+61.45	8.01' RT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALLL BELOW SIGN NO. B20
B22	M3−2	(G49) CARDINAL DIRECTION PLATE (EAST)	P 30+61.45	8.01' RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALLL BELOW SIGN NO. B21
B23	R1−2	YIELD SIGN	P 30+67.87	37.27' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.8'	---	7'	8.8'	
B24	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	P 30+81.96	36.09' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.5'	---	10.2'	12.0'	
B26	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	P 30+81.96	36.09' RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B25
B27	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	P 31+07.19	28.45' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.3'	---	10.2'	11.5'	
B29	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	P 31+07.19	28.45' LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B28
RB4	R2−1	(R2) Speed Limit Sign "50 MPH"	P 31+42.19	25.64' RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	9.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RB5	R48−1 (CA)	RADAR ENFORCED SIGN	P 31+42.19	25.64' RT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RB4
RB6	SPECIAL	BUS STOP SIGN	P 32+87.98	33.55' RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7'	7.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
B30	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	P 34+96.00	0.03' LT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.0'	
B31	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	P 35+67.87	24.00' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT BEHIND B23, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B32	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	P 40+67.87	24.00' LT	144	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 500 FT BEHIND B31, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B33	W2−6	ROUNDABOUT AHEAD (SYMBOL)	P 45+67.87	24.00' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT BEHIND B33, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B34	W13−1	ADVISORY SPEED PLATE (W6)	P 45+67.87	24.00' LT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. B33
B35	W2−6	ROUNDABOUT AHEAD (SYMBOL)	M 20+32.20	24.00' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 300 FT IN FRONT OF B37, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B36	W13−1	ADVISORY SPEED PLATE (W6)	M 20+32.20	24.00' RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. B35
B37	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	M 23+32.20	24.00' RT	120	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 300 FT IN FRONT OF B38, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B38	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	M 26+32.20	24.00' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 300 FT IN FRONT OF B46, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
RB7	R2−1	(R2) Speed Limit Sign "45 MPH"	M 28+59.72	28.80' LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	12.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RB8	R48−1 (CA)	RADAR ENFORCED SIGN	M 28+59.72	28.80' LT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RB7
B39	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	M 28+90.59	0.00'	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.2'	
B40	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	M 28+91.04	27.78' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.3'	---	10.2'	11.5'	
B42	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	M 28+91.04	27.78' RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B41
B43	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	M 29+19.44	33.83' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.3'	---	10.2'	12.3'	
B45	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	M 29+19.44	33.83' LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B44
B46	R1−2	YIELD SIGN	M 29+32.20	39.03' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.8'	---	7'	9.0'	
B47	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (EL MONTEVIDEO)	M 29+38.27	4.11' LT	84	18	III OR IV	6D	WOOD POST	TYPE M	14.5'	14.5'	7'	4.0'	
B48	R6−1R	(R10) ONE WAY SIGN (RIGHT)	M 29+87.15	16.61' RT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	17.5'	
B49	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	M 29+87.15	16.61' RT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. B48
B50	R6−1R	(R10) ONE WAY SIGN (RIGHT)	M 30+16.63	12.82' LT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	17.5'	
B51	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	M 30+16.63	12.82' LT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. B50
B52	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (LA VALLE PLATEADA)	M 30+61.60	9.35' RT	96	18	III OR IV	6D		TYPE M	14.5'	14.5'	7'	3.9'	
B53	R1−2	YIELD SIGN	M 30+67.40	37.45' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.4'	---	7'	12.0'	
B54	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	M 30+84.42	35.42' RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	10.2'	
B56	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	M 30+84.42	35.42' RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B55
B57	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	M 31+04.81	28.36' LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.6'	---	10.2'	12.0'	
B59	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	M 31+04.81	28.36' LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. B58

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SN14

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

SIGN SCHEDULE

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 128 OF 153 SHEETS

−1 0 1 2 3 4 5 6 7 8 9 10

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 108th Avenue NE
Bellevue, Washington 98004-5905
Phone 425.519.6500

DATE

SIGN #	SIGN CODE	LEGEND	LOCATION			SIGN SIZE		SHEETING	LETTER SIZE	POST	POST	POST LENGTH		CLEARANCE		COMMENTS
			STATION	OFFSET		X	Y	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	V	W	
B60	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	M 31+22.45	0.02'	LT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.2'	
RB9	R2−1	(R2) Speed Limit Sign "35 MPH"	M 32+63.84	24.63'	RT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	12.0'	RELOCATE EXISTING POST WITH EXISITING SIGN
RB10	R48−1 (CA)	RADAR ENFORCED SIGN	M 32+63.84	24.63'	RT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RB9
B61	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	M 33+67.40	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 300 FT BEHIND B53, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B62	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	M 36+67.40	24.00'	LT	120	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 300 FT BEHIND B61, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B63	W2−6	ROUNDABOUT AHEAD (SYMBOL)	M 39+67.40	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 300 FT BEHIND B62, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
B64	W13−1	ADVISORY SPEED PLATE (W6)	M 39+67.40	24.00'	LT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. B63
A1	W2−6	ROUNDABOUT AHEAD (SYMBOL)	D 14+36.47	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT IN FRONT OF A3, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A2	W13−1	ADVISORY SPEED PLATE (W6)	D 14+36.47	24.00'	RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. A1
A3	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	D 19+36.47	24.00'	RT	102	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 500 FT IN FRONT OF A4, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A4	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	D 24+36.47	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT IN FRONT OF A12, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A5	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	D 26+41.54	0.00'		24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.0'	
RA1	R2−1	(R2) Speed Limit Sign "50 MPH"	D 27+92.13	24.00'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	9.5'	RELOCATE EXISTING POST WITH EXISITING SIGN
RA2	R48−1 (CA)	RADAR ENFORCED SIGN	D 27+92.13	24.00'	LT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RA1
A6	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	D 29+00.51	24.64'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	9.0'	
A8	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	D 29+00.51	24.64'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A7
A9	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	D 29+24.84	32.21'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.9'	---	10.2'	7.0'	
A11	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	D 29+24.84	34.21'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A10
A12	R1−2	YIELD SIGN	D 29+36.47	34.83'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.8'	---	7'	9.0'	
A13	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (PASEO DELICIAS)	D 29+37.86	5.83'	LT	84	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	4.9'	
A14	M1−6	(G25) COUNTY ROUTE MARKER (S6 − SAN DIEGO COUNTY)	D 29+38.09	6.83'	LT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. A13
A15	M3−4	(G50) CARDINAL DIRECTION PLATE (WEST)	D 29+38.09	6.83'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A14
A16	R6−1R	(R10) ONE WAY SIGN (RIGHT)	D 29+86.60	13.46'	RT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	19.5'	
A17	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	D 29+86.60	13.46'	RT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. A16
A18	R6−1R	(R10) ONE WAY SIGN (RIGHT)	D 30+11.03	15.48'	LT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	19.5'	
A19	W1−8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	D 30+11.03	15.48'	LT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. A19
A20	D1−1 (MOD)	(G8−1) DESTINATION AND STREET NAME w/ARROW SIGNS (DEL DIOS HWY)	D 30+62.58	1.93'	RT	84	18	III OR IV	6D	WOOD POST	TYPE M	17.7'	17.7'	10.2'	5.9'	
A21	M1−6	(G25) COUNTY ROUTE MARKER (S6 − SAN DIEGO COUNTY)	D 30+62.17	2.95'	RT	24	24	III OR IV	---	---	---	---	---	7'	---	INSTALL BELOW SIGN NO. A20
A22	M3−2	(G49) CARDINAL DIRECTION PLATE (EAST)	D 30+62.17	2.95'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A21
A23	R1−2	YIELD SIGN	D 30+62.52	37.54'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	7.1'	
RA3	SPECIAL	DECORATIVE SIGN (ROCK)	D 30+73.97	41.74'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	---	14.3'	SET EDGE OF SIGN 5' FROM BACK OF WALK
A24	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	D 30+83.46	28.38'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	9.0'	
A26	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	D 30+83.46	28.38'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A25
A27	W11−2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	D 31+10.95	26.94'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	13.5'	---	10.2'	11.0'	
A29	W16−7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	D 31+10.95	26.94'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A28
A30	R4−7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	D 35+15.23	0.00'		24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.0'	
A31	W3−2A	(W28) YIELD AHEAD SYMBOL SIGN	D 35+62.52	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 500 FT BEHIND A23, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A32	D1−701 (MOD)	(G20− LANE DESIGNATION OR G24− LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	D 40+62.52	24.00'	LT	102	60	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	18.0'	18.0'	7'	12.0'	(PLACE 500 FT BEHIND A31, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD

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SN15

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

SIGN SCHEDULE

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 129 OF 153 SHEETS

-1 0 1 2 3 4 5 6 7 8 9 10

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OKA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5699
Phone: 425.519.6500

DATE

SIGN #	SIGN CODE	LEGEND	LOCATION			SIGN SIZE		SHEETING	LETTER SIZE	POST	POST	POST LENGTH		CLEARANCE		COMMENTS
			STATION	OFFSET		X	Y	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	V	W	
A33	W2-6	ROUNDABOUT AHEAD (SYMBOL)	D 45+62.52	24.00'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 500 FT BEHIND A32, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A34	W13-1	ADVISORY SPEED PLATE (W6)	D 45+62.52	24.00'	LT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. A33
A35	W2-6	ROUNDABOUT AHEAD (SYMBOL)	C 20+36.87	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.7'	---	7.1'	12.0'	(PLACE 300 FT IN FRONT OF A37, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A36	W13-1	ADVISORY SPEED PLATE (W6)	C 20+36.87	24.00'	RT	24	24	III OR IV	---	---	---	---	---	5'	---	INSTALL BELOW SIGN NO. A35
A37	D1-701 (MOD)	(G20- LANE DESIGNATION OR G24- LANE ASSIGNMENT) DIAGRAMMATIC CIRCULAR INTERSECTION	C 23+36.87	24.00'	RT	126	36	III OR IV	6Em/ 4Em	WOOD POST	TYPE M	16.0'	16.0'	7'	12.0'	(PLACE 300 FT IN FRONT OF A38, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
A38	W3-2A	(W28) YIELD AHEAD SYMBOL SIGN	C 26+36.87	24.00'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.6'	---	7'	12.0'	(PLACE 300 FT IN FRONT OF A46, 12' FROM EDGE OF PAVEMENT) VERIFY POST LENGTH IN FIELD
RA4	R2-1	(R2) Speed Limit Sign "40 MPH"	C 27+67.19	22.07'	LT	---	---	USE SALVAGED SIGN		USE SALVAGED POST		---	---	7.1'	8.5'	RELOCATE EXISTING POST WITH EXISITING SIGN
RA5	R48-1 (CA)	RADAR ENFORCED SIGN	C 27+67.19	22.07'	LT	---	---	USE SALVAGED SIGN		---		---	---	5'	---	INSTALL BELOW SIGN NO. RA4
A39	R4-7	(R7) KEEP RIGHT SYMBOL SIGN (WITH TYPE N4 OBJECT MARKER)	C 29+02.02	0.38'	RT	24	30	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.1'	---	7'	2.2'	
A40	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	C 29+00.16	22.50'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	7.0'	
A42	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	C 29+00.16	22.50'	RT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A41
A43	W11-2a	(W54) PEDESTRIAN CROSSING SYMBOL SIGN	C 29+24.71	29.69'	LT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	14.0'	---	10.2'	7.0'	
A45	W16-7pL	DIAGONAL DOWNWARD ARROW 135 PLAQUE (LEFT)	C 29+24.71	29.69'	LT	24	12	III OR IV	---	---	---	---	---	5.8'	---	INSTALL BELOW SIGN NO. A44
A46	R1-2	YIELD SIGN	C 29+36.87	31.14'	RT	36	36	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	10.8'	---	7'	7.0'	
A47	D1-1 (MOD)	(G8-1) DESTINATION AND STREET NAME w/ARROW SIGNS (EL CAMINO DEL NORTE)	C 29+37.07	1.12'	LT	108	18	III OR IV	6D	WOOD POST	TYPE M	14.5'	14.5'	7'	4.7'	
A48	R6-1R	(R10) ONE WAY SIGN (RIGHT)	C 29+94.09	18.05'	LT	36	12	III OR IV	---	12 GA. GALVANIZED STEEL	1 3/4" x 1 3/4"	7.6'	---	6'	19.5'	
A49	W1-8 (MOD)	(W81) CHEVRON ALIGNMENT SIGN (RIGHT)	C 29+94.09	18.05'	LT	36	24	III OR IV	---	---	---	---	---	4'	---	INSTALL BELOW SIGN NO. A48

SN16

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL. _____
FIELD REVISIONS _____

RANCHO SANTA FE ROUNDABOUTS

SIGN SCHEDULE

SCALE: HOR. AS NOTED VERT. _____
W.A. UJ4174 R.S. 476
SHEET 130 OF 153 SHEETS

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dxa 09/02/09 2:56pm – P:\a\SDC000000071\050UAPP\UJ4174\c-dtxx-snsdet01.dwg

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

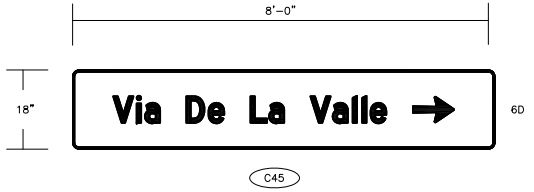
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE











SNDET1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
SIGNING DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 131 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE



B3



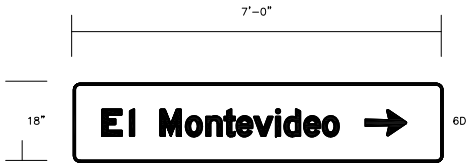
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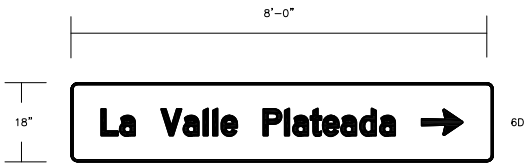
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B62



B47



B52

SNDET2

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
SIGNING DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 132 OF 153 SHEETS

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FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 – 10th Avenue SE
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE

8'–6"

5'–0"

6Em/4Em

6Em/4Em

Del Dios Hwy

El Camino Del Norte

6Em/4Em

6Em/4Em

A3

10'–6"

3'–0"

6Em/4Em

6Em/4Em

Del Dios Hwy

Paseo Delicias

6Em/4Em

6Em/4Em

A37

9'–0"

18"

El Camino Del Norte

6D

A47

8'–6"

5'–0"

6Em/4Em

6Em/4Em

Paseo Delicias

El Camino Del Norte

6Em/4Em

6Em/4Em

A32

7'–0"

18"

Del Dios Hwy

6D

A20

SNDET3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
SIGNING DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 133 OF 153 SHEETS

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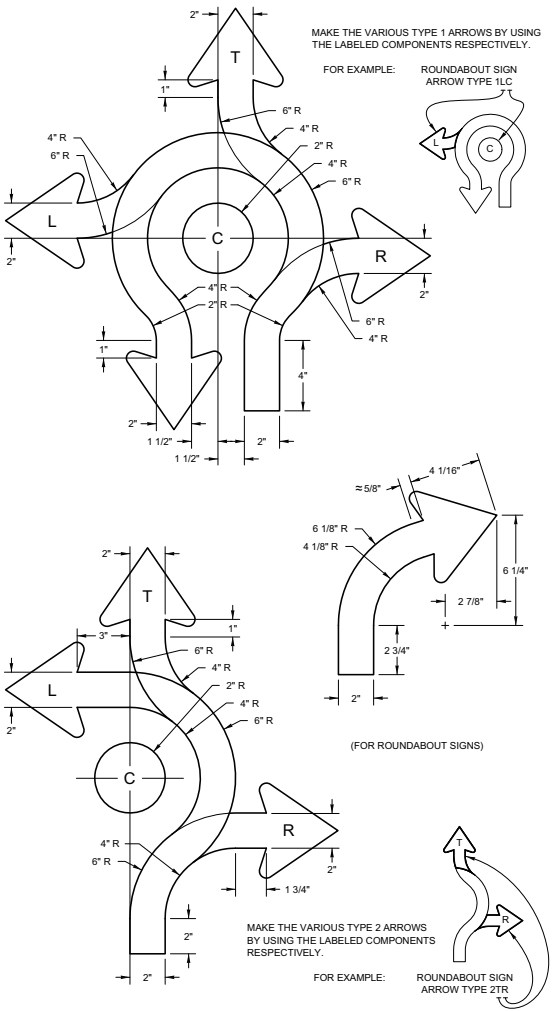
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
400 – 10th Avenue SW
Bellevue, Washington 98004-5009
Phone: 425.519.6500

DATE



SNDET4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

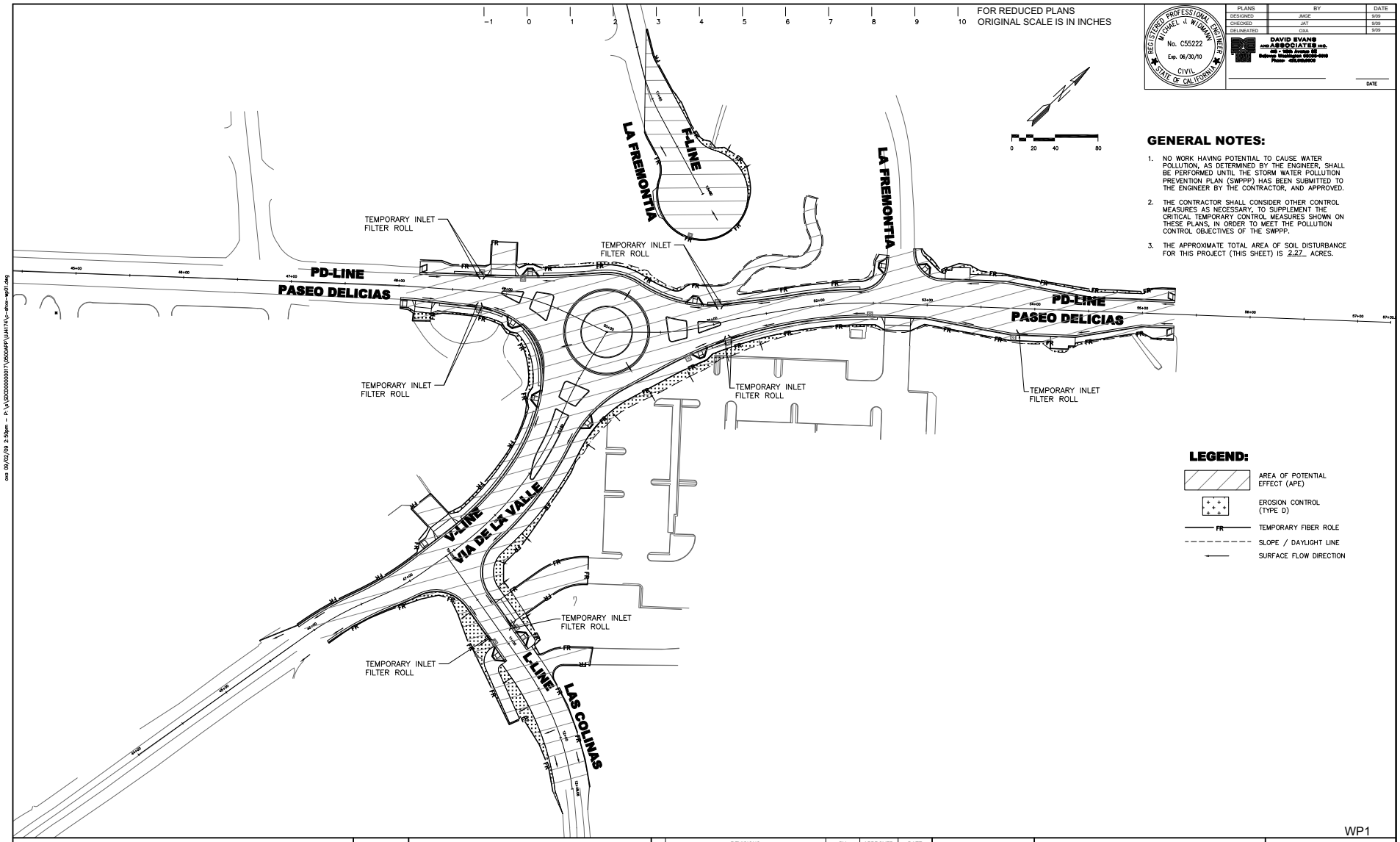
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

SIGNING DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 134 OF 153 SHEETS



REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WYDMAN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street, Suite 400
San Diego, California 92101-4240
Phone: (619) 235-0000

DATE

GENERAL NOTES:

1. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR, AND APPROVED.
2. THE CONTRACTOR SHALL CONSIDER OTHER CONTROL MEASURES AS NECESSARY, TO SUPPLEMENT THE CRITICAL TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP.
3. THE APPROXIMATE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT (THIS SHEET) IS 2.27 ACRES.

WP1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

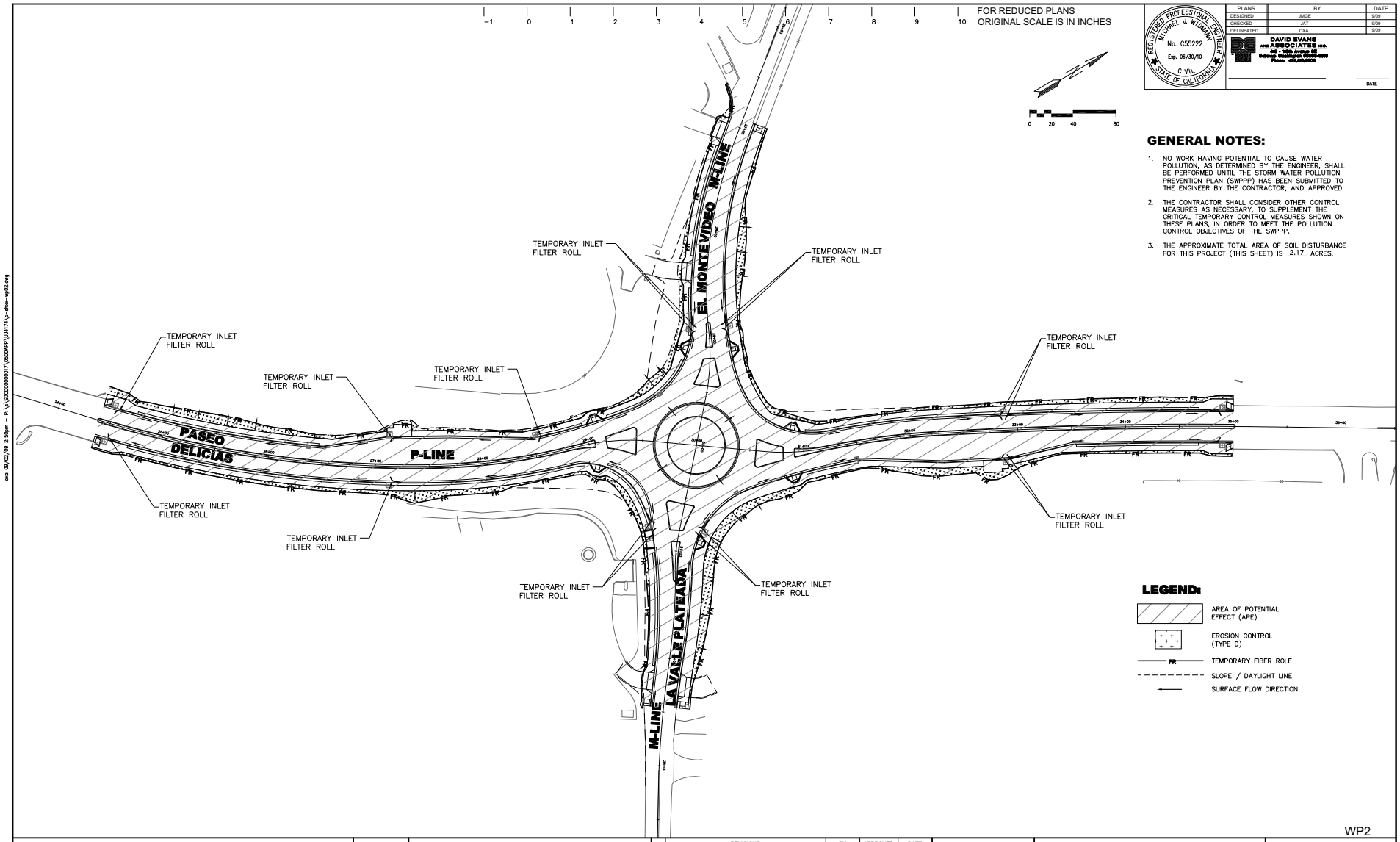
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
WATER POLLUTION CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 135 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

GENERAL NOTES:

1. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR, AND APPROVED.
2. THE CONTRACTOR SHALL CONSIDER OTHER CONTROL MEASURES AS NECESSARY, TO SUPPLEMENT THE CRITICAL TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP.
3. THE APPROXIMATE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT (THIS SHEET) IS 2.17 ACRES.

WP2

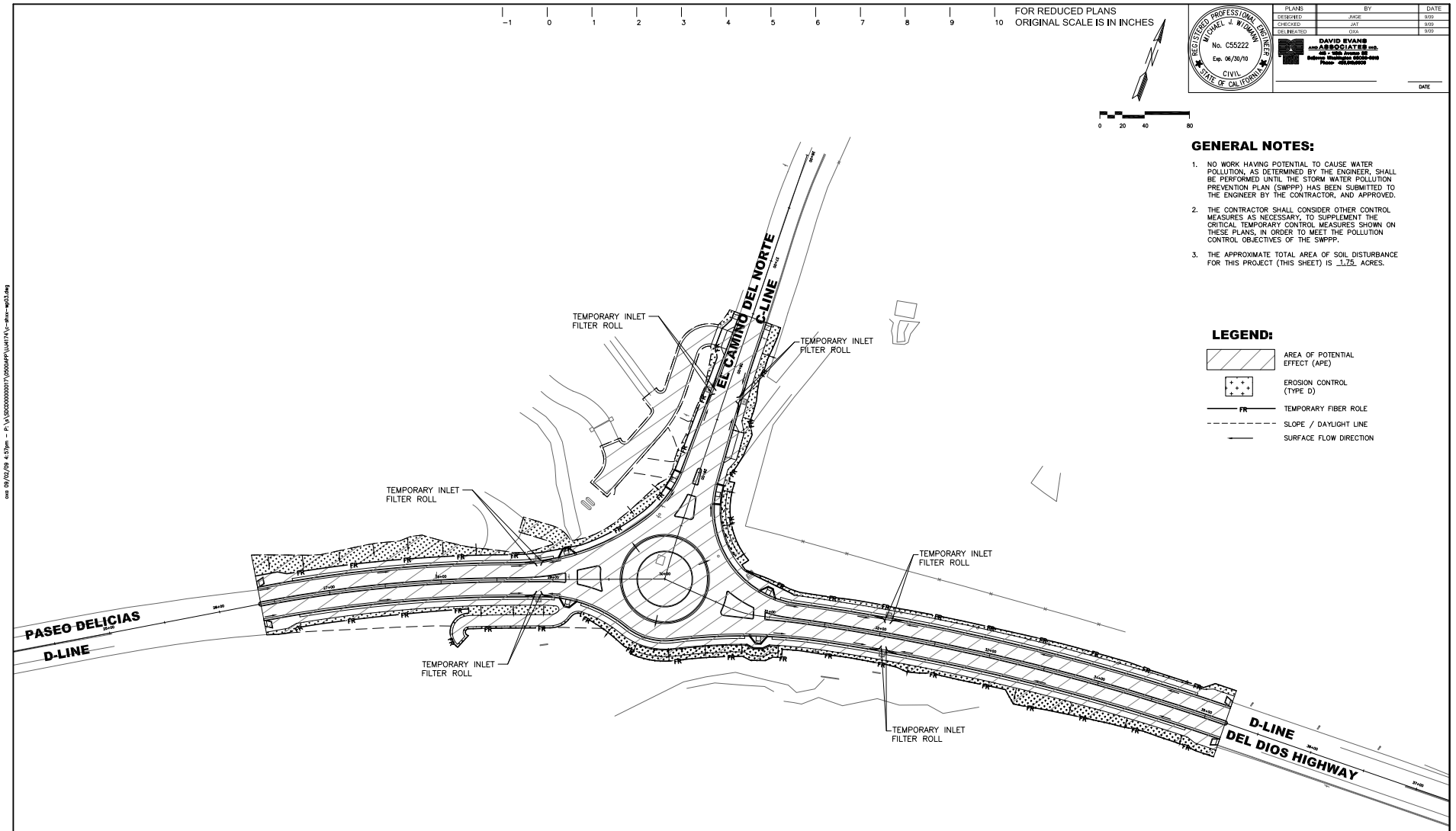
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
WATER POLLUTION CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 136 OF 153 SHEETS



REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. WIDMANN
No. C55222
Exp. 06/30/10
CIVIL
STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JWGE	9/09
CHECKED	JAT	9/09
DELINEATED	DXA	9/09

DAVID EVANS AND ASSOCIATES INC.
DATE

GENERAL NOTES:

1. NO WORK HAVING POTENTIAL TO CAUSE WATER POLLUTION, AS DETERMINED BY THE ENGINEER, SHALL BE PERFORMED UNTIL THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN SUBMITTED TO THE ENGINEER BY THE CONTRACTOR, AND APPROVED.
2. THE CONTRACTOR SHALL CONSIDER OTHER CONTROL MEASURES AS NECESSARY, TO SUPPLEMENT THE CRITICAL TEMPORARY CONTROL MEASURES SHOWN ON THESE PLANS, IN ORDER TO MEET THE POLLUTION CONTROL OBJECTIVES OF THE SWPPP.
3. THE APPROXIMATE TOTAL AREA OF SOIL DISTURBANCE FOR THIS PROJECT (THIS SHEET) IS 1.75 ACRES.

LEGEND:

- AREA OF POTENTIAL EFFECT (APE)
- EROSION CONTROL (TYPE D)
- FR — TEMPORARY FIBER ROLE
- SLOPE / DAYLIGHT LINE
- SURFACE FLOW DIRECTION

WP3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

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RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
WATER POLLUTION CONTROL PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 137 OF 153 SHEETS

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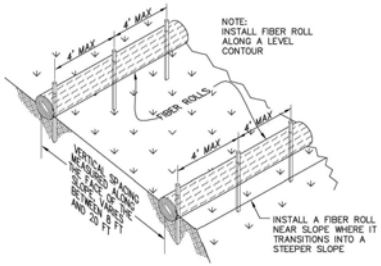
−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

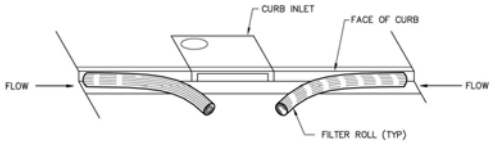
PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92025-4000
Phone: (760)839-4900

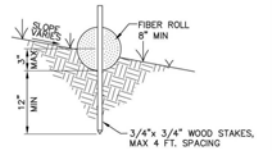
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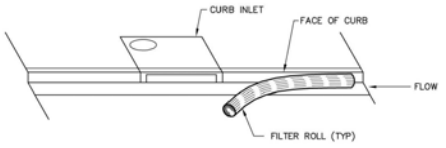
TYPICAL FIBER ROLL INSTALLATION
NTS



PROTECTION FOR INLET ON SUMP
NTS



ENTRENCHMENT DETAIL
NTS



PROTECTION FOR INLET ON GRADE
NTS

WP4

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS

WATER POLLUTION CONTROL DETAILS

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 138 OF 153 SHEETS

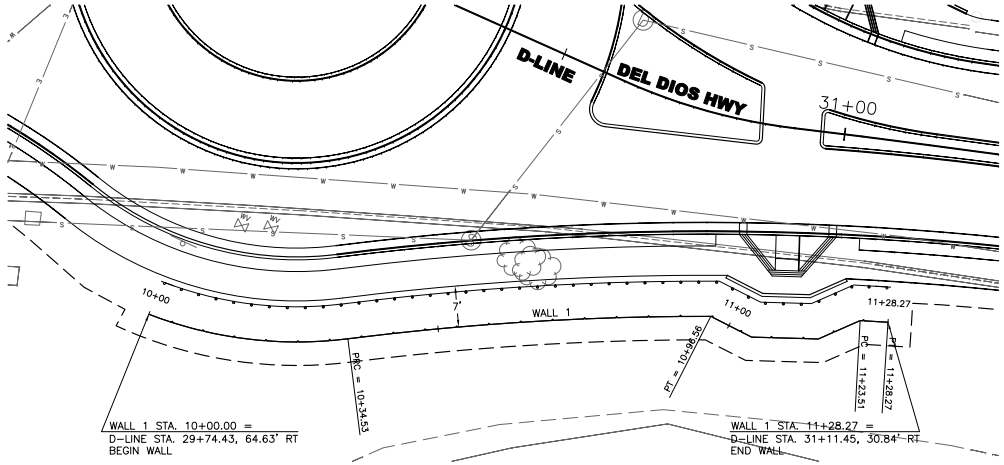
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	DKA	9/09

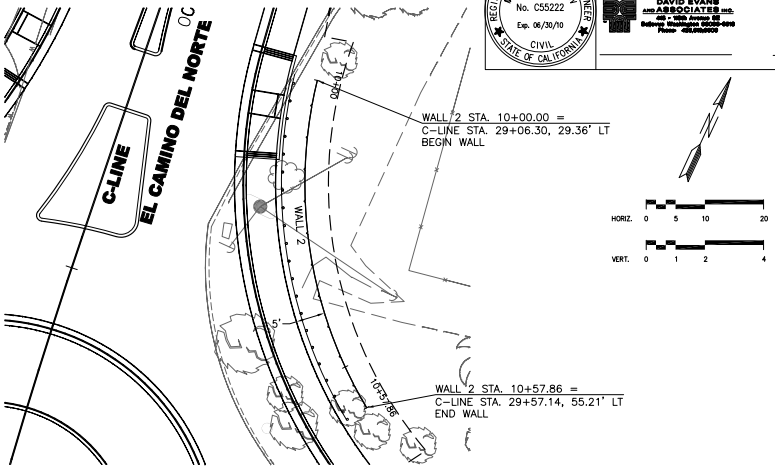
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

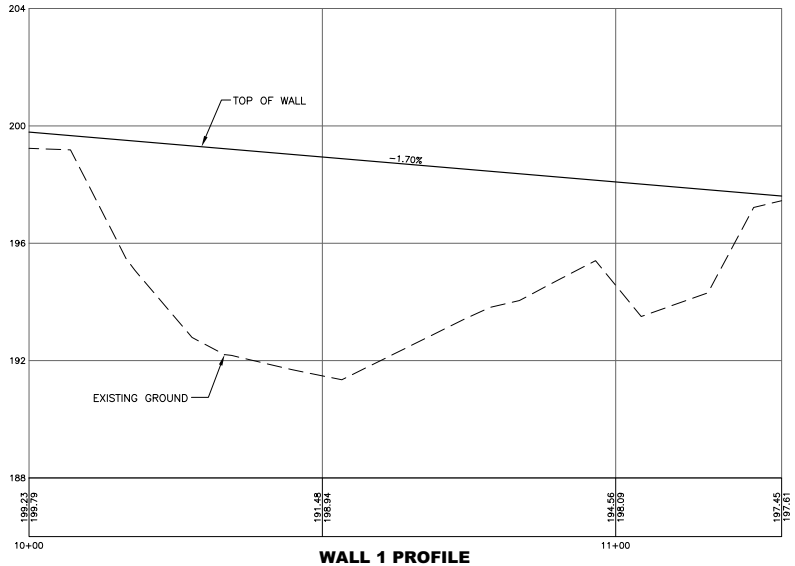
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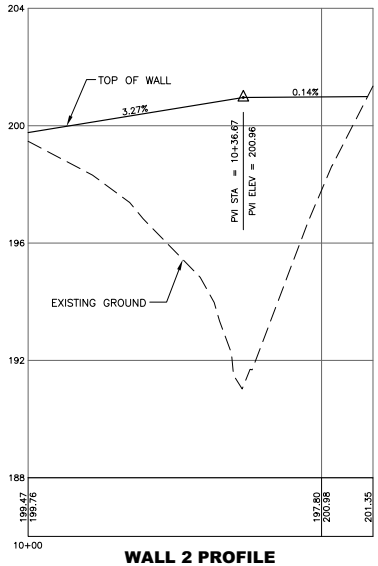
WALL 1 PLAN



WALL 2 PLAN



WALL 1 PROFILE



WALL 2 PROFILE

GENERAL NOTES:

1. WALL ALIGNMENT IS AT FACE OF WALL

RT1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
RETAINING WALL PLAN AND PROFILE

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 139 OF 153 SHEETS

ava 09/02/09 3:05pm – P:\s\SDC000000007\DOS\APP\UJ4174\c-alnx-rt01.dwg

oxa 09/02/09 3:05pm – P:\a\SIO0000007\1050\APP\UJ4174\c-stxx-rt02.dwg

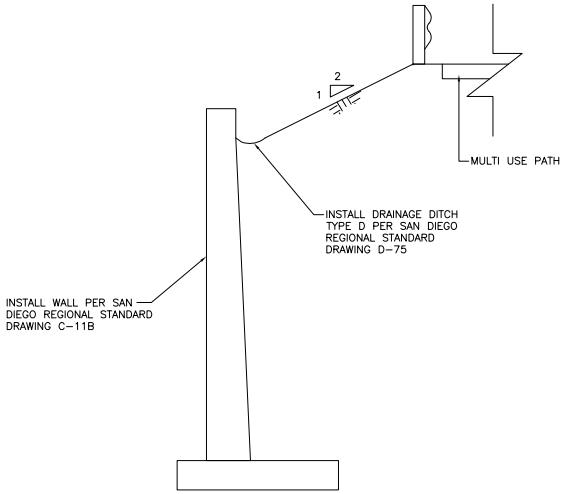
−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JMGE	9/09
CHECKED	JAT	9/09
DELINEATED	OXA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 e. 10th Avenue, Ste
Escondido, California 92029-4009
Phone: 760.839.4900

DATE



TYPICAL WALL SECTION

NOT TO SCALE

RT2

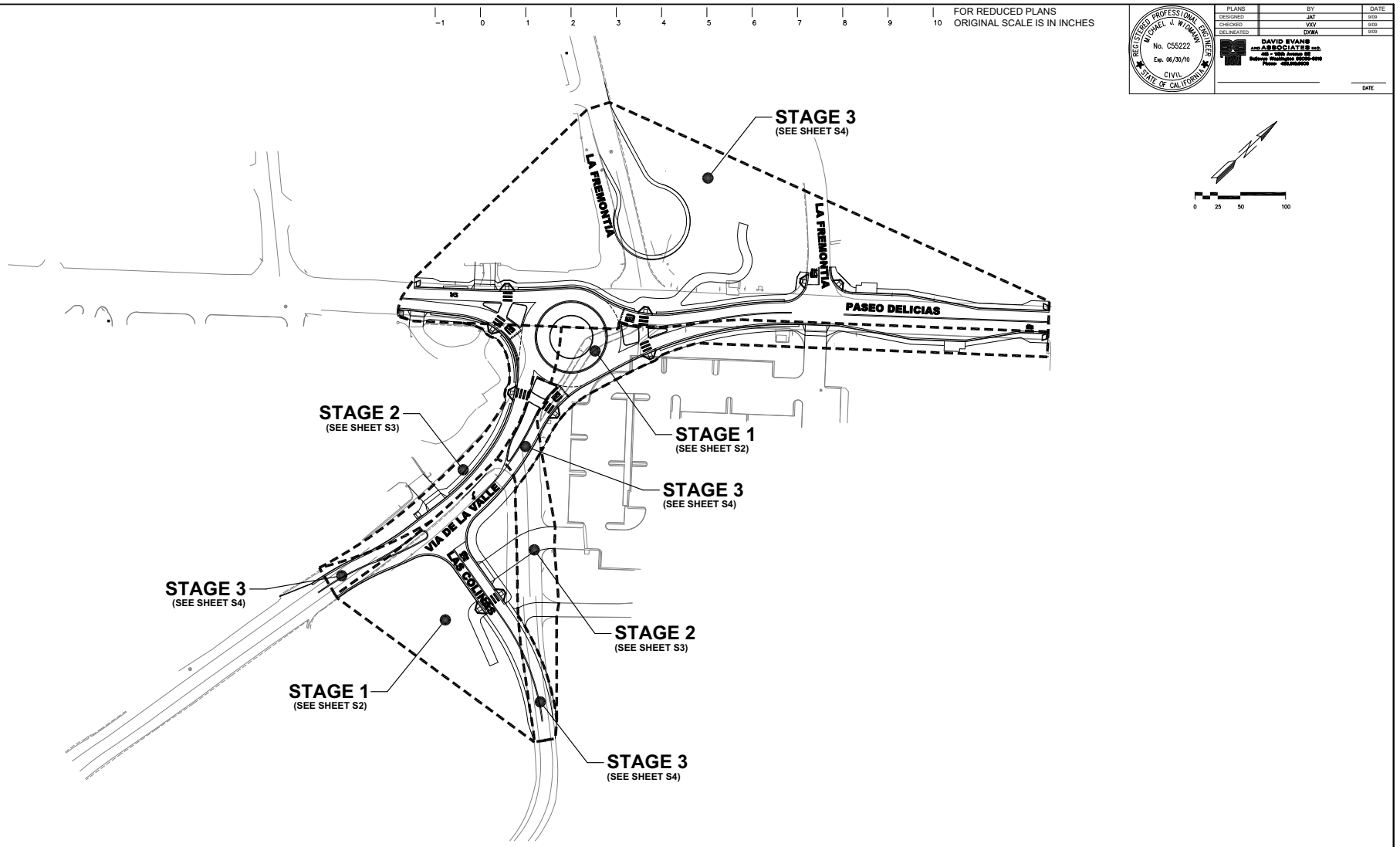
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL. _____
FIELD REVISIONS _____

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
RETAINING WALL DETAILS

SCALE: HOR. AS NOTED VERT. AS NOTED
W.A. UJ4174 R.S. 476
SHEET 140 OF 153 SHEETS



S1

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

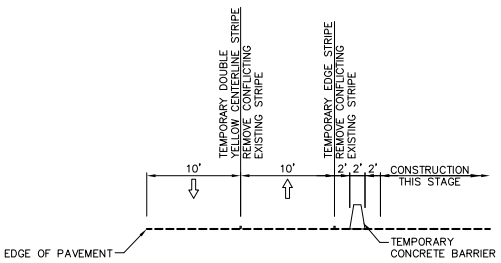
RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STAGE CONSTRUCTION PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 141 OF 153 SHEETS

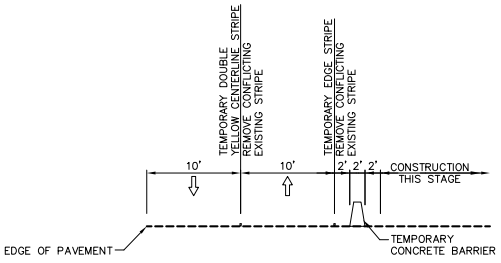
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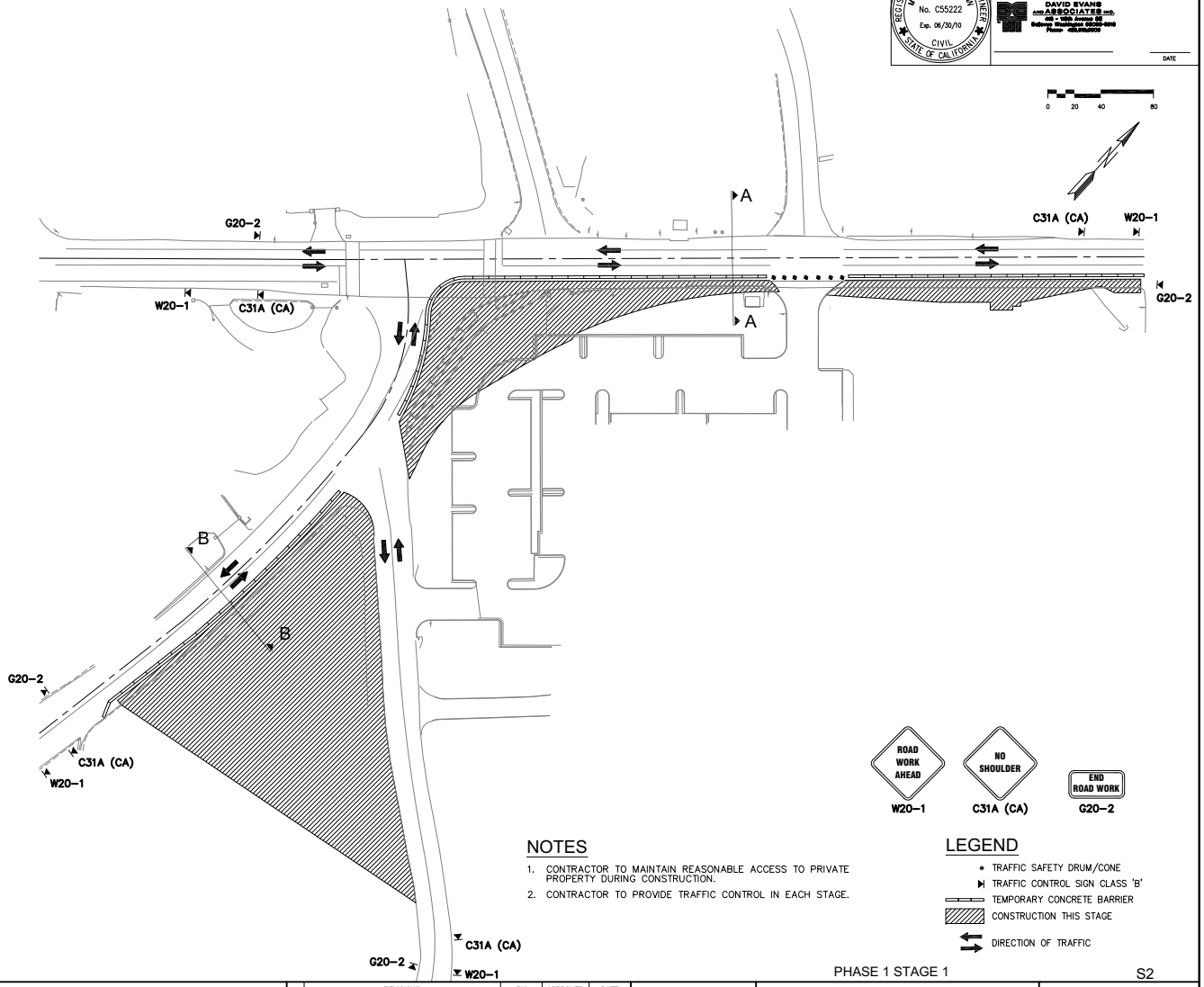
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.



NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC SAFETY DRUM/CONE
- TRAFFIC CONTROL SIGN CLASS 'B'
- TEMPORARY CONCRETE BARRIER
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 1 STAGE 1

S2

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DVWA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 142 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

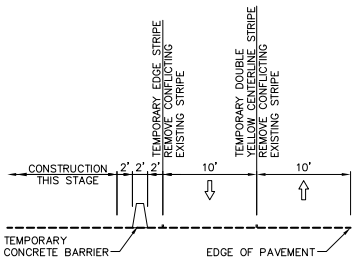
PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

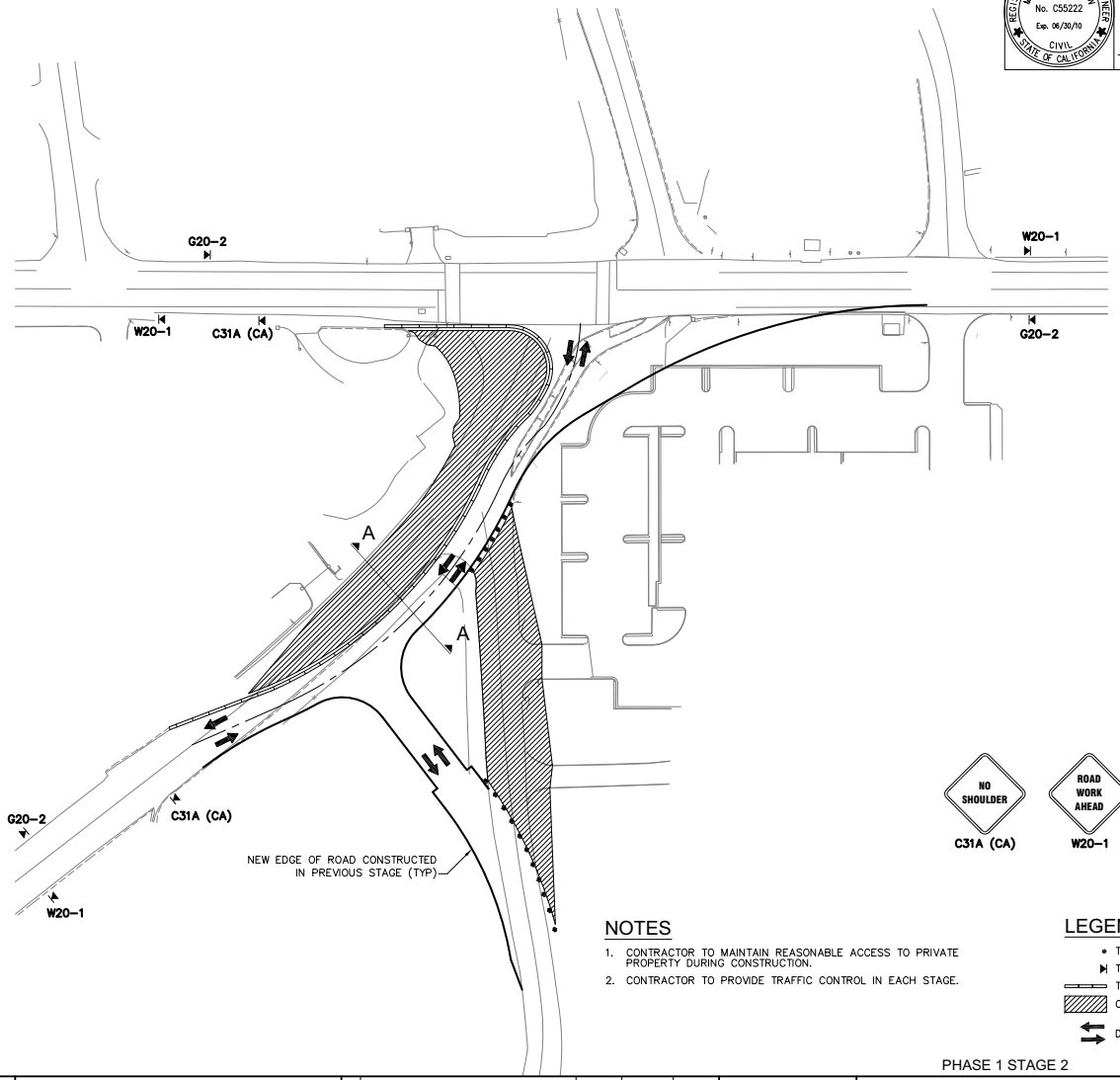
DAVID EVANS AND ASSOCIATES INC.
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DATE

0 20 40 80



SECTION A-A
N.T.S.



NO SHOULDER
C31A (CA)

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2

NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC SAFETY DRUM/CONE
- TRAFFIC CONTROL SIGN CLASS 'B'
- TEMPORARY CONCRETE BARRIER
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 1 STAGE 2

S3

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

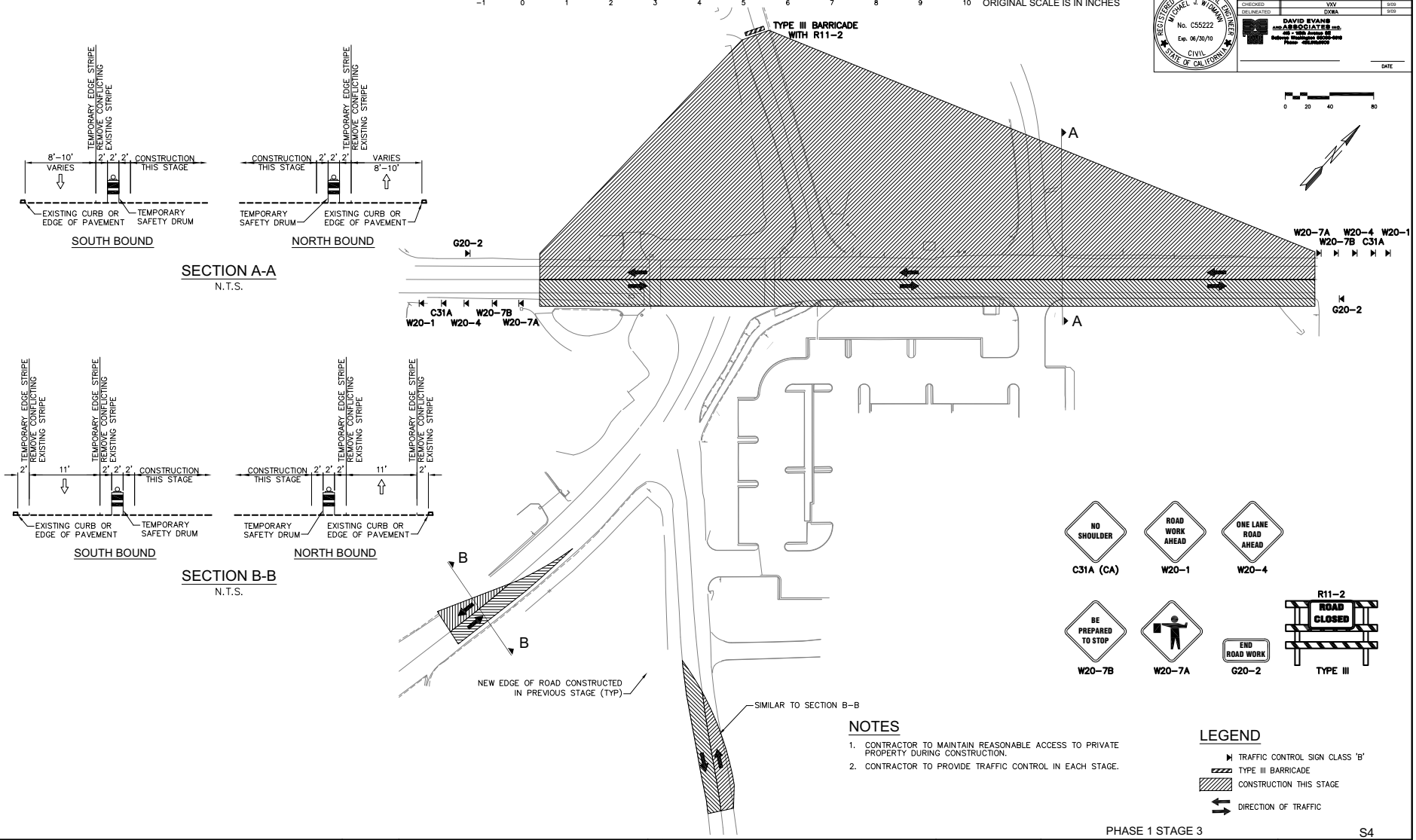
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 143 OF 153 SHEETS

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PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DVWA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYCHMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

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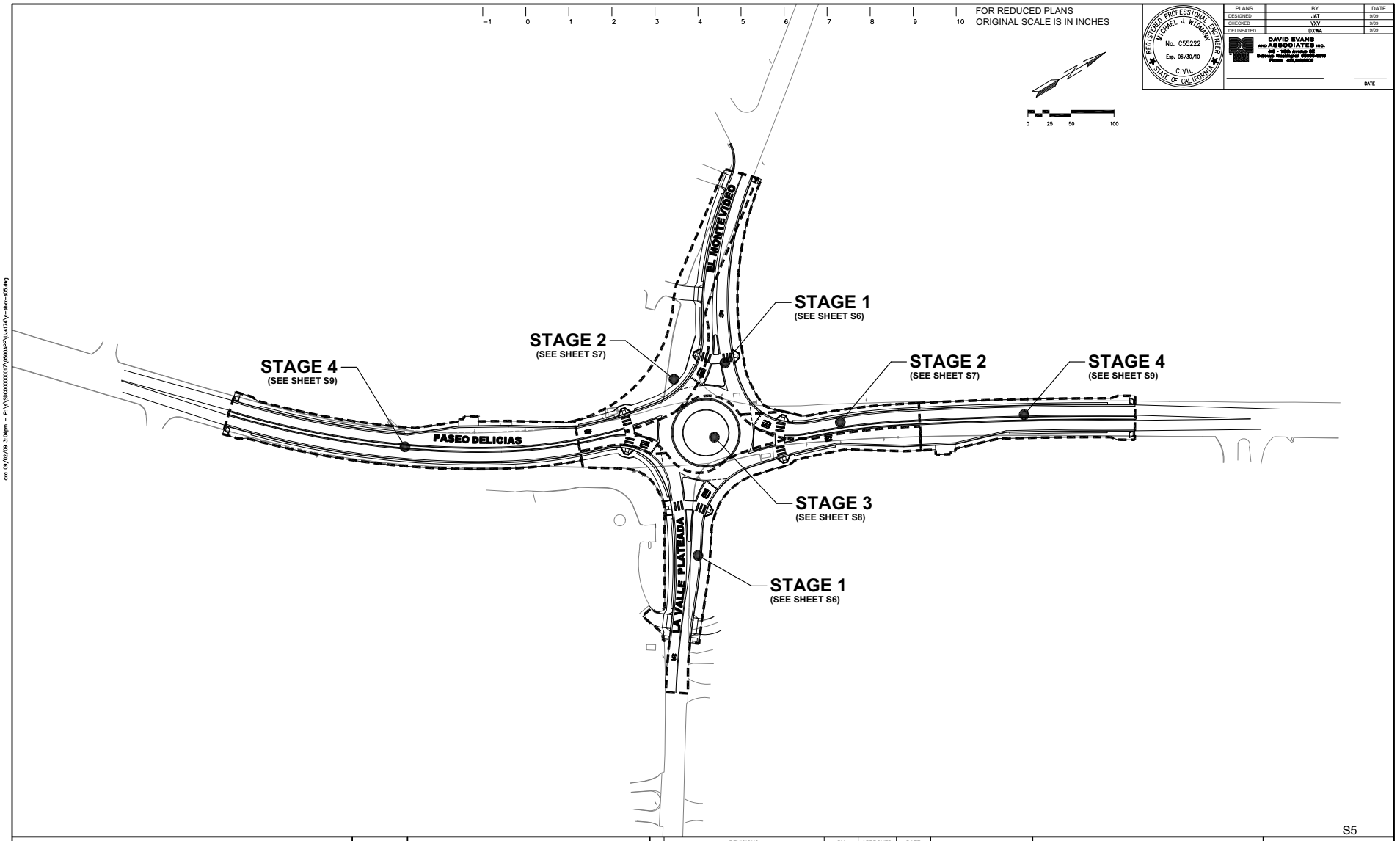
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
VIA DE LA VALLE
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 144 OF 153 SHEETS



REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYCHMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

S5

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

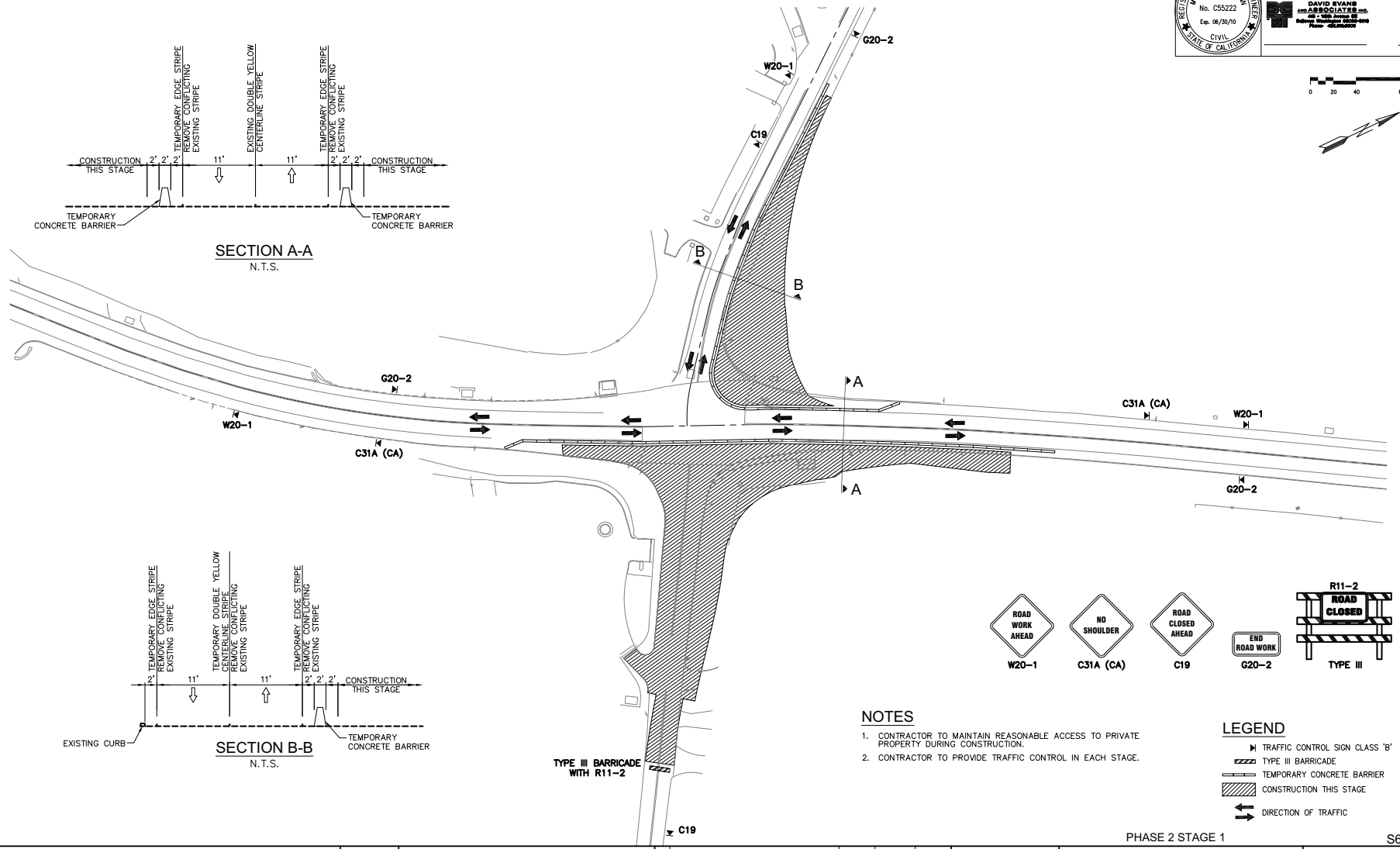
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STAGE CONSTRUCTION PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 145 OF 153 SHEETS

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NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- TYPE III BARRICADE
- TEMPORARY CONCRETE BARRIER
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 2 STAGE 1

S6

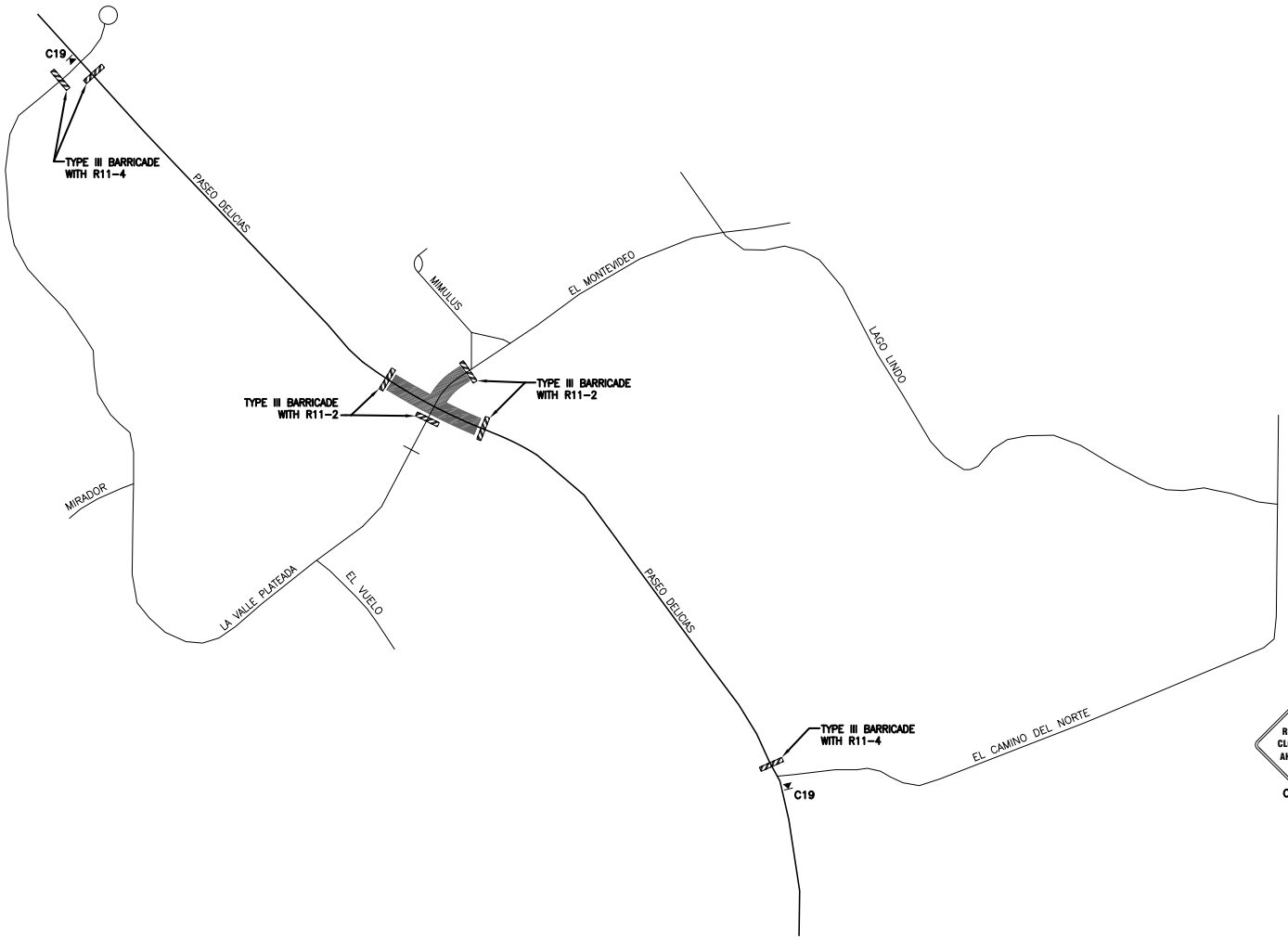
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

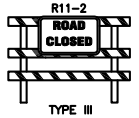
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CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 146 OF 153 SHEETS









LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- TYPE III BARRICADE
- ROAD CLOSURE AREA

PHASE 2 STAGE 2

S7

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STAGE CONSTRUCTION PLAN

SCALE: HOR. N.T.S. VERT.
W.A. UJ4174 R.S. 476
SHEET 147 OF 153 SHEETS

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

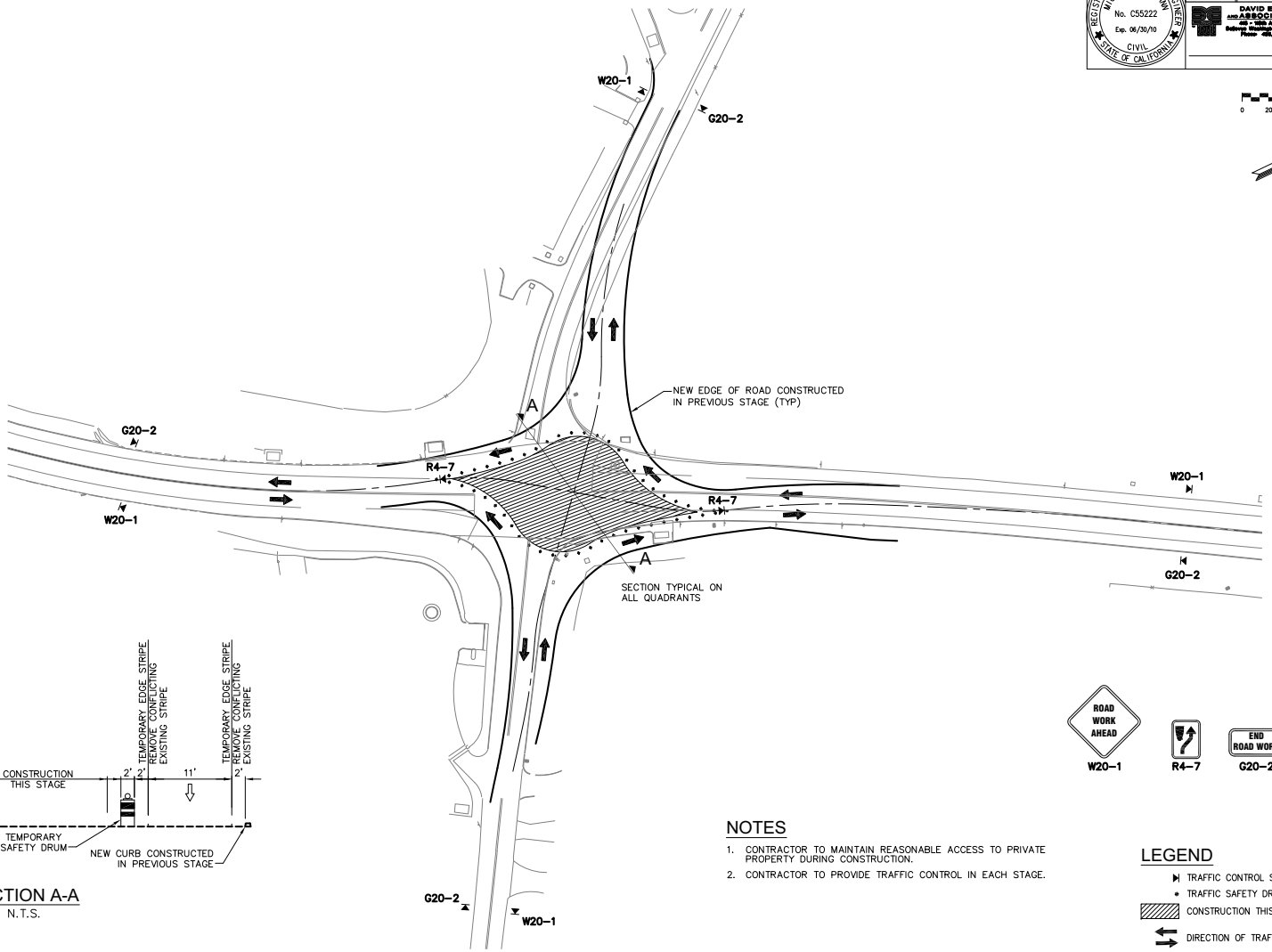
REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WIDMANN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

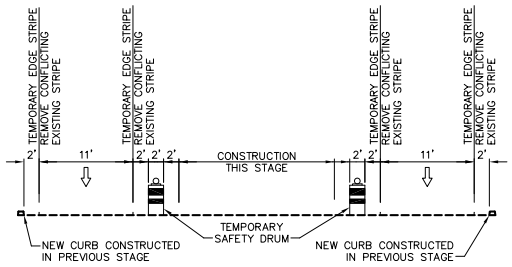
DAVID EVANS AND ASSOCIATES INC.

DATE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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SECTION A-A
N.T.S.

ROAD WORK AHEAD W20-1 | R4-7 | END ROAD WORK G20-2

NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- TRAFFIC SAFETY DRUM
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 2 STAGE 3

S8

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 20 40 80

REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYDMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

DAVID EVANS AND ASSOCIATES INC.

DATE

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

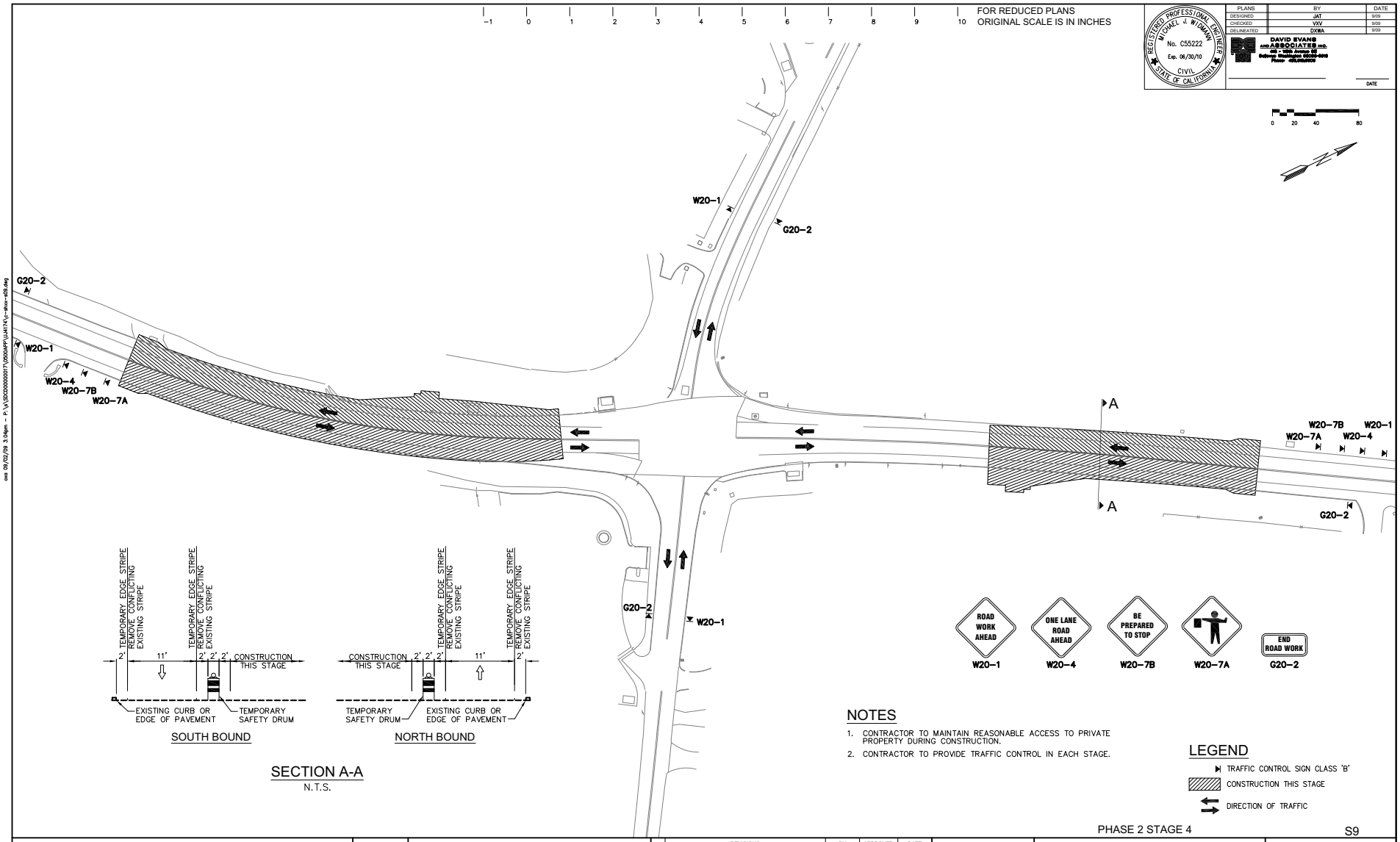
REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 148 OF 153 SHEETS

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SECTION A-A
N.T.S.

NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 2 STAGE 4

S9

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

DAVID EVANS AND ASSOCIATES INC.

DATE

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL MONTEVIDEO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 149 OF 153 SHEETS

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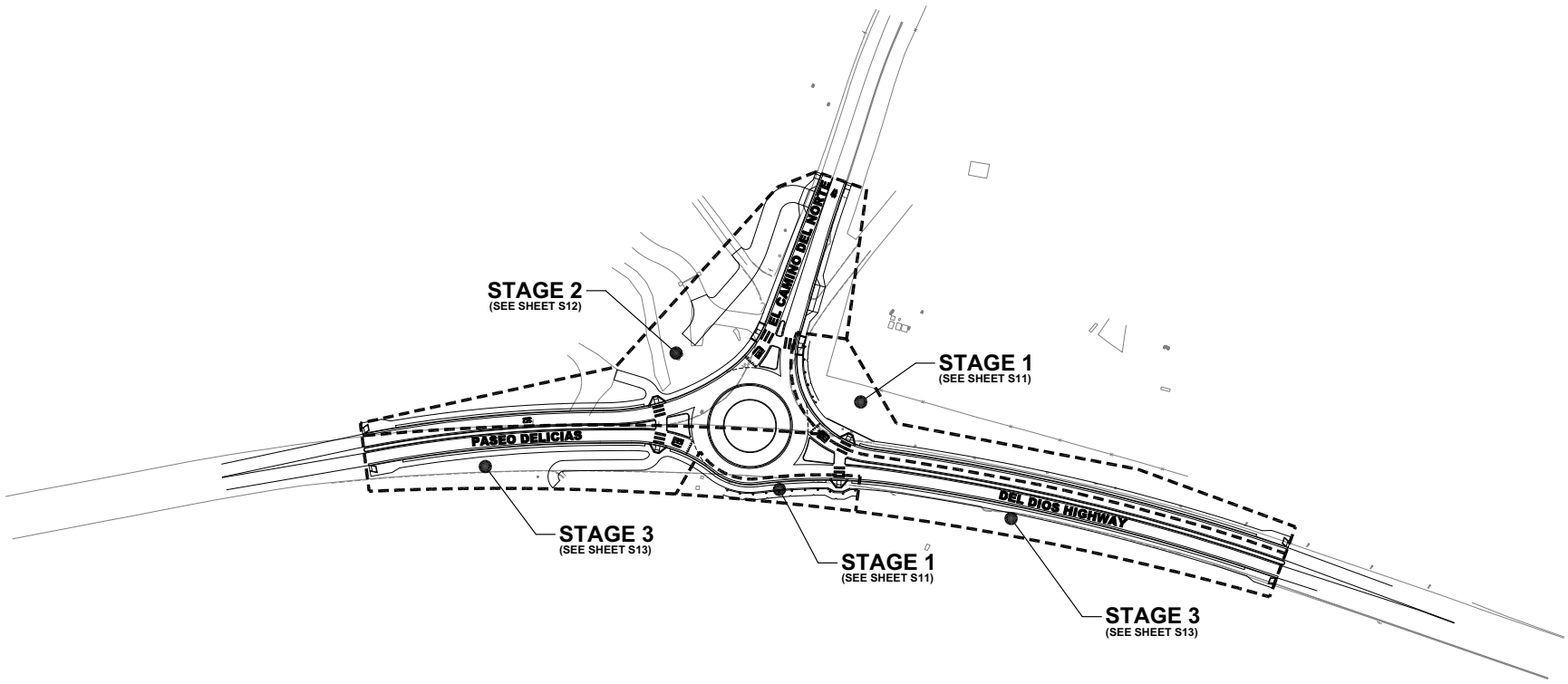
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REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WYMAN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
San Diego, California 92101-4240
Phone (619)235-6000

DATE



S10

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

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RANCHO SANTA FE ROUNDABOUTS
EL CAMINO DEL NORTE
STAGE CONTRUCTION PLAN OVERVIEW

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 150 OF 153 SHEETS

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

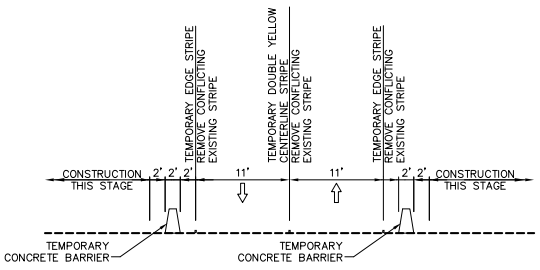
PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DVMA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYDMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

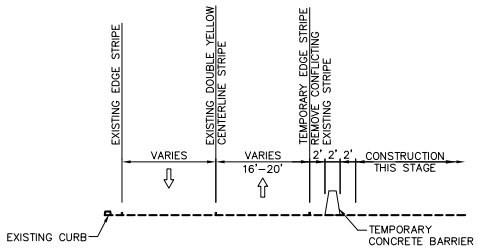
DAVID EVANS AND ASSOCIATES INC.
401 - 108th Avenue NE
Bellevue, Washington 98004-5679
Phone: 425.519.6500

DATE

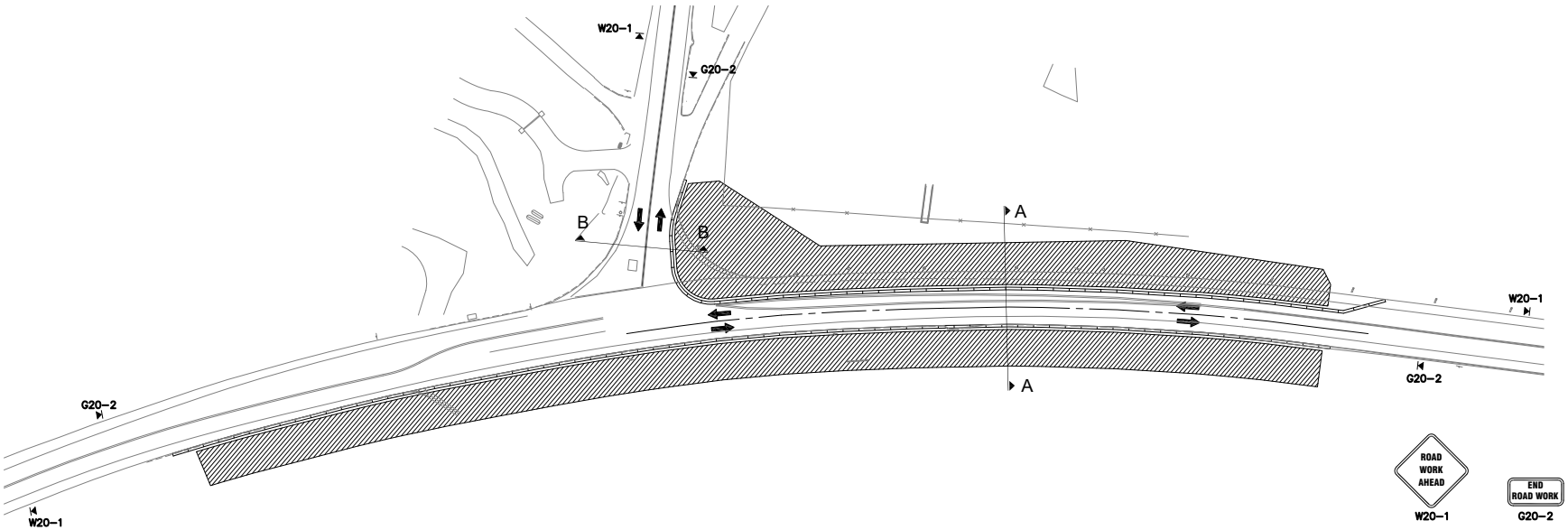
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SECTION A-A
N.T.S.



SECTION B-B
N.T.S.



W20-1



G20-2

NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- TEMPORARY CONCRETE BARRIER
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 3 STAGE 1

S11

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 151 OF 153 SHEETS

dvd 09/02/09 3:03pm — P:\s\SDC000000007\DOSUAPP\UJ4174\c-stsx-s11.dwg

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

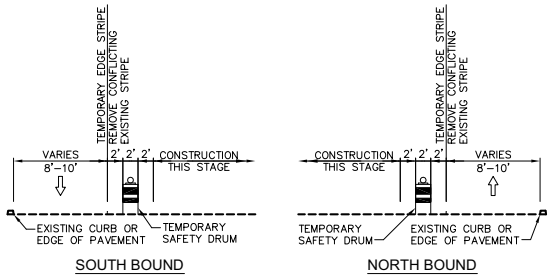
PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DWA	9/09

REGISTERED PROFESSIONAL ENGINEER — MICHAEL J. WYMAN — No. C55222 — Exp. 06/30/10 — CIVIL — STATE OF CALIFORNIA

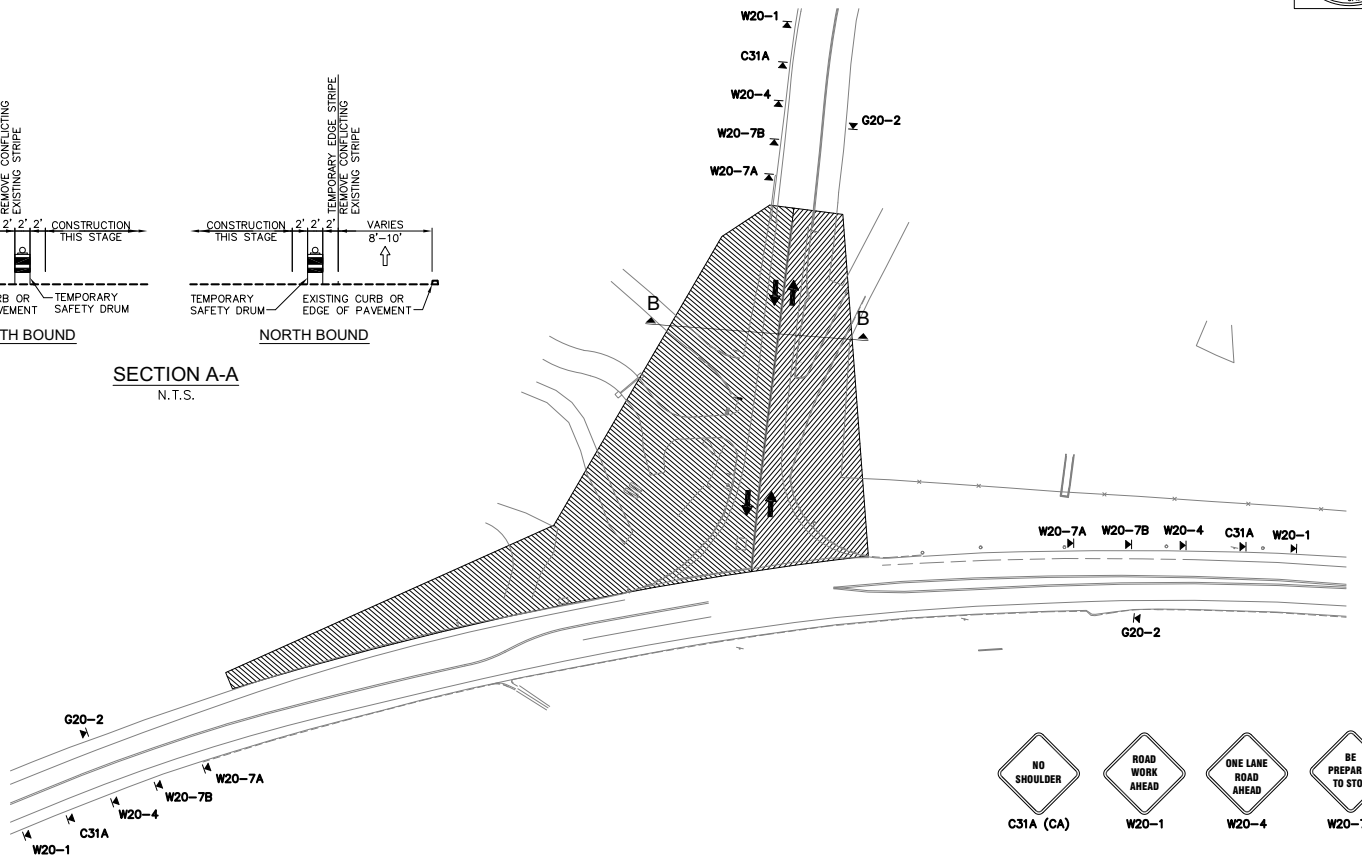
DAVID EVANS AND ASSOCIATES INC.

DATE

0 20 40 80



SECTION A-A
N.T.S.





NOTES
1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND
- TRAFFIC CONTROL SIGN CLASS 'B'
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 3 STAGE 2

S12

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX: XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 152 OF 153 SHEETS

dwa 09/02/09 3:03pm – P:\a\SDC00000007\DOSUAPP\UJ4174\c-stcx-s12.dwg

ova 09/02/09 3:03pm – P:\s\SDG000000007\050UAPP\UJ4174\c-stkx-s13.dwg

−1 0 1 2 3 4 5 6 7 8 9 10 FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

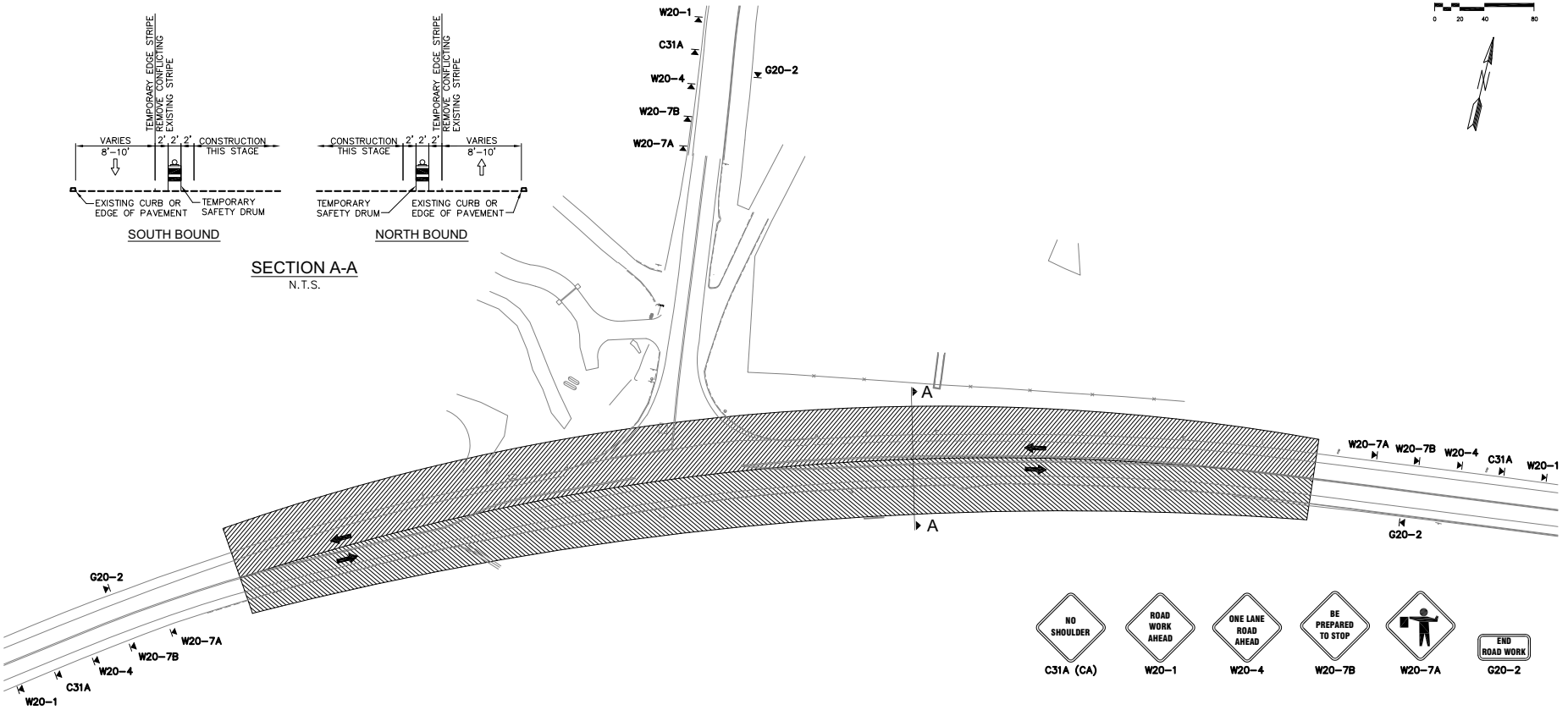
REGISTERED PROFESSIONAL ENGINEER MICHAEL J. WIDMANN No. C55222 Exp. 06/30/10 CIVIL STATE OF CALIFORNIA

PLANS	BY	DATE
DESIGNED	JAT	9/09
CHECKED	VXV	9/09
DELINEATED	DVAA	9/09

DAVID EVANS AND ASSOCIATES INC.
401 B Street Suite 400
Address Information Omitted
Phone Information Omitted

DATE

SECTION A-A
N.T.S.



0 20 40 80

NOTES

1. CONTRACTOR TO MAINTAIN REASONABLE ACCESS TO PRIVATE PROPERTY DURING CONSTRUCTION.
2. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN EACH STAGE.

LEGEND

- TRAFFIC CONTROL SIGN CLASS 'B'
- CONSTRUCTION THIS STAGE
- DIRECTION OF TRAFFIC

PHASE 3 STAGE 3

S13

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

REVISIONS	BY	APPROVED	DATE

COORDINATE INDEX
XXXXXX N. XXXXXX E.
CONST. COMPL.
FIELD REVISIONS

RANCHO SANTA FE ROUNDABOUTS
EL CAMINO
STAGE CONSTRUCTION PLAN

SCALE: HOR. AS NOTED VERT.
W.A. UJ4174 R.S. 476
SHEET 153 OF 153 SHEETS